Canada

DETERMINING ESSENTIAL SERVICES ON THE

CANADIAN INFORMATION HIGHWAY:

AN EXPLORATORY STUDY OF

THE PUBLIC POLICY PROCESS

by

Daniel G. Dorner

Graduate Program
in
Library & Information Science
Faculty of Information and Media Studies

Submitted in partial fulfilment
of the requirements for the degree of
Doctor of Philosophy

Faculty of Graduate Studies
The University of Western Ontario
London, Ontario
December, 1999

## ABSTRACT

This exploratory research was designed to study the policy process through which essential services were being determined for the Canadian information highway. Two theoretical models were employed: a stagist model of the policy process, and the policy community and policy network model. The data consisted of 47 interviews of key informants and policy documents gathered from 21 organizations which were interacting on this issue. A blended methodology was used: examination of the structural characteristics of the organizations; quantitative social network analytical methods to analyze the interviewees' views of organizational influence and the organizations' interactions on this policy issue; and a qualitative content analysis to analyze the core organizations' policy positions and their actual influence on the outcomes. Three types of interactions were discovered: formal communication, informal communication and resource exchange. Three prominence variables (Degree of Centrality, Choice Status, and Power) were applied to the interaction data and they identified the seven core organizations which were likely to have the greatest influence. The most reliable predictor of actual influence was Choice Status, when applied to all communication interactions. Communication was found to be essential for exerting influence. The interviewees believed that in 1995-96 the policy process was at the problem definition stage. The data showed that Stentor and Industry Canada exerted the greatest influence, while the CRTC, the Information Highway Advisory Council, the Canadian Cable Television Association and the Public Interest Advocacy Centre (PIAC) were moderately influential, and Canadian Heritage was the least influential of the core organizations. The evidence also demonstrated that Stentor was inside the sub-government and a concertation style policy network was in operation early in the policy process, but over time a pressure pluralist style network emerged. Two fundamental aspects of the policy problem were identified: how to ensure universal access to telecommunications networks and how to determine which information and content services should be the essential ones. No action has been taken on the second aspect of the problem, but in October 1999 the CRTC provided a baseline definition for basic telecommunications services which now includes universal access to the Internet at local calling rates.

This work is dedicated to

my loving wife, Mary Moar,

to my wonderful children, Rebecca and Zachary,

and Hannah, whose brilliance still shines.

# ACKNOWLEDGEMENTS

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| | |
|---|---|
| CAB: | Canadian Association of Broadcasters |
| CAC: | Consumers' Association of Canada |
| CANARIE: | Canadian Network for the Advancement of Research, Industry, and Education |
| CBC: | Canadian Broadcasting Corporation |
| CCTA: | Canadian Cable Television Association |
| CLA: | Canadian Library Association |
| CPI: | Canada's Coalition for Public Information |
| CRTC: | Canadian Radio-television and Telecommunications Commission |
| CTA: | Competitive Telecommunications Association |
| DOC: | Canada. Department of Communications |
| FNACQ: | Fédération nationale des associations de consommateurs du Québec |
| FTA: | Free Trade Agreement |
| HRDC | Human Resources Development Canada |
| IHAC: | Information Highway Advisory Council |
| ITAC: | Information Technology Association of Canada |
| NAFTA: | North American Free Trade Agreement |
| NAPO: | National Anti-Poverty Organization |
| OIC: | Order-In-Council |
| PIAC: | Public Interest Advocacy Centre |
| TCC: | Telecommunities Canada |

# CHAPTER 1

# INTRODUCTION

## 1.1 Overview of Research

In the 1994 throne speech. the Canadian Government announced its *information highway* strategy. One of the three policy objectives included in this strategy was "to ensure universal access at reasonable cost" (Canada. Industry Canada. 1994a. p. 2). As part of this strategy. the Honourable John Manley. Minister of Industry in the Canadian Government. established an advisory council to the government in April 1994 to examine and provide advice on 15 information highway policy issues[2] (Canada. Industry Canada. 1994c). Included among these issues was "How can Canadians be assured of universal access *to essential services* [italics mine] at reasonable cost?" (Canada. Information Highway Advisory Council. 1994a).

For many years citizens across Canada have had universal access to a wide range of services. Regardless of the province or territory in which they lived. Canadians have benefited from access to quality health. education and welfare services. Legislation has ensured that Canadians have uninterrupted safety and security services such as those provided by air traffic controllers. the military. the police and firefighters. Canadians also have had universal access to telephone services through regulations that guaranteed both the availability and the affordability of these services. Equality of access by all Canadians to the national broadcasting system. especially to the radio and television signals of the Canadian Broadcasting Corporation. has also been a matter of national policy for many decades.

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[1] Although many people are no longer using the term *information highway*. I use the term throughout this research since it was in general use at the time I was gathering my data.

[2] The 15 issues addressed by the Information Highway Advisory Council. along with the policy objectives. implementation principles. and working groups and task forces are listed in Appendix A.

The resolution of which services are the *essential* ones on the Canadian information highway is therefore an interesting and important topic which raises some fundamental questions. For example: Who are making the decisions about what is essential? How are the decisions being made? Which services will be determined as the essential ones?

This research was an exploratory study. Its purpose was to identify and explain the key factors that influenced the outcomes of the process through which *essential services* on the Canadian information highway were being determined. When I set out to undertake this research. I believed I would have to stop short of providing a definition of essential services. I believed this because I expected to find the process to be in its early stages. when the problem itself was still being explained by the principal actors and the alternatives to its solution were only beginning to be advanced by them. I was partially correct in my assumptions. What I did not anticipate was that the process was far more complicated than I had conceived it to be. Although the interviewees in this research generally believed that the process was at an early stage. I found that the process involved sub-processes and related processes. some of which were ongoing and related to decisions that involved issues beyond essential services for the Canadian information highway. I also found that even though the participating government agencies established formal processes to obtain public input so that interested parties had the opportunity to be heard. there were informal processes such as policy workshops and direct discussions between organizations. as well as differentials in the levels of resources possessed by the participating organizations. that affected the outcomes of the process.

I undertook this research with two main objectives in mind. First. I aimed to contribute to our understanding of essential services and how they are being determined for the Canadian information highway. And second. I wanted to engage in research that had the potential of being used by people who are concerned with social issues related to the Canadian information highway. My goal was to understand more fully the public

policy process and how to influence it. Admittedly. this research is exploratory. and since it was undertaken *during* the process. and *before* all the issues have been resolved. its conclusions can be tested only against those issues which have been resolved. However. the fact that there are still some outstanding issues is in itself a valuable finding. and will be discussed in relation to the outcomes.

I collected the data for this study between December 1995 and May 1996. an interesting period because the Canadian Radio-television and Telecommunications Commission (hereinafter. CRTC) had only recently conducted hearings on the implications of the convergence of telecommunications and broadcasting services and had published its report in May 1995. and the Information Highway Advisory Council (hereinafter. IHAC) had recently completed its first phase and had made recommendations on a wide range of policy issues to the federal government in a report published in September 1995. At this point in time the organizations that were interested in defining essential services on the Canadian information highway had recently had the opportunity to participate in formal processes such as those conducted by the CRTC and IHAC.

## 1.2    Background on Defining Essential Services

*Which are the essential services on the Canadian information highway? How are they being defined?* These questions were on the minds of many people when this research began. because their answers would determine the information and communication services to which all Canadians would have access. regardless of who they were or where they lived. According to many observers (for example. see: Angus and McKie. 1994). the answers to these questions would affect the health of our nation's economy. the security of our national identity. the vitality of our democratic form of government. and our own personal well-being. The determination of essential services. therefore. was of vital importance. not only for the major corporate players who were investing millions of dollars in the information highway's development. and for our government which was entrusted with preserving our heritage. our borders. and our democratic way of life. but also for average Canadian citizens whose daily lives would be

affected dramatically by the new and future services made available to them.

In most modern societies legislation or regulation ensures the availability or uninterrupted supply of certain resources and services that are deemed to be *essential*. For example. in Canada. legislation exists at both the federal and provincial levels that makes it illegal for federal. provincial or municipal public employees who provide certain services to strike. Canada's *Public Service Staff Relations Act* (R.S.C. 1985. as amended) includes the notion of designating employees who cannot strike because their duties are "necessary for public safety or security" (McGuire. 1987. p. 308). Air traffic controllers fall into this category. At the provincial and municipal levels. groups of employees such as firefighters and police officers may be prohibited from striking because they provide services essential to the public welfare (McGuire. 1987. p. 310). Some countries have legislation which designates a much wider range of services as essential. For example. Malaysia's legislation includes among its essential services the following: public health and safety. banking. postal and telecommunications services. transport by land. water or air. provision of energy or water resources. armed forces and police. and businesses connected to defence and security (Morris. 1986. p.7).

Canada. in common with many other countries. has statutory provisions to regulate certain public utilities or bodies that control access to a vital public facility or service to ensure its availability. According to lawyer John Land (1995). the obligation to provide access to an essential service is established in a common law principle known as the *prime necessities doctrine*.

> The prime necessities doctrine applies to a public utility or other body
> having a practical monopoly on the supply of a particular commodity or
> service of fundamental importance to the public. The doctrine states that
> such a utility or body is obliged to supply the product or service to all who
> seek it for a reasonable price and without unreasonable discrimination. (p.
> 1)

Legally. telephone companies are bound by this common law doctrine (Land. 1995. p.

6). The judgment in *Chastain v British Columbia Hydro & Power Authority*[3] states that:

> The great utility systems supplying power, telephone and transportation
> services now so familiar may be of relatively recent origin, but special
> obligations to supply service have been imposed from the earliest days of
> the common law upon bodies in like case, such as carriers, innkeepers,
> wharfingers and ferry operators. This has been true in England and in the
> common law jurisdictions throughout the world. In *Munn v Illinois*
> (1876), 94 U.S. 113, in the Supreme Court of the United States, the
> historical roots of this principle were examined and they have been applied
> in the United States. In Canada the law has followed the same path. (p.
> 454)

In the United States, this doctrine has become known as the *essential facilities
doctrine*. As Seelen (1997) pointed out, even though the doctrine has received
considerable attention from U.S. courts and commentators, the term *essential* has never
been precisely defined. He identified four different criteria that have been used to
determine what an essential facility is: "the need of the public at large, the need of the
individual competitor, the market power possessed by the facility's owner, and the
preferences of consumers" (p. 1118). Seelen argued that in determining which facilities
are essential, the last three criteria should be irrelevant and only "when public necessity
justifies treating that facility as a public utility" should it be deemed essential (p. 1133).

These definitions, however, do not necessarily provide precedents for notions of
essential services in other contexts. Developing a consensus around the meaning of
essential services for the Canadian information highway, therefore, was not an easy
process for the policy participants. Both Morris (1986, p. 9) and Seelen (1997, p. 1118)
pointed out that it is necessary to consider the question of "essential to whom?" Seelen's
argument that "public necessity" is the key to determining essential facilities (p. 1133), and
the requirement in Section 36(1)(c) of Canada's *Constitution Act* (1982) that essential
public services must be provided "to all Canadians" suggest that the answer to "essential
to whom" in the context of essential services on the Canadian information highway is

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[3] *Chastain et al. v. British Columbia Hydro and Power Authority*, (1972) 32 D.L.R
(3d) 443 (B.C. S.C).

"essential to the Canadian public at large." Morris, however, stated that "terms such as the 'public at large' or 'the community' are rhetorically potent but may disguise the fact that it is often the interests of particular groups that are at stake" (p. 9). As I discovered in the course of this research, the public at large is not composed of a single homogeneous group, and the interests of many different groups required consideration.

Seelen (1997, p. 1118) added that "essential to what?" is also an important question. The *prime necessities doctrine* has been used primarily to regulate the supply of essential services and commodities by monopoly providers thus ensuring access at a fair and reasonable price, without unreasonable discrimination, to all who seek those services or commodities (Land, 1995, p. 7). Nader (1996, p. 308) identified "national unity, national identity, the mobility of labour, and the health and well-being of Canadians living in poverty" as important issues in the context of health, education and welfare services. Personal safety and national security are the primary concerns in the identification of essential services provided by public employees who then are prohibited from striking. The differences in these perceptions of essentiality, on the one hand narrowed to safety and national security, on the other broadened to include the mobility of labour, for example, support Aaron (1983) who argued "the concept of essentiality is not an absolute, capable of being defined by purely objective criteria; rather, its meaning varies according to subjective group interests and political expediency" (cited in Morris, 1986, p. 9).

Thus, in order to determine how essential services were being determined in the context of the Canadian information highway, it was necessary to identify the particular stake-holder groups, to understand their interests in determining essential services, and to understand their impact on policy, given the circumstances of this case.

## 1.3    The Concept of the Information Highway

Since the 1950s, social science analysts and researchers, as well as futurists, have observed that our society is in the midst of a revolutionary transformation (*e.g.*, McLuhan, 1962; Toffler, 1980). Beniger (1986, pp. 4-5), for example, provided a list of seventy-

five major works by social scientists. popular writers and social critics that chronicle the "modern societal transformations identified since 1950." Havick (1983. p. 4) cited one commentator who claimed that new information and communications technologies would have an impact on our lifestyle that is far greater than the impact of the automobile on the lifestyle of our ancestors. A 1971 report from the Canadian Department of Communications (hereinafter. DOC) was even more emphatic. It stated. "some computer experts forecast that the marriage of computers and communications systems. if it can be successfully consummated. may generate. within the next two decades. social changes more profound than those of the past 200 years" (DOC. 1971. p. 161).

Central to these changes have been convergent developments in computing. communications and media technologies (vastly increasing the potential for communication activities in a networked environment) which have come to be known as *the information highway*. Although the construction of this new networked environment was still at an early stage when this research was undertaken. the term *information highway* had already come to mean different things to different people. The media variously depicted the information highway as the provider of satellite television (e.g.. Huck. 1996). the supplier of movies-on-demand (e.g.. Craig and McFarlane. 1996). the access point for community information (e.g.. McQueen. 1996) or a system that allowed members of extremist organizations in Canada to communicate electronically with their counterparts throughout the world (e.g.. Glick. 1995). Since the information highway was a relatively young concept. any attempt at definition had to recognize it was capable of being all of the above. but it also had the potential to become much more.

One government report described the Canadian information highway as an advanced information and communications infrastructure situated within Canada that "will become a 'network of networks.' linking Canadian homes, businesses. governments and institutions to a wide range of interactive services" (Canada. Industry Canada. 1994a. p. 1). Skrzeszewski and Cubberley (1995. p. 5) commented that the most revolutionary aspect of the information highway is its interactive or bi-directional nature that will enable

voice. data. text. graphic and video communication to travel to and from users. They observed that the information highway already "enables users of all kinds of different computers to enhance their participation in society. to communicate with one another electronically. to share and transfer information. and to access databases and services" (p. 4).

Government reports published in the early 1990s predicted that access to entertainment. cultural resources. commerce. health care. education. and government services would be transformed by a host of new multimedia services made possible by the convergence of communications and computing technologies (Angus and McKie. 1994: Campbell. 1994[4]). Articles in the popular press in the mid-decade were tantalizing consumers with promises of movies-on-demand. home banking. videotelephones. personalized news services. resources for life long learning. and world-class health services (e.g.. see "Betting's Hot." 1994: "Shopping. Banking." 1995: "Superhighway to Information Heaven." 1994).

While the populist view of the information highway was one of unlimited access to countless communications and information resources. there was another view which had been put forward for more than a decade. It foresaw the information highway's arrival as being potentially catastrophic. dividing society into "information haves" and "information have-nots" (e.g.. see Doctor. 1991: Murdock and Golding. 1989: Reynolds. 1992). These analysts had warned that if access to the information highway was based only on market principles. and if service providers restricted access to a pay-per-view basis. only those who could afford the luxury of the information highway, or those who lived in areas where

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[4] Campbell (1994) identifies a range of *content industries* as potential suppliers of information products and services for the Canadian information highway. including: publishing: film and video: sound recording: broadcasting: video game producers: and the computer software industry (p. 11). He also describes a variety of networks that "supply information and services to those who need it. as well as promote and market products. services and ideas" (p. 25). These include "commercial online services" (p. 25) and "community-geared networks" (p. 29).

service provision was most likely to be profitable. would benefit from its arrival. Some writers claimed that exclusion of segments of the population for geographic or economic reasons would place great strains on the very fabric of our democratic society. For example. Doctor (1992) noted that in the context of information democracy.[5] our concern is with "how far we must move toward 'adequate and equal opportunity' in the distribution and use of information resources to maintain a functioning democracy" (p. 49).

Many analysts predicted that the chief means of access to the information highway would be the telephone (e.g.. Dordick. 1991: Pike and Mosco. 1985). According to Pike and Mosco (1985). the telephone had already become a necessity of life in Canada. They believed it had become so important that very few Canadians would cancel their telephone service as a basic economic measure (pp. 21-22). In Canada in 1995. telephone service reached nearly 99% of households (IHAC. 1995a. pp. 3-4). The telephone. however. was not the only communications device capable of acting as a gateway to the information highway. In the early 1980s cable television connections supplied some Canadians with access to the interactive information services on Telidon.[6] In 1995. cable television service passed by more than 95% of Canadian households and was connected to approximately 75% of these (pp. 3-4). Also being introduced at that time were other new types of communications systems. such as direct-to-home satellite undertakings[7] and

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[5] Doctor (1992) defined information democracy "as a sociopolitical system in which *all* people are guaranteed the right to benefit from access to information resources" (p. 44).

[6] Telidon was a Canadian government sponsored research and development program that operated from 1978 to 1985. It helped to establish a videotex and teletext information system that could be accessed via cable television or telephone. After much initial enthusiasm. the system failed to generate enough demand and was abandoned (Gillies. 1990).

[7] Direct to home (DTH) transmissions are defined as those that are distributed via Canadian satellite. whether or not in encrypted form. and are intended for direct reception by individuals. generally at their residences (CRTC. 1996b).

multipoint distribution systems,[3] which were capable of providing access to information highway services.

## 1.4 The Convergence of Information Technologies

The term *information highway* came into use as a metaphor for the new information and communications infrastructure, that is, the "network of networks," which was made possible by the convergence of telephone and cable television network technologies through use of digital signals. The traditional telephone network was *narrowband*, consisting chiefly of copper wire designed to carry individual low-fidelity signals from customer to customer (Todd, 1993, p. 4). Because switching is required to connect any two telephone subscribers on request, telephone networks have always consisted of *switched* facilities. On the other hand, cable networks consisted of coaxial cable (p. 5). To carry the wide frequency spectrum needed for the many hi-fidelity signals simultaneously transmitted on cable systems, these networks have always been *wideband* (also called *broadband*), but have been *unswitched* because customers did not require private links to draw from the common package of signals distributed by the cable company over its network (p. 5).

In the early 1990s, technological advances and economic pressures prompted both cable and telephone companies to begin to shift to optical fibre and digital technologies (DOC, 1992, p. 15). Telephone companies also modernized their switching and transmission equipment (Todd, 1993, p. 4) and adopted a variety of new network configurations to give them the wideband capacity used for corporate client interoffice services (DOC, 1992, p. 15; Todd, 1993, p. 4). Telephone networks were evolving "into high capacity digital facilities carrying wideband as well as narrowband signals" capable of competing in the future with cable companies in the provision of wideband services (Todd,

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[3] Multipoint distribution is a high-speed wireless point to point or point-to-multipoint microwave technology that can be used for one-way or two-way transmission of broadband signals over an area of up to eight kilometres. A multipoint distribution system is capable of simultaneous transmission of voice, video and data (Nortel Networks, 1998).

1993. p. 4).

Since this research was conducted. the development of the Asymmetric Digital Subscriber Line (ADSL) standard (ANSI T1.413 category 1) has made it possible for telephone companies to provide high-speed digital transmission over conventional telephone lines instead of switching to the more expensive fibre optical cable. As a result. "ADSL furnishes telephone companies with access to next-generation multi-media communication. allowing them to compete with hybrid-fiber-coax (HFC) technology from cable television suppliers" (Analog Devices. 1998). This later development was only beginning to be anticipated when my interviews were conducted.

Cable operators had also been exploring the new network configurations to improve system performance. to increase bandwidth and to build capacity for bi-directional interactive broadband services to prepare for competition with the telephone companies (DOC. 1992. p. 15). Whether through fibre optics or other technologies. the convergence of the telephone and cable sectors of the telecommunications industry meant there would be two digitally capable networks ready to compete in the provision of information highway services.

As early as 1994 and 1995 the major telephone companies and the biggest cable companies in Canada announced projects to allow them to compete head-on for each other's markets. In April 1994. the Stentor Alliance of telephone companies[9] launched the *Beacon initiative.* a program of activities that included an upgrade of local telephone networks over a ten year period to provide broadband capability. an enhancement program over six years to provide seamless national connectivity. and the creation of a new

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[9] In the period between December 1995 and April 1996 when the data were gathered for this research. there were nine member companies in Stentor. These companies (and the provinces in which they operate) were: BC TEL (British Columbia); AGT Limited (Alberta); SaskTel (Saskatchewan); Manitoba Telephone System; Bell Canada (Ontario and Quebec); NBTel (New Brunswick); Maritime Telephone & Telegraph (Nova Scotia); Island Tel (Prince Edward Island). and Newfoundland Telephone.

company called MediaLinx Interactive to facilitate the supply and distribution of interactive and multimedia services and applications to businesses and consumers (Stentor. 1994a).[12]

In May 1995 three major Canadian cable television companies. Rogers Cablesystems Inc.. Shaw Communications Inc.. and Groupe Vidéotron. Ltée.. announced a joint venture "to wrestle a share of home computer services from their telephone company rivals" (*Globe and Mail*. 1995. p. B1). The three cable companies planned to develop a nation-wide cable network to enable cable television subscribers using home computers with high-speed modems to link to the Internet and other information services.[13]

## 1.5     History of Canadian Telecommunications and Broadcasting Regulation

### 1.5.1     Introduction

When this research project began in 1995. the cable and telephone sectors of the telecommunications industry were each regulated to create monopolies within geographic

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[12] In 1996 MediaLinx Interactive started Sympatico. an Internet service to home subscribers. As of September 1999. Sympatico offers a wide variety of services. including home shopping. career information. access to news and weather reports. links to a variety of local and government information. entertainment features. and access to electronic chat groups (MediaLinx Interactive. 1999).

[13] Groupe Vidéotron eventually decided to focus its information highway operations primarily on Quebec and now offers *Videotron Residential Internet Services* in that province and parts of Ontario (Groupe Vidéotron. 1998). Cogeco (Canada's fourth largest cable company) joined with Rogers and Shaw in the provision of the Wave Internet service to subscribers in cities in Ontario. British Columbia. Manitoba. Nova Scotia. Alberta and Saskatchewan (Wave Internet. 1998). In April 1997. Rogers announced an agreement with the @Home network in the U.S. "to provide customers with a high-speed Internet backbone" as well as a range of content services (Rogers Cablevision. 1998b). This evolved into @Home Canada, a partnership involving Rogers. Shaw. and Cogeco in which each company offers its subscribers an @Home service (*e.g.*, *Rogers@Home*) providing high-speed Internet access and enhanced content (Rogers Cablevision. 1998a). These. and similar Internet services offered by other Canadian cable companies. compete directly with the telephone companies' Sympatico service.

areas. Until 1993[12] it was generally believed that local cable and telephone services could be provided most economically if only one firm from each industry supplied a particular geographic area (Todd, 1993, pp. 3-4). Cable television has been considered as part of the broadcasting industry in Canadian legislation, at least since 1968 (as discussed below in 1.5.3), and telecommunications and broadcasting are still legislated and regulated separately. Since cable television suppliers used different facilities and offered different services than telephone suppliers, it was considered efficient to allow two parallel monopoly distribution services (i.e., one cable and one telephone) within each geographic area. As a result, the telephone and cable industries were treated as separate species by Canadian public policy and regulation (DOC, 1992, p. 4). Though *essential services* were not defined for either industry, government regulations specified the *basic service* that each industry had to provide to its subscribers. However, technological developments and a shift in the government's economic policies have resulted in changes that have brought the regulation of these industries closer together. Basic services are being re-evaluated in the context of the new networked environment.

### 1.5.2  History of Canadian Telecommunications Regulation

The origin of telecommunications regulation in Canada can be found in legislation governing railways and telegraph in the 19th century (DOC, 1992, p. 36). In the period between 1906 and the passage of *Telecommunications Act 1993*, the majority of Canada's telecommunications providers, the telephone companies, were regulated by the federal government, primarily under provisions of the *Railway Act*[13] (p. 36). Initially the federal

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[12] Winseck (1998, p. 342) points out that the CRTC continued to institute measures to maintain the separation of the cable and telephone systems in Canada right up to 1993.

[13] Telephone companies in the prairie provinces and Atlantic provinces were publicly owned and were exempt from the *Railway Act*. They were regulated by provincial boards instead of the federal regulator. Likewise, smaller, independent telephone companies, mainly in Ontario and Quebec, were subject to provincial regulatory agencies (DOC, 1992, p. 36). In 1989 the Supreme Court of Canada ruled that the major Canadian telephone companies were in fact interprovincial carriers and thus subject to federal and not provincial jurisdiction (p. 36). This decision brought the Atlantic region's provincially-regulated privately-owned telephone companies under the regulatory

government used the Board of Railway Commissioners for Canada as its regulatory
agency. Authority for regulating telecommunications was transferred to the Board of
Transport Commissioners in 1938. then to the Canadian Transport Commission in 1967
(p. 36). In 1976 the Canadian Radio-Television Commission was given the authority to
regulate telecommunications in addition to broadcasting and its name was changed to the
Canadian Radio-television and Telecommunications Commission (p. 37).

Telecommunications regulation from the outset focussed on the carriage functions
of the telephone companies and not on the content of the messages they carried (DOC.
1992. p.4; Intven. 1995. p. 135). Under the *Railway Act*. the federal government and its
regulatory authorities regulated the telephone companies in a similar fashion to other
monopolistic public utilities. such as energy pipelines and transportation companies. "to
ensure that carriers under federal jurisdiction charged their subscribers ·just and reasonable
rates· on a non-discriminatory basis" (Angus and McKie. 1994. p. 109). The provincially
regulated companies were subject to the same type of requirements from their provincial
regulatory agencies (DOC. 1992. p. 37). In exchange for monopoly protection. telephone
companies were required to provide service in profitable and unprofitable areas and to
adopt pricing principles that required business users. urban communities. and long-
distance toll-charges to subsidize residential users. rural residents. and the cost of local
telephone rates (McPhail and McPhail. 1990. p. 253). These measures have underpinned

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jurisdiction of the CRTC. but the decision exempted the three western provincially owned
telecommunications agencies (Alberta Government Telephones (AGT). Manitoba
Telephone System (MTS) and SaskTel) and a number of independent telecommunications
companies (Winseck. 1995). AGT came under federal regulation when it was privatized
in 1990 and MTS agreed to come under the CRTC's regulatory control in 1991 (Winseck.
1995). A 1989 finding of the Quebec courts which involved a small central Quebec
telephone company was upheld by the Supreme Court of Canada in 1994 in a decision that
confirmed federal jurisdiction over all independently owned telephone companies
("Ottawa to Regulate." 1994). SaskTel. which was the last provincially owned telephone
company to agree to come under federal regulation. will be regulated by the CRTC from
June 30. 2000 (Jack. 1998). at which time all Canadian telephone companies will be
regulated by the CRTC.

Canada's long standing public policy objective of ensuring *universal access*[14] to telephone service (Pike and Mosco. 1985: McPhail and McPhail. 1990; Winseck. 1995). an objective that implies affordable and equal access to the telephone network for all Canadians regardless of who they are or where they live.[15]

Since 1993. "telecommunication common carriers" have been regulated by the CRTC under provisions outlined in the 1993 *Telecommunications Act* and in "Special Acts" that relate to individual carriers such as the *Bell Canada Act.* the *Teleglobe Canada Reorganization and Divestiture Act.* and the *Western Canada Telephone Company Special Act* (Intven. 1995. p. 135). The 1993 *Telecommunications Act* renews and extends the telecommunications carriers' obligations to charge just and reasonable rates (s. 27(1)). and to be non-discriminatory in the provision of their services (s. 27(2)). Section 7 of the 1993 *Telecommunications Act* spells out the "Canadian Telecommunications Policy" which affirms "that telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty." The Policy also contains nine objectives. one of which is on universal access. This objective is "to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada" (s. 7(b)).

Canada's policy (at both federal and provincial levels) on universal access to

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[14] In discussions of telephony the terms *universal access* and *universal service* are often used interchangeably. On the one hand. *universal service* seems to reflect an obligation imposed on the supplier. On the other hand. *universal access* seems to imply a benefit made available to the consumers. In the United States. the preferred term appears to be *universal service* whereas in Canada it is *universal access*. Because this research was undertaken in Canada. I have given preference to the Canadian term. However. both terms have been used in this study.

[15] In addition to the federal government. provincial and municipal governments in Canada have also contributed to achieving the policy of universal access to the telephone. In areas of Canada where private companies were unwilling to extend service. provincial governments. such as those in Manitoba. Saskatchewan and Alberta. and local governments. such as in Edmonton. established telephone services to provide access to the telephone network for their residents (Angus and McKie. 1994. p. 118).

telephones was also accompanied by specified levels of service (Angus and McKie. p. 118). The level of service that the telephone companies were required to provide to all customers for their base subscriptions was considered *basic service.* Van Koughnett[18] (1991) argued that in the context of universal access. basic telephone service included "dial tone. inside wire and access to the long distance network" (p. 80). This level of service provided subscribers with access to both the local and the long distance telephone networks.

In the past two decades. there has been a shift in government policy away from monopoly protection in telecommunications to an increasing reliance on market forces. Winseck (1995. p. 99) pointed out that the CRTC had accepted the principle of competition in telecommunications as early as 1979. and although the CRTC in 1985 turned down an application by CNCP Telecommunications to provide competitive telephone services. the decision was made because CNCP could not achieve price reductions and offer universal services at the same time rather than because the CRTC opposed competition (p. 99). The CRTC viewed competition as being another means to achieve the social policy objective of universality. but between 1985 and 1993 the CRTC's view changed and social policy became conceptually subordinate to competition (p. 99). Competition was first introduced in the provision of long distance services (CRTC. 1992a). and in the *Telecommunications Act 1993* the government formally included the use of market forces as a policy objective "to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation. where required. is efficient and effective" (s. 7(f)). In 1994 the CRTC spelled out that its policy of relying on market forces was based on the principle that competition would stimulate

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[18] Greg van Koughnett was Senior Advisor. Legal and Government Relations. British Columbia Telephone Company when he made this statement. He later became Vice President of Legal and Social Policy at Stentor and was holding this position when interviewed for this research.

investment and innovation to the benefit of consumers (CRTC. 1994c).[17]

### 1.5.3 History of Cable Television and Broadcasting Regulation

The cable television industry. being much younger than the telephone industry.[18] has had a much shorter history of regulation. Prior to 1968. the emerging cable industry was regulated in a limited way by the Minister of Transport (DOC. 1992. p. 37). It was defined as coming under the provisions of the *Broadcasting Act* passed in 1968 which specified that all aspects of broadcasting "were to be supervised and regulated by the CRTC" (Raboy. 1990. p. 179). In 1971 the CRTC published its most comprehensive policy on cable television up to that point. a policy which established cable television as a component of the Canadian broadcasting system (p. 214). Federal jurisdiction over cable was affirmed in the 1977 Supreme Court of Canada ruling on the Dionne-d'Auteuil case (pp. 238-239. 259). The Supreme Court ruled that the CRTC and not the Régie des service public (the Quebec government's regulatory body) had regulatory authority over cable television. The cable industry has been subject to CRTC regulation ever since.

The importance of providing all citizens with access to a national broadcasting service was recognized as a policy objective relatively early in Canada's broadcasting history. To achieve the federal government's nationalistic goals. the broadcasting system needed to be truly national in scope. reaching all Canadians regardless of where they lived. In 1932 the federal government passed legislation to give it the power to create a national radio broadcasting monopoly. without which. according to then Prime Minister Bennett. radio broadcasting in Canada could never become "an agency for the communication of matters of national concern and for the diffusion of national thought and ideals" (Canada.

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[17] Since the start of this research in 1995. the implementation of this policy has now moved to full competition in local telephone service and in cable television service (CRTC. 1997a).

[18] The first Canadian telephone services were in operation by 1880 (Janisch and Romanuik. 1994. p. 350) whereas the first Canadian cable television systems appeared in 1952 (Canadian Cable Television Association. 1999).

House of Commons Debates 1932. 3035. as quoted in Raboy. 1990. pp. 45-46). Moving second reading of the bill. Prime Minister Bennett assured Canadians that the plan would provide "equality of service" to all Canadians. In Bennett's words. "equality of service" ensured "to the people of this country. without regard to class or place. equal enjoyment of the benefits and pleasures of radio broadcasting ..." (Canada. House of Commons Debates. 1932. as quoted in Foster. 1982. pp. 45-46).

The 1929 Royal Commission on Radio Broadcasting[19] recommended that broadcasting should be designated as a public service in Canada (Raboy. 1990. p. 28). With increasing public fear that Canada's air waves would be dominated by broadcasts from the United States (p. 29). combined with growing resolve by the federal government to increase its powers over the provinces (p. 33) and strengthening support for public ownership of broadcasting[20] (p. 37). the federal government passed the *Canadian Radio Broadcasting Act* in 1932 (p. 46). creating the Canadian Radio Broadcasting Commission (CRBC) and establishing a broadcasting system that focussed on national purpose but not public service (p. 47). In 1936 in the midst of the depression. the government passed a new broadcasting act which established the Canadian Broadcasting Corporation (CBC) and an approach to broadcasting "in which 'public' and 'national' interests were deemed to be equal" (p. 49).

Canada's initial policy regarding television. which was contained in a series of statements from the CBC's Board of Governors issued between 1947 and 1949. proposed to use this new means of mass communication for the public good by exploiting its potential in the fields of culture and education (Raboy. 1990. p. 88). In a confidential

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[19] This Commission became know as the Aird Commission. named after Sir John Aird. one of the three commissioners.

[20] Raboy (1990) discussed in detail the tensions between the private broadcasters and their supporters and those who believed that broadcasting should be a public service to be used for national goals. He also provided a thorough analysis of the differing French-English perspectives in Canada on how to approach the development and regulation of broadcasting services.

memorandum dated 20 January 1949. the CBC's Board proposed to use television broadcasting "to stimulate and enrich the national life of Canada" and "for creating understanding and unity of feeling among Canadians" (as quoted in Raboy, 1990. pp. 89-90).[21] By the mid-1950s. Canada had adopted a model of public and private broadcasting operating in a complementary fashion (p. 117). The 1958 *Broadcasting Act*, however. introduced a greater role for private broadcasting and less emphasis on nation building (p. 136). The 1958 *Act* also created a new agency. the Board of Broadcasting Governors (BBG) to regulate the Canadian broadcasting system. In 1960, the BBG considered introducing Canadian content regulations for television operations as a way to show that private broadcasters could act in the national interest by reducing the amount of American influence on television (p. 145). However. after considering the financial implications for the private stations, the BBG changed its mind (p. 145).

In the early 1960s, the federal government had a new problem with which to deal – the growth of the cable broadcasting industry (Raboy, 1990, p. 157). Initially, the government feared that the fledgling industry would act only as a re-transmitter of American programming, threatening the survival of Canada's broadcasting systems. Not only would this have harmed Canada's over-the-air broadcasters (DOC, 1992, p. 37; Raboy, 1990. p. 210). but also it would have had consequences for broadcasting's role in promoting national unity and cultural sovereignty.

In 1968. the government passed a new statute which re-affirmed the special place of the CBC in contributing to the development of national unity and the expression of Canadian identity (Raboy, 1990. p. 176). The *Broadcasting Act 1968* also created a new

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[21] Raboy gives the following citation for this material: National Archives of Canada. Briefs and Transcripts of the Public Hearings. Royal Commission and National Development in the Arts. Letters and Sciences. 1949-50. Public Records Section. RG 33 28. On microfilm. 24 reels (Toronto: Micromedia, 1972).

regulator. the Canadian Radio and Television Commission (CRTC).[22] to replace the BBG.
The CRTC took the perspective that the Canadian cable television industry was a
component of the Canadian broadcasting system and that cable services should
complement rather than compete with over-the-air broadcasting (p. 196). Unlike
regulation of the telephone industry in Canada which focussed on carriage. the CRTC
created rules for cable that focussed primarily on the content of the signals carried (DOC.
1992. p. 4: Intven. 1995. p. 135). These regulations included provisions relating to
programming diversity. balance and Canadian cultural sovereignty (DOC. 1992. p. 4).
With its focus on content. cable regulation supported the objectives of the government's
national broadcasting policy. a policy in which broadcasting was viewed as "a cultural tool
for national purpose" (Raboy. 1990. p. 193).

At the time of its 1971 policy statement on cable. the CRTC recognized the
possibility of many additional functions for the cable industry. including providing
programs from other countries via satellite. providing channels for provincial educational
broadcasting. facilitating local community expression. and offering channels for various
kinds of social information (Raboy. 1990. pp. 214-215). The 1971 policy statement
established a set of priority rules for the carriage of programs by cable operators (DOC.
1992. p. 37). As Raboy (1990) noted. "in order to ensure that these aspects of cable
contributed to the fundamentals of Canadian broadcasting. the CRTC was adopting
policies establishing the *basic services* [italics mine] that a cable system must provide as
well as conditions of operation" (p. 215). The cable regulations initiated by the CRTC in
1975 "specified the required and permissible set of services a cable undertaking could. or
must offer" (p. 241). instituted radio and television service priorities[23] and gave details of

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[22] In 1978. when it assumed responsibility for regulating telecommunications. the
CRTC changed its name from the Canadian Radio and Television Commission to the
Canadian Radio-television and Telecommunications Commission.

[23] For example. these regulations required a local cable operator to substitute the
programs of a station with a lower carriage priority. such as one originating in the United
States. with a higher carriage priority local Canadian television station's programs and
commercials (DOC. 1992. p. 37).

requirements for cable licensees to, among other things, contribute to the quality and diversity of Canadian broadcasting and program production, and offer a social service in the form of a community programming channel (p. 242).

By the early 1980s the CRTC recognized that cable television provided most Canadian households with access to local as well as foreign programming, and it also was the only source of access for many new Canadian pay and specialty programming services to these homes (DOC, 1992, p. 37). In 1985 the CRTC formally recognized "that cable had a significant role to play in extending programming services to remote and underserved parts of Canada" (p. 37), and in the 1986 *Cable Television Regulations* the CRTC introduced a light-handed regulatory approach with no rate regulation and fewer constraints on service offerings for cable operators willing to provide services to underserved parts of the country (p. 26). In the 1986 *Cable Television Regulations* the CRTC also specified the content required in the *basic service* package offered to all cable subscribers for a monthly basic fee. As noted in the 1992 DOC report of the co-chairs of the Local Networks Convergence Committee.

> Pursuant to the Cable Television Regulations 1986, a cable licensee is required to give priority carriage to Canadian services such as over-the-air stations, provincial educational networks, a community channel and the House of Commons channel. Basic cable service also includes the three major commercial U.S. networks and the U.S. public television network (referred to as 3 − 1). In some cases, the basic service may also include additional services such as U.S. superstations, Canadian specialty services, and non-programming services. (DOC, 1992, p. 31)

When this research was conducted, broadcasting (including cable) was regulated primarily under the provisions of the 1991 *Broadcasting Act*. The *Broadcasting Act*, which is still in force, gives the CRTC power to "regulate and supervise all aspects of the Canadian broadcasting system" (s. 5(1)). Cable television is regulated by the CRTC as a form of "broadcasting undertaking" called a "distribution undertaking" as defined in section 2 of the *Broadcasting Act*. Section 3 of the *Act* contains the "Broadcasting Policy for Canada" which re-affirms the government's conviction that the Canadian broadcasting system "provides, through its programming, a public service *essential* [italics mine] to the

maintenance and enhancement of national identity and cultural sovereignty" (s. 3(1)(b)).
It also specifies that the Canadian broadcasting system. among other things. should "serve
to safeguard. enrich and strengthen the cultural. political. social and economic fabric of
Canada" (s. 3(1)(d)(i)). and should "encourage the development of Canadian expression"
(s. 3(1)(d)(ii). Furthermore. the *Act* re-confirms the principle of equality of access by
specifying that "a range of broadcasting services in English and in French shall be
extended to all Canadians as resources become available" (s. 3(1)(k)) and the *Act* spells
out that distribution undertakings "should give priority to the carriage of Canadian
programming services and. in particular. to the carriage of local Canadian stations" (s.
3(1)(t)(i).

After I had gathered the data for this research. the CRTC implemented the
*Broadcasting Distribution Regulations* to replace the *Cable Television Regulations 1986*.
The new regulations came into effect on 1 January 1998 (CRTC. 1997a). as I was
analyzing data for this project.

## 1.6 The Canadian Information Highway – New Challenges in Policy, Legislation and Regulation

Determining essential services in the context of the emerging Canadian information
highway in the 1990s posed many new challenges for Canada's policy-makers. legislators
and regulators. The traditional means for accessing communication and information
services. telephony and broadcasting. were converging. yet their regulation was separate
in1995. and still remains separate in 1999. Indeed. in the end. the federal government's
policy goals for each have continued to be distinct. On the one hand. the statutory
telecommunications policy recognizes that telecommunications performs an essential role
in the maintenance of Canada's identity and sovereignty (*Telecommunications Act*. 1993.
s. 7). but the specifics of the policy focus primarily on managing economic aspects of the
system although some social aspects. such as universal access. are also covered. The
statutory broadcasting policy. on the other hand. views the broadcasting system "as a
public service essential to the maintenance and enhancement of national identity and

cultural sovereignty"(*Broadcasting Act*, 1991. s. 3. (b)) and focuses primarily on how to use the broadcasting system to achieve nationalistic and cultural goals. Nonetheless. at the time of this research in 1995 and 1996. the introduction of competition as a policy objective in both telecommunications and cable broadcasting was dramatically changing the regulatory environment in which the telephone and cable companies were operating – an environment in which the federal government had heretofore provided protection to monopolies in exchange for assistance in achieving the long-standing objectives of universal access in telephony and the promotion of Canada's cultural identity via the cable broadcasting system.

With the introduction of new communication and information services from telephone and cable companies. by 1995 many commentators were calling for a re-examination of existing legislation. regulation and public policy. saying it was time to redefine some existing conceptualizations in light of what the information highway had to offer. The level of service required of telephone companies as part of their universal service obligations was a case in point. Gilbert. Hepburn and Henter (1995) pointed out that universal service embodied "the idea of basic service" (p. 10). a reasonably well understood concept in telephony. but one that became much more vexatious when broadened to the information highway "where it must address an ever expanding range of new telecommunications as well as content-based services" (pp. 9-10). American commentators such as Williams and Hadden (1993) and Williams and Pavlik (1994) said it was time for a new definition of universal service. one based on content rather than on simple connection to a dial-tone. Similarly. Hadden (1991) contended that the definition of universal service must be expanded beyond access to the telephone "to ensure that everyone is a full participant in the benefits of new telecommunication technologies" (p. 89). She claimed this social vision required us to ask. "What services do we want to have universally available?" (p. 87). Williams and Pavlik (1994) called for a national information service for the United States. arguing that since the goal of universal service to the telephone had nearly been achieved. universal service should be upgraded to ensure access to essential information and transactions (p. xi).

According to Kahin (1995, pp. 6-7), in the United States the concept of *universal service* had traditionally been applied to telephone service but had been linked to *access to information* issues when applied to the national information infrastructure.[24] He pointed out that in the emerging digital environment, universal service included dimensions of service that moved beyond simple connectivity and involved access to information dimensions such as: the level of bandwidth available to subscribers; the amount of data that could be stored locally (which determined what messaging and information management activities would be possible); the capabilities of the user's computer hardware and software; the cost of the information; and the user's skill, knowledge of resources, and ability to pay for information (p. 7).

Williams[25] (1994, pp. 14-15) provided a list of services that he believed were essential to the well-being of citizens in our increasingly complex society and should be accessible as part of the flat-rate cost of basic telephone services. His list went well beyond dial-tone access and included:

- a wide range of counselling services (*e.g.*, pregnancy, solvent abuse, immigration);
- health and safety information;
- community information (*e.g.*, government offices, public transportation information);
- information to help individuals deal with monetary issues (e.g., credit services, job information);
- education and school information;
- other service organizations (*e.g.*, libraries and public utilities information).

Mosco (1989, 1990) provided a Canadian perspective, arguing it was time "to rethink universality to include a wide range of information and communication systems and services" (1990, p. 29). He argued that rather than focussing on universal access to specific technologies, universality should be secured as "a fundamental right of access to

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[24] Kahin (1995) used the term "National Information Infrastructure" rather than *information highway*. The former term was the one used by the American government for its information highway initiative.

[25] Frederic Williams, cited here, is the same person cited above in Williams and Hadden (1993) and Williams and Pavlik (1994).

the production, distribution, and use of information services in general" (p. 32). Mosco said that Canadians needed to assert their fundamental right of access to universal and affordable voice, information and signalling services, including "local and long-distance telephone ... cable television and electronic access to basic information about health care, education, employment, emergency, and other community services" (1990, p. 32). According to Mosco (1989), these services were at the heart of a new definition for *universal service*, which would be determined through public consultation and would evolve over time:

> Universal service can be defined as access to a public network that provides a range of services. A basket of these services, available to everyone at an affordable rate and determined by the widest possible public participation, would evolve with the evolution of people's needs in communication and information services. (p. 37)

As mentioned earlier, when this research began in 1995, Canadian telephone and cable television companies were just beginning to provide access to the Internet to home subscribers who had a computer with communication capabilities. Through the Internet many of the content services listed above, as well new multimedia types of services such as digital video or digital audio broadcasts, were becoming available. Even telephone subscribers using only touch tone phones could take part in many new interactive services, such as performing banking processes from home, sending in water meter readings, blocking incoming calls from particular telephone numbers, and identifying or tracing the originator of an incoming call. The Canadian government was already anticipating other new services, such as direct-to-home broadcasting distribution which would use digital technology and satellites to compete with cable companies ("Kingmaker of the road," 1995), and the CRTC was preparing the groundwork to allow broadcasters, cable television providers and telephone companies to begin competing in each other's markets. What was going to be available on these new systems was still not fully clear to the policy makers. Any basket of services would continue to evolve as new products and services were developed by commercial firms competing for the consumers' dollars and by government bodies seeking to improve the quality and reduce the costs of their services. So while Mosco's (1989) perception may have been accurate that the *basket of services*

being made available universally "would evolve with the evolution of people's needs" (p. 37), it only anticipated half of the future picture. The *basket* would evolve not only with people's needs but also with the evolution of products and services being made available. These new products and services would in turn have an impact upon people's perceptions of the services they would need.

Some elements of the legal and regulatory framework for the new cable and telephone services on the Canadian information highway were already in place when this research began in 1995, but others were still in the developmental stage (p. 134). The 1993 *Telecommunications Act,* according to Intven (1995),[26] gave the CRTC a broad range of powers to regulate new services in order to achieve the objectives of Canada's telecommunications policy (p. 162). However, Intven believed that definitional issues would ultimately determine whether new services were to be regulated under the *Telecommunications Act* or the *Broadcasting Act.* For example, Intven anticipated that new multimedia or video services that fit the definition of a *program* under the terms of the *Broadcasting Act,* even if distributed over a telephone network, would generally be subject to regulation under the *Broadcasting Act* rather than the *Telecommunications Act* (p. 161). The distribution of visual images that consisted primarily of alphanumeric text, according to Intven, would be exempt from regulation because alphanumeric text would not be considered a "program" under the *Broadcasting Act.*[27] Based on the observations of Intven, I correctly anticipated that definitional issues such as these would be important factors in the process through which essential services were being determined for Canadian information highway.[28]

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[26] Hank Intven is a partner in the law firm McCarthy Tétrault in Toronto.

[27] Section 2 of the 1991 *Broadcasting Act* says that the term "program" within the Act "means sounds or visual images, or a combination of sounds and visual images, that are intended to inform, enlighten or entertain, but does not include visual images, whether or not combined with sounds, that consist predominantly of alphanumeric text".

[28] The CRTC decided in May 1999 not to regulate *new media,* a decision that was based on the fact that new media consisted primarily of alphanumeric text and therefore were not programs under the *Broadcasting Act 1991* (CRTC, 1999a). This CRTC

International trade issues were also considered important to the legal framework under which essential services for Canada's information highway were being determined. Intven (1995. pp. 165-171) discussed several conflicts and potential conflicts between Canada's trade policies and Canada's regulation of telecommunications and broadcasting in the context of the information highway. He said that. on the one hand. Canadian government representatives had strongly promoted the liberalization of international trade policies especially with regard to trade in telecommunications products and services while. on the other hand. the support and protection of Canadian sovereignty and identity were central components of Canada's broadcasting policy and were evident in various provisions of the 1991 *Broadcasting Act.*[29] Intven commented that the broadcasting policy promoted measures clearly favouring Canadian programming and broadcasting services and discriminating against foreign ones.[30] He said that in the *Canada-U.S. Free Trade Agreement* (hereinafter. FTA). and in the *North American Free Trade Agreement* (hereinafter. NAFTA). Canadian government representatives negotiated exemptions for certain defined cultural industries.[31] including some parts of the multimedia industry. but agreed to include "enhanced telecommunications services" and "computer services" as services for which discriminatory treatment is prohibited (p. 167). Intven raised the prospect that definitional disputes might arise over whether a multimedia service was part of an exempt cultural industry for which discriminatory practices were allowed or whether

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decision is discussed in more detail in Chapter 7. along with a more recent CRTC decision on high-cost serving areas.

[29] Although not mentioned by Intven. Canada's telecommunications policy. as stated in the *Telecommunications Act* 1993 (s. 7). also affirms the central role of telecommunications in maintaining Canada's identity and sovereignty.

[30] These were clearly evident in the priority carriage requirements specified in the 1986 *Cable Regulations* and the 1998 *Broadcasting Distribution Regulations.*

[31] Intven (pp. 166-167) said that in the FTA and NAFTA the cultural industries definition covers the film. audio and video music recording industries (whether their products are in print or machine readable form). the book. magazine, periodical and newspaper industries (when their products are in machine readable form). as well as all radio. television and cable television broadcasting undertakings and satellite programming and broadcast network services.

it was an enhanced telecommunications service where discrimination was not allowed. In addition. basic telecommunications services. as Industry Canada (1996) pointed out. are exempt from NAFTA. and Janisch[32] and Romaniuk[33] (1994. p. 377) stated that this exemption allowed Canada to continue to use discriminatory practices to maintain the provision of the basic telecommunications services by monopoly suppliers. Thus. the definition of what would be considered *essential* or *basic* telecommunications and broadcasting services on the Canadian information highway could be crucial to Canada's international trade agreements. and conversely the definitions of these essential or basic services in international trade agreements could affect the way Canada's policy makers are to define essential services for the Canadian information highway.

## 1.7    The Research Project

As I planned this project. I realized that the determination of what were perceived to be the *essential services* for the Canadian information highway would involve the discussion of a number of fundamental issues. The information highway was in part the product of the convergence of the services of the telephone and cable television industries through the adoption of new digital technologies. These industries historically had operated as natural monopolies and the services offered by them had been regulated separately. mainly at the federal level. with different goals in mind. The telephone industry had been regulated (both federally and provincially in some provinces) to ensure universal access to a basic level of service. The cable-television industry had been regulated (entirely at the federal level) to ensure that cable broadcasting services promoted Canada's national identity and protected and enhanced its cultural sovereignty. As new types of communication and information services were becoming possible because of convergence. public pressure appeared to be growing to re-define universal access and what constituted the basic services provided by the telephone and cable companies on the information

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[32] Hudson Janisch is Professor of Law and Associate Dean (Graduate Studies) at the University of Toronto.

[33] Bohdan Romaniuk is a lawyer who is President of TELUS Advertising Services. a subsidiary of BCT.TELUS.

highway. The convergence of the telephone and cable television industries. federal government moves to allow competition in the provision of telephone and cable television services and to open Canada's economy to reciprocal international trade arrangements. and calls for a re-definition of universal access. appeared to me to be the major factors that could affect the policy defining essential services for the Canadian information highway.

This research project is based on the assumption that the process through which essential services were being defined was a public policy process. The study found that in 1995-96 this process was at the second stage of a six stage model.[34] a stage when the dimensions of the problem were being shaped by the ideas. values. and philosophies of the key actors. This problem definition stage has been considered the most crucial stage of policy analysis (Dery. 1984) when key decisions are made: which evidence is relevant and which solutions might be considered effective. for example (J. A. Weiss. 1989). This research was designed on the theory that the organizations active in this process were members of a policy community interacting in a policy network to resolve the problematic situation (Coleman and Skogstad. 1990a). A policy community is composed of all the organizations which shape the outcomes of policy-making in a particular policy area. whereas a policy network is formed by a subset of that community which interacts over a specific issue (pp. 25-26).

In my analysis in this study. I first identified the organizations which were perceived to be the *key players* in this policy-making process by individuals who were themselves participants in the process. I then analyzed the interactions that had occurred among the organizations to determine the *core organizations* in the policy network: those which communicated or exchanged resources with the most other organizations over the issue of determining essential services for the Canadian information highway. One of the results of my work has been to establish that. generally. the key players (*i.e.*. those which were thought to be the most important by others) were in fact the core organizations (*i.e.*.

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[34] This model of the policy process is defined more fully in chapter 2.

those which had interacted with most other organizations). However. there remained the question about whether being *core* necessarily meant having a substantial influence on the outcomes of this policy-making process.

To test whether the core organizations as identified by the interactions did influence the policy outcomes. I examined their policy positions and the policy decisions related to the issue of essential services. From the perspective of 1999. I was able to analyze the outcomes that had occurred and levels of influence apparent both in 1995-96 when I first gathered data and then in light of events since 1995-96. By extending the study. I was able to see whether the core organizations from the initial period are still now continuing to influence the outcomes on this issue to the same degree. One of my major findings was that some of the organizations initially identified as *key players* and *core organizations* turned out in fact not to be influential to the process of determining essential services over the longer term.

As a framework for exploring the process through which essential services were being determined for the Canadian information highway. I developed the seven following research questions:

1.      Which organizations within the Canadian information highway policy community were the core organizations at the current stage of the process through which essential services were being determined?

2.      What was the influence of the structural characteristics of the core organizations on the policy process?

3.      During the process to determine essential services. with whom did the organizations interact and what were the characteristics of those interactions (e.g.. reason for. frequency of. extent of)?

4.      How did the interactions influence the outcomes of the process through which essential services were being determined?

5.      What insights did the core organizations have concerning the process through which essential services were being determined?

6.    How did the core organizations conceptualize the dimensions of the policy problem? For example: Who did they believe were the main stakeholders? Which issues did they consider to be the central ones? What alternative(s) had they identified as possible solutions to the problem?

7.    What ideas. including attitudes. values. beliefs. and philosophies did the core organizations hold regarding the issue(s)?

Because very little previous research had been done in this area. I adopted an exploratory design for the study to allow flexibility in the acquisition and analysis of data. I based the study primarily on the theory of policy communities and policy networks drawn from the disciplines of political science and sociology and I obtained my data primarily from two sources – interviews and documentary evidence. In total I held 47 interviews. The interviewees are listed in Appendix B along with information pertaining to the organizations they were representing and their positions within those organizations. I also gathered documentary evidence from their organizations and from other sources to substantiate and augment the interview data.

As mentioned above. in the analysis I found that the organizations most frequently identified as key players by the interviewees were also the most core organizations in the interactions. These organizations were the Canadian Cable Television Association (CCTA). Canadian Heritage. the CRTC. Industry Canada. IHAC. the Public Interest Advocacy Centre (PIAC) and Stentor. I also found that one government department. Industry Canada. assumed responsibility for information highway policy development. but other government agencies also played important roles and had responsibilities which sometimes overlapped. This overlap led to conflict among the government agencies and confusion among the non-government organizations.

My analysis also showed that some of the structural characteristics of the non-government organizations impacted on the frequency and types of interactions in which the organizations participated and hence on their influence over the policy process. Among the non-government organizations. those representing industry interests were generally well-established. represented companies of economic significance. possessed a

large staff including both technical and legal experts, had substantial numbers of registered lobbyists, and interacted far more frequently in formal and informal communication interactions than in resource exchange interactions. In contrast, the public interest organizations were a mixture of fledgling and mature organizations, and represented groups that were diffuse or had no economic significance. In addition, the public interest groups possessed few staff who generally did not have technical or legal expertise, were often lacking in experience in public policy processes, and were not registered as lobbyists. As a result, public interest groups in comparison to their industry counterparts interacted more frequently with other similar organizations to obtain information and to exchange resources. This lack of resources and expertise also frequently prevented public interest groups from participating effectively in the communication processes and hence reduced the level of influence exerted by public interest groups in the policy process. As will be discussed in later chapters, PIAC was the notable exception.

I also discovered that the core organizations perceived the process to determine essential services for the Canadian information highway to be at the second stage of a simple model of the policy process, when the problem was being defined and the issues were just being identified. As I found out, however, some issues had been around for many years and were related to ongoing problems and processes. Indeed, as mentioned above, I found the process through which essential services were being determined was not a clear linear process. It involved a range of sub-processes and related processes, some of which were convened over several months specifically to develop information highway policies, while others were part of the ongoing CRTC regulatory processes in telecommunications and broadcasting which were not specific to the information highway but nonetheless impacted on information highway policies.

This research also found that the private sector had a strong influence on the government's information highway strategy. As I shall demonstrate in a later chapter, by adopting a vision of the information highway that came from Stentor, the government, led by Industry Canada, portrayed the information highway's rapid development as essential

for Canada's economic well-being. Industry Canada subsequently focussed the information highway development process primarily on economic concerns and made "creating jobs through innovation and investment in Canada" the number one objective for IHAC (IHAC, 1994c). In fact all of the core organizations except PIAC framed their policy positions primarily in economic terms and this affected which ideas predominated as important when the problem of determining essential services was being defined and when alternatives were being selected to resolve the policy problem. To frame its policy position. PIAC used a social perspective based on the needs of citizens. PIAC's influence. nonetheless. was significant.

The core organizations identified two main components in the problem of determining essential services for the information highway. In the first component. *access to networks on the information highway* was considered an essential service and *ensuring access* was how the problem was defined. In the second component. the problem was defined in terms of *content-based information services.* and the problem was defined as *how to determine which services were the essential ones.* The complexity of the issues involved in determining essential services and the evolving nature of the information highway itself meant that there were a range of issues and recommendations involved. As a result. the policy on defining essential services for the Canadian information highway appears likely to be an evolutionary one. developing through a set of ongoing inter-related processes. rather than one determined through a defined process at a given point in time.

## 1.8    Thesis outline

The thesis is organized into seven chapters. Chapters 1 through 3 provide an introduction to the research project. This first chapter has introduced the topic and provides the rationale for the research and the research questions. Chapter 2 places the research into the context of the relevant policy development literature. and the third chapter explains the methodology.

Chapters 4 and 5 focus on the organizations involved in the process. with chapter

4 identifying the organizations that were perceived by interviewees to be the key ones in the process. that. is the most important ones. Chapter 5 explores the organizations' interactions and applies a range of measures adopted from social network analysis methodologies to determine which organizations actually were the core organizations in the policy network that formed around the issue of determining essential services. and uses multidimensional scaling techniques to understand the relationships among these organizations.

In chapter 6 the focus of the research shifts to the ideas of the core organizations and the actual influences on the policy process. The chapter firstly examines the perceptions of the core organizations about the actual policy process. about the problem of determining essential services and what it encompassed. and about the alternatives they believed would resolve the policy problem. The sixth chapter also examines the outcomes of the policy process and the influences on them during the 1995 to mid-1996 period to determine which of the core organizations in the network were the most influential and which of the social network analytical measures was the most accurate predictor of influence.

Chapter 7 concludes the thesis by reviewing the findings of the earlier chapters. A critical part of this chapter is the relationships which are drawn between the results of this research and those found in other recent research. The chapter also explores the predictive value of the tools derived from the literature in terms of the policy process as it was in 1995-96 when the data were gathered and as it has developed to date. The chapter closes with a discussion of the implications of the research for those who are studying the public policy process and for people and groups concerned with social issues related to the Canadian information highway.

## CHAPTER 2
## THE RELEVANT LITERATURE

### 2.1    Introduction

The topic of this study is interdisciplinary and the search for relevant theoretical and research literature has led to the disciplines of library and information science (LIS), communications studies, political science, law and sociology. All of these disciplines have contributed to the design of this study. However, the links between the literature in those disciplines are mostly non-existent, and, with certain exceptions, where they do exist they are often weak or dismissive. Rather than fixing upon an analytical methodology at the outset, I used the literature which follows to guide me to methods and tools that are suited to the data and goals of this study.

The literature which informed the methodology of this research is examined first in this chapter and is followed by an examination of the theories which provided the framework for this study. According to Stephen Brooks in his book on public policy in Canada (1989), theories have an explanatory role. He states that "the role of theory is to make sense of the facts by explaining how they are connected" (p. 40). Brooks also notes that "a theory serves to direct one's attention to particular features of the world, thus performing the essential task of distinguishing the significant from the irrelevant" (p. 41). Parsons (1995) stresses that theoretical frameworks "are not necessarily exclusive or incommensurate" (p. 33). He says that policy analysts tend not to draw upon a single framework and that the most important contributions to policy analysis have been made by those who have been able to draw upon various frameworks as needed.

While much has been written about the information highway, only three authors (Buchwald, 1999; Clement, Marshall, McDowell, Mosco, and Buchwald, 1995; and Frohmann, 1996), all within LIS, have specifically addressed the issue of a theoretical framework for researching the process through which Canadian information highway

policy is being developed. This lack of literature may be due to the relatively recent arrival of information highway policy development on researchers' agendas, or it may be because policy researchers consider the study of Canadian information highway policy to be an extension of the study of either Canadian telecommunications policy (e.g., Doern, 1997), communications policy (e.g., McDowell, 1993), cultural policy (e.g., Raboy et al., 1994) or broadcasting policy (e.g., Raboy, 1990, 1995a, 1995b), and as such, consider that it does not require a theoretical framework which is separate from the main disciplinary area. The majority of analyses mentioned above, however, do not commence from a theoretical basis, so do not provide that kind of assistance to information highway policy researchers. When I have found theory being discussed, it is in the LIS literature.

## 2.2    Library and Information Science Literature

Within library and information science (LIS), the literature on information highway policy development is a component of the discipline's *information policy* stream. According to Hernon and Reylea's definition in 1991 in the *Encyclopedia of Library and Information Science*, information policy is:

> a set of inter-related principles, laws, guidelines, rules, regulations, and procedures guiding the oversight and management of the information *life-cycle*: the production, collection, distribution/dissemination, retrieval, and retirement of information. Information policy also embraces access to, and use of, information. (p. 176)

This definition of information policy is very narrow and reflects the fact that the small amount of empirical research undertaken in LIS in the 1980s[1] focussed mainly on the management of government information (Hernon and McClure, 1987, p. 348). Hernon (1996, p. 5) contends that in the 1990s most information policy research is still investigating government information, is issue-specific, draws only upon a limited assortment of social science methodologies, and, as a result, "rarely looks at information policy broadly or advances our understanding of the field" (p. 4). Information policy

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[1] Hernon and McClure (1987, p. 348) stated that "there is a general dearth of empirical studies, on this topic, that investigate specific questions, develop conceptual models, and test hypotheses."

research in Canada has similarly focussed primarily on government information. Nilsen (1994). for example. surveyed the Canadian government's information policies and identified two trends. She found that in the 1960s and 70s the policies were mainly about the public's right of access to government information. and after the mid-1980s the policies were on government information resources management. cost recovery and the commodification of information. In her 1997 doctoral thesis. Nilsen found that the introduction of charges for access to information by Statistics Canada did not impact on social scientists' use of that information for research purposes. Nilsen's study was unlike those described above by Hernon (1996) in that Nilsen used a combination of bibliometric. textual analysis and survey methodologies. In general. however. LIS information policy research. because of its focus on government information and the limited types of methodologies used. has offered little in terms of methodological tools or theoretical perspectives to inform this researcher's project.

One LIS doctoral thesis on government information policy. however. provided a methodological perspective that was incorporated into this project. Wilkinson (1992) examined the effect of the introduction of the Ontario *Freedom of Information and Protection of Privacy Act 1987* on Ontario government agencies. She found. among other things. that *organizational type* was more reliable than either *size* or *public profile* as an indicator of the degree of adoption of the *Act* by Ontario government agencies. Wilkinson's perspectives on the importance of organizational type and size of organization were adopted into the set of organizational characteristics which were used in this research to explore their impact on the outcomes of the policy development process under investigation and their reliability as an indicator of influence.

In a paper on theory and methodology. Frohmann (1995) argued that the study of information policy within LIS has been limiting because researchers generally have interpreted information policy to be about government information. and have concentrated on problems related to the production. organization and dissemination of scientific and technical information by the U.S. federal government (p. 2). Another problem with the

LIS perspective. according to Frohmann. has been its propensity to fixate on the boundaries of information policy research and to consider information science to be the central player in this new field while excluding any realistic view of the impact of their research on what actually occurs (p. 2). Perhaps the most important limitation imposed by LIS on information policy research. according to Frohmann. is that it almost always excludes issues concerning the relationship between power and information. thereby deflecting attention away from key issues such as "how power is exercised in and through the social relations mediated by information. how dominance over information is achieved and maintained by specific groups. and how specific forms of dominance – especially those of race. class. sex and gender – are implicated in the exercise of power over information" (p. 3). According to Frohmann. the actor network theory (ANT) provides the tools for charting the "agonistic processes" (p. 4) through which information policy is determined. Frohmann contends that by conceiving information policy as "the set of practices that stabilize and maintain a régime [i.e.. a system or network] of information" (p. 8). ANT can be used to open up a wider range of issues and actors than are incorporated in the LIS perspective (p. 8). However. I found that the focus of ANT is sharpest when the construct being investigated has a form and a level of stability. Therefore. the processes that become the focus of analysis in ANT are usually historical rather than current. In this research. I required a methodology that would allow me to attend to processes that were continuing to occur as the research progressed. Frohmann's criticisms and suggestions. however. guided the criteria I adopted for determining the eventual characteristics of the method I developed. The policy network approach which I used (and which will be discussed later). appears to meet Frohmann's criticisms.

Clement et al. (1995) provided a potential model for analysis of the information highway policy development process. These authors described a Canadian information highway research project that was commencing in the Information Policy Research Program at the University of Toronto and which visualized policy development as a cyclic process with five distinguishable stages: issues. agendas. policies. practices. and experiences. These authors contended that when actors' experiences influence their

perceptions and formulation of issues. the cycle is completed. Their model. however. does not clarify which experiences are responsible for changing the actors' perceptions. or how the actors obtain those experiences. Although Clement et al. stated that the interactions between perspectives and issues provide a major impetus to the policy process. it is not clear in their framework where. when. how or why these interactions take place. The strengths of their model are that it identifies the multi-staged nature of the policy-development process and it can be used to analyse the policy process as it is occurring. Clement et al. described a variety of methodologies to be employed within a common framework to analyse multiple dimensions of the policy process: qualitative ethnographies. archival analysis. and in-depth interviewing of key informants. Because of the multiple dimensions of the policy process being investigated in my study. I required a similar approach. that is. one which would use a variety of sources of data suited to analysing multiple aspects of the policy process to determine essential services on the Canadian information highway (i.e.. the core organizations. their structural characteristics. their interactions. and their influence on the outcomes of the policy process).

McDowell and Buchwald (1997) provided a contextual analysis of public interest group[*] input and responses to the work of the Information Highway Advisory Council (IHAC). They made special reference to the formation and activities of Canada's Coalition for Public Information (CPI) and the Alliance for a Connected Canada. Their paper provided contextual details. both historical and contemporary. related to public interest group representation in the development of Canadian public policy in general. and then focussed more specifically on recent telecommunications policy development and the initial stages of information highway policy development. In addition to describing IHAC. McDowell and Buchwald identified a broad range of public interest groups and government agencies that either interacted with CPI or the Alliance for a Connected Canada. or were involved in hearings related to telecommunications policy revisions. Since I had already gathered the data for my research by the time McDowell and

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[*] McDowell and Buchwald (1997. p. 709) define public interest groups as "non-profit advocacy organizations not directly tied to any business or industrial interests."

Buchwald's paper was published. I used the identified organizations as a list against which to check that my research had included all of the major public interest groups and government agencies in the information highway policy development process.[2]

A recent doctoral thesis by Cheryl Buchwald (1999) of the Faculty of Information Studies at the University of Toronto is closely related to the substance of this research project. Buchwald undertook a case study of the role of CPI in the federal government's information highway policy development process. My study differs from hers in that I examined a policy process by focussing on the full network of organizations that interacted on one major issue – the issue of determining essential services on the Canadian information highway – although CPI does figure in my study.

In her research. Buchwald employed a qualitative approach. using naturalistic methods including participant observation. interviews. document analysis. grounded theory. and extended case methods (p. 14). Two theories drawn from political science guided her project. The first one was the theory of policy communities and policy networks which provided a basic framework for Buchwald to determine the relative influence of CPI among the organizations (both government and non-government) participating in information highway policy-making. Buchwald used the work of Coleman and Skogstad (1990) and Pross (1992) as the basis for identifying and analysing the relationships that existed among the organizations. and in particular between CPI and other organizations. Buchwald also made use of Pross's addition of public interest group characteristics to policy community theory in order to study CPI's capacity to influence the policy outcomes. Coincidentally. I also used as a guiding framework the policy community and policy network theory described by Pross and by Coleman and Skogstad. Their work will be discussed in more detail later in this chapter. The second theory used

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[2] In my study I identified the same set of major organizations that was identified by McDowell and Buchwald (1997) with several exceptions. The few organizations which were mentioned in one study but not the other were identified by each researcher as ones playing minor roles.

by Buchwald was Kingdon's (1984) policy process theory. Kingdon's theory included a model of the policy process which Buchwald used "to provide a framework for organizing and analysing the temporal and procedural aspects of the information highway policy process" (Buchwald, 1999. p. 88). Like Buchwald, I also chose a model of the policy process to help guide my research. However, I needed a model which was less complex so that it could be incorporated into a question which I asked the interviewees to determine their perceptions of the policy process to determine essential services. The model I chose was developed by Doern and Phidd (1992) for the Canadian context, whereas Kingdon's model was based on the political system in the United States. Doern and Phidd's model will be discussed later in this chapter.

Frohmann (1995) commented that to date the information policy research emanating from LIS scholars has had little impact because of its tendency to place information science as central to understanding the conceptual basis of information policy (p. 2). Buchwald's thesis, with its incorporation of theory from political science, is a step toward remedying the problem. However, as mentioned above, her thesis focussed on only one organization. My research seeks to extend the conceptual base of information policy research within LIS by incorporating theoretical precepts and methodologies from other disciplines, notably communications studies, political science and sociology, in the context of a policy development process and a policy network rather than a single institution.

## 2.3    The Policy Analysis Literature

The following analyses of Canada's cultural, broadcasting and telecommunications policies have been drawn from the fields of communication studies, political science and business studies. These analyses have provided perspectives that have informed the methodological decisions taken in my research by demonstrating the importance of ideas in information policy development, both as informing and inhibiting factors in the choice of policy alternatives.

### 2.3.1 Analyses of Cultural and Broadcasting Policy

Audley (1994) undertook a literature review on public policies affecting Canada's cultural industries. with a particular focus on the impact of an open economy on Canadian cultural industries policy. One of the four goals of Audley's analysis was to "clarify the connections between the conceptual framework chosen for policy analysis and the resulting public policy measures" (p. 318). To achieve this end. Audley examined the concept of "culture" in the context of the globalization of the market place with special reference to the Canadian situation and the Canada-United States Free Trade Agreement. He contended that "the American re-definition of culture ... subsumes culture within a market model" (p. 340) and that by using this framework. cultural works are cast as products and services. and the public is re-defined "as consumers rather than citizens" (p. 327). Audley argued that when culture is viewed as a commodity. the public interest is perceived not in terms of national identity and cultural sovereignty (which are key aspects of the Canada's broadcasting policy). but in terms of the country's ability to compete and profit from trade in cultural products and services. Audley's approach suggested to me that as part of my research. I would need to determine the contextual frames chosen by the participants to describe the information highway policy area because the manner in which they were framing the policy debates would be affecting the participants' views on which situations were problematic and which alternatives would be feasible for resolving those problematic situations.

Two papers by Raboy (1995a. 1995b) report on a study that examined the development of Canadian broadcasting policy between 1985 and the adoption of the *Broadcasting Act* in 1991. According to Raboy. the purpose of the study "was not to develop a general public policy perspective. but rather to understand the importance of the policy process in establishing broadcasting as a contested terrain" (1995a. p. 413). Raboy tracked the evolution of specific policy proposals and matched them to the publicly articulated positions of the participating organizations by interviewing 25 key organizational representatives and by analysing the interventions of 165 organizations that were composed of a range of government agencies. industry organizations and public

interest groups (1995b. p. 462).

In the first of the two papers. Raboy (1995a) reported on the relative influence. with regard to the Canadian broadcasting policy. of various categories of players in light of the resources they possessed and the strategies they used to maximize their resources. As a framework for his analysis. Raboy divided the players into three general categories. The first group was the decision-makers who were primarily government players. including the then Department of Communications (DOC) and its minister. senior departmental officials responsible for policy development. and the CRTC and its president. The second category was the broadcasting undertakings. both public (the Canadian Broadcasting Corporation as well as provincial educational broadcasters) and private (conventional broadcasters represented by the Canadian Association of Broadcasters. and the cable television industry represented by the Canadian Cable Television Association). Social and cultural groups (organized public interest groups and unions) were the third category. According to Raboy. the actual policy-making process was viewed differently by different players. and influence in the process was "a relative affair" (p. 428). He found that any actor who wished to influence the process had to participate in the public consultations. but each actor also had to seek direct access to the decision-makers to the extent that "resources and channels of communication allow" (p. 429). Different actors attached more or less importance to public consultation depending on their proximity to the decision-makers. Those who were close to the decision-makers perceived public consultation as something that had to be done but it was "not where the real game is being played" (p. 429). Public consultation as a means of potential influence was more important to actors who were further away from the decision-making circle and had less opportunity for direct access (p. 429). Raboy also found that otherwise disempowered actors often achieved surprising results through the public consultation process.

Two aspects of Raboy's (1995a) paper were of importance to my methodology. First. Raboy's decision to group the organizations into three general categories for analysis allowed him to compare and contrast the participating organizations in terms of

their interests. their means of influencing the policy outcomes. and their impact on those outcomes. The categories chosen by Raboy were based on the unique dynamics of the broadcasting policy field (pp. 414-415). In the early analysis of my data. I found that my participants themselves used categories to conceptualise the policy players which were based on similar properties to those used by Raboy for his categories. I therefore chose to use the categories which came out of my own data and which were based on the dynamics of the information highway policy process to determine essential services. The second aspect of Raboy's study which influenced my methodology was its focus on the channels of communication used by different categories of organizations. Because I was interested in determining the impact of the interactions which occurred among the organizations in the information highway policy process to determine essential services. I included an analytical method in my study which allowed me to analyse the nature and extent of the interactions. including the communication interactions of the organizations.

In the second paper from his study. Raboy (1995b) looked specifically at the role of public consultation in shaping the Canada's 1991 *Broadcasting Act*. Raboy examined the mechanisms used by the government to obtain public input into the policy process. the major positions on key issues and the strength of support for those positions by the categories of participants. and the impact of that support on the new *Broadcasting Act*. Raboy concluded that the public fora used to develop the broadcasting policy were critical to the non-industry groups:

> Public consultation in broadcasting policy formation is especially important. in that private industry continues to be the most powerful player in the area. Without provision for a strong public presence in policy-making. non-industry groups would have little or no influence. Public access to the policy making process is thus a crucial element in the democratization of broadcasting. (p. 475)

According to Raboy. influence in the process was not one-sided. Social interest groups that were well-organized were able to gain entry into the policy-making process and to achieve positive results in the final policy document. even though the policy-making process. in general. favoured the industry organizations. Raboy's finding suggested to me that in my study I would need to attend to the nature of the mechanisms used to obtain

input into the information highway policy development process to determine whether those mechanisms favoured one category of participant over the others. and if so. whether and how this affected the outcome of the policy process.

## 2.3.2 Analyses of Telecommunications Policy

Recently. analysts of Canadian public policy have identified issues and concerns which have been central in the debates related to telecommunications and broadcasting and their convergence into the information highway. These policy analyses are important to this research not only for the issues they discussed. but also (as was the case with respect to the Audley (1994) paper discussed above) because they reflect the fact that the contextual information used to frame a debate affects the way policy problems are defined and limits the policy options available for resolving the problems. The following analyses verified Audley's point with regard to the telecommunications policy literature.

The four examples of analyses of telecommunications policy provided here have used economic contexts to anchor their discussions of the essential services and universal access issues and to provide recommendations for policy alternatives. Globerman and Carter (1988) structured their analysis around the need for greater economic efficiency in the Canadian telecommunications sector because of technological change and international trade. They argued that the system of cross-subsidies used to maintain low residential rates for telephone services could not be maintained because users would bypass Canadian suppliers and use telecommunication companies in the United States. Globerman and Carter recommended that deregulation and rate rebalancing[4] were needed to bring the cost of service to its true rate. They also suggested that policy-makers could mitigate undesirable social consequences by maintaining a minimum level of service using direct subsidies targeted to specific groups through welfare allowances. and by moving away from a flat monthly fee for unlimited local service to a measured charging system based on the number. the duration. and the timing of calls (p. 127-128). Globerman and Carter

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[4] Rate rebalancing is the elimination of the cross-subsidies from artificially high long distance toll rates to artificially low local subscriber rates.

argued ultimately that "more substantial deregulation of the industry is in the public interest" (p. xvii). Of course, substantial deregulation has subsequently occurred.

Courchene (1991) used international trade agreements as the basis for examining the ability of the Canadian state to regulate the telecommunications industry. He observed that the role of the CRTC and provincial regulators has become diminished as transnational corporations have obtained more effective ways to operate across international boundaries. According to Courchene, arguments about the social implications of greater deregulation and international trade agreements are a subset of arguments linked to socio-political sovereignty and identity and, at their most elementary level, they appear "as the objection that deregulation will threaten the Canadian commitment to universal local service" (p. 73). Courchene asserted that the cost of local service had to rise to reflect real costs and market pressures, and that targeted subsidies would be a more meaningful assistance to the poor than keeping prices artificially low. He further contended that both businesses and the poor would benefit from deregulation, and that the interests of the status quo were being protected because business interests feared awakening the potential influence of millions of residential customers. Although the telephone industry has been largely deregulated since 1991, the CRTC has continued to regulate the rates offered by the incumbent old monopoly telephone companies. While the rates for local telephone services have risen, they are still offered below their costs through a system of cross-subsidization.

To explain the Canadian telecommunications situation to an international audience, Janisch and Romaniuk (1994) provided a detailed analysis of the economic, political and legal context of Canadian telecommunications policy from the introduction of the telephone in the 1880s through the regulatory reforms of the late 1980s and early 1990s. Similarly to the authors just discussed, Janisch and Romaniuk placed the issue of universal access into an economic context and argued that it had implications for the international competitiveness of Canada's telecommunications industry. Janisch and Romaniuk argued that the most inherently contentious principles for guiding the formulation of government

policies and regulation[5] "may be the desire to preserve low-cost. universal basic service while maintaining international competitiveness" (p. 369). According to these authors. many policy-makers acknowledged that rate rebalancing would enhance the international competitiveness of the Canadian telecommunications sector. but these policy-makers feared that doing so would imperil the principle of universality. In their conclusion. Janisch and Romaniuk stated that

> what will be increasingly important in the Canadian debate. is that it is becoming evident this [rate rebalancing] can be achieved without any threat to universal service. Experience seems to indicate that. while local rates may have to go up. network drop-off can be avoided through targeted rather than undifferentiated subsidies. (p. 390)

As mentioned above. although local rates have been allowed to rise. the CRTC still regulates the rates of the old-monopoly companies and uses a system of universal cross-subsidies which keep the rates at an artificially low level.

The central concern of a recent analysis by Schultz (1998) was that the failure to eliminate cross-subsidies has threatened to distort. and thereby undermine. the move to a competitive market structure in telecommunications (p. 141). Unlike the previous authors who focussed on international issues. Schultz framed his discussion around the argument that "the conventional wisdom about universal service and universal subsidization of local [telephone] service is wrong" (p. 140). Schultz contended that even IHAC wrongly assumed that universal service has been a long-standing social policy objective which had

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[5] Janisch and Romaniuk identified the following six principles that were endorsed by a meeting of federal. provincial and territorial ministers of communications in April 1987 to guide the formulation of Canadian telecommunications policy and regulation:
- uniquely Canadian challenges require uniquely Canadian answers:
- universal access to basic telephone service at affordable prices:
- international competitiveness of the Canadian telecom sector and the industries it serves:
- all Canadians must benefit from the introduction of new technology:
- policies should reinforce fair and balanced regional development and responsiveness to the interests of all concerned governments:
- policies should be established by governments and not regulatory bodies or the courts. (DOC. 1987b. as cited in Janisch and Romaniuk. 1994. p. 369).

been purposefully designed and systematically advanced by regulatory authorities. Schultz asserted that his purpose for questioning the mythology of universal service was not to challenge the underlying assumption of the policy's social objective, "that is, that telephone service is a necessity and therefore should be universally available" (p. 140). Rather, his objective was to "emphasize that the contemporary social policy of universal service has no prior claim or precedence over the pro-competition, economic policy developed by the CRTC" (p. 141).

To trace policy ideas, Schultz (1998) analysed CRTC decisions and other documents from key government agencies. Schultz found no evidence of recorded use of the term *universal service* in Canadian regulatory decisions prior to 1979 (p. 140) and the earliest evidence of government concern was the inclusion in the 1993 *Telecommunications Act* (s. 7b) of the policy objective of "reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural regions of Canada" (as cited in Schultz, p. 141).[5] Schultz maintained that the mythology of universal service developed in the 1970s when the telephone companies became threatened by competition (p. 141). To protect their monopolies, the companies claimed "that competition would undermine the social policy objectives of universal service through cross-subsidization of local rates by long distance" (p. 141). According to Schultz, this strategy paid off for the telephone companies because it induced consumer groups and unions to fight future battles against the introduction of competition and it shaped "the rhetoric that has been employed in debates about competition" (p. 141). Schultz pointed out that, while reducing the amount of the subsidy for local service, the CRTC did not address the heart of the subsidy system, "namely its universality regardless

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[5] Although the authors whom I cited in the first chapter claimed that universal access has been a long-standing public policy objective in Canada, they made no claim that the terms *universal access* or *universal service* have been in use for a long period of time. The fact that the telephone companies were regulated as public utilities suggests to me that the federal government has had a policy of affordable access for many years. In addition, in some parts of Canada the provincial governments established their own telephone companies when private enterprise was unwilling to do so. This suggests that the concept of universal access was also present long before the term come into use.

of recipient need" (p. 142). He claimed that the CRTC's rejection of full rate rebalancing and its focus on minimizing rather than eliminating market distortions demonstrated that the Commission's commitment to competition had begun to wane (p. 143). Schultz raised concerns that, combined with the previous two factors, the CRTC's then recently announced inquiry into service for high-cost areas (see CRTC, 1997h) "could produce the most pronounced setback to the development of telecommunications competition" (p. 143) by leading to a vastly expanded universal subsidization scheme. Schultz also pointed out that the issue of which services should be subsidized had not yet received attention, but "there undoubtedly will be a debate over the definition of 'basic' telephone service" (p. 144). As I found out, this debate was taking place in relation to the information highway in the policy process I was investigating.

Schultz (1998) was critical of the government's abdication from its responsibility to articulate clearly its position on how to resolve the inherent tension between the principle of competition in telecommunications services and the objective of universal access at affordable rates. Schultz recommended that a needs-based targeted subsidy system should be implemented to ensure that those not needing support are eliminated from the subsidy system (p. 150). Although Schultz did not cite the previous authors discussed here, he uses much the same argument with regard to subsidization. In conclusion, Schultz offered the following perspective:

> The controversies over the determination of affordability to ensure universal telephone service threaten to undermine the development of a competitive telecommunications system. Competition and universal cross-subsidization are today thoroughly entangled and can only become more so as demands for subsidized access to the Information Highway and for high-cost areas become more strident and politically salient. A competitive telecommunications system cannot bear the burden of such entanglement. Something must give, and the danger is that competition will suffer. (p. 151)

Especially relevant to my research is the content analysis methodology that Schultz undertook on selective CRTC telecommunications decisions and government policy documents from the late 1970s until the mid 1990s. Published since the data were

gathered for my study. Schultz's methodology and analysis of those documents confirms the importance of using documentary evidence to follow the progression of policy ideas over time. In my study. I had obtained written records of organizational positions and policy outcomes on the essential services issue directly from the interviewees as well as from sources such as the CRTC and IHAC web sites.

## 2.4    The Theoretical Literature

### 2.4.1    Introduction

The process through which essential services on the Canadian information highway were determined is an example of the making of a public policy. This research has focussed upon identifying the factors which have had an influence upon this process. It has also empirically tested predictors of these factors drawn from literature and previous theoretical work. In the remainder of this chapter I review the literature beyond LIS and broadcasting and telecommunications which I used in designing this project.

### 2.4.2    Definition of *Public Policy*

Because this research is about the public policy-making process. and because the term *policy* is used in many different ways in the literature. it is necessary at the outset to come to establish my use of the term *public policy* and my concept of what the policy-making process entails. Many definitions of the term *policy* are available in the political science literature. These definitions emphasize one aspect or another of the concept. depending on their authors' intentions.

Leslie Pal. in a recent book on Canadian policy analysis. defines public policy as "a course of action or inaction chosen by public authorities to address a given problem or an interrelated set of problems" (1997. pp. 1-2). Pal's reference to a *course* of action indicates that a public policy is "a guide to a range of related actions in a given field" (p. 2). An important aspect of Pal's definition is that it refers to *inaction* as well as *action*. Therefore. when public authorities decide not to act. this too can be considered a public policy decision. Another aspect of Pal's definition is that it refers to problems and

interrelated sets of problems. Pal points out that public policy "is seen by policy-makers and citizens as a means of dealing with problems" (p. 2). In other words. public policies are not ends in themselves. but are instruments for dealing with issues of public concern. Pal also notes that public policies rarely deal with a single problem. As a result. public policies are usually complex and address sets of smaller interconnected problems whose boundaries are difficult to determine and change over time (p. 3).

Roberts and Edwards (1991) provide a brief yet encompassing definition of policy in their dictionary of policy analysis. They state that a policy is

> a set of decisions taken by a political actor or group. concerning the selection of goals and the methods of attaining them. relating to a specified situation. These decisions should. in principle. be within the power of the policy-maker to achieve. (p. 98)

This definition emphasizes that a policy is composed of decisions made by a "political actor or group." Therefore. this definition expands on Pal's in that it indicates that the decisions and the actor or group who are involved in decision-making are key elements for policy analysis. According to Roberts and Edwards (1991. p. 98). four components of their definition of *policy* require special attention. The *selection of goals* implies that the policy-makers have a value-system and they order values within their decision-making. The goals the policy-makers wish to achieve may be narrow or broad in scope. The *methods* of attaining the goals involve "the purposeful management of human behaviour" (p. 98) and this can include administrative decisions. regulations. legislation. court decisions and so forth. The *specified situation* draws attention to the fact that there is an interaction between the policy-making process and the social and physical environment which constrains the potential outcomes of the process. The final element of this definition is *control*. which Roberts and Edwards state "may be through authority. persuasion or coercion" (p. 98). The authors note that if control is not present. at least in principle. then the term policy is inappropriate "since the selection of goals is merely a statement of preference or intention" (p. 98).

For this research I have chosen to use the preceding definition provided by Roberts

and Edwards (1991) with the proviso that. for a policy to be considered a *public policy*. it ultimately must be applicable to the public at large. The definition which I use. therefore. excludes any policy made by a non-government organization. or any policy made by a government body with regard to its internal operations unless it affects the public at large. Based on the Roberts and Edwards' definition. I define a public policy as follows:

> A public policy is a set of decisions which are applicable to the public at large and are taken by a political actor or group, concerning the selection of goals and the methods of attaining them, relating to a specified situation. These decisions should, in principle, be within the power of the policy-maker to achieve. Excluded from this definition are policies made by non-government organizations, or policies made by government bodies with respect to their internal operations unless those policies affect the public at large.

The above definition focuses this research on the participants and the decisions they make with regard to the specified situation. that is. the need to determine essential services for the Canadian information highway. The definition by Pal. though not selected for use in this research. nonetheless. coincides with this approach in two key respects – the "specified situation" in Roberts and Edwards' definition would be viewed as Pal's *policy problem*. and inaction as well as action can be viewed as a policy decision.


## 2.4.3   Theories of Public Policy-Making

Numerous theories have been developed over the years to explain how public policies are made within a democratic society. These competing approaches use different conceptualizations of policy-making to explain who are involved. who benefit. what factors affect the process. and what instruments are used to achieve specific outcomes. Doern and Phidd (1992) comment:

> The contending approaches are the product of many streams of thought. rooted in different values and analytical concerns ... At a minimum. analytical approaches exist to classify a phenomenon into manageable chunks of reality and to generate or suggest hypothesized relationships we might not otherwise see. (p. 4)

Policy analysts have developed a wide range of theoretical approaches or "frameworks" to support differing academic interests and orientations (Parsons.1995. p.

32). As a result. academic writers have devised numerous classificatory methods for grouping the various theoretical frameworks. In my research I required a theoretical approach or approaches that would allow me to focus upon the process of making a public policy as it was occurring and to identify and analyse the principal factors that were affecting the outcomes.

In his book on the methods and theories of policy analysis. Wayne Parsons (1995. p. 39) discusses six main approaches which are used in the political science literature to explain various styles of policy-making in relation to broader political contexts:

- *Stagist approaches* view the policy-making process as a series of identifiable steps or stages and draw upon the work of Lasswell (1956). Jenkins (1978) and Simon (1945).

- *Pluralist-elitist approaches* focus on the distribution of power among groups and elites and how they influence the policy-making: they derive from the work of writers such as Dahl (1961) and Lindblom (1977).

- *Neo-Marxist approaches* are interested in explaining policy-making in terms of tensions between Marxist and capitalist ideas: writers such as Miliband (1969: 1977.1982) and Poulantzas (1973.1978) were leading figures in drawing attention to this approach:

- *Sub-system approaches* explain policy-making in terms of metaphors such as networks. communities and sub-systems of governments: Heclo (1978). Richardson and Jordon (1979). and Rhodes (1988) are among the proponents of this approach:

- *Policy discourse approaches* focus on the language and communication used in the policy process and draw upon French and German critical theorists such as Foucault and Habermas. as well as others:

- *Institutionalist approaches* examine the institutional arrangements that impact on the policy process: Almond. Powell and Mundt (1993), Hall (1986) and Skocpol (1985) are among the key authors in the area.

Other academic writers on the public policy process provide their own
classifications to identify and explain different approaches to the study of political science.
Martin J. Smith (1993). for example. identifies four approaches that have been used to
study the outcomes of the policy process through the analysis of pressure groups and the
state: pluralism. corporatism. Marxism and policy networks. The first three approaches.
according to Smith. are the traditional ones which focus primarily on the resources and
behaviours of groups. while the network approach also examines the relationships that
exist between the state and interest groups (p. 6). G. Bruce Doern and Richard W. Phidd
(1992) identify the five main contending approaches for the study of public policy in
Canada: the rational approach. the incrementalist-pluralist approach. the public choice
approach. the class-corporatist approach. and the comparative public policy approach. The
important point here is not that these authors have different categories but that they had
different reasons for classifying and have therefore selected different features as the basis
for their classifications.

Because of the timing of my research. I needed an analytical framework that would
allow me to examine features of the policy process as the process was occurring. that is.
prior to the final outcome being achieved. My analytical framework needed to provide me
with a way to conceptualise the various players involved in the policy process. and to
determine how their structures and relationships were affecting the outcomes of the policy
process. To meet these requirements. I have drawn upon theory from two of the six
approaches identified by Parsons: the stagist approach. and the sub-system approach.

### 2.4.3.1        The Simple Stages Model of the Policy Process

To analyse the policy process as it was occurring. I found it useful to
conceptualize the process as a rational one involving a number of distinct stages.   Parsons
(1995. p. 78) calls this a stagist approach and says it is the main one for analysis of the
policy process and for analysis in. and for. the policy process.   Kruschke and Jackson
(1987) describe the policy process as "the sequence of events involved in the policy-
making process ..." (p. 29). Putt and Springer (1989) observe that "dividing policy-

making into a series of stages represents an attempt to separate a continuous and interactive set of activities into an orderly sequence of phases" (p. 30). They also note that "conceiving of the policy process as a series of interrelated phases allows policy to be tied to evolving information needs and to different applications of policy research" (p. 30). As Parsons (1995) points out, "each stage therefore provides a context within which we can deploy different frames [of analysis]" (p. 80).

Different authors identify varying numbers of stages in the policy process. For example, Kruschke and Jackson (1987) list 10 separate events.[7] Hogwood and Gunn (1984) distinguish nine stages,[8] and Putt and Springer (1989) identify five different steps.[9] Hogwood and Gunn (p. 4) stress that the policy process is complex, and the stages through which a policy problem passes do not occur discretely, nor necessarily in a fixed order. The author of a stagist model, according to Parsons (1995, p. 80), is providing an heuristic device that allows us to analyze the complexities of the real world. He cautions, however, that we must remember that as an heuristic device the stagist model "has all the limitations of any map or metaphor" (p. 80).

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[7] Kruschke and Jackson's (1987) list of events consist of: 1) perceiving and defining a problem; 2) placing the problem on the government agenda; 3) aggregating interests involved in the problem; 4) maintaining contacts with those involved; 5) formulating alternative solutions; 6) legitimizing a policy; 7) providing the necessary budget for implementing the policy; 8) implementing the policy; 9) evaluating the policy; and 10) deciding either to revise or terminate the policy in view of its impact on relevant clientele (p. 29).

[8] The nine stages in Hogwood and Gunn (1984) were: 1) deciding to decide (issue search or agenda setting); 2) deciding how to decide (or issue filtration); 3) issue definition; 4) forecasting; 5) setting objectives and priorities; 6) options analysis; 7) policy implementation, monitoring and control; 8) evaluation and review; and 9) policy maintenance, succession, or termination.

[9] Putt and Springer's (1989) five steps are: 1) stimulation, in which issues are recognized and defined; 2) clarification, in which needs and solutions are specified; 3) initiation, in which a decision is made to go forward with a specific solution; 4) implementation, in which programs are put into practice; and, 5) evaluation, in which the results of the implemented policy are evaluated (p. 30).

In this research. I have employed a simple policy stages model developed by Doern and Phidd (1992). They suggest that "ideally, and to a certain extent in practice, a policy problem goes through several stages" (p. 83): 1) identification of a problem: 2) definition of the problem into "its real meaning": 3) search for, and analysis of, alternatives: 4) choice of policy and allocation of resources: 5) implementation through legislation, regulation, etc.: and 6) evaluation to ensure objectives have been met (p. 83-84). These stages encompass the main features of a rational process used to solve a problem or achieve a goal.

Doern and Phidd (1992) acknowledge that their simple stages model represents an idealized conceptualization of the policy process which, because of the complexities inherent in policy-making, has a number of weaknesses.[10] It fails to account for the fact that a government's policy agenda is usually untidy, that it is aided and abetted by the ongoing presence of a range of ideologies and dominant ideas, and that at any given time it includes multiple policies at different stages in the process (p. 88). It also fails to account for the existence of related processes such as taxation and regulation which are generated by the basic governing instruments (p. 88-89), nor does it account for the finite limit to resources and information which necessitates that the definition of a problem be confined and that the range of alternatives be limited (p. 89).

Although the simple stages model has limitations. I have, nonetheless, employed it because it has allowed me to divide the policy process into manageable chunks to describe the policy process under investigation. The simple stages model also was useful for mapping the wider contexts of the problems, processes, values and institutions within

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[10] Doern and Phidd (1992) argue that none of the major theories of policy-making, including the rational approach from which their policy process emanated, has provided policy researchers with a tool to explain and predict satisfactorily (p. 4). They suggest another framework which they label the *interplay approach*. This approach suggests that policies result from the complex interplay of three constituent elements of policy-making: society's leading *ideas*: the *structure* of government and the private sector (including the individuals in the leading roles): and the *process* of policy- and decision-making in government (p. xvi).

which the policy on essential services for the Canadian information highway was being made. While the simple stages model allowed me to conceptualize the policy process. I still needed to include in my framework a model which would help me focus on the institutions. their resources. and their interactions. and to visualize them in a way that would be predictive of the outcome of the policy process that I was investigating. I found this framework in the policy community and network approach which is described by Parsons (1995) as a subsystem approach. one of the six main approaches to explaining the various styles of policy-making.

## 2.4.3.2     The Theory of Policy Communities and Networks

In the past two decades. concepts based on *communities* and *networks* have emerged within the literatures of political science and sociology as theoretical explanations of the public policy process. Dissatisfaction with traditional theories of policy-making led policy analysts to seek new concepts for explaining the components and dynamics of the policy-making process. This section of chapter 2 is devoted to explaining the policy network approach and its antecedents. its importance to policy analysis and. in particular. the reasons for its use as the guiding framework in my study.

Reviews of the policy analysis literature generally trace the policy network approach back to approaches that were developed in the United States in the late 1960s and early 1970s in response to criticisms to the traditional pluralist. corporatist and Marxist approaches. An often cited example of a neo-pluralist antecedent to the policy network approach is Heclo's use of the term *issue network* in an influential paper in 1978[11] to describe federal public policy-making in the United States as a highly fragmented process involving an unpredictable combination of public agencies and selected private groups. technical experts and policy activists who are concerned about a particular issue

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[11] For example. Kenis and Schneider (1991). Parsons (1995) and Smith (1995) all refer to Heclo's 1978 paper in their discussion of the development of the policy community and network concepts.

(p. 103). A common theme in the literature reviews. however. is that the development of the policy network approach has been fragmented across nations and between the academic disciplines of political science and sociology. Today. there is general agreement of the importance of. and close relationship between. the terms *policy community* and *policy network*. but there still is little agreement about their precise meanings and how they should be applied to the study of policy analysis. I will expand on the different meanings after first discussing the reasons for the shift from the traditional approaches to the policy community and network concepts. For the sake of simplicity. when referring to these joint concepts in a general sense I will use the term *policy network approach*.

Pluralism has been the major approach. especially in the United States. for the analysis of the behaviour of groups and government in the policy-making process (Smith. 1993. p. 15). Pluralists perceive power as being ''dispersed throughout society rather than being concentrated within the state'' (p. 3). The role of the state is to mediate between conflicting interests rather than to dominate (1995. p. 211). Early accounts of pluralism. from the 1950s and 1960s. ² saw power as being widely distributed throughout society and the policy process as being ''driven by public demands and opinions'' (Parsons. 1995. p. 134). Anyone with a concern or interest could participate.

According to Parsons (1995. p. 253). both Dahl and Lindblom. two of the early proponents of pluralism. altered their vision during the 1970s. conceding that the playing field is not level – business interests predominate in the decision-making processes. Parsons says.

> Whereas in the past. they [*i.e.*. Dahl and Lindblom] had believed that in a pluralist polity interests would be neutralized by other interests. by the 1970s they had concluded that liberal democracy works primarily in the interests of the capital system. (p. 253)

Jordon and Richardson (1987. p. 45–46) point out that Dahl (1985) recognized that some interests might have greater resources and better access to the decision

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² For example. see Truman (1951) and Dahl (1961).

processes than others. A small minority of well-organized citizens therefore might be able to control the public agenda to obtain short-term benefits for themselves at the expense of significant long term benefits for a majority of unorganized citizens. Thus. pluralism moved from an almost idealized conceptualization of the policy process where all can participate to one in which elite groups are seen sometimes to predominate in specific areas.

Smith (1995. p. 215-220) delineates a range of problems associated with the pluralist analysis of the policy process. Of primary importance to my research is the methodological concern raised by Smith. He says that pluralist studies focus on examining observable behaviour and observable outcomes (p. 214). That is. they study the impact of group activities on the outcomes of the policy process. Pluralists. according to Smith. tend to view the influence of pressure groups on the polity as coming from their access to resources[13] (p. 214). He argues that. by having a limited view of the source of pressure group influence and by focussing on interests groups and observable behaviour. pluralists fail to explore the ideological and structural context within which policies are made (p. 215) and they "underestimate the importance of the state and state actors" (p. 218). Smith points out that states can. and sometimes do. act on their own and ignore the interests of groups.

Smith (1995) also argues that pluralists tend to view all groups as being "basically the same. if not equal. but with varying resources" (p. 217). As a result. they treat business as just another interest group and fail to consider the advantages enjoyed by business. such as ready-made groups in the form of firms. the reliance of government on successful economies (thereby making government receptive to business interests). access to greater financial resources than other interest groups. and perhaps most important. a prevailing ideological framework in society at large which is generally favourable to business (p. 217).

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[13] These resources are highly diverse and can range from financial resources to the number of votes an interest group can command.

As discussed above. corporatist and Marxist approaches are also among the main traditions for analysing group-state relations. The corporatist approach. according to Evans (1995). "is a model of state-group intermediation in which the interests of the state and certain private sector interests fuse" (p. 244). Corporatist theory developed to explain a pattern of government-business-labour interaction for political decision-making in several European countries (Parsons. 1995. p. 257). Grant (1985) explains that corporatism involves policy negotiation "between state agencies and interest organizations arising from the division of labour in society. where policy agreements are implemented through the collaboration of the interest organizations and their willingness and ability to secure the compliance of their members" (pp. 3-4).

Rhodes and Marsh (1992b. p. 3) point out several key differences between the corporatist and pluralist models. They state that in the corporatist model. interest group intermediation is limited to only a few groups that represent the major corporations. "The links among the corporations and between the corporations and the government are very close" (p. 3). which both results from. and further reinforces. a consensus view of the political and economic system. They also suggest that the 'state' and not the 'government' plays an active role. although the role is dependent on the type of corporatism being entertained by the parties involved. According to Rhodes and Marsh. most corporatist authors concentrate on economic and industrial fields (p. 3). while Cawson and Saunders (1983. pp. 24-25) contend that economic policy is conducted within a corporatist arena. and social and welfare issues are played out in a pluralist one.

Like pluralism. corporatism suffers from some serious shortcomings. Smith (1993) suggests that macro-level corporatism applies only to a few European countries. such as Sweden and Austria. and it provides no insight into government-business relations in countries such as the United States (p. 35) and post-1979 Britain[14] (p. 37). According to Cawson (1985). corporatist theory has its strongest application at the meso- (i.e.. sectoral)

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[14] In 1979. Margaret Thatcher's "new-right"government was elected to office in Britain.

and micro- (*i.e.*. firm) level. Smith (1993. p. 36) argues that meso-level corporatism was useful for comparing relationships across sectors. but the definition for what types of business-government relations were corporatist became so encompassing that it was impossible to distinguish between corporate and non-corporate relations. and the label "corporatism" became meaningless. In addition. by concentrating on government-business relationships the corporatist model paid little attention to the role of labour and ignored the influence and relationships between economic actors (p. 36).

The Marxist approach is the most radical and is based on a class struggle view of the political process. According to Smith (1993. p. 38). Miliband (1969. p. 23) proposed that the state is an instrument used by the ruling class to dominate society and that the ruling class is an elite of businessmen and property owners or members of the professional middle class (p. 61). Miliband argued that rather than directly controlling the state. the capitalist class uses indirect means to dominate. That is. the decision-makers adopt policies that favour the interests of capital (p. 55). In Miliband's model. business controls financial and economic resources. and sources of propaganda to exert pressure and win support for its interests (Smith. 1993. p. 38). Smith points out that Miliband also saw the role of state agents in the United States as being a crucial element in government-business relationships by demonstrating that senior civil servants and judges shared common backgrounds and interacted frequently with business leaders. Miliband contended that these overlaps resulted in the political elite representing the interests of the capitalist class in their decisions.

According to Smith (1993). the Marxist approach suffers from a number of serious limitations. It is deterministic in that "it allows no option other than business being the final victor in all policy areas" (p. 44). Even when the capital class appears to lose. Marxism explains that it is merely a concession taken in the interests of capital. Smith says this leads to a further problem because it assumes that the state can know what is in the interests of capital and it also assumes that individual capitalists have shared interests. Furthermore. Smith points out that much of the Marxist argument is at such a high level of

abstraction that is says little about how the state actually operates and how outcomes are achieved (p. 40): "Marxists see the state reflecting the balance of class forces but are talking in metaphors rather than explaining how class interests become policy" (p. 45). Thus. Marxist theory does not provide an approach for explaining how class interests are incorporated into policy.

As a result of the limitations discussed above. the traditional pluralist. corporatist and Marxist perspectives on policy development have given way to newer explanations of the policy process. Although generally traced back to the United States. the concepts of policy communities and networks have been adapted and extended to provide explanatory models for policy making in domains outside of the United States. When discussing the ideas of reformed pluralists. Smith (1995. pp. 220 - 223) explains how British policy analysts Richardson and Jordon (1979) and Jordon and Richardson (1987a. 1987b) developed the *policy community* concept. Richardson and Jordon (1979. p. 13) acknowledged that perfect competition among all interests in a policy area rarely exists and usually only one interest group or a few competing interest groups are involved in the development of a policy. A government department may be captured by an interest group leading to clientelism in which the department and the interest group share priorities and identification. Richardson and Jordon (p. 73) argued that this type of relationship has led to the creation of *policy communities* in which the boundaries of the government and interest groups tend to blur. They said that the best explanation for policy outcomes rests in "the relationships involved in committees. the *policy community* of departments and groups. the practice of co-option and the consensual style" of a myriad of interconnecting, interpenetrating organizations (p. 74).

Rhodes (1990) provides a critical appraisal of the British contributions to the policy network literature. He identifies micro-. meso- and macro-level approaches to policy analysis and compares their development within political science to approaches at similar levels of analysis used within sociology. For example. Rhodes (p. 294) recognizes that the "social network analysis" approach used in social anthropology is an important

antecedent to micro-level policy studies. Rhodes defines a policy network as "a cluster or complex of organizations connected to one another by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies" (p. 304). He suggests that to understand the changing pattern of relationships and their outcomes the focus of policy network studies should be on the inter-relationship between the macro- and meso-levels. Rhodes considers a policy community to be a specific type of network, one characterized by stable relationships, highly restrictive membership, vertical interdependence and insulation from other networks and the general public. A policy community is based on a major functional interest, such as education or health. Although he recognizes that the term policy network "is infrequently used with precision" (p. 293), Rhodes comes to the general conclusion that "the concept has considerable utility for the analysis of policy-making in Western democracies" (p. 313).

Kenis and Schneider (1991) review the development of policy network concepts in an attempt to come to a common understanding of what the key terms mean. These authors (p. 28) name Rokkan (1969), a Norwegian, as one of the first researchers to use the term *network* in policy analysis from a post-pluralist perspective and to emphasize the importance of analysing policy-making structures other than conventional electoral-parliamentarian channels when attempting to understand the processes involved in developing policies. The work of Scharpf (1977), according to Kenis and Schneider (p. 30), was instrumental in the development of a sociological stream of policy network analysis. Scharpf, a German sociologist, argued that some network configurations operate more successfully than others in the development of policy and that network analysis tools could be used to identify prescriptive patterns of interaction between organizations in inter-organizational policy formation. Kenis and Schneider (p. 31) also draw attention to the work of Laumann and Pappi (1976), who were the first to apply quantitative structural analysis methods to identify community power structures. Kenis and Schneider point out that the work of Laumann and Pappi led in the 1980s to a "quantitative stream" of policy network analysis that applied network analysis and structural methods to policy processes

and policy domains. Kenis and Schneider (p. 32) point out. however. that most network studies have used qualitative approaches and have applied their own meanings and connotations for the term *policy network* and other key terms. They claim that despite leading to ambiguity. the number and quality of studies have led the policy network concept to gravitate "to a position of central importance" (p. 32). Although Kenis and Schneider provide definitions for different types of policy networks and describe quantitative tools for network analysis adopted from the field of sociology. the definitional disputes and preponderance of qualitative studies have continued to dominate the policy network approach.

Knoke (1990b). a sociologist. describes the structural approach to policy network analysis derived from social network theory and he defines many of the concepts that are fundamental to this approach. He starts from the premise that "power is an aspect of the actual or potential interaction between two or more social actors" (p. 1). Therefore. social power is defined primarily in relational terms. According to Knoke. various types of power relationships exist. but all are asymmetric interactions (regardless of whether they are actual or potential) in which one actor exerts greater control over another's behaviour (p. 3). Knoke says that to analyze power relations among many actors in a large political system. the concept of a social network is particularly useful (p. 7). Social network analysts studying political systems identify positions or roles occupied by social actors within the system and determine the type of relations or connections between these position through careful analysis of the actual interactions that occur (pp. 7 - 8). Knoke points out that quantitative procedures. passing under the rubric *social network analysis*.[15] offer powerful tools to provide formal representations of social structure which explain the distribution of power among actors within political systems (pp. 8-9). In the main part of this book. Knoke uses the policy network approach to analyze various levels and types of political activity. including the participation of individual citizens in selecting government officials. the collective activities of social movements in using non-conventional political

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[15] Key methodological texts for social network analysis include Burt and Minor (1983). Marsden (1990). Knoke and Kuklinski (1982) and Scott (1991).

means to attain their goals. the methods used by formal organizations to affect the outcomes of political decisions. and the activities of elite groups in policy-making networks in the nation state in influencing public policy.

Other writers discuss the utility of the policy network approach for explaining specific features of policy processes or the impact of certain players or structures on policy outcomes. Smith (1993), for example. contends that state actors and organizations can act autonomously to develop distinctive policy networks with interest groups and "these networks then affect the capabilities of state actors and organizations to develop particular policies" (p. 48). Laumann and Knoke (1987) use the network approach to conceptualize the policy process as interactions between policy actors which enable them "to monitor. and to communicate their concerns and intentions in relevant decision-making *events* that. in turn. have consequences for their interests" (p. 5).

The policy network approach has also been adopted in the Canadian public policy literature and in LIS by Buchwald (1999). as mentioned above. Three key texts on the Canadian perspective are Atkinson and Coleman (1996).[16] Coleman and Skogstad (1990a and 1990b) and Pross (1992). According to Atkinson and Coleman (1996). the concepts of *policy networks* and *policy communities* provide a framework highly suited to the task of analyzing public policy-making in the current Canadian environment. Coleman and Skogstad (1990a) define *policy community* "to include all actors or potential actors with a direct or indirect interest in a policy area or function who share a common 'policy focus.' and who. with varying degrees of influence shape policy outcomes over the long run"* (p. 25). Pross (1992) observes that "a policy community is that part of a political system that has acquired a dominant voice in determining government decisions in a field of public activity" (p. 119). This Canadian interpretation of the term *policy community* includes all of the organizations involved in the policy process in a particular field. unlike

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[16] This text is a revised version of an article by Atkinson and Coleman that first appeared in *Governance: An International Journal of Policy and Administration 5* (1992).

the interpretation by Rhodes (1990) who restricts the membership to a highly stable set of vertically integrated organizations within a specific functional policy area. In the Canadians' model, *policy community* is a broader concept than *policy network* (which will be discussed below).

Pross (1992) divides policy communities into two segments. the *sub-government*. which makes policy in a given field. and the *attentive public*. which follows policy and attempts to influence it but does not participate on a regular basis. Coleman and Skogstad suggest that. as the policy-making group within each community. the sub-government generally consists of "government agencies. interest associations. and other societal organizations such as business firms" (1990a. p. 25). Coleman and Skogstad refer to the non-government organizations within the sub-government as *policy participants*. In addition to possessing the capacity required for effective advocacy. becoming a policy participant requires an organization to "formalize its internal structures and cultivate a distinct identity as an organization" (p. 21). Similarly. Pross points out that members of the sub-government must have the resources and incentives necessary to undertake the demanding work-load (p. 120). In the work of Rhodes (1990). the sub-government concept corresponds closely to his definition of the policy community.

According to Pross (1992). the attentive public. on the other hand. does not have the sub-government's power. Its members either lack the resources or do not have the incentive to warrant entry into the sub-government. or they may be excluded because of their opposition to prevailing ideas (Pross. 1992. p. 121). The attentive public's composition varies depending on the policy field. but generally includes "government agencies. private institutions. pressure groups. specific interests. and individuals – including academics. consultants and journalists" (p. 121). The attentive public continuously reviews policy and it introduces an element of diversity into the policy community that is inhibited at the sub-government level by the need to maintain consensus (p. 122). Coleman and Skogstad employ the term *policy advocates* to refer to the non-government organizations which are members of the attentive public (1990a. p. 20).

Rhodes (1990) appears to exclude the attentive public concept from his definition of the policy community. I found this aspect of Rhodes' definition of the policy community restricted my mental model of the participants involved in the policy development process, and for this reason Rhode's definition was not useful for this research.

Figure 1. from Pross (1995), depicts a policy community that might be active in an area in which the federal government is prominent. Pross describes the policy community:

> At the heart of the community are the key federal bodies involved: the
> agency primarily responsible for formulating policy and carrying out
> programs in the field: cabinet. with its co-ordinating committees and their
> support structures – the Privy Council Office: the Treasury Board: the
> ministries of state and so on. None of these are located at the very centre of
> the figure because no agency is ever consistently dominant in a field. On
> average. though. because so much of policy-making is routine. the lead
> agency tends to be most influential over time. (p. 266)

Around the perimeter of the sub-government are a number of other groups. The major pressure groups and the key provincial government agencies closely monitor federal agencies and generally participate in the sub-government. Also included are other federal agencies whose mandates overlap that of the lead agency. and Parliament itself. "perennially interested. intermittently involved. sometimes influential" (266). In the zone of the attentive public are other federal agencies and provincial governments. other pressure groups. interested individuals and even foreign governments and multinational corporations who follow Canadian policies in areas of concern to them (p. 124).

When I was planning this research. I observed that two distinct sections of the Canadian telecommunications sector. the telephone industry and the cable television industry. had been operating traditionally as natural geographic monopolies. Each of the above industries was protected by government regulations from competition. Technological developments. however. as discussed in chapter 1, were enabling the companies in these two industries to provide each other's services and to compete in the provision of new services on the Canadian information highway. In addition. the quick

**Figure 1.** The Policy Community (From A. P. Pross, 1995. Pressure groups: Talking chameleons, p. 267)

Foreign

Governments

Other                    Individuals

Federal

Agencies

The Attentive Public

Parliament        The Sub-Government

Major

Cabinet and        Lead
Central Policy     Agency
Structures

Pressure        Groups

Key
Provincial

Other

Governments            Pressure

Groups

Other

Provincial

Individuals        Individuals
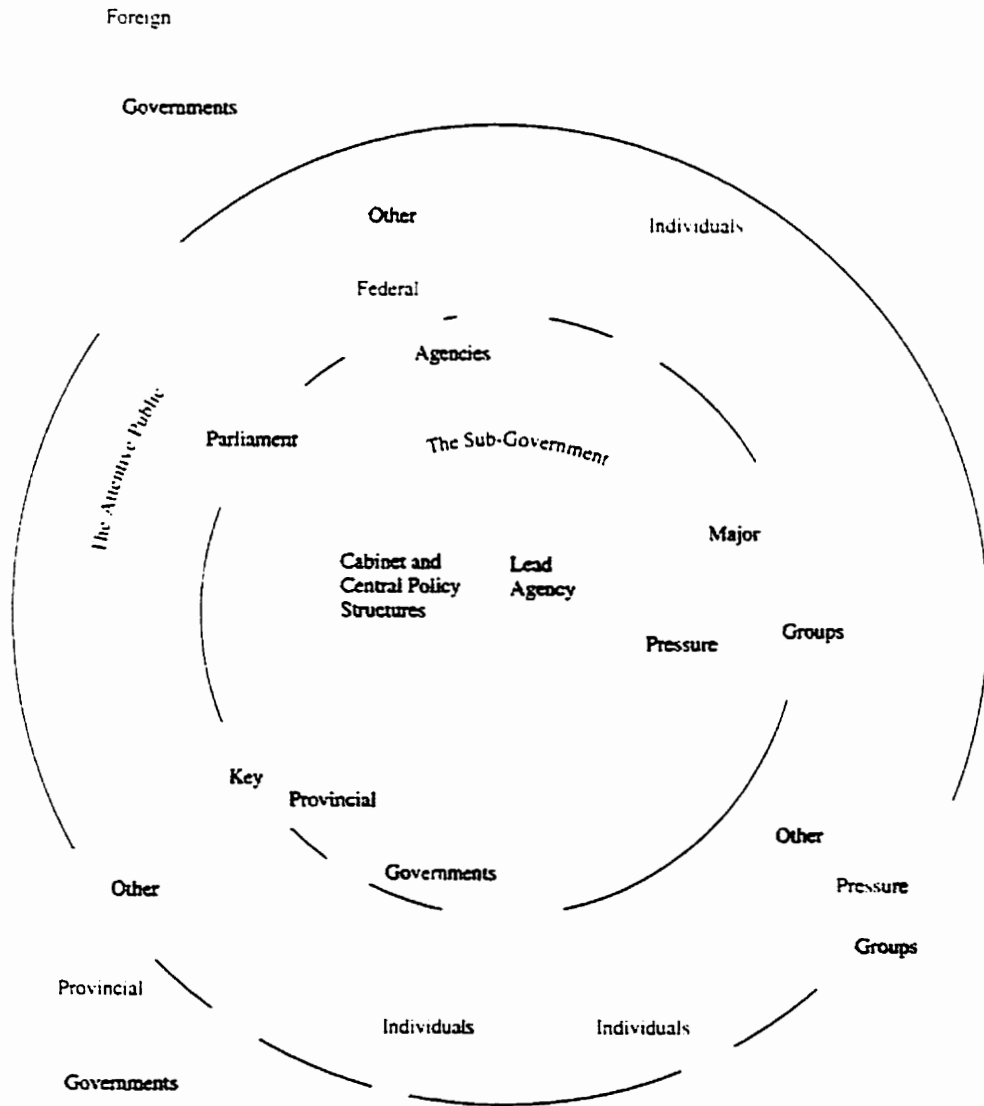
Governments

development of the information highway. coupled with the federal government's decision to introduce competition and a reliance on market forces in the provision of telecommunications services. meant that the issues surrounding the information highway's implementation were still very new. Based on these factors. I postulated that if convergence and competition in telecommunications were being considered by the government to be important policy issues. and the information highway was being perceived as a new policy area. then the major associational agencies representing the telephone industry. the cable television industry. and other organized interests would be allowed by the decision-making government agencies to act only as policy advocates. rather than as policy participants. in the determination of essential services.

Another important consideration in relation to the theoretical framework for this research. is the difference between a policy community and a policy network. Pross (1992) observes that the chief difference between a policy community and a network "lies in the fact that the community exists because a policy field exists. whereas a network exists because those in it share an approach to policy" (p. 119). A policy network. according to Pross. is composed of similarly minded people who coalesce around a specific issue and adopt a common approach to policy on it. A divisive issue can divide a policy community into more than one network. "Debate over issues helps to identify and bring together those who share values and perceptions about which policies should be adopted and which should not" (pp. 119-120). As Pross (1992) states. "the value of the term 'network' lies in the image it conveys of actors who are consciously in touch with one another as the result of shared interests in the resolution of a specific issue" (p. 120). Coleman and Skogstad (1990a) define policy network in a somewhat different vein. To them. *policy network* is "a concept reserved for describing *the properties that characterize the relationships among the particular set of actors that forms around an issue of importance to the policy community*" (p. 26). Thus. policy community refers to the actors involved in shaping the outcomes of a policy area. whereas policy network describes the relationships among those actors with regard to a specific issue. Atkinson and Coleman (1996). who use the same definition. state that different types of policy networks can be determined by

the patterns of power and dependency found in the structural properties of state agencies and organized interests (p. 200). Rhodes' (1990) definition of policy network differs from both of the previous ones in that it is based on power dependencies among a group of policy players rather than on their structural properties (Coleman and Skogstad. p. 26).

The differing definitions by Pross (1992). Coleman and Skogstad (1990a) and Rhodes (1990) for the term *policy network* illustrate a key problem I had in using the concepts of policy networks and policy communities in this research. As pointed out earlier. there are a number of different interpretations for the meanings of these terms in the literature. Atkinson and Coleman (1996) observe that "the metaphoric character of these terms in political science has invited definitional disputes" (p. 196) and it has also limited the level of complexity that can be conveyed by them. Nonetheless. they argue that these terms have assisted public policy studies by. first of all. opening up to empirical research "the identification of which societal actors. possessed of which institutional properties. participate in a particular policy domain (p. 200). and second. by forcing a reconsideration of the role of state agencies in the policy process (p. 201).

To ensure that there is no ambiguity in my research. I have adopted the definitions of policy community and policy network provided by Coleman and Skogstad (1990a). As stated earlier. they define policy community *"to include all actors or potential actors with a direct or indirect interest in a policy area or function who share a common 'policy focus. ' and who. with varying degrees of influence shape policy outcomes over the long run "* (p. 25). Essentially. Pross (1992) and Coleman and Skogstad (1990a) are in agreement about this definition of a policy community. but not with regard to the definition of a policy network. I have used Coleman and Skogstad's definition of a policy network because it has allowed me to focus on the relationships of the actors who were involved in the determination of the policy on essential information services. Coleman and Skogstad define a policy network as "a concept reserved for describing *the properties that characterize the relationships among the particular set of actors that forms around an issue of importance to a policy community "* (p. 26). This definition has also allowed me

to attend to the issue of organizational complexity to a greater degree than the definition offered by Pross.

Atkinson and Coleman (1996) identify another major concern with regard to the network approach which I have addressed in this research. These authors note that "networks can be identified, but that information alone will be of very little use in predicting policy outcomes" (p. 199). They argue for a perspective in which the network can be connected with the policy process and policy outcomes by focussing on "institutional variables, such as the level of centralization and professionalism that characterizes organizations in a network, and on ideological variables, such as the intellectual foundations of dominant world views in particular policy areas" (p. 200).

Institutional variables are an essential component of the analytical methodology of the Canadian theorists. Pross, for example, stresses that it is necessary to look at "influence-related characteristics" (p. 93) to determine whether the interest groups possess the qualities to give them "weight in decision-making circles" (p. 93) and the capacity to participate effectively in the policy process. Coleman and Skogstad (1990a) contend that attention must be paid to the structural properties of state agencies and organizational interests. They identify two properties of state agencies that can be predictive of the effectiveness and the outcomes of the policy process – *state autonomy* and *coordinating capacity* (p. 15). The former refers to "the degree of independence from societal groups possessed by state actors when they formulate policy objectives" (p. 15). The latter refers to "the ability of the state to draw on sufficient institutional resources both to design policies that will realize its policy objectives and to implement these policies" (p. 16). With regard to non-government organizations, Coleman and Skogstad maintain that two properties in particular are required for participation in policy-making (pp. 21-22). First, the organization must have the capacity to undertake the coordination of a range of complex information gathering and processing and other activity in order to develop positions on relatively sophisticated policy questions. And, second, as an organization, it must have sufficient autonomy from its members to be able to focus on long term

strategies. sometimes at the expense of the short-term interests of its members. while also maintaining members' compliance.

From the discussions of the institutional approach in Coleman and Skogstad (1990a) and Pross (1992). I assumed in my original planning that the structural characteristics of the members of the policy community would influence the interactions which were occurring within the policy network. that is. the characteristics would affect which organizations were interacting with each other. and the reasons for. the extent of. and the effectiveness of. those interactions. I also assumed that in turn. the nature and effectiveness of the interactions would be determinants of whose ideas. values. attitudes and beliefs were most influencing the outcomes of the policy process. Based on these assumptions. I speculated that. if the theory on organizational characteristics put forward by Coleman and Skogstad (1990a) and Pross (1992) is true. then the policy ideas emanating from those organizations with the structural characteristics needed to be members of the sub-government would have greater influence on the policy ideas of the government agencies than would the policy ideas emanating from the non-government organizations which did not possess the requisite characteristics to be in the sub-government.

According to Schultz (1980). when several government departments and agencies are developing a policy on a single issue and are responsible for different activities needed to formulate and implement the policy. the situation is conducive to the creation of rivalries both within and across government organizations (p. 7). As mentioned in chapter 1. in June 1993. the federal government disbanded the Department of Communications (DOC). Until then. the Minister of Communications had been responsible both for the DOC and for reporting to Parliament for the CRTC. Policy development regarding the information highway. as well as regulation of its converging industries. had been under one Minister. After the restructuring. there were three federal government agencies and two cabinet ministers responsible for developing policies for. and regulating aspects of. the Canadian information highway: Industry Canada. under the Minister of Industry. and the

Department of Canadian Heritage and the CRTC. under the Minister of Canadian Heritage. It appeared to me that these organizations had overlapping and sometimes conflicting responsibilities. both within and across organizations. Industry Canada. for example. was responsible for fostering the adoption of technological innovations. for promoting competition within industries. and for protecting the interests of Canadian consumers. As well. it was developing policy for aspects of telecommunications and broadcasting. as were the Department of Canadian Heritage and the CRTC. Based on these assumptions. I was expecting that the breakup of the DOC would cause overlapping and conflicting responsibilities among the government agencies involved in this policy development process. and that individual actors and policy units within and across government organizations would be holding conflicting. or at least differing. definitions of the policy problem involved in determining essential services for the Canadian information highway.

The structural properties of the state agencies and the non-government organizations also affect the more macro-level relationships that occur within a policy community. From differences across the variables relevant to these properties. Coleman and Skogstad (1990a) describe six different patterns of group-state relations which identify the models or ideal types of policy networks. These models fall into three general categories of networks. The first category are *pluralist networks* which "tend to arise in sectors where state authority is fragmented and the organized interests are at a low level of organizational development" (p. 27). Pluralist networks include: *pressure pluralist* networks in which the state's authority is diffused across government agencies: *clientele pluralist* networks in which the state authority is undeveloped or dispersed to the extent that the state depends on the participation of interest groups in the policy development process: and *parentela pluralist* networks in which organized interests gain prominent places in the ruling political party which has members in control of senior bureaucratic positions. The second general category are *closed policy networks*. in which state decision-making capacity is concentrated and well-coordinated. usually through a single well-established agency. In closed networks "organized interests play a prominent role.

tending to draw on highly developed associational systems that guarantee a virtual monopoly relationship with the dominant agency" (p. 28). The two types of closed networks are: *corporatist* networks, in which the state acts as a mediator between competing corporate or consumer groups: and *concertation* networks, in which a single association representing a sector participates with a single corresponding state agency in formulating and implementing policy. The third category are *state-directed networks*, of which there is only one model. These networks "include highly autonomous, coordinated state agencies and sectoral interests with a very weak associational system, possibly at a nascent stage" (p. 29).

Of particular interest is the point that more than one type of policy network can exist within a policy community simultaneously. Coleman and Skogstad (1990) explain that this situation can arise because different issues will affect members of a policy community to different degrees which in turn determines the level of activity of each member in resolving each of the issues. Skogstad (1990), for example, found that in the Ontario agriculture policy community corporatist networks predominate in regulated markets and pressure pluralist networks prevail in most other areas. In addition, the type of policy network arising with respect to a specific issue may change over time. Burt (1990), for example, demonstrated that the policy networks on parental issues linking women's groups with the state changed from a state-directed network in the 1960s to a pressure pluralist network in the 1980s.

Based on my initial perceptions of the situation in information highway policy development at the start of this research. I assumed that the organized interests involved in the determination of essential information highway services would be policy advocates rather than policy participants, and the state as a whole would be weak and its authority diffuse. Based on this assumption, I predicted that the policy network that formed around the process of determining essential services for the Canadian information highway was a *cross between a pressure pluralist network and a clientele pluralist network*, and the resulting policy process would be fragmented and ineffective and the major outcome to

date would be the lack of a clear definition of essential services for the Canadian information highway.

The second part of Atkinson and Coleman's (1996) perspective contends that prevailing political and social ideas must also be taken into consideration as factors in explaining policy innovation and change. They refer (p. 173-174) to Hoberg (1990), Sabatier (1987), Haas (1990), Cowhey (1990) and Kapstein (1989) who linked the structural characteristics of state and societal actors with ideational factors such as the dominant values guiding public policy, and the knowledge base and belief systems of policy-makers, to help explain changes in different domains of public policy. Atkinson and Coleman (1992) argue that, in addition to determining the structural characteristics of community members, "analysts must seek to ascertain the more general principles and norms underlying interpretations of the policy field" (p. 175). They go on to say that "greater attention must be paid to the cognitive frameworks of all members of the policy community, to the relative strength of coalitions of community members supporting alternative sets of ideas, and to the potential for policy learning" (p. 176).

The policy network approach has continued to gain prominence in Canada and elsewhere. Pal (1997) devotes a chapter of his text on Canadian public policy to an explanation of policy communities and networks and their utility for understanding the public policy process. Howlett and Rayner (1995) used the policy network approach to examine resistance to policy change in the Canadian forestry sector. Boase (1996) employed the approach as an organizing framework for a comparative study of the evolution of health policy in the United States and Canada. Coleman, Skogstad and Atkinson (1997) applied the policy network approach in conjunction with theory on policy feedback to examine agricultural policy change in Canada, Australia and the United States.

Thatcher (1998) points out that "the term 'policy network' is enjoying ever-greater currency in the study of public policy" (p. 389). In 1998, two journals, *The Journal of Theoretical Politics* (see König, 1998) and *Public Administration* (see Bogason &

Toonen. 1998a) devoted special issues to the policy network approach. Each of these special issues contains contributions that both discuss theoretical considerations and employ empirical evidence. In the *Journal of Theoretical Politics* Thatcher provides the leading article and brings up-to-date the developments in the policy network approach which. he says. have sought "to permit dynamic analysis. to incorporate a wider range of factors and to strengthen links with other explanatory frameworks" (pp. 410-411). In the leading article in *Public Administration*. Bogason and Toonen (1998) similarly trace the intellectual history of the policy network approach which they compare to other recent conceptual developments in public administration. What becomes clear in these articles is that policy network analysts have undertaken analyses at the international. national. sectoral and sub-sectoral levels of policy-making and have employed a wide range of methodologies to analyze empirically different levels of policy-making and different aspects of the policy-making process.

By using the policy network approach in combination with the simple stages model of the policy process (discussed above). I developed an analytical framework that was ideal for exploratory research on a policy process as it was occurring. The simple stages model allowed me to identify and focus on a specific stage in the policy process. while the policy network approach provided me with the flexibility to use both qualitative and quantitative methods as I explored the principal factors influencing the outcome of the process through which essential services were being determined for the Canadian information highway.

Employing Doern and Phidd's (1992) simple stages model of the ideal policy process. the process under investigation appeared to me (as I conceptualized the research before data gathering) to be still at an early stage. most likely the second one. that is. when the policy problem was being defined into its real meaning. At that time. the CRTC had recently published its report from the hearings it held on convergence (see CRTC. 1995a) and IHAC had just completed its first phase and had published its report (see IHAC. 1995b). The issue of essential services. as far as I could tell. had been discussed but had

still not been resolved. According to Doern and Phidd (1992). a problem is identified through "the persistent articulation of a concern or issue" and is defined into *its real meaning* through a process that involves shaping or confining it into more practical limits (p. 83). This occurs though "discussion and elaboration of the ideas inherent in it. of the objectives to be met. and of the consequences to be avoided" (p. 83). Doern and Phidd also contend that the search for. and analysis of. alternatives is closely tied to the problem definition stage.

Political scientists such as David Dery (1984). Janet A. Weiss (1989) and Putt and Springer (1989) concur on the importance of the early stages of the policy process. Putt and Springer. for example. comment that "in the early stages of policy formation. a primary need is to develop initial understandings of the dimensions. scope and magnitude of a policy issue" (p. 143). They argue that the makeup of the group of participants involved in early policy definition is a crucial factor in shaping policy outcomes. According to Putt and Springer. early in the policy process the values. beliefs. and philosophical orientations of those involved in the issue are of central importance: "Issues gain their attributes through a continuous definition process shaped by the values. goals. assumptions. and understanding of its participants" (p. 32).

Carol H. Weiss (1983) has a similar conceptualization of the policy process to the one held by Putt and Springer (1989). She contends that three interacting factors act upon the content of the public policy positions taken by policy actors: information. ideas. and interests. Weiss maintains that policy-makers accrue *information* from internal and external sources. Thus. the structure of the organization in which they work as well as the network of experts with whom they have contact are major factors in the information they acquire (p. 227). As the actors acquire information. it interacts with their *ideologies* (i.e.. their philosophy. principles. values and political orientation) and with their *interests* (i.e.. in power. reputation. financial reward) (p. 221). Weiss comments that the interaction between these three factors "is constant and interactive. and policy-makers work out the specification of their ideologies and interests *in conjunction* with the processing of

information" (p. 229).

According to David Dery (1984), the policy definition stage is "an essential step in the solving process [and] has long been institutionalized in policy analysis" (p. 2). Citing classic political science texts by writers such as Lasswell, Dror, Dye and Wildavsky, Dery points out that problems have always been "the ultimate focus of public-policy analysis" and "problem definition has subsequently been considered the most crucial stage in policy analysis" (p. 2). Dery views problem definition "as stage setting which creates or defines certain activities as solutions" (p. 6). According to Dery, "an agency's formulation of a problem states the values that the agency wishes to serve by means of a solution. He argues that unlike *decision-making*, which is a process for deciding between given alternatives to serve a pre-existing set of goals, problem definition calls for exploring the nature of the problem. "It stresses the choice of values, the generation of alternatives, and it allows for questioning both, before one's efforts are confined to selection routines" (p. 65-66).

Kingdon (1984), who analyzed how policy agendas are set in the U.S. at the sectoral level and why some alternatives are given greater consideration than others, basically agrees with Dery (1984). Kingdon studied the development of policies in health and transportation in the U.S. from 1976 through 1979 and found that the way a problem is recognized and defined by the policy actors is a determining factor in the outcome of the policy process (p. 207).

Janet A. Weiss (1989), who examined the conflict over the definition of paperwork in the U.S. federal government, argues that problem definition is not merely a label for a set of facts and perceptions, but it is "a package of ideas that includes at least implicitly an account of the causes and consequences of some circumstances that are deemed undesirable, and a theory about how a problem may be alleviated" (p. 97). According to Weiss, problem definition has implications for later stages in the policy process. It determines the kinds of evidence which will bear on the problem, the solutions to be

considered effective and feasible, who will participate in the decision process, how policies will be implemented, and by which criteria policies will be assessed (p. 97-98). Weiss maintains that "problem definition is more than the overture to the real action: it is often at the heart of the action itself" (p. 98). She continues:

> At whatever stage a new problem definition gains significant support, it shapes the ensuing action. It legitimates some solutions rather than others, invites participation by some political actors and devalues the involvement of others, focuses attention on some indicators of success and consigns others to the scrapheap of the irrelevant. To reap these rewards, participants in the policy process seek to impose their preferred definitions on problems throughout the policy process. Much policymaking, in fact, is preoccupied with whose definitions shall prevail. (p. 98)

Weiss adds that "to understand problem definition as a political process, an analyst must track how ideas about public policy travel across communities and institutions of policy making" (p. 102).


These perspectives on the stages in the policy process and the importance of the problem definition stage fit well with the policy network approach. As mentioned above, Atkinson and Coleman (1996) have called for policy community and network studies to move beyond determining the structural characteristics of various community and network members and to begin focussing on the ideational factors that influence policy outcomes. I have done this by developing a methodology that not only focussed on the structural characteristics of the core organizations, but also took into consideration the interactions that occurred between these organizations, the perceptions of the main actors regarding the policy process and the values, beliefs, and philosophical orientations of those involved.


This research was also concerned with exploring possible relationships between the organizational structures of the core organizations and the interactions which were occurring among these organizations in the policy network that formed on the issue of determining essential information highway services. For these components of the project I used the work of Pross (1992), Coleman and Skogstad (1990b) and other political science researchers, as well as the work of Wilkinson (1992) from LIS, to identify relevant structural characteristics of the organizations, and the work of Knoke (1990a, 1990b) and

other social network analysts to obtain methods and variables for analyzing network interactions.

It is necessary to point out here that the only way to determine with certitude *whose definitions will ultimately prevail* (*i.e.*. the most influential organizations) is to await the final outcomes of the process under investigation. Even though I gathered additional data to help determine the organizations which were the most influential ones over the period of time that had elapsed since the original data were gathered. the policy process. as I found out. is ongoing and. as a result. it is still not possible to test my findings against completely final outcomes of this policy process.

# CHAPTER 3
# RESEARCH DESIGN

## 3.1 Introduction

This chapter describes the design of this study and contains some background about the organizations that were participating in the policy process to determine essential services for the Canadian information highway.

## 3.2 Rationale for an Exploratory Study

This research project is an exploratory study of the factors affecting the outcomes of the process through which essential services on the Canadian information highway were being determined. As described in the previous chapter, when I started this project, the process for determining policy for Canada's information highway had only just started, and people still had relatively new conceptions about the "information highway," what it would offer, what kinds of policies with respect to it were necessary and how such policies should be developed. Singleton, B.C. Straits, M.M. Straits, and McAllister (1988) explain that "*exploratory* studies are undertaken when relatively little is known about something, perhaps because of its 'deviant' character or its newness" (p. 90).

According to Adams and Schvaneveldt (1991), "the very purpose of *exploratory research* is to seek out new insights, ask questions, and assess phenomena in a different perspective" (p. 103-104). They comment that exploratory designs "allow considerable flexibility in answering or exploring the problem in question" (p. 104). Neither the policy literature that I examined, nor the literature of library and information science, as discussed above in chapter 2, provided any appropriate proven models for contemporaneous examination of a policy process occurring in a new policy area. Adams and Schvaneveldt point out that the flexibility of an exploratory study does not mean absence of direction, but rather it means that the "focus is initially broad and becomes progressively smaller as the research goes on" (p. 106).

Adams and Schvaneveldt (1991) maintain that a researcher "can avoid trivial or fragmented research by using, whenever possible. some guiding theory or framework: however. in exploratory research. we should not be burdened with a theory – it should only be a guide" (p. 106). This research project was accordingly guided by the general theoretical perspective that the process through which essential services were being determined on the Canadian information highway was the process of public policy formation. The policy process was believed to have involved a group of organizational actors within an identifiable *policy community*. some of whom would be participants in a *network* of relationships to resolve the problem which the policy process had been engaged to address. This research was designed to explore the interactions that occurred among the organizations. since it was anticipated that the interactions would be important to discovering which organizations wielded power and thus which organizations most influenced the policy outcomes. The research was also designed to investigate the relationship between certain types of organizational characteristics and the level of influence exerted by the organizations on the outcomes of the policy process. Finally. it was theorized that the policy process proceeded in stages such that it would be possible to establish the stage of the policy process occurring at the time the interviews were conducted for this study.

## 3.3    Purpose of Research

The main purpose of this study was to identify the chief factors that influenced the outcome of the process through which essential services on the Canadian information highway were being determined and to determine what meaning was being imparted into the term *essential services* by the policy-makers involved in the process. To determine the organizations which most influenced the outcomes of the policy process. and the factors important in creating that influence. this research sought to find answers to the seven research questions listed at the end of chapter 1 (section 1.7).

## 3.4 Data, Sources and Methods of Collection

I made use of two types of data in the study: interview data and documentary evidence.

### 3.4.1 Interviews

My primary source of data was the printed transcripts of interviews held with key individuals within the policy community. Putt and Springer (1989), who examine the concepts, methods and applications of policy research, comment that

> in the early stages of policy formulation, a primary need is to develop
> initial understandings of the dimensions, scope, and magnitude of a policy
> issue. Intensive interviewing, properly conducted, is a useful approach in
> fulfilling exploratory information needs. (p. 143)

These authors note that exploratory interviewing begins from the premise that interviewees know more about the issue than does the investigator, suggesting an approach that:

- stresses interviewees' definition[s] of the situation;
- encourages interviewees to structure their account[s] of the situation; and
- lets interviewees introduce their notions of what they regard as relevant,
  instead of relying on investigators' notions of relevance. (p. 143)

Putt and Springer (1989) and Yin (1989) refer to key actors as *key informants* and they comment that interviews with *key informants* should play a critical role in terms of who should be interviewed. Key informants not only can provide insights through inside knowledge not otherwise available, but they also can suggest sources of corroborative evidence and can help to mediate access to such sources (Putt and Springer, 1989, p. 149; Yin, 1989, p. 89). Accordingly, I made use of the key informants in this research for their knowledge of the policy process and policy problem being investigated *and* as sources of other evidence, that is, the names of other key informants and access to documents that could assist in the study.

Because this research was about the making of a public policy with social and cultural implications as well as economic ones, I also considered it important to include key public interest groups and any other organizations that might be involved in the

process. Coleman and Skogstad (1990) identify state agencies and sectoral associations as the two principal groups involved in the policy-making process (pp. 20-23). Accordingly, as mentioned earlier. I ultimately interviewed 47 key informants from across a range of government agencies. business organizations. and public interest groups who had varying levels of responsibility for policy analysis or policy development related to the information highway. The interviews took place in three rounds over a five month period from December 1995 through April 1996. The interviews typically lasted 30 to 40 minutes and resulted in transcriptions varying from 6 pages[1] to 25 pages in length. with most in the range of 14 to 20 pages.

To plan for the first round of interviews. I examined media reports and publications about the Canadian information highway to identify organizations that were engaged in the Canadian information highway policy process. Based on that research and on personal experience with a public interest group involved in information highway policy development.[2] I identified a group of seven organizations that would have staff members actively participating in the policy process and whom I should interview in the first round of data gathering. The group was composed of: three government agencies (Industry Canada. the Department of Canadian Heritage and the CRTC). two private sector organizations (Stentor Telecom Policy. Inc.. which was representing the interests of the major Canadian telephone companies.[3] and the Canadian Cable Television Association (CCTA). which was representing the Canadian cable television companies). and two public interest groups (the Public Interest Advocacy Centre (PIAC) and Canada's

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[1] The six page transcript resulted from an interview that was shortened because the interviewee had to attend an urgent meeting that was arranged at short notice.

[2] I arranged an open meeting held in London. Ontario in January 1995 for the Coalition for Public Information to obtain public input into its policy framework for the Canadian information highway. The results of that meeting and similar meetings held elsewhere in Canada led to the Coalition's publication: *Future-knowledge: The report: A public policy framework for the information highway* (see Skrzeszewski and Cubberley, 1995).

[3] Stentor Telecom Policy was one of three companies owned by the Stentor alliance of telephone companies. The three companies are discussed in section 4.4.2.A.1.

Coalition for Public Information (CPI)). I searched government directories and made phone calls to various organizations to identify and obtain contact information for knowledgeable people to interview.[4] Although I was unable to arrange an interview with anyone from the CCTA at that time. I interviewed nine people from the other six organizations. I chose to interview three officials from Industry Canada simply because it was such a large organization with many different sections working on information highway policy development related to the determination of essential services for the Canadian information highway. I conducted the first round of interviews from December 4 to December 22. 1995.

To identify other key actors. I used a *snowball* approach. in which I asked each round of interviewees to identify other individuals or groups they thought were key players in the policy process. Flaherty (1989) uses this approach successfully in his examination of national systems of data protection and surveillance in five western nations. as does Shapiro (1989) in her study of the affect of libel lawyers on the construction of news. This approach is also used by Kingdon (1984) in his research on agenda setting and alternative specification for federal policies in the health and transportation sectors in the United States. From the recommendations made by the initial interviewees. I conducted 24 interviews in the second round. which took place from January 25 to February 13. 1996. In the latter stages of the second round. I realized that I was hearing the same information from the interviewees. However. to ensure that I had covered all of the key people and important organizations identified through the snowball approach. I conducted a third round of 14 interviews between February 27 and April 3. 1996. These were individuals or organizations which had been recommended by at least two interviewees. Seidman (1998) states that there are two criteria for ensuring that the number of interviews conducted are sufficient for a research project. The first criterion is that there "is sufficient numbers to reflect the range of participants and sites that make up the population" (p. 47). The second criterion is saturation of information (p. 48). By

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[4] The original list that I created is in Appendix C.

conducting the three rounds of interviews. I met these two criteria. Appendix B contains the full schedule of interviews, with the following information for each interview: the date it was held, the name of the interviewee, the name of the organization represented by the interviewee, and the title of the position held by the interviewee.[5]

To guide the interviews, I developed a protocol based on concepts drawn from Yin (1989). The protocol contained two sections – field information to ensure that I was fully prepared for the interviews, and themes and questions to ensure that the interviews obtained the required data. A copy of the protocol is provided in Appendix D.

The field information section contained a check-list of resources needed for the interviews and a schedule of the interviews for the day with the addresses, contact numbers of the interviewees, and my own contact information just in case I needed to provide it to an interviewee. The question section of the protocol acted as a guide for gathering data during the interviews and from the documentary evidence. Following Yin (1989, pp. 76-77), the questions in the protocol were posed *to me* and not to the respondents, and the questions main purpose was to act as a guide for me to keep the interview on track and to prompt me to ask questions when the interviewee had not discussed aspects of important topics.

Following a pretest interview with a key information policy actor in the Ontario government[6] who was a direct counterpart to the federal government officials whom I

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[5] The 47 persons interviewed represented a total of 22 different organizations. One of the interviewees, however, represented the Public Information Highway Advisory Council which was cited as an important player by only one interviewee who also identified the only interaction with this organization. I considered this person and the organization she represented to be outliers and eliminated them from the analysis of the interactions in chapter 5.

[6] The pretest interview was held on 17 November 1995 with Andrew Lipchuk, then Coordinator of Policy and Planning, Ontario Ministry of Citizenship Culture and Recreation.

would be interviewing later. I adjusted the protocol by re-arranging the questions into thematic areas. and organizing them so that the most important issues within a thematic area were listed first. By arranging the questions in this manner, I was able to use the list more effectively as a check-list to ensure that the planned topic areas were being discussed during each interview.

Using the protocol as a guide. I conducted interviews that were open-ended but semi-structured to direct the informants toward discussing the problem of determining essential information highway services. This combination allowed the informants to discuss the issues from their own perspectives. Putt and Springer (1989) observe that the degree of structure in interviews is related to the situation in which they are applied (p. 152). They note that "many interview situations require an interview approach falling between unstructured and structured extremes" (p. 152). Singleton et al. (1989) state that the amount of structure depends on the researcher's objectives. They contend that "the *partially structured interview* would have specific objectives. but the interviewer would be permitted some freedom in meeting them" (p. 152). According to Yin (1989). short interviews can be focussed. that is. they can be open-ended and retain a conversational tone but they should be guided by questions derived from the protocol (p. 89).

The protocol questions in this research also acted as the basis for a range of probes which I introduced into an interview to ensure that it progressed to the planned areas. Putt and Springer (1989). citing Murphy (1980). observe that probes are used to clarify points that are vague. ambiguous or briefly communicated. and to encourage respondents to elaborate on particularly important points (Putt and Springer. 1989. p. 155). The main probes that I used were to elicit information about why the determination of essential services was problematic. and what should be done to resolve the problem.

To help the informants prepare for their interviews. I presented them with a list of topics in advance of our meetings. The list of topics. which can be found in Appendix E. was part of an information package sent to the interviewees which will be discussed below

in section 3.7.1.

Rather than taking notes during the interviews. I recorded them on audio tapes. and as soon as possible after each interview I wrote notes to summarize key points of the interview. This approach allowed me to concentrate fully on the interview to ensure that all of the topic areas in the protocol were investigated. I transcribed the interviews soon after they took place. and I was able to finish transcribing a full round of interviews prior to the start of the next round.⁻ By moving quickly on the transcription. I was able to review and refine the interview process as the schedule of interviews proceeded.

In September 1999. I attempted to contact 10 of the original interviewees in this research by email. My aim was to ask them to assist me by commenting on a list that I had created of important policy recommendations that were made during the initial period and which I believed had not been acted upon. and of recent policy events and outcomes that had occurred between July 1996 and October 1999 which I believed were relevant to the determination of essential services. I identified the relevant policy events and outcomes by searching the *Canadian Business and Current Affairs* database and the web sites of the seven core organizations.⁸ I was particularly interested in finding out three things from these interviewees: 1) whether they agreed that earlier recommendations had not been acted upon: 2) whether they believed that the recent decisions in my list were actually relevant to the determination of essential services: and 3) whether they were

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⁻ I personally transcribed all but eight of the interviews. The remaining eight. which were from the second and third rounds. were transcribed by three people. one of whom I hired. the other two being family members.

⁸ The web sites of the four core government agencies are: CRTC – http://www.crtc.gc.ca: Industry Canada – http://www.strategis.ic.gc.ca: the Information Highway Advisory Council – http://strategis.ic.gc.ca/SSG/ih01015e.html: and. Canadian Heritage – http://www.pch.gc.ca

The web sites for the three core non-government organizations are: the Canadian Cable Television Association – http://www.ccta.ca: Stentor – http://www.stentor.ca: and the Public Interest Advocacy Centre – http://www.piac.ca

aware of other recent policy outcomes that were not in my list. I was unable to contact three of the original interviewees[9] because they had either moved to different organizations or they did not return my emails or phone calls. Two of the interviewees responded directly by email[10] and I was able to speak with five others on the telephone.[11] One person said she had been away from the policy process for too long, so she did not comment on my list.[12] The remaining six people provided informative comments about my list. I took notes during the telephone conversations and wrote them into reports immediately afterwards. I also printed out copies of the two email messages that I received. Based on the comments I received from these people, I removed two CRTC decisions from my list because they did not relate to access to certain services by the public but rather they related to access to the services by competitive service providers. I used these data in the analysis bringing the study forward to the present, which is discussed in the final chapter of this thesis.

### 3.4.2   Documentary Evidence

The second source of data that I gathered was in the form of documentary evidence such as annual reports, reports of meetings, letters, submissions to agencies, news reports, etc. Putt and Springer (1989) refer to this as *available data*. They comment that this source of evidence is used to clarify and define policy issues, to explore central components of a concept, and to gain depth and insight into its dimensions (p. 22). In their words, "a major use of available data is in exploratory research where analysts are

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[9] The three interviewees whom I was not able to contact were Prabir Neogi, Ian Scott, and Greg van Koughnett.

[10] Andrew Reddick, email message to author, 14 September, 1999; Phillipa Lawson, email message to author, 20 September 1999.

[11] Denis Gratton, telephone conversation with author, 15 September, 1999; Peter Ferguson, telephone conversation with author, 16 September, 1999; Anne Pigeon, telephone conversation with author, 16 September, 1999; Jacques Drouin, telephone conversation with author, 30 September, 1999; Stan Skrzeszewski, telephone conversation with author, 30 September, 1999.

[12] Pigeon, telephone conversation.

attempting to outline major dimensions of an issue" (Putt and Springer. 1989. p. 229-230).

Even though the documentary evidence was meant primarily to supplement the interview data. I used a systematic approach to ensure I gathered as much documentary evidence as possible. I searched bibliographic indexes for printed resources. search engines on the World Wide Web for electronic resources. and I made direct requests to the interviewees for relevant documents. such as personal correspondence. notes of meetings. and studies or reports generated from their agency or other agencies or individuals with whom they had interacted on the issue of determining essential information highway services. The method was highly successful in assembling a useful library of documentary evidence to support the research.

I also obtained two types of formal searches to help build structural profiles of the organizations involved in this research. First. I obtained formal searches of the corporate registrations of the organizations which are incorporated and copies of the founding documents. and second. I obtained formal searches of the lobbyists who were registered to lobby federal government officials on behalf of the organizations. pursuant to legislation.

## 3.5    Data Analysis

To achieve the goals of the project. I focussed the analysis on responding to two types of issues. The first was to identify the organizations that were potentially the most influential ones in this policy process. This required a quantitative analysis of the number of interviewees who perceived each organization to be important in this policy process (chapter 4). By ranking the organizations by the number of interviewees who cited them as important in this process. I could identify the *key players* in this policy process. This concept of the key players utilized the interviewees' subjective impressions of the process surrounding them. My analysis tested this subjective predictor of influence against a quantitative analysis of the reported actual interactions between the organizations using various possible predictors based on this objective evidence. In this latter analysis. of the objective data. by testing various measures of formal and informal communication

interactions. as well as interactions which represented resource exchanges. I developed a short-list of seven core organizations which seemed to be in the strongest positions to influence the outcomes of the policy process (chapter 5). I used multidimensional scaling techniques to create maps of the policy network based upon the interaction data (end of chapter 5). Finally. it was necessary to describe the structural characteristics of the organizations in case they might prove predictive of influence.

The second issue was to explore the objective evidence of the actual influence the seven core organizations exerted. This was explored using a qualitative approach to my objective evidence. aimed at understanding the organizations' main ideas about the policy problem (chapter 6).

Finally. I concluded by comparing the expected degree of influence of the organizations based on the subjective perceptions of the organizations about each other's importance. the structural characteristics of the organizations and the actual interactions with others. with the actual evidence of influence demonstrated in my data. first in 1995-96 and then to date (chapters 6 and 7).

### 3.5.1   Characteristics of the Organizations

Although the literature on policy communities and networks guided this research. the themes explored in the qualitative analysis emerged from the data.  This approach was taken to ensure that the research would reflect the interviewees' understanding of the policy process and not any preconceived notions of mine.

After an initial review of the transcripts from the first round of interviews. I realized that the people who were being recommended as candidates for future interviews were from diverse organizations.  The organizations varied widely in terms of such structural characteristics as type. size and expertise.  Since one of the goals of the research was to explore the relationships between the structural characteristics of the organizations and their influence on the outcomes of the policy process.  I examined the literatures of

information policy, political science and social network analysis to help identify characteristics mentioned by the interviewees that would be pertinent for further exploring organization structure and its impact on the policy process. According to Pross (1992) and Coleman and Skogstad (1990a), organizations needed to possess certain characteristics and resources to be included in the *sub-government*, that is, as members of the ongoing decision-making circle. At this point I decided to gather additional data to augment the interview transcriptions so that I could develop a profile of the organizations' pertinent characteristics for comparative purposes. My first decision with regard to comparing the organizations was to divide them into two basic categories – non-government organizations (NGOs) and government agencies.

### 3.5.1.1 Comparative Characteristics for Exploring Influence of Non-Government Organizations

One structural characteristic which might have contributed to an explanation of differences in the levels of influence enjoyed by different organizations was the *type of organization*, that is, the legal foundation of the organization. As mentioned earlier, Wilkinson (1992) employed the *type of organization*, as well as the *size of organization* as variables in her assessment of the impact of the Ontario *Freedom of Information and Protection of Privacy Act 1987* on the structure of government agencies.[13] Wilkinson selected type and size as variables not because the organizations being studied were government agencies (particularly since one type of government organization was deliberately chosen as a proxy for a private sector type of organization in the study), but rather because the two variables were straightforward and effective for differentiating between the structures of the organizations in ways which were meaningful to her study.

To identify the types of NGOs, I obtained formal searches[14] of the *Federally*

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[13] Wilkinson also used *public profile* as a variable.

[14] The searches were conducted through the good offices of John Wilkinson, Barrister and Solicitor, Weir & Foulds, Toronto.

*Incorporated Companies* database maintained by the Corporations Directorate in Industry Canada.[15] This database holds legally required information about organizations that have incorporated in Canada. including the corporation name. any old names and dates of name changes. location. status (e.g.. active. dissolved or bankrupt). the name of the statute under which the organization incorporated. the date of incorporation and the name and address of each director. I found that all NGOs except three were incorporated as not-for-profit corporations under the *Canada Corporations Act. R.S.C. 1970. c. C-32. Part II.* Not-for-profit corporations are for the purpose of carrying out objects that do not lead to financial gain for their members ("Associations and non-profit corporations." 1999. p. 28). The objects of not-for-profit corporations may be of a national. patriotic. charitable. philanthropic. religious. scientific. social. professional. artistic. or sporting nature. or of any other useful nature (Bourgeois. 1995. p. 7). but they must be undertaken without a view to making a profit or distributing profits to the members of the corporation (p. 8). In other words. such corporations are incorporated with a view to engaging in "activities that are of benefit to the community" (Ontario. Ministry of Consumer and Commercial Relations. 1998. p. 10). The NGOs in this research that were incorporated as not-for-profit corporations under the *Canada Corporations Act 1970. Part II* were:

- Canada's Coalition for Public Information
- Canadian Association of Broadcasters
- Canadian Cable Television Association
- Canadian Library Association
- CANARIE
- Competitive Telecommunications Association
- Consumer's Association of Canada
- Information Technology Association of Canada
- National Anti-Poverty Organization
- Public Interest Advocacy Centre

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[15] The *Federally Incorporated Companies* database is available on the Word Wide Web from the homepage of the Corporations Directorate at Industry Canada: http://www.strategis.ic.gc.ca/sc_mrksv/corpdir/engdoc/homepage.html

- Telecommunities Canada.

One other organization. Fédération nationale des associations de consommateurs du Québec (FNACQ),[15] was incorporated as a not-for-profit corporation but it was incorporated in Quebec under Part III of Quebec's companies act. *la Loi sur les compagnies L.R.Q. Chapitre C-38*. Incorporation provincially rather than under the Canadian statute gave no advantage or disadvantage with regard to the policy process under investigation.[17] Therefore. in this research FNACQ has been treated identically to other not-for-profit corporations with regard to *organization type*.

Stentor Telecom Policy was the only NGO in this study to be incorporated as a business under the *Canadian Business Corporations Act 1985*. A business corporation is "an enterprise organized for the purpose of making a profit through trade or service" ("Corporations." 1999. p. 36). Unlike not-for-profit corporations. business corporations such as Stentor do not have to conduct activities to benefit the public. In other words. Stentor could devote its full energy to attaining profits for its member companies.

The Canadian Broadcasting Corporation (CBC) was somewhat of an anomaly in this research. The CBC was established under the *Canadian Broadcasting Act* of 1936 and the CBC's continuation has been spelled out in subsequent acts including most recently Part III of the *Broadcasting Act 1991*. Because the CBC is owned by the Canadian government. the CBC is a government agency. However. the CBC is a crown corporation and therefore its goals are markedly different from those of the other government agencies involved in this research. A 1987 federal government report defines crown corporations as "corporations in which the government has a *de facto* controlling

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[15] *Fédération nationale des associations de consommateurs du Québec* changed its name to *Action Réseu Consommateur* on 12 October 1998.

[17] This interpretation was provided by Mark Leiter. Barrister and Solicitor. of Mendelsohn Rosentzveig Schacter. Montreal. in a telephone conversation with the author on 20 October 1999.

interest and which provide goods or services to the public on a commercial or quasi-commercial basis" (Canada. House of Commons. Standing Committee on Justice and Solicitor General, p. 10). In this regard the CBC is most closely akin to Stentor. For this reason, I treated the CBC as a non-government organization. The organization type as well as other comparative variables for the NGOs are presented below in Table 1.

*Age* seemed to be an important characteristic that could help explain an organization's capacity to participate in this policy process. Many of the organizations that were participants in the policy process to determine essential services had existed for many years, whereas others had only recently been formally incorporated at the start of the information highway policy debates. According to Pross (1992), an organization's "track record, reputation, and cohesion ... are the product of accumulated common knowledge, shared perceptions and understandings, acquired in working as a group over time" (pp. 109-110). Therefore, the *age of the organization* is an intangible resource that may affect the organization's status within the policy community, the level of accumulated common experience and the degree of specialized knowledge that the organization possesses on the issues and the processes involved in developing policies within a particular policy area. I obtained this information for each NGO at the same time and from the same sources as I obtained the incorporation information.

The third variable was based on the membership of the organizations. Organizations derive from their members, among other things, legitimacy and strategic significance. These affect the organizations' ability to participate in the policy process. Pross (1992) claims that "members' socio-economic status – or in the case of businesses, the strategic importance of corporate members – affects the group's ability to gain access [to key government decision-makers], the weight attached to its advice, and the extent to which it is integrated with the policy environment" (p. 103). I categorized each of the NGOs into one of three categories based on *Member Status*: Strong, Moderate or Weak. To determine each organization's category, I took into consideration the following attributes (as appropriate):

a)      the combined economic strength of its members because organizations with the
        greatest economic clout will be more strategically important to the policy makers
        (Pross. 1992. p. 103):

b)      the members' social class because members in the middle or upper class are more
        likely to "have previous social and working contacts with policy actors" (pp. 103-
        104):

c)      the proportion of all possible members represented by the organization because an
        organization that represents all or the vast majority of possible members attains
        higher legitimacy than one that represents a small or unknown proportion of
        possible members (p. 103).


Size of staff is a strong indicator of the level of resources that an organization can
bring to bear on the policy process.[18] Leyden (1995). for example. found that *the number
of lobbyists* and *the number of research staff* employed by an organization were the most
important resource variables when predicting which organizations would obtain access to
policy decision-makers and therefore would be the most likely organizations to influence
the outcomes of the policy process. According to Pross (1992). the number of
professional staff in a pressure group provides a quantitative measure of the tangible
resources that an organization can apply to the policy process.


In this research I employed two measures of the size of the staff in each
organization. I based the first measure on the number of professional staff employed by
the organization. This was one of the questions I had asked the interviewees.[19] According
to the interviewees. the number of full-time equivalent professional staff in each NGO

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[18] While budget size is an obvious indicator of the level of resources that an
organization could apply to the policy process. I was unable to obtain budget information
for all of the organizations in this research.

[19] In the case of the Canadian Broadcasting Corporation. I used the number of
professional staff working on strategic planning or policy issues rather than the number of
total professional staff within the organization as the basis for determining the size of
professional staff.

varied from zero to 20. Because the interviewees were recalling the number from memory, and since I was simply planning to use size as a comparative measure. I operationalized size of professional staff by categorizing the organizations into three size-based groups: small (0 to 7 professional staff): medium (8 to 15 professional staff) and large (16 −). These data are presented below. along with the other comparative structural characteristics for NGOs, in Table 1.

The second size of staff measure employed in this research was the number of lobbyists that were registered for each organization between the period January 1, 1994 and December 31, 1996 (when the information highway policy processes were at their most active). Lobbyists attempt to influence public policy (Pross 1992, p. 258) – that is their role – so the greater the number of lobbyists working on behalf of an organization, the greater the number of opportunities the organization will have to influence policy. To identify the lobbyists, searches were undertaken on the *Lobbyists Register*. which is maintained by the Office of the Ethics Counsellor.[20] The names of all lobbyists for an organization, whether permanent employees or contracted professionals, are required to be entered in the Lobbyists Register under the *Lobbyists Registration Act 1985*. This *Act* was revised in 1995. and all lobbyists were required to re-register on February 1, 1996.[21] The revised *Act* required stricter compliance so that all persons within an organization whose jobs included some lobbying of government officials regardless of the amount, were required to register.[22] For this reason, searches were undertaken on the old database and

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[20] The *Lobbyists Register* database can be searched on the Word Wide Web by accessing it from the homepage of the Corporation Directorate at Industry Canada: http://www.strategis.ic.gc.ca/sc_mrksv/corpdir/engdoc/homepage.html

[21] Corrine MacLaurin. Director of Lobbyists Registration Branch, Office of the Ethics Counsellor, Ottawa, Ont., telephone conversation with author, written notes, 16 September, 1999.

[22] MacLaurin, telephone conversation.

Table 1        Comparative Characteristics of Non-Government Organizations

| Organizations | Type | Age in Years | Member Status | Staff Size | Lobbyists | Expert Knowledge |
|---|---|---|---|---|---|---|
| Canada's Coalition for Public Information | Not-for-profit corporation | 1 | Moderate | Small | 0 | No |
| Canadian Assoc. of Broadcasters | Not-for-profit corporation | 71 | Strong | Medium | 13 | Yes |
| Canadian Broadcasting Corp. | Crown corporation | 61 | Moderate | Small | 0 | Yes |
| Canadian Cable Television Assoc. | Not-for-profit corporation | 40 | Strong | Large | 5 | Yes |
| Canadian Library Assoc. | Not-for-profit corporation | 50 | Moderate | Small | 1 | No |
| CANARIE Inc. | Not-for-profit corporation | 4 | Strong | Medium | 0 | Yes |
| Competitive Telecommunications Assoc. | Not-for-profit corporation | 7 | Moderate | Small | 1 | No |
| Consumer's Assoc. of Canada | Not-for-profit corporation | 13 | Moderate | Small | 3 | No |
| Fédération National des associations de consommateurs du Québec | Not-for-profit corporation | 19 | Moderate | Small | 0 | No |
| Information Technology Assoc. of Canada | Not-for-profit corporation | 10 | Strong | Medium | 9 | Yes |
| National Anti-Poverty Organization | Not-for-profit corporation | 24 | Weak | Small | 1 | No |
| Public Interest Advocacy Centre | Not-for-profit corporation | 21 | Moderate | Small | 0 | No |
| Stentor Telecom Policy, Inc. | Business corporation | 6 | Strong | Large | 33 | Yes |
| Telecommunities Canada | Not-for-profit corporation | 2 | Weak | Small | 0 | No |

the new database.[23] and the results were amalgamated. Both versions of the *Lobbyists Register* database provide the names of people who were registered to lobby for an organization. the period for which each lobbyist was registered. and information about whether the lobbyist was a staff member of the organization or a hired consultant. The sixth column in Table 1 gives the total number of people (*i.e.*. both staff members and external consultants) who were registered for each NGO as lobbyists at any time during the period from January 1. 1994 through December 31. 1996.

It is surprising that six organizations in this study did not have any lobbyists registered during the period when information highway policy-making was at its peak.[24] Section 7 of the *Lobbyists Registration Act 1985* requires organizations (including not-for-profit corporations) to register any employee in the Lobbyists Register when a part of that employee's duties is to communicate with public officials on behalf of the organization in an attempt to influence. among other things. "the development or amendment of any policy or program of the Government of Canada" (s. 7 (1)(d)). Non-government organizations in this study that did not have any lobbyists registered during this period either were not very involved in information highway policy-making. had too few resources to devote any staff members to lobbying government officials directly. or these organizations were apparently in breach of the law.

The degree of specialized knowledge possessed by the organizations is the final structural characteristic used in this research for comparing the NGO's capacity to participate effectively in policy-making. Pross (1992. p. 110) comments that organizations which have professional full-time staff to provide the organization with *substantive* knowledge are more likely to become institutionalized members of the policy process and

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[23] The search for the pre-February 1996 information was done by Corrine MacLaurin. then Director of the Lobbyists Registration Branch. Office of the Ethics Counsellor. I conducted the searches on the new database during the same period. Both sets of searches were undertaken during the week of September 13 to 17. 1999.

[24] CPI. CBC. CANARIE. FNACQ. PIAC. Telecommunities Canada (see Table 1).

become involved as a matter of course in the inner-circle of policy decision-making. Substantive knowledge "is generally expert knowledge" (p. 195) of the specialized environment in which the organization operates. Expert knowledge enhances the organization's ability to communicate in the specialized language of the policy area (p. 110). Pross claims that substantive knowledge is an organization's "key to access and influence" (p. 195). During the interviews. I probed the interviewees to find out about the educational and career backgrounds of professional staff within their organizations. When analysing the data. I examined the interview transcripts as well as the documentary evidence obtained from the NGOs to see which of them had *engineers* on staff to provide substantive knowledge of telecommunications or broadcasting technologies. This information is recorded in the seventh column of Table 1 which appears above.

### 3.5.1.2 Comparative Characteristics for Exploring Influence of Government Agencies

I also obtained data on certain structural characteristics for the government agencies that might explain their levels of influence on the policy outcomes. Only some of the indicators used for NGOs. however. could be applied to the government agencies. However. this study wanted to make comparisons within the broad categories of NGOs and government agencies *as well as* between NGOs and government agencies. Therefore. I needed to find characteristics that would be meaningful in the context of the government agencies but which also would approximate the characteristics used for the non-government organizations.

As with NGOs. I used the *type. age* and *size* as characteristics for exploring the influence of government agencies' structural characteristics on the policy outcomes. To determine the type of each agency. I examined its entry in the 1995-96 edition of *Info Source.*[25] a directory of sources of federal government information published annually by

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[25] *Info Source* provides details of each government agency's mandate. the legislation for which the agency has responsibility. the responsibilities of the various divisions within the agency. and the information holdings of the agency.

the Treasury Board Secretariat. One agency was not listed in the directory. For the Information Highway Advisory Council. I used its terms of reference (Canada. Industry Canada. 1994b) to determine its *organization type*. The following types of government agencies were identified as participants in this policy process: one Cabinet committee (Treasury Board). four departments (Canadian Heritage. Human Resources Development Canada. Industry Canada and the National Library of Canada). one regulatory agency (the CRTC). and a national advisory council (IHAC). The data on organizational type and other comparative characteristics for government agencies are presented in Table 2 below.

According to Coleman and Skogstad (1990a). the level of autonomy an agency has in relation to the interest groups in its area of responsibility. and the capacity of the agency to generate and implement policies. are two aspects of a state agency's structure that are relevant to the agency's ability to influence the outcomes of policies. Therefore. I operationalized a selection of attributes which are relevant to those two aspects of the state agencies' structures.

Two attributes were operationalized to demonstrate the level of autonomy of each state agency. Atkinson and Coleman (1989) claim that individual government agencies "will be more autonomous when they administer a corpus of law and regulation that defines their responsibilities and those of societal groups" (p. 52). Because this policy process was dealing with issues involving the convergence of telecommunications and broadcasting. I believed that those agencies which administered laws and regulations for telecommunications and broadcasting would have more autonomy in making decisions related to information highway policy than those agencies that did not administer laws and regulations in these areas. I also believed that explicit responsibility for developing policies for new multimedia or for implementing programs to provide government services digitally would increase the likelihood of a government agency influencing information highway policy development. I determined each agency's *Mandate strength* by searching the *Info Source* directory to ascertain if the agency was responsible for administering the laws (i.e.. the *Telecommunications Act 1993* or the *Broadcasting Act 1991*) or regulations

**Table 2        Comparative Characteristics of Government Agencies**

| Government Agency | Type | Age in Years | Mandate Strength | Staff Size | Policy Branches | Expert Knowledge |
|---|---|---|---|---|---|---|
| Canadian Heritage | Department | 4 | Moderate | Large | 3 | No |
| CRTC | Regulatory Agency | 32 | Strong | Large | 4 | Yes |
| Human Resources Development Canada | Department | 4 | Weak | Medium | 2 | No |
| Industry Canada | Department | 4 | Strong | Large | 6 | Yes |
| Information Highway Advisory Council & Secretariat | Temporary Advisory Body & Secretariat | 3 | Strong | Medium | 1 | Yes |
| National Library of Canada | Department | 47 | Weak | Small | 1 | No |
| Treasury Board & Secretariat | Committee of Cabinet & Secretariat | 131 | Weak | Small | 1 | No |

(e.g.. the *Cable Television Regulations 1986*) that govern telecommunications or broadcasting (including cable television). or was involved in new media or digital information policy development or program implementation. Again. in the case of IHAC. I used its terms of reference (see Canada. Industry Canada, 1994b) to obtain this information. I categorized the level of strength on the following basis. I considered an agency to have a *strong* mandate if the agency's responsibilities covered all three areas. that is. telecommunications. broadcasting. and new media or digital services. I considered an agency to have a *moderate* mandate strength if its responsibilities covered two of those areas. and I considered an agency to have a *weak* mandate strength if it covered only one of those areas.

Like NGOs. government agencies which possess staff with expert knowledge in the policy area are more likely to affect the outcome of a policy process than those without expert staff. Atkinson and Coleman (1989. p. 52) argue that a state agency's autonomy is enhanced when. in pursuit of its mandate. it has the expertise to generate the

required information internally (especially if it is technical in character), and has the expertise to evaluate and employ information which has been generated by outside sources. I examined the structure of each organization in the *Info Source* directory for 1995-96 to determine whether the agency had a section with engineering expertise in telecommunications or broadcasting technologies that could support the generation or evaluation of technical information. I also examined the interview transcripts to see if there was evidence from the interviewees that there were staff members within their units with engineering expertise related to telecommunications or broadcasting. In Table 2, I simply recorded *Yes* to indicate that the agency had technical expertise or *No* to indicate that the agency did not have technical expertise.

As for a state agency's capacity, Coleman and Skogstad (1990) argue it is dependent upon whether the agency possesses "adequate administrative or financial resources to design policy instruments or implement policies" (p. 17). As with the NGOs, the number of number of professional staff with policy-making responsibilities is a good indicator of the agency's capacity to design or implement policy. Since I had asked all of the interviewees for the number of staff working in their units, I calculated for each government agency the total number of staff members in policy units with responsibilities related to the information highway. I developed three size-based categories based on the range of staff sizes across the five government agencies: small (up to 7 professional staff); medium (8 to 15 professional staff) and large (16 +). These data are presented above in Table 2.

The identification of a characteristic of government agencies that corresponded with the number of lobbyists in the NGOs seemed at first to be problematic because it seemed to me that government agencies do not lobby – they are the recipients of lobbying activities. I realized, however, that a government agency's potential to influence the direction and outcome of the policy process within government itself would be related to how many senior officials from the agency were promoting the ideas and policies on that agency's behalf at formal and informal meetings of government officials. Pal (1997) observes that, whereas lobbying from the perspective of non-government organizations is

perceived primarily in terms of interest groups and associations, from the perspective of government lobbying can be viewed in terms of "key decision makers, politicians and senior officials" (p. 213). The number of branches with information highway responsibilities within a government agency, therefore, indicates in general terms the number of senior officials (e.g., at the level of Director General or above) available to promote the agency's policy positions within government. The number of branches with relevant responsibilities within each government agency is recorded in the fifth column of Table 2.

### 3.5.2   Analysis of the Qualitative Interview Data

Following an approach appropriated for emergent analysis of qualitative data, I *post*coded rather than *pre*coded the interview data. Putt and Springer (1989) note that this procedure allows flexibility during the analysis to "combine, subdivide, or alter the file categories to reflect emerging patterns or insights" (p. 157). In my early analysis, I used the *Ethnograph* (version 4.0) software (see Seidel, 1994) to code the data in the interview transcripts. I then used the coded data for various purposes. For example, in chapter 4, I used the coded data and the *Ethnograph* software to retrieve all citations of key players. I then entered the number of citations for each organization onto a spreadsheet using *Excel* 9$^-$ software to rank the organizations and create a bar graph to illustrate the findings. For chapter 6, I retrieved the coded ideas related to the policy process and the definition of the policy problem. I then arranged the ideas using the *MindMan* (version 2.1) software (see Jetter, 1996). *MindMan* software creates *mind maps*, that is, charts that capture the vertical and horizontal relationships between ideas. A sample mind map is provided in Appendix F. Using mind maps, I was able to cluster the ideas into linked thematic areas for deeper content analysis. Chapter 6, therefore, reports the key perceptions of the policy network's core organizations, that is, what they thought the problem was, where it came from, and how it should be resolved. Since this study is about determining the influences on the outcomes of the policy process, this qualitative chapter firstly establishes the content of the ideas that were the inputs into the policy process from the organizations identified as the core ones in the earlier quantitative chapters. The chapter also identifies

the early policy outcomes and establishes the organizations that actually were the most influential ones. At the end of the chapter. the degree of influence of each of the core organizations is compared with the expected levels of influence based on the earlier measures to determine which measure was the best predictor of influence.

## 3.6    Data Validity and Reliability

Several strategies were used to ensure the validity of the data and the reliability of the study. First. as mentioned above. I designed and used a protocol to guide the data gathering. Second. I recorded the interviews on audio tapes so I could give my full attention to the interview process and I wrote reports quickly after the interviews to the key points. Third. I transcribed the interviews as soon as possible after they were conducted which allowed me to confirm that the interviews and the information being gathered were both of high quality.

To ensure the reliability of the study. I interviewed more than one person at many organizations. and I gathered documentary evidence at all organizations. By obtaining at least two. and sometimes three sources of data from each organization. I was able to triangulate the data in all cases by comparing information in an interview with documentary records. and in most cases by comparing two or more interviews in a given organization. As Putt and Springer (1989) point out. "triangulating data sources provides an important means of checking the quality of interview responses" (p. 157). These checks of the interviews ensured that the data were reliable. internally consistent. and that the interviewees had substantive knowledge of the policy area. I found that the interviewees were remarkably consistent with each other and with the documentary records.

## 3.7    Ethical Issues

Prior to making contact with any potential interviewees. I applied to the University of Western Ontario's Standing Committee on Non-medical Research Involving Human

Subjects and received permission to undertake this project. Since human subjects were involved in this study, a number of ethical issues needed to be addressed.

### 3.7.1 Consent

The first issue was the need to obtain informed consent from the interviewees. Initial contact with potential interviewees was made through telephone conversations. and verbal consent to participate in the study was obtained at that time. The telephone calls were followed up by a package of information that was posted to each interviewee. The package contained an Information Letter which explained the research. the interview process and that written consent from the interviewee was required for the interview to proceed. The package also contained a Consent Form and a List of Main Interview Topics. The letter also confirmed the time and date of the interview. A sample copy of each of the parts of the package of information can be found in Appendix E. I was able to obtain consent from all of the targeted interviewees except in the case of an employee of the Bureau of Competition Policy in Industry Canada. I was informed that the Bureau's policy is not to allow staff to participate in interviews. Since I was able to obtain documentary evidence from the Branch. and I had already interviewed other staff in Industry Canada (but not from this branch). the interview was not critical to the research.

### 3.7.2 Anonymity and Confidentiality

This research describes a process in which individuals working for government agencies and non-government organizations were providing input for a public policy. The policy issue itself did not appear to be a sensitive issue. as it was raised for public discussion by the Information Highway Advisory Council. The identities of the participants have not been held in confidence nor has the content of their interviews. These conditions were made clear to the interviewees in the information package and at the beginning of each interview. In addition. interviewees were informed. both in the Consent Form and at the start of their interviews. that they could refuse to answer any questions or ask to stop the interview at any point. However. all of the participants spoke freely during their interviews and no one requested that an interview be terminated.

As will be discussed in subsequent chapters. this research design produced voluminous evidence which supported both quantitative and qualitative analysis of the interviewees' subjective impressions of the process and their objective experiences in the process. The design also included a qualitative analysis of various forms of documentary evidence of the process itself. from policy documents to decisions of the CRTC.

## CHAPTER 4

## IDENTIFICATION OF KEY PLAYERS

### 4.1 Introduction

In this chapter. I identify the organizations that were perceived by the interviewees to be *key players* in the policy network that formed around the issue of determining essential services for the Canadian information highway.

Early in this project I decided to ask the interviewees which organizations they perceived to be the most important ones in this policy process. The aim of this question was to assist in finding the answer to research question number 5:

- What insights did the core organizations have concerning the process through which essential services were being determined?

In chapter 5. I analyze the interactions that occurred among the organizations to see if the key players were actually the *core organizations* in the network: those that were thought to have the most potential for influence based on a range of measures of interaction. I anticipated that the key players would be those organizations that were interacting the most and hence be the ones with the greatest potential to influence the outcomes of this policy process. However. as will be demonstrated. it turned out that there was not a perfect match between the key players and the core organizations. identified by the patterns of interaction.

### 4.2 Method

To identify the key players, I asked the interviewees[1] directly who they considered to be the important players in the process to determine essential services. I also asked them to recommend important individuals whom I should interview for my research.

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[1] The full list of interviewees. with their positions and the organizations in which they worked. is provided in Appendix B.

Since the purpose of the interviews was to tap the interviewees' perspectives. I did not provide any definitions for *important players* nor did I provide the interviewees with a predetermined list from which to choose the important organizations. This was a deliberate strategy in line with the exploratory nature of this research project. Instead of making the interviewees fit their responses into pre-determined research categories. I allowed the interviewees to use their own ideas of which organizations were important and their own words to describe why they considered those organizations to be important. In addition. I placed no restrictions on which organizations or individuals the interviewees could name. If they wished. they could identify their own organizations as important players or they could recommend co-workers as important individuals for me to interview.

I regarded an interviewee to have cited an organization if he or she either named it directly as an important player in response to my first question. or named an individual who represented the organization as someone to interview. I also analysed each transcript for other occurrences of citations of key players. For example. when an interviewee specifically mentioned at another point in the interview that an organization or group was an important participant in the policy process to the determine essential services. I counted this as a citation. Using this method. I was able to rank the organizations according to the number of interviewees who cited them as important players.

In my first reading of the interview transcripts I identified each citation of an important player and encoded this information using the Ethnograph software. As I analysed the encoded data. I realized that the interviewees were inconsistent in the way they cited the important players. Some interviewees. as demonstrated in the following quotation. cited industry groups: "The telcos and the cable companies are the major players." Other interviewees cited specific organizations. For example. in response to my request to identify important players. one interviewee replied: "the lobby groups – both the industry side and the consumer side of those – the Stentors. the Canadian Cable

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Prabir Neogi. interview with author. tape recording, Ottawa. Ont., 30 January 1996.

Television Association. the Canadian Association of Broadcasters ... the Consumers'
Association. the Coalition of Public Information."[3] And still others cited a mixture of
organizations and groups as this quote illustrates: "In terms of the process. I would speak
to somebody from the Canadian Association of Broadcasters, the cable industries. the
telecommunications associations."[4] I also found that interviewees cited at the government
department level and at the division and branch level.

To resolve this problem. and because my units of analysis in this research were the
*organizations*.[5] I undertook an iterative process to merge the citations made for a group
such as the cable industry with those of its representative organization. that is. the
Canadian Cable Television Association (CCTA). and the citations for divisions and
branches of a government agency (*e.g.*. the Telecommunications Policy Branch) with
those for the agency as a whole (*i.e.*. Industry Canada). My goal was to identify the
number of individuals citing each organization as an important player. Therefore. when an
interviewee cited a group as well as its representative organization[6] or a unit within a
government agency and the agency as a whole. I merged the two citations into one
citation from the interviewee for that organization. I did not count any citations that were
too general to link to a specific organization or government agency. For example. when
an interviewee cited "the private sector" or the "the government" I did not count those as
citations.

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[3] Kathleen Fildes. interview with author. tape recording, Ottawa. Ont.. 6 December
1995.

[4] Gerard Bersin. interview with author. tape recording, Hull. Que.. 31 January. 1996.

[5] Theorists such as Pross (1992. p. 120) and Knoke (1990a. p. 19) identify government
agencies and a range of interest groups as being the core organizations in the policy
process.

[6] For example. some interviewees cited a group such as the cable industry as an
important player and then recommended that I interview a person from the CCTA.

During the analysis of the transcripts I also noticed that many of the interviewees grouped the various types of organizations into similar broad categories. Generally. the interviewees differentiated between government agencies and non-government organizations (NGOs). Many interviewees spoke of "government departments" together as if they were a cohesive group. and they spoke about the CRTC and the Information Highway Advisory Council (IHAC) together. as formal regulatory and advisory bodies that were obtaining public input into this policy process. The interviewees also divided the NGOs into the "private sector" and the "not-for-profit sector" and spoke of organizations such as "industry players." "telcos" and "cablecos" in relation to the former. and "public advocacy groups." "consumer groups." and "public interest groups" in relation to the latter. It therefore seemed logical for me to use comparable categories when analysing the data. In my analysis below I divide the organizations into two main categories – *government agencies* and *non-government organizations (NGOs)*. I further divide both main categories into two sub-categories: government agencies into *government departments* and *regulatory advisory bodies*. and NGOs into *industry organizations* and *public interest groups*.

Tables 3 and 4. situated below. show respectively all of the government agencies and NGOs and the number of interviewees who cited them as important players in this policy process. In total. the interviewees cited 47 organizations – 14 government agencies and 33 NGOs – as important players in the policy process to determine essential services for the Canadian information highway.

Table 3    Government Agencies Cited as Important Players by Interviewees

| Government Departments | Number of Citers | Regulatory/Advisory Bodies | Number of Citers |
|---|---|---|---|
| Industry Canada | 32 | Canadian Radio-television and Telecommunications Commission (CRTC) | 23 |
| Canadian Heritage | 25 | Information Highway Advisory Council (IHAC) | 14 |
| Human Resources Development Canada (HRDC) | 10 | | |
| Treasury Board | 10 | | |
| National Library | 4 | | |
| Health Canada | 2 | | |
| Public Works and Government Services | 2 | | |
| Five Other Government Departments* | 1 | | |

*The six other government departments which were cited by one interviewee were: Foreign Affairs and International Trade; Indian and Northern Affairs Canada; Justice Canada; Status of Women Canada; and, Transport Canada.

Table 4    Non-Government Organizations Cited as Important Players by the Interviewees

| Industry Organizations | Number of Citers | Public Interest Groups | Number of Citers |
|---|---|---|---|
| Stentor | 28 | Public Interest Advocacy Centre (PIAC) | 23 |
| Canadian Cable Television Association (CCTA) | 25 | Canada's Coalition for Public Information (CPI) | 12 |
| Canadian Association of Broadcasters (CAB) | 8 | Consumers' Association of Canada (CAC) | 12 |
| Competitive Telecommunications Assoc. (CTA) | 6 | Telecommunities Canada (TCC) | 9 |
| Information Technology Assoc. of Canada (ITAC) | 5 | National Anti-Poverty Organization (NAPO) | 7 |
| CANARIE | 3 | Canadian Library Association (CLA) | 4 |
| Canadian Broadcasting Corporation (CBC) | 2 | Fédération nationale des associations de consommateurs du Québec (FNACQ) | 4 |
| Inuit Broadcasting Corporation | 2 | Telecommunications Workers Union | 2 |
| Television Northern Canada | 2 | Information Policy Research Program | 2 |
| Seven Other Industry Organizations* | 1 | Eight Other Public Interest Groups** | 1 |

*The seven industry organizations that were cited by one interviewee were: Advanced Broadcast Systems of Canada; Association des Producteurs de Films et de Télévision du Québec; Canadian Business Telecommunications Association; Canadian Federation of Independent Business; Canadian Film and Television Production Association; Canadian Satellite Users Association; and Satellite Communications Association of Canada. ** The eight public interest groups cited by one interviewee were: Alliance for a Connected Canada; Canadian Association for the Deaf; British Columbia Old Age Pensioners' Organization; Canadian National Institute for the Blind; Democracy Watch; Neil Squire Foundation; People for Affordable Telephone Service; and Public-Information Highway Advisory Council.

## 4.3    Identifying the *Key Players*

Figure 2 (below) shows. in ranked order by the number of citers. the 20 most-cited organizations. both government agencies and NGOs. all of which were cited by at least three interviewees as important players in this policy process. Moving from left to right. the number of citers decreases gradually along the chart except at one point: a sharp drop is clearly visible between the Public Interest Advocacy Centre (PIAC) which is tied for fifth position with 23 citers. and IHAC in seventh position with 14 citers. This point provides an obvious (although arbitrary) place at which to divide the organizations  into *key players* (i.e.. those that were cited by the greatest number of interviewees) and *other important players* (i.e.. those that were cited as important players but not by enough interviewees to be classed as key players). Whether the six key players were actually the *core* organizations based on the interactions that occurred to determine essential services will be examined in chapter 5.

As was anticipated from my preliminary investigations. organizations involved in telecommunications and broadcasting policy processes were prevalent among the six key players identified by the interviewees. There were two government departments (Industry Canada and Canadian Heritage). a regulatory agency (the CRTC). two industry organizations (Stentor and the CCTA). and a public interest group (PIAC). One body which I expected to be ranked among the key players was IHAC – but its level or recognition was lower than anticipated. I discuss the possible reasons for IHAC's low number of citers and exclusion from the key players in section 4.5.1 below.

## 4.4    The Important Organizations

In the following sections I examine the top 20 players which were NGOs and government agencies cited as important organizations in this policy process. These examinations briefly describe each organization and the component of its objectives that relate to information highway policy development. By explaining how the important

# Figure 2. Organizations ranked by number of citers



Key Players

Others

| Organization | Number of Citers |
|---|---|
| Industry Canada | 32 |
| Stentor | 28 |
| Canadian Heritage | 25 |
| CCTA | 25 |
| CRTC | 23 |
| PIAC | 23 |
| IHAC | 14 |
| CAC | 12 |
| CPI | 12 |
| HRDC | 10 |
| Treasury Board | 10 |
| TCC | 9 |
| CAB | 8 |
| NAPO | 7 |
| CTA | 6 |
| ITAC | 5 |
| CLA | 4 |
| FNACQ | 4 |
| National Library | 4 |
| CANARIE | 3 |
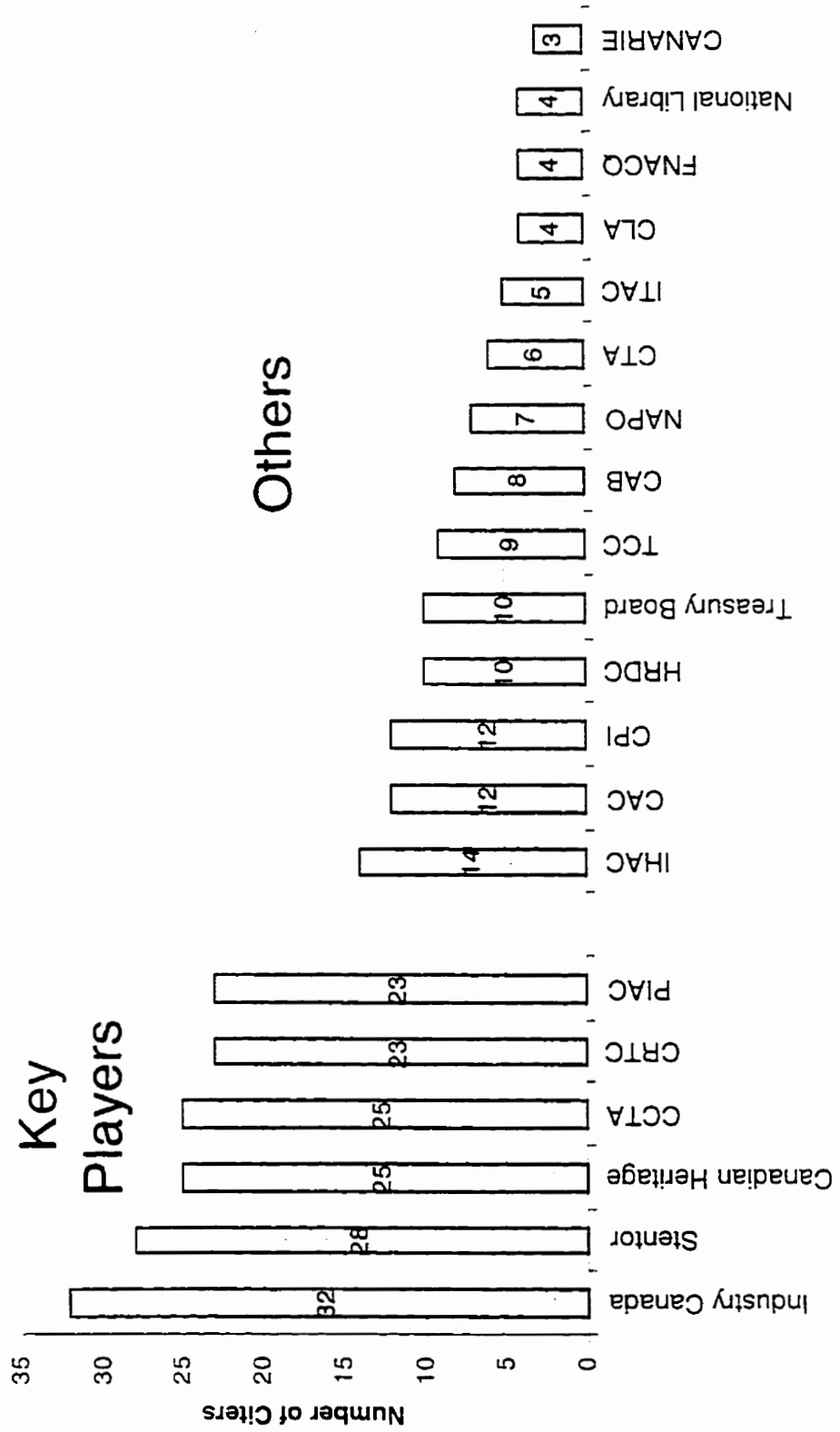
organizations fit into this policy process and why they were perceived to be important, this analysis aims to provide an initial identification of factors that might be influencing the outcomes of this policy process.

### 4.4.1   Government Agencies

Three of the six organizations identified as the key players in this policy process were government agencies: Industry Canada, Canadian Heritage and the CRTC. Seven government agencies were ranked among the 20 highest cited organizations – the three identified as key players, plus IHAC, Human Resources Development Canada (HRDC), the Treasury Board, and the National Library of Canada. Overall, there was a broad diversity of government agencies identified by at least one interviewee as an important player on this policy issue. The following section provides a brief description of the government agencies that were among the 20 highest cited organizations, starting first with the regulatory/advisory bodies then with the government departments. In both sub-categories, the descriptions of the highest cited agencies are described first, followed by the second highest cited and so on.

### 4.4.1.A       Regulatory/Advisory Bodies

In the year prior to the period during which I conducted the interviews for this research, the two regulatory advisory bodies (i.e. the CRTC and IHAC) held highly publicised processes at the request of the Canadian government to gather information and make recommendations on information highway policy issues. However, the two organizations were quite different, one being a permanent body and the other a temporary one. The processes that they undertook were also very different and were meant to be complementary rather than to duplicate each other.

### 4.4.1.A.1     The Canadian Radio-television and Telecommunications Commission

As mentioned previously, the CRTC was established in 1968. The CRTC is an independent public authority that reports directly to Parliament through the Minister of Canadian Heritage (CRTC, 1996a, p. 7). It is vested with licensing and regulating all

broadcasting undertakings in Canada and with regulating telecommunications common carriers that come under federal jurisdiction (p. 7). The Commission's regulatory authority for broadcasting is derived from the *Broadcasting Act* (S.C. 1991, c.11) and for telecommunications "from the *Telecommunications Act* (S.C. 1993, c. 38) and various 'special acts' of Parliament created for specific telecommunications companies" (p. 8).

The operations of the CRTC are divided to reflect the duality of its regulatory responsibilities. Its Broadcasting Sector has responsibility for, among other things, developing content policy for Canada's broadcasting system, providing advice on operational, policy and regulatory aspects of radio, television and cable industries, and monitoring new developments in broadcasting and cable technology (Canada, Treasury Board Secretariat, 1995, p. 194). The Telecommunications Directorate's responsibilities include assisting the Commission in developing policies, decisions and orders, and in analysing issues arising from individual applications or hearings related to telecommunications regulation (p. 194). The Directorate also has responsibility for providing advice to the Commission on telecommunications issues, including "changes of technical, sociological, and political significance in the telecommunications environment" (CRTC, 1996a, p. 22).

To accomplish its responsibilities, the CRTC employs "Rules of procedure" for both broadcasting and telecommunications that prescribe formal processes through which the CRTC gathers information and makes decisions (Canada, Treasury Board Secretariat, 1995, p. 194). These procedures include: written processes for license-related applications for broadcasting and for many tariff and other applications for telecommunications: fully open public proceedings on broadcasting matters: and, for telecommunications issues, a combination of written submissions that are open to public examination followed by a closed process in which the original submitters can provide written comments and can then appear at a closed interrogatory hearing at which they may be cross-examined under oath. According to the CRTC's Director General of Broadcast Analysis, the public hearings on telecommunications matters tend to be highly technical, requiring access to

engineers. lawyers and accounting experts whereas the broadcasting hearings are not as complex and are more amenable to public participation.[7]

In 1995. the CRTC undertook an extensive public consultation process as the result of an Order-in-Council (OIC) received from the Cabinet in October 1994 (CRTC. 1994c). The OIC asked the CRTC to review a range of questions covering three broad areas that related to new communication technologies: facilities. content and competition. The government requested the public consultation to allow all interested parties. including the CRTC. to air their views on matters relevant to the three areas. Specifically. the OIC asked the CRTC

> to gather information. seek input. provide critical analysis and report to the
> Government on a number of matters. as they relate to the Commission's
> area of responsibility. respecting the development of content and
> competition policies for new communications technologies and services
> that will comprise the "information highway." (CRTC. 1995a. p. 1)

The OIC stated that the report was to be made public and forwarded by the Ministers of Industry and Canadian Heritage to the Information Highway Advisory Council (CRTC. 1994c). Because the consultation focussed on the convergence of telecommunications and broadcasting. it became known as the *Convergence Hearing*.

The actual consultation involved a two-stage written process followed by an oral public hearing. a procedure that was described as "a hybrid" by the CRTC's Director General of Broadcast Analysis[8] who coordinated the full process. The Commission received 1.085 written comments and heard 78 parties in the oral phase of the process which was held in the National Capital Region in March 1995 (CRTC. 1995a. p. 1). As noted in the report from the consultation. the government's intention was that the report should "complement the ongoing work of the Information Highway Advisory Council ...

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[7] Diane Rheaume. interview with author. tape recording. Hull. Que.. 1 February 1996.

[8] Rheaume. interview.

and assist the Government in determining its policy framework for telecommunications and broadcasting" (p. 1).

### 4.4.1.A.2    The Information Highway Advisory Council

Whereas the CRTC is a permanent regulatory body. the Information Highway Advisory Council (IHAC) was established as a temporary advisory body to the government in March 1994 by the Minister of Industry (Canada. Industry Canada. 1994a). The Council was composed of 29 volunteers who were appointed by the Minister of Industry and who represented a diverse range of interests. including: telecommunications. broadcasting and information technology industries and institutions: the artistic. creative and educational communities: and consumer and labour organizations (IHAC. 1995b. p. ix). The Minister of Industry established the IHAC Secretariat to support the Council's work.[9] Industry Canada provided accommodation for the Secretariat and supplied many of its staff members.[10]

IHAC operated in two phases. the first of which was from May 1994 through July 1995 – prior to the interviews for this research. In the first phase. IHAC's mandate was to address 15 public policy issues[11] "to advance the goal of making Canada a world leader in the provision and use of the Information Highway. creating substantial economic. social and cultural advantage for all Canadians" (IHAC. 1994b. p. 3). To examine the 15 issues. the 29 IHAC members were divided into five working groups and three task forces.[12] and the Minister appointed another 26 *ex-officio* members from a variety of organizations to add to the knowledge base in these groups (IHAC. 1995b. pp. xxii-xxiv). Public input was limited to written submissions from anyone and to oral presentations by invited

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[9] Richard Simpson. interview with author. tape recording. Ottawa. Ont.. 5 February. 1996.

[10] Simpson. interview.

[11] The 15 issues are listed in Appendix A.

[12] The working groups and task forces are listed in Appendix A.

organizations on specific issues. A total of fifteen monthly meetings were held during which the working groups reported on issues and the Council voted on recommendations. Issue 13 was the one that was relevant to this research: "How can Canadians be assured of universal access to essential services at reasonable cost?"(p. viii). This issue was assigned to two working groups for examination: the Access and Social Impacts Working Group. and the Canadian Content and Culture Working Group. In September 1995 IHAC presented a final report from Phase I in which it made over 300 policy recommendations to the government.

The second phase of IHAC operated between June 1996 and April 1997 (i.e.. after the interviews for this research were held) and its task was two-fold:

- to advance the public policy agenda by advising on outstanding issues and concerns related to the Information Highway [and]
- to report on Canada's progress in the transition to an information society and knowledge-based economy. (IHAC. 1997. p. xi)

For Phase II. IHAC was asked to provide advice on 5 issues: access: Canadian content: the Internet: economic growth and job creation: and lifelong learning and the workplace (p. xii). IHAC struck a steering committee for each issue and added 18 ex-officio members[2] for the committees' work. The steering committees reported their recommendations to the full Council at three meetings held between October 1996 and April 1997 and they were voted on by the Council members at the final meeting. The final report of IHAC's second phase was presented to the Minister of Industry in September 1997 and it included 101 recommendations. IHAC was dissolved at the conclusion of its second phase.

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[2] I determined this figure by examining the steering committee reports that were available on the IHAC web set at: http://www.strategis.ic.gc/SSG/ih01015e.htm

## 4.4.1.B    Government Departments

As was anticipated. Industry Canada and Canadian Heritage were both identified as key players in this policy process. Both departments emerged from the federal government restructuring in 1993. and both acquired components of the former Department of Communications (DOC) – Industry Canada taking the telecommunications policy responsibilities and Canadian Heritage acquiring broadcasting policy responsibilities. Because of the responsibilities they obtained from the DOC. a major issue for these two departments was the convergence of telecommunications and broadcasting. The OIC which requested the CRTC to conduct the Convergence Hearing was made on the recommendation of the ministers responsible for Industry Canada and Canadian Heritage.

Other government departments also had interests in information highway policy development. After IHAC made its recommendations from its first phase. the Minister of Industry got approval to establish four inter-departmental working groups to examine and provide recommendations to the government for responding to the IHAC recommendations.[14] Thirty government departments and agencies participated in the four working groups. Although I had not given other government departments much consideration in advance of the interviews. I was not surprised by the level of recognition for the Treasury Board. since it was a central agency. Nor was I surprised that the National Library received some recognition because of its long involvement in information networks. I was surprised. however. by the level of recognition for Human Resources Development Canada (HRDC) because I had not given consideration to labour issues as an aspect related to the determination of essential services.

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[14] Denis Gratton. interview with author. tape recording. Ottawa. Ont.. 11 March 1996.

#### 4.4.1.B.1   Industry Canada

When established in June 1993. Industry Canada brought together within a single government department components of a range of former departments:

> the previous responsibilities of Industry Science and Technology Canada promoting international competitiveness and economic development and excellence in science: telecommunications policy and programs from the Department of Communications: the market and business framework responsibilities from Consumer and Corporate Affairs Canada: and investment research. policy and review functions from Investment Canada. (Canada Communication Group. 1994. p. 50)

The 1995-96 *Info Source* directory of federal government information sources stated that Industry Canada's mandate was "to make Canada more competitive by fostering the growth of Canadian business. by promoting a fair and efficient Canadian marketplace for businesses and consumers. and by encouraging scientific research and technology diffusion" (Canada. Treasury Board Secretariat. 1995. p. 467).

The 1995-96 *Info Source* directory also identified Industry Canada as the lead department within government on information highway policy development (Canada. Treasury Board Secretariat. 1995. p. 467). The Department's mandate. according to the *Info Source* directory. included responsibility for the government's micro-economic policy agenda. This responsibility involved. among other things: developing framework policies for the benefit of industries and consumers: advocating industry and consumer interests: and. providing the lead "in the development of science and technology policy. competition policy and telecommunications policy (including the development of the Information Highway)" (p. 467).

According to the 1995-96 *Info Source* directory. in addition to its internal management divisions. the Industry Canada included among others the following components: the Bureau of Competition Policy: the Canada Business Service Centre: the

Canadian Tourism Commission: the Industry and Science Policy Sector; [15] the Industry Sector: the Bureau of Consumer Affairs: the Office of the Ethics Counsellor: and the Spectrum. Information Technologies and Telecommunications (SITT) Sector. Four of these divisions, or branches within them, were cited by interviewees as important players in the policy process being investigated – the Bureau of Competition Policy, the Office of Consumer Affairs, the Industry and Science Policy Sector, and SITT.

The Bureau of Competition Policy was involved in the information highway policy development as a promoter of competition. As noted in chapter 1, competition in telecommunications was a component of Canada's telecommunications policy which was included as a part of the *Telecommunications Act*. According to the *Info Source* directory, the Bureau's mandate was to promote competition and efficiency in Canada's economy by administering the *Commerce Act* (Canada, Treasury Board Secretariat, 1995, p. 468). In this capacity the Bureau provided a written and oral submission to the CRTC Convergence Hearing (CRTC, 1995b).

In a contrasting role, the Bureau of Consumer Affairs was responsible for promoting the "protection of the interests of consumers in the Canadian marketplace" (Canada, Treasury Board Secretariat, 1995, p. 472). A Policy Analyst in the Bureau of Consumer Affairs who had provided administrative support for IHAC's Access and Social Impacts Working Group said that the Bureau's role with regard to the information highway was to articulate the concerns of consumer groups to ensure they had a voice in the policy development process. [16]

The Science Promotion and Academic Affairs Branch of the Industry and Science Policy Sector was another part of Industry Canada that was cited by the interviewees.

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[15] The term *sector* is used within the Canadian government to refer to a division of a government agency.

[16] Anne Pigeon, interview with author, tape recording, Ottawa, Ont., 4 December, 1995.

According to the Branch's Director General. the Sector's mandate was "to develop Canada's industrial and economic policy and ensure that the appropriate levers are in place to achieve those goals."[17] His branch was responsible for. among other things. "policy development. program management and national coordination related to the promotion of Science and Technology with youth in the education system as well as the general public" (Canada. Treasury Board Secretariat. 1995. p. 470). In fulfilling this part of its mandate. the Branch had already developed and was implementing the SchoolNet Program. the Community Access Program and the Digital Collections Program.[18]

The division of Industry Canada with the most obvious responsibility for information highway policy development. and the one cited most frequently as an important player. was SITT. The mandate of SITT was "to facilitate the development. implementation and adoption of communications technologies, systems and services that serve the economic and social needs of all Canadians" (Canada. Treasury Board Secretariat. 1995. p. 475). Within SITT two branches in particular were cited as important players – the Telecommunications Policy Branch and the Communications Development and Planning Branch.

The principal responsibility of the Telecommunications Policy Branch was to formulate "policies. recommendations. regulations and legislation governing and promoting orderly development and efficient operation of the telecommunications services required by Canadians for national and international communications" (Canada. Treasury Board Secretariat. 1995. p. 477). The Communications Development and Planning Branch had a longer-term focus. Its mandate included: promoting the development. diffusion. early commercialization and use of advanced information and communications technologies and services; analysing market trends. end-user needs and the implications of

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[17] Doug Hull. interview with author. tape recording. Ottawa, Ont.. 30 January 1996.

[18] Hull. interview.

new technologies for society: preparing the sector strategic plan; and providing the government with advice on information policy issues (pp. 475-476).

### 4.4.1.B.2    Canadian Heritage

The Department of Canadian Heritage was created in the government's 1993 restructuring when "it was decided to group federal programs aimed at affirming Canadian identity into a new Canadian heritage portfolio" (Canada Communication Group. 1994. p. 13). Components of five former departments were brought together in the new department: Communications: Secretary of State: Multiculturalism and Citizenship: Environment: and. Health and Welfare (Canada. Treasury Board Secretariat. 1995. p. 135).

Although Canadian Heritage was the second highest-cited government agency. only one of its divisions. the Cultural Development and Heritage Sector. appeared to be directly involved in information highway policy development.  The Cultural Development and Heritage Sector was responsible for policy and programs for Canada's cultural and broadcasting industries (Canada. Treasury Board Secretariat. 1995. p. 139).  According to a senior official in Canadian Heritage. that Sector had the lead role within Canadian Heritage for information highway policy development.[19]  The Sector had four branches: Arts Policy. Broadcasting Policy. Cultural Industries. and Heritage.[20]  Within the Sector. the Broadcasting Policy Branch was responsible for coordinating information highway policy development activities.[21]  This Branch had several areas of responsibility that were directly related to information highway policy development. These responsibilities included: developing policies and programs aimed at ensuring that Canada's broadcasting

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[19] Susan Baldwin. interview with author. tape recording, Ottawa. Ont.. 27 February 1996.

[20] The Canadian Conservation Institute and the Canadian Heritage Information Network also fall within this sector.

[21] Baldwin. interview.

system was attaining the social. cultural and economic objectives spelled out for it in the *Broadcasting Act* (p. 139); advising the Minister on broadcasting policy directives to the CRTC and broadcasting decisions made by the CRTC (p. 139); and developing policies for new forms of broadcasting distribution. as well as for issues pertaining to the convergence of cable television and telecommunications.[22] Two other branches. the Arts Policy Branch. and the Cultural Industries Branch. according to senior staff.[23] were responsible for providing input into information highway policies that were related only to their branches' areas of concern.

### 4.4.1.B.3    Human Resources Development Canada (HRDC)

Like Industry Canada and Canadian Heritage. HRDC was created in the Canadian government's 1993 re-organization. From November 1993 until July 12. 1996. when the *Human Resources Development Act* came into force. HRDC operated under a series of Memoranda of Understanding involving various components of five founding departments: Employment and Immigration: Health and Welfare. Labour. Secretary of State and the Department of Multiculturalism and Citizenship (Canada. Treasury Board Secretariat. 1998. p. 438).

The 1995-96 *Info Source* directory stated that HRDC's mandate covered a broad range of matters related to labour market programs and policies (Canada. Treasury Board Secretariat. 1995. p. 390). Unlike Industry Canada and Canadian Heritage. which were concerned primarily about regulatory issues related to telecommunications and broadcasting. HRDC was mainly interested in making use of the information highway. For example. HRDC was responsible for employment services such as matching workers with job information and for training and lifelong learning opportunities – tasks for which the

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[22] Fildes. interview.

[23] Charles Gruchy; interview with author. tape recording, Ottawa. Ont.. 12 March 1996: Susan Katz. interview with author. tape recording, Ottawa, Ont.. 12 March 1996:

information highway could be employed to enhance HRDC services and information resources.[24]

### 4.4.1.B.4    The Treasury Board

The Treasury Board. which was established in 1867 (Canada. Treasury Board. 1999). is a Federal Cabinet committee with responsibility for. among other things. managing the information and the information technology within government (Canada. Treasury Board Secretariat. 1995. p. 881). The role of its administrative arm. the Treasury Board Secretariat. was to provide direction to the government departments "through policies. frameworks of accountability. standards and the promotion of best management practices" (p. 882) in using technology and information management to provide innovative and affordable services to their clients.   These areas of responsibility made the Treasury Board Secretariat an interested party in information highway policy development. especially as it pertained to the government.

### 4.4.1.B.5    The National Library of Canada

Created in 1953. the National Library of Canada has the rank of a government department and it reports to Parliament through the Minister of Canadian Heritage (Canada. Treasury Board Secretariat. 1998. p. 592). The National Library has been involved in information policy development on several fronts. The main responsibility of the National Library has been to preserve the published heritage of Canada and to make it accessible to Canadians directly and through the country's libraries (p. 592). To meet this responsibility the National Library's Acquisitions and Bibliographic Services section has. among other things. maintained a national computerised database of bibliographic holdings and has developed bibliographic and documentation standards to encourage resource sharing. Its Information Resources Management Section has developed policies for the Library's information resources including its government information holdings (p. 592).

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[24] Gay Richardson. interview with author. tape recording, Hull. Que.. 27 February 1996.

and its Information Technology Services section has played a leading role in "policy development for the computer-based Canadian library and information network" (p. 592).


### 4.4.2  Non-Government Organizations

NGOs accounted for 3 of the 6 organizations identified as the key players in this policy process and 13 of the 20 top ranked organizations cited as important players in this policy process. These 13 NGOs embodied a broad spectrum of interests and ranged from organizations such as Stentor and the CCTA which were representing economically powerful industry groups, to PIAC and the National Anti-Poverty Organization (NAPO) which were representing Canada's poorest individuals. In the following analysis, the six industry organizations are examined first, followed by the seven public interest groups, and in each of these sub-categories the highest cited agencies are described first, followed by the second highest cited and so on.


### 4.4.2.A     Industry Organizations

The six highest ranked industry organizations were primarily representative organizations for industry groups which had interests in information highway related issues. These organizations and the industries they represented strongly reflected the fact that the information highway was forming from the convergence of telecommunications and broadcasting through the introduction of digital technologies. As was anticipated, the two highest cited industry organizations were Stentor and the CCTA, representing the traditional monopoly providers respectively in telecommunications and broadcasting distribution services. The other four industry organizations were associations representing the broadcasting industry (the Canadian Association of Broadcasters (CAB)), the new competitors to the monopoly telephone providers (the Competitive Telecommunications Association (CTA)), information technology companies and database creators (Information Technology Association of Canada (ITAC)), and CANARIE.

Although many industry organizations were cited as important players. the much higher number of citers for Stentor and the CCTA as compared with the others strongly suggests that the representatives of the two traditional monopoly providers would be the leading industry organizations involved in this policy process. In the following section. I provide a brief description of the industry organizations that were among the 20 highest cited by the interviewees as important players in this process.

### 4.4.2.A.1    Stentor

In 1992. Canada's traditional monopoly companies and their off-shoot companies (e.g.. Bell Cellular) formed the Stentor Alliance and created three service companies (Stentor Telecom Policy. Stentor Resource Centre and Stentor Canadian Network Management) to look after their combined interests ( p. 9).[25] The monopoly telephone companies had a history of cooperation that dated back to 1931 when provincial and regional telephone companies formed a partnership to build the nation's first national network (Stentor. 1994b. p. 9).

The three Stentor companies. all of which were located in Ottawa. were created to assist the telephone companies in different ways. Stentor Telecom Policy was established to act as "a government relations and policy advisory company" (Stentor. 1994b. p. 9) and Stentor Resource Centre was created to act as a centre of expert knowledge for engineering. research. product development and marketing for the Alliance members (p. 9). The third company. Stentor Canadian Network Management. was created to continue the telephone companies' long-established partnership for managing the interprovincial connections for their national network (p.9).

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[25] The Stentor Alliance eventually broke up. At the end of 1998 Stentor Telecom Policy and Stentor Resource Centre were dissolved. and Stentor Canadian Network Management was scheduled to be dis-established at the end of 1999. These events happened after I had gathered the data for this research and were not foreshadowed by any of the interviewees. Therefore I did not consider Stentor's breakup to be germane to this portion of the analysis in this research.

In the early stages of the information highway policy development discussions.
Stentor Telecom Policy was the main body providing input on behalf of the traditional
telephone companies. The company's Vice-President of Legal and Social Policy said that
there were 31 staff members in Stentor Telecom Policy. 18 of whom were professionals.
He described the company's mandate this way:

> We develop public policy positions – social policy positions – both
> wire line and wireless. and we try to develop consensus within our owner
> companies on what those policies should be. So. in other words. we craft
> something as a straw model. put it out to our shareholders for their
> comments. And then we try to sell those policies once they're massaged
> and approved. in the media broad – in the broad public media – and with
> the government and with the CRTC. Our mandate is to look at the
> high-level public policy questions such as privacy. and indeed essential
> services is one we have tried to. at least. do some initial work on it.[26]

The goal of Stentor Resource Centre was to provide the owner companies with an
arm to foster technological development and to foster alliances with other global players
(Stentor. 1994b. p. 9). Stentor Resource Centre provided the traditional telephone
companies with a group of technical experts to work on behalf of their interests in
information highway policy development. This component of the Resource Centre
activities was achieved through its representation of its member telephone companies in
CRTC proceedings relating to technical issues – many of which were relevant to
information highway policies. The lead company on the essential services issue within the
Stentor structure. however. was Stentor Telecom Policy.

### 4.4.2.A.2    The Canadian Cable Television Association

Canada's cable television companies (*i.e.*. the Cablecos) have been represented by
the Canadian Cable Television Association (CCTA) since 1957 (CCTA. 1998). In 1996 all

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[26] Greg van Koughnett. interview with author. tape recording, Ottawa. Ont.. 8
December 1995.

major cable systems and nearly all small systems were CCTA members.[27] As a national industry association. the CCTA has provided technical. regulatory and marketing services to the range of cable television systems. equipment suppliers and other cable-related groups that are members of the Association (CCTA. 1995a). In 1996. the Association's head office in Ottawa and its Toronto office together employed about 30 staff. two-thirds of whom were at the professional level.[28]

The CCTA's then Vice-President of Telecommunications said that the CCTA's mandate is to "promote the interests of member companies with the CRTC in terms of regulatory proceedings. both in telecommunications and broadcasting [and] formally as a lobbyist with government [to] convey information."[29]

### 4.4.2.A.3    The Canadian Association of Broadcasters

The Canadian Association of Broadcasters (CAB) was founded in 1926 (CAB. 1998). The CAB described itself as a national trade association that represented and promoted the interests of the vast majority of over-the-air private broadcasters in Canada. including radio and TV stations. a broadcasting network. and a range of associate members (CAB. 1995. p. 1). This role entailed the CAB in representing private broadcasters before the related government agencies. including the CRTC and the Department of Canadian Heritage. and developing and publishing policy papers in consultation with its members (p. 1). The CAB is situated in Ottawa and according to its Vice-President. Television. in 1996 the Association had a staff of about 20. half of whom were professionals.[30]

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[27] Ian Scott. interview with author. tape recording. Ottawa. Ont.. 1 February 1996.

[28] Scott. interview.

[29] Scott. interview.

[30] Robert Scarth. interview with author. tape recording. Ottawa. Ont.. 5 February 1996.

### 4.4.2.A.4     Information Technology Association of Canada

In the information highway policy process. ITAC was the representative organization for Canada's information technology industry. ITAC is a national association which was established in 1987. Its head office is located in Mississauga and in 1995 ITAC had 1100 members composed of an assortment of large, small and medium-sized companies "in the computing and telecommunications hardware, software, service and electronic content sectors" (ITAC, 1995, p. 1). The Association also had a variety of associate members, some of whom were from the not-for-profit sector including the Canadian Standards Association, Ryerson Polytechnic University and the University of Windsor (p. 1). In 1996, ITAC employed 10 full-time staff which included 7 professionals.[31] ITAC saw its primary role as undertaking policy and advice work to promote the growth of the information technology industry (p. 6).

### 4.4.2.A.5     The Competitive Telecommunications Association

The new long-distance resellers and inter-exchange carriers that were competing against the traditional telephone companies in providing long-distance services were represented by the Competitive Telecommunications Association (CTA).[32] In 1996 the Association was located in Etobicoke and had less than one full-time staff member – an Executive Director whose duties were split between three associations.[33] According to the Executive Director, the CTA was originally established to intervene for its members before the CRTC, but the CTA's 12 member companies had taken on the task themselves most of the time, and he was mainly doing "government policy work" on issues of interest to the Association's members.[34]

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[31] Robert Crow, interview with author, tape recording, Toronto, Ont., 13 February 1996.

[32] Don Braden, interview with author, tape recording, Ottawa, Ont., 13 February 1996.

[33] Braden, interview.

[34] Braden, interview.

### 4.4.2.A.6 CANARIE

CANARIE is the registered name of the Canadian Network for the Advancement of Research. Industry and Education. CANARIE is a not-for-profit corporation founded in 1993 with support from Industry Canada to work with government. industry and the research and educational communities to foster the development of Canada's information infrastructure (CANARIE. 1994). CANARIE had over 140 member organizations in 1996. approximately half of which were from the private sector and half from the public sector. The member organizations included private-sector companies. pre-competitive research consortia. universities and federal and provincial government departments.[35]

CANARIE's primary objective in 1995 was to operate programs to stimulate both the development of the Canadian telecommunications network infrastructure and the creation of new products for that network (CANARIE. 1995). According to its President and Chief Executive Officer. CANARIE was an action-oriented rather than a policy-oriented organization and therefore it did not participate directly in the information highway policy development process.[36]

### 4.4.2.B The Public Interest Groups

The seven public interest groups cited as important players in this policy process represented a broad range of perspectives in support of the *public interest* on information highway policy issues. These groups included:

* well-established organizations such as the Consumers' Association of Canada. PIAC and NAPO which have represented the interests of specific segments of society. such as consumers, senior citizens. the poor, and rural dwellers. at CRTC telecommunications hearings and other public policy venues for more than two decades:

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[35] Andrew Bjerring. interview with author. tape recording. London. Ont.. 1 March 1996.

[36] Bjerring. interview.

- newer groups that were formed specifically to promote the public interest in information highway policy processes – Canada's Coalition for Public Information (CPI), and Telecommunities Canada (TCC):

- and an organization – the Canadian Library Association (CLA) – which became involved with information highway policy issues as a result of its ongoing representative work for its membership.

### 4.4.2.B.1    Public Interest Advocacy Centre

PIAC was the only public interest group identified as a key player in this policy process. The Centre is situated in Ottawa and in 1995 it had a staff of four full-time employees – two lawyers, a researcher and an office administrator. PIAC was founded in 1976 as a national non-profit charitable organization dedicated to providing legal and research resources to individuals and organizations in Canada who could not otherwise have their interests represented (PIAC, 1994, p. 1). In 1992, PIAC reaffirmed that it "should continue to 'represent the unrepresented' before the tribunals which govern regulated industries, particularly the technologically revolutionary world of telecommunications" (p. 3).

With regard to the information highway, PIAC viewed itself as a "a principal repository of knowledge and expertise, and one, among increasingly few, dedicated exclusively to assuring that the radical technological developments which are shaping these industries both serve the public interest and ensure access to all" (p. 3).

### 4.4.2.B.2    Canada's Coalition for Public Information

Canada's Coalition for Public Information (CPI) was formed in late 1994 as an initiative of the Ontario Library Association and was incorporated in 1996. CPI portrayed itself as a "grassroots voice for promoting and facilitating access to the benefits of telecomputing technology to maximize participation in a knowledge society and economy" (CPI, 1998). Situated in Toronto, CPI in 1996 had the equivalent of one full-time staff

position spread across three part-time people.[37] CPI's stated aim was "to ensure the developing information infrastructure in Canada. the 'Information Highway'. serves the public interest. focuses on human communication. and provides universal access to information" (Skrzeszewski and Cubberley. 1995. p. 3). Among other issues. CPI advocated for public rights of access to the information highway (p. 4) and for ongoing government support for the work of public libraries and community networks in providing community access to the information highway (p. 9).

### 4.4.2.B.3    The Consumers' Association of Canada

Founded in 1947 and located in Ottawa. the Consumers' Association of Canada (CAC) is a national volunteer-based association (CAC. 1997). Its main function has been to provide Canadian consumers with a collective voice to increase their influence on consumer-related public policy issues (Dearness.[38] 1995. p. 2). The Association has been active in consumer related issues pertaining to Canada's regulated industries. particularly telecommunications. since the 1970s.[39] In this capacity. the CAC regularly represented the interests of consumers at CRTC telecommunications proceedings.[40] The CAC suffered financial difficulties in the early 1990s and scaled back some of its activities. However. it continued to participate in CRTC telecommunications hearings. sometimes in cooperation with PIAC.[41] The CAC viewed itself as a major voice for consumers in the information highway policy development processes.

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[37] Stan Skrzeszewski. interview with author. tape recording, London. Ont.. 22 December 1995.

[38] Tony Dearness was President of the CAC in 1995.

[39] Rosalie Daly Todd. interview with author. Ottawa. Ont.. 29 January 1996.

[40] Todd. interview.

[41] Todd. interview.

4.4.2.B.4        Telecommunities Canada

Telecommunities Canada (TCC) was established in 1994 to support community
networking. TCC's mission had a dual focus: "to ensure Canadians are able to participate
in community-based communications by promoting and supporting local community
network initiatives;" and, "to represent and promote the community networking
movement at the national and international level" (Telecommunities Canada, 1997).
Through the latter component of its mission, TCC considered itself to have "a grass-roots
social role" in the Canadian public policy arena, representing community networking in
various fora on information highway policy issues.[42]

4.4.2.B.5        The National Anti-Poverty Organization

NAPO is a national organization whose goal is "to eliminate poverty in Canada."[43]
Founded in 1971. NAPO's mandate is to provide a voice for low-income Canadians on
national issues such as income assistance, health, housing and education, and to assist
local and regional organizations in representing the voice of low income Canadians "in
decision-making and policy-making processes in their communities" (NAPO, 1999).
Situated in Ottawa, NAPO had the equivalent of five full-time staff in 1996, two of whom
were at the professional level.[44] Even though NAPO was identified as an important
organization by 7 interviewees, the Executive Director of NAPO did not consider her
organization to be a direct player in information highway policy-making because it did not
participate in the IHAC process, and it relied on PIAC for representation at relevant
CRTC proceedings.[45]

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[42] Garth Graham, interview with author, tape recording, Ottawa, Ont., 2 February
1996.

[43] Lynne Toupin, interview with author, tape recording, Ottawa, Ont. 2 February 1996.

[44] Toupin, interview.

[45] Toupin, interview.

### 4.4.2.B.6     Canadian Library Association

The CLA. which is located in Ottawa. was founded in 1946 and incorporated in 1947 (CLA. 1999). It is a national not-for-profit voluntary organization with around 2.800 personal and institutional members representing public. school. university. college. government and corporate libraries (CLA. 1999). In 1996. the CLA had a staff of 16. of whom four were classed as professionals.[46] The Association's mission was "to promote. develop and support library and information services in Canada" and to work cooperatively with others to provide a unified voice on issues of mutual concern (CLA. 1999). According to the CLA's Executive Director. because of the Association's interest in access to information. it had become involved in the policy processes related to the issue of universal access to the information highway.[47]

### 4.4.2.B.7     Fédération nationale des associations de consommateurs du Québec

FNACQ was founded in 1978[48] to promote the interests of consumers with low and modest incomes.[49] FNACQ's office is situated in Montreal and in 1995 the Association had a membership of five Quebec consumer-based organizations (FNACQ. 1995). FNACQ's Executive Director stated that the Federation's mandate was to provide services for its members and to speak on their behalf on public policy issues.[50] FNACQ had only three full-time and three part-time staff in 1996 but. according to its Executive Director. it had developed considerable expertise in the area of telecommunications policy and it offered its policy positions to other Quebec interest groups which did not have

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[46] Karen Adams. interview with author. tape recording. Ottawa. Ont.. 5 February 1996.

[47] Adams. interview.

[48] As mentioned in chapter 3. FNACQ changed its name in 1998 to Action Réseu Consommateur.

[49] Marie Vallée. telephone interview with author. tape recording. Montreal. Que.. 2 April 1996.

[50] Vallée. interview.

expertise in that area.[51] As a result of this interest in telecommunications policy. FNACQ was a regular participant in information highway policy development processes.

## 4.5 Interviewees' Reasons for Citing Organizations as Important Players

The following section examines the reasons given by interviewees for citing the different categories of organizations as important players. As found in this analysis. the interviewees identified the different types of organizations as important players for different reasons. Government agencies were cited primarily for the processes they conducted and the roles they played in facilitating the processes. whereas NGOs were identified for the processes in which they participated and the interests they represented.

### 4.5.1 Recognition of the Regulatory/Advisory Bodies

The regulatory/advisory bodies were identified as important players primarily for the processes they provided to obtain input for decision-making. However. they were differentiated based on the degree of decision-making authority they possessed.

The CRTC was perceived as an important player because of the Convergence Hearing and for the ongoing processes it provided to regulate the telecommunications and broadcasting industries. As a Policy Analyst in Canadian Heritage said. the CRTC is important because of the "nuts and bolts" work it does in implementing the principles of the *Telecommunication* and *Broadcasting Acts*.[52] An official from the CRTC pointed out that the Commission's importance stems from its adjudicatory role in examining issues based on submissions from both sides of an argument – "from the potential carrier providers. and the potential users of the service."[53] She pointed out that the Convergence Hearing was special because the government engaged the CRTC to conduct a public

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[51] Vallée. interview.

[52] Fildes. interview.

[53] Suzanne Blackwell. interview with author. tape recording. Hull. Que.. 31 January 1996.

process and to publish a report that would feed into the IHAC process which in turn would develop a broader report and feed into a broad policy framework. In her view this combination was "a really big big event in terms of the telecommunications industry."[54] The Executive Director of the CTA said that the CRTC was important because it dealt with "the really tough issues." He commented:

> Well the Commission has in front of it. as you know. a number of proceedings right now that will fundamentally define how we access the information highway – all the unbundling. this affordability issue. the local service pricing. And those things are going on right now.[55]

As mentioned earlier. IHAC received fewer citations than expected. especially considering that many of the organizations involved in this research had contributed to the IHAC process. Individuals who cited IHAC as an important player felt that IHAC played a significant role in raising the level of awareness of policy players on the full range of information highway policy issues and on the positions held by the various players on those issues. However. IHAC's lower than expected citation rate was due in large part by the fact that IHAC was an advisory body rather than one that could establish and implement policy. such as the CRTC. Some interviewees compared IHAC to the CRTC which they believed was making tough policy decisions. whereas IHAC was not. The Executive Director of the CTA. for example. who had commented on the tough decisions made by the CRTC. described the output from IHAC as "a fairly soft public policy overlay."[56] The Chief Executive Officer of CPI said. "So although we have the IHAC things and all that happening. to me at the moment at least. the real public policies are being clearly made at the CRTC level."[57] Other interviewees perceived IHAC's recommendations to be of little value. Two interviewees, for example. commented that

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[54] Blackwell. interview.

[55] Braden. interview.

[56] Braden. interview.

[57] Skrzeszewski. interview.

many of IHAC's recommendations were contradictory,[58] and the Vice-President of Policy at ITAC mentioned that most of IHAC's recommendations simply stated the obvious:

> Well, when I looked at how many ... was it 300 recommendations, or something like that, that are being processed right now. And, you know, three quarters of them are things that were pretty obvious, that really probably didn't need to be said, but, for whatever reason, they were said ... A fair bit of the direction from the Information Highway Advisory Council was less than fully crisp, which left some room for the government and others like us to continue to discuss.[59]

Thus, IHAC's lower than expected citation level is explained by the fact that IHAC was perceived by some interviewees to have had little authority and to have made recommendations that were for the most-part unimportant.

### 4.5.2 Recognition of the Government Departments

Government departments were identified as important players principally for two reasons: (1) their responsibilities and roles in creating and maintaining policies and programs relevant to the development and operation of the Canadian information highway; and (2) their participation in the policy process because of their interest as potential users of the information highway. The two government departments identified as *key players* were cited primarily for the first reason while the *other* government departments were cited primarily for the second reason.

When identifying the important government departments, many interviewees cited Industry Canada and Canadian Heritage together, but some noted that Industry Canada had the overall lead role within government on information highway policy development. These interviewees believed that the telecommunications and economic aspects of information highway policy development, which were Industry Canada's responsibilities, were more important than the broadcasting and cultural aspects which were the

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[58] Braden, interview; Mary Frances Laughton, interview with author, tape recording. Ottawa, Ont., 7 February 1996.

[59] Crow, interview.

responsibility of Canadian Heritage. For example. the President and Chief Executive Officer of CANARIE. when considering which government department was the lead player. commented:

> Well I think that it's somewhere between Industry Canada and Canadian Heritage. with probably the emphasis going to be on Industry Canada because Canadian Heritage has a much narrower focus with the CRTC and the *Broadcast[ing] Act* on the protection of Canadian culture. whereas many of the issues that we're talking about in the definition of essential services. and how this technology is going to evolve. and the management of the marketplace competition – that those much more general concerns are more likely going to arise in Industry Canada.[60]

A Senior Policy Analyst in Canadian Heritage who identified Industry Canada and Canadian Heritage as the two leading government agencies added that HRDC was also playing an important role:

> Generally speaking. we [staff in Canadian Heritage] see this as an issue that has two departments ... which ... have the lead. In terms of [telecommunication] carriage issues it's generally perceived that it's Industry Canada. and this whole enabling effect on the economy. again there Industry Canada is seen as having the lead. In terms of the other component – content. then this department is seen as having the lead. But. I think one department that we've tended to overlook and I think it has a very important role to play in all this. is HRDC because this whole environment is going to have a serious impact on employment. and they have to be involved in this. as well. and they are involved.[61]

Some interviewees commented on the economic significance of the information highway and the government's selection of Industry Canada as its lead player. The Chair of the Steering Committee for CPI. who was a member of IHAC. made the following observation:

> I think that one of the reasons why it [the lead within government] went to Industry [Canada] was that we are living through some very difficult economic times. and I think the question was "Are there economic gains that can be made through the information highway?" The majority of the

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[60] Bjerring. interview.

[61] Gratton. interview.

issues and the kinds of things that initially the Information Highway
Advisory Council was being asked to look at clearly where directed in the
area of commerce. and the marketplace. both Canadian and international.
And so it made sense that it [the information highway policy development]
was going through Industry [Canada].[62]

Another major factor for Industry Canada's strong recognition as an important
player was the high level of activity of the department's minister in information highway
policy development and of its staff in relevant policy development processes. especially
those related to universal access to the information highway. The Minister of Industry
established IHAC. selected its members. co-requested the CRTC to undertake the
Convergence Hearing. and was the recipient of the IHAC reports. Departmental staff as
well were constantly recognized as important players in the policy process because of their
ties to IHAC.  For example. three Industry Canada officials who had been *sherpas*[63] for
the IHAC Access and Social Impacts Working Group.[64] and members of the government's
inter-departmental committee that responded to the recommendations of that IHAC
working group. were regularly recommended by interviewees as important people for me
to interview. Industry Canada had also provided funding for several policy development
events related to universal access and essential services issues. Many members of the
information highway policy community. including staff members from Industry Canada.

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[62] Elizabeth Hoffman. interview with author. tape recording, Toronto. Ont.. 12 January
1996:.

[63] *Sherpa* was the term used for the government officials who provided administrative
support for IHAC working groups.

[64] The following three interviewees from Industry Canada were *sherpas* for the Access
and Social Impacts Working Group. Jacques Drouin from the Telecommunications Policy
Branch was the Working Group's secretary. Prabir Neogi from the Communications
Development and Planning Branch and Anne Pigeon from the Bureau of Consumer
Affairs. provided administrative support. Denis Gratton from the Broadcasting Policy
Branch of Canadian Heritage was a secretary to the Canadian Content and Culture
Working Group.

were participants of these events.[65] These events gave Industry Canada a high profile in the policy community in relation to the issue of determining essential services.

Industry Canada's information highway program initiatives were also significant to the Department's recognition as an important player. At the time of the interviews for this research. the Science Promotion and Academic Affairs Branch in Industry Canada had already developed and was implementing the SchoolNet Program. the Community Access Program and the Digital Collections Program.[66] The CRTC's Director of Broadcast Analysis. for example. who coordinated the Convergence Hearing. believed that Industry Canada's importance in the process to determine essential services for the information highway stemmed from two things – IHAC and the SchoolNet program.[67] Other interviewees who had been involved in advisory roles on the Community Access Program and SchoolNet[68] also mentioned those programs when discussing Industry Canada.

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[65] The author of this research participated in the following two Industry Canada funded events. The first event was a "think tank" session held on March 6 and 7. 1996 in Scarborough. Ontario to consider the issue of determining essential services for the information highway. The event was funded by the Communications Development and Planning Branch of Industry Canada. Three of the interviewees from this research participated in that event: Andrew Siman. the Director of the Communications Directorate (a unit within the Communications Development and Planning Branch). Andrew Reddick of PIAC. and Stan Skrzeszewski of CPI. The second event was a component of a research project by the Information Policy Research Program at the University of Toronto. Industry Canada funded the project which was aimed at defining and maintaining universal access to basic network services. As part of that research. a workshop was held at the University of Toronto from March 14 to 16. 1996. Prabir Neogi and Arthur Cordell. two special advisors on information technology policy in Industry Canada. Garth Graham of Telecommunities Canada. Elizabeth Hoffman of CPI, Marita Moll of the Public-Information Highway Advisory Council and Marie Vallée of FNACQ, all of whom were interviewed for this research. were participants in that workshop.

[66] Hull. interview.

[67] Rheaume. interview.

[68] Karen Adams and Elizabeth Hoffman were members of the advisory committee for the Community Access Program and Karen Adams had also been a member of the SchoolNet advisory committee.

While Industry Canada was recognized as important for a range of reasons. only two reasons were provided by the interviewees for Canadian Heritage's importance – (1) the Department's responsibility for the cultural and content component of the information highway due to its responsibilities for broadcasting policy, and (2) the involvement of the Department and its staff in information highway policy processes. The vast majority of citations for Canadian Heritage were at the department level rather than for individual branches or divisions. Interestingly, the Broadcasting Policy Branch was the only unit within Canadian Heritage to be named directly as an important player by the interviewees.

The interviewees for this research had very mixed views on the importance of culture and content to the issue of essential services. and thus to the importance of Canadian Heritage to this policy process. The following two quotations illustrate this point. On the one hand. IHAC's Director of Council Operations felt that Canadian Heritage was an important player:

> Yes. you ought to talk to Heritage. You know that whole question of content – culture and content – is fundamental to this thing [the policy process to determine essential services].[69]

On the other hand. the CRTC's Director General of Broadcast Analysis felt that Canadian Heritage was not an important player in the process to determine essential services because its participation was limited by its mandate to "ensuring appropriate windows for the Canadian cultural side of the content."[70] In her view the essential services issue was about access to the information highway and not about Canadian cultural content.[71] Several other interviewees commented that Canadian Heritage's low profile was the result of the weak performance of the then Minister of Heritage.[72] The CEO of CPI. for

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[69] Peter Ferguson. interview with author. tape recording. Ottawa. Ont.. 11 March 1996.

[70] Rheaume. interview.

[71] Rheaume. interview.

[72] The Minister of Heritage was Michel Dupuis at the time the interviews were begun. Several months into the interviews there was a Cabinet shuffle and Sheila Copps was

example. commented: "Heritage Canada, in the sense of Canadian content. should be a driver. but because of their rather ineptness. including the ineptness of their current minister. has not been a very strong force in that whole area."[73]

The participation of Canadian Heritage staff in information highway policy development activities was the second reason for which the Department was cited as an important player. Two staff members in particular. both of whom were from the Broadcasting Policy Branch. were frequently recommended as important people for me to interview. One of these individuals was a Senior Policy Analyst[74] who had held three key roles in the information highway policy development process: the chief *sherpa* for IHAC's Canadian Culture and Content Working Group: the chair of the government's inter-departmental working group responding to the recommendations from IHAC's Canadian Culture and Content Working Group: and. the main liaison person for the Department in its dealings with other government agencies on information highway policy issues. The other person cited frequently was the Director of the Broadcasting Policy Branch[75] who had been the Director of the New Media Branch of the Department of Communications prior to the 1993 government restructuring[76] and who. according to one interviewee. had been the first person within government to have raised the idea of an information highway advisory council.[77]

As mentioned above. other government departments were cited as important players primarily because they had been participating in the policy making process as

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named as the new Minister of Heritage.

[73] Skrzeszewski. interview.

[74] The senior policy analyst was Denis Gratton.

[75] The Director of the Broadcasting Policy Branch was Susan Baldwin.

[76] Baldwin. interview.

[77] Gratton. interview.

potential users of the information highway – and not because of mandates related to broadcasting or telecommunications. The Treasury Board was cited as an important player because it was responsible for managing the information resources of the government as a whole and for getting government agencies to use information technology to improve the delivery of services and to reduce the cost of providing them.[78] And the HRDC's recognition was primarily from interviewees who realized that the HRDC was participating in the information highway policy processes because it was both concerned about the information highway's potential impact on the labour market and interested in the information highway's potential utility for learning and training purposes. As noted by one government official. after Industry Canada. Canadian Heritage and the Treasury Board. "other government departments [are important players] to the extent that they are information providers."[79]

### 4.5.3 Recognition of Industry Organizations

The interviewees identified industry organizations as important players for two main reasons: for the industries that the organizations were representing in the policy process: and for the processes in which the organizations participated. These processes were mainly about regulating telecommunications. cable broadcasting. and the production and distribution of Canadian cultural content. or about developing a new regulatory framework to introduce competition and deal with convergence in telecommunications and cable broadcasting.

The citations for industry organizations had a number of similarities to the citations for the government departments. The industry organizations representing the

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[78] In 1994 the Treasury Board Secretariat published government-wide guidelines for applying new information and communication technologies across government operations (see Canada. Treasury Board Secretariat. 1994b). These guidelines became an important component of the government's own information highway strategy and were highlighted by IHAC as a way that the government could use the information highway to improve services to the public (IHAC. 1995b. p. 135).

[79] Hull. interview.

traditional players involved in telecommunications and broadcasting, that is. Stentor and the CCTA. were the only key players identified from among the industry players – just as Industry Canada and Canadian Heritage were identified as key players among the government departments. And like the two key government departments. Stentor and the CCTA were often cited together. with the telecommunications player (Stentor) being perceived as the more important participant. The following citation illustrates this point:

> Well in Canada in the telecommunications industry of course Stentors is the major player with the cable companies kind of dancing on the sidelines and looking for their space in the sun. But at the moment I think it's Stentor.[30]

Stentor's recognition was not only because it represented the traditional telephone companies but also because it was the most active and the visible industry organization in the information highway policy development processes. In 1993 Stentor Telecom Policy published *The information highway: Canada's road to economic and social renewal* which started the information highway policy process in Canada. This document presented Stentor's vision of the information highway and it included recommendations for public policy directions. as well as industry and government actions that were required to make the vision a reality. In April 1994. just as the Minister of Industry announced the members of the Information Highway Advisory Council. Stentor announced its *Beacon Initiative*. The Beacon Initiative promised more than $8 billion in new investment which. according to Stentor. represented the telephone companies' commitment "to making the vision [of the information highway] a reality" (Stentor. 1994a. p. 3). Stentor Telecom Policy also published several information highway policy discussion documents during this period on topics such as the economic potential of the information highway (see Orr and Hirshhorn. 1995) and new roles for telecommunications carriers and content providers on the information highway (see Ellis. 1994).

During the period prior to the interviews for this research. both Stentor Telecom Policy and Stentor Resource Centre had been participating vigorously in the IHAC and

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[30] Adams. interview.

CRTC information highway policy processes. This participation included: membership of
Stentor Telecom Policy's Director of Research on IHAC's Growth. Employment and
Competitiveness Task Force (IHAC. 1995b. p. 211):[31] a written submission and oral
presentation by Stentor Telecom Policy to the CRTC Convergence Hearing (CRTC.
1995b: Stentor. 1995): representation of the member telephone companies by Stentor
Resource Centre staff in ongoing CRTC proceedings such as the ones on preferential
tariffs for educational and health service entities (see CRTC. 1995e) and local service
pricing options (see CRTC. 1995f): attendance by Stentor Telecom Policy staff at events
such as the 1996 universal access workshop held by the Information Policy Research
Program at the University of Toronto: and. in informal discussions with public interest
groups on social policy issues.[32]

Stentor's high level of activity paid dividends for the organization. as several
interviewees specifically commented on the how well-informed Stentor was in relation to
public policy issues. At the same time. however. the telephone companies represented by
Stentor were recognized as being very powerful organizations which could be extremely
ruthless in their attempts to obtain their ultimate goal. This quote from a member of the
IHAC Secretariat illustrates this point:

> They [i.e.. the telephone companies] have people inside the organization
> [i.e.. Stentor] who understand – truly understand what the issues are. They
> had some influence. The bottom line [is that the telephone companies] still
> really have some people – ruthless. really ruthless – no doubt about it.
> Yeah. it's in some ways a little terrifying to think what they would do if
> they could get it all. Boy. bad buggers to have on the block.[33]

The CCTA's recognition as an important player was both because of its role
representing the cable companies – companies that had a fervent interest in the outcomes

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[31] van Koughnett interview.

[32] The President of the CLA. for example. said that Stentor staff visited the CLA office
regularly to discuss policy issues.

[33] Ferguson. interview.

of information highway policy deliberations – and because of its participation in information highway policy processes. Although the CCTA was not as active as Stentor in publishing information highway policy documents or in participating in events such as policy workshops, the CCTA nonetheless had been participating in information highway policy endeavours which interviewees recognized. The CCTA, for example, made a written and oral presentation to the CRTC Convergence Hearing (CCTA, 1995a, p. 9: CRTC, 1995b) and it contributed to other relevant CRTC proceedings.[34] And like Stentor, the CCTA had a representative on IHAC's Growth, Employment and Competitiveness Task Force (IHAC, 1995b, p. 211). The CCTA also had on occasion made informal alliances with organizations such as the CTA, PIAC and FNACQ to contest the position of Stentor at certain CRTC proceedings.[35] activities which interviewees from each of those organizations commented upon.

The main reason that the interviewees cited the other industry organizations as important players was due to the organizations' participation in the information highway policy processes. An official in the CRTC's Broadcasting Sector remarked that the CAB along with Stentor and the CCTA regularly made applications to the CRTC as direct players in the CRTC processes, whereas organizations that were representing telecommunications users, content developers and consumers were usually intervenors in the processes and as such were indirect players.[86] The CAB made a written submission and an oral presentation to the CRTC Convergence Hearing, but it did not have a representative on IHAC nor on any of its working groups or task forces. As a Senior Policy Analyst in the Broadcasting Policy Branch of Canadian Heritage noted, the CAB

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[34] These included, for example, the proceedings that led to CRTC Telecom Decisions 92-12 (Competition in long distance voice telephone services) and 94-19 (Review of regulatory framework).

[35] For example, the Executive Director of the CTA (Braden, interview) said that his organization had worked with the CCTA to develop common positions in relation to obtaining access for new competitors to essential bottle-neck facilities which were controlled by the Stentor telephone companies.

[36] Bersin, interview.

was one of the organizations that appeared regularly in front of the CRTC.[87] Interestingly, four of the five interviewees who cited the CAB were themselves linked to the broadcasting community: a representatives from the CBC,[88] two members of the Broadcasting Policy Branch of Canadian Heritage,[89] and an official from the Broadcasting Sector of the CRTC.[90] Another industry organization. ITAC, although not directly represented on IHAC, submitted four briefs to IHAC through the ITAC Information Infrastructure Task Force. One of these briefs explained the Association's position on access, universal service and affordability issues (ITAC, 1995, p. 7).

As mentioned earlier. CANARIE did not perceive itself to be a direct player in the information highway policy development process. To ensure that IHAC and CANARIE were clear about their roles, the two organizations developed a memorandum of understanding.[91] Nonetheless. CANARIE consulted with IHAC and the government on certain policy issues, but CANARIE chose not to become involved in policy decision-making and it deliberately kept away from participation in CRTC proceedings.[92]

### 4.5.4 Recognition of Public Interest Groups

For the most-part, public interest groups were recognized as important players through their participation in the information highway policy processes. Only PIAC, however, was identified for other reasons.

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[37] Fildes, interview.

[88] David Keeble, interview with author, tape recording, Ottawa, Ont., 8 March 1996.

[89] Baldwin, interview: Fildes, interview.

[90] Peter Fleming, interview with author, tape recording, Hull, Que., 31 January 1996.

[91] Bjerring, interview.

[92] Bjerring, interview.

PIAC was the sole public interest group cited enough to be considered a key player in this policy process. In addition to its participation in information highway policy processes, PIAC was cited because of its numerous connections and its knowledge of process and content issues, especially with regard to telecommunications regulatory proceedings. The Associate Director General of the Telecom Policy Branch in Industry Canada, for example, identified PIAC as an important organization because PIAC staff were "in touch with an awful wide variety of consumer-based groups and people with special needs."[93] Public interest groups among themselves considered PIAC to be their leader in terms of expertise. In the period preceding the interviews for this research, PIAC regularly acted as legal counsel at CRTC hearings for both NAPO and FNACQ, and it had recently begun to represent the CAC at CRTC hearings.[94] As new players in telecommunications policy processes, the CLA, CPI, and TCC all relied on PIAC for advice with regard to the issues and procedures involved in CRTC telecommunications proceedings.[95] The Executive Director of the CLA described the CLA's relationship with PIAC:

> We're working with PIAC on Telecom Public Hearing 95-44. CLA had
> never been involved in a CRTC hearing before. So in this particular case
> PIAC is giving us guidance and counsel.[96]

For CPI's Chief Executive Officer, PIAC was an important player for several reasons. He explained:

> Janigan is on staff; Pippa Lawson who is a lawyer; Andy Reddick who is an
> expert. And these people are working full-time at this. Nobody else has
> that kind of luxury. It would be nice to have the luxury of having a group
> of people with that level of expertise – say within CPI. We are moving
> towards that and we have some paid people, but we don't have a lawyer on
> staff or a Michael Janigan on staff that's done this for a long time, and has

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[93] Larry Shaw, interview with author, tape recording, Ottawa, Ont., 5 December 1995.

[94] Phillipa Lawson, interview with author, tape recording, Ottawa, Ont., 5 February 1996.

[95] Adams, interview; Graham, interview; Skrzeszewski, interview.

[96] Adams, interview.

a stronger network. in a sense, than we do. So, our affiliation with them. we find it critical, especially for the CRTC things.[97]

PIAC was also instrumental in creating a broadly based alliance of public interest groups in late 1995 called the Alliance for a Connected Canada to present a unified consumer perspective on information highway issues.[98] The Alliance's initial membership included: CPI; FNACQ; the Toronto-based Information Highway Working Group; the Information Policy Research Group at the University of Toronto; the McLuhan Program in Culture and Technology at the University of Toronto; PIAC; the Public-Information Highway Advisory Council based in Ottawa; the Telecommunications Workers' Union; and TCC (Alliance for a Connected Canada, 1995). As a result of its central role, public interest groups viewed PIAC as a hub linking them with other public interest groups and with other types of policy players. Within government as well, PIAC's role in bringing together public interest groups was recognized as being significant as this statement from a senior policy analyst in the Telecommunications Policy Branch demonstrates:

> PIAC, for example, approached us and said, "We have just set up an outfit called Alliance for a Connected Canada." You may have heard of it. And so we were glad to hear about this, because we were looking for a group – one *interlocuteur*, as we say, instead of several.[99]

As mentioned above, the other public interest groups were identified as important players mainly because of their participation in information highway policy making activities. A policy analyst in the Bureau of Consumer Affairs, who had been a sherpa for the IHAC Access and Social Impacts Working Group made the following comment:

> On the same consumer side, you have the public interest groups like PIAC, NAPO, you have the Consumer's Association of Canada, Telecommunities Canada. Actually, I have a couple of submissions here from the Coalition

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[97] Skrzeszewski, interview.

[98] Jacques Drouin, interview with author, tape recording. Ottawa, Ont., 5 December, 1995; Graham, interview; Hoffman, interview; Skrzeszewski, interview.

[99] Drouin, interview.

for Public Information and these specialized public interest groups. And
we definitely did hear from them in the process.[100]

The CAC. for example. participated regularly at CRTC telecommunications proceedings.
made a submission to the Convergence Hearing and its Past President was appointed as a
member of IHAC. And. even though CPI was a new organization. it was conspicuous
from the outset in debates on information highway access issues through interventions and
submissions to the CRTC (including an oral presentation at the Convergence Hearing).[101]
and submissions to the IHAC Access and Social Impacts Working Group.[102] In addition.
the Chair of CPI's Steering Committee was a member of three important information
highway groups: the Information Highway Advisory Council. the advisory board for
Industry Canada's Community Access Program[103] and CANARIE's Board of Directors.[104]
The CLA followed a similar path – interventions at CRTC proceedings. presentations to
the IHAC Access and Social Impacts Working Group. and membership of its Director on
the Community Access Program's advisory board.[105]

The similarity of these organizations. however. was also a reason for interviewees
to blend them together which may have reduced their impact in front on policy-makers. A
Senior Policy Analyst in the Broadcasting Policy Branch of Canadian Heritage. after
identifying the important industry organizations. said of the public interest groups:

> There's the other side – the Consumer's Association. the Coalition of
> Public Information – there's a whole string of those sort of public interest-
> type organizations that come forward. You see them over and over again –

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[100] Pigeon. interview.

[101] Skrzeszewski. interview.

[102] Hoffman. interview.

[103] Skrzeszewski. interview.

[104] Bjerring. interview.

[105] Adams. interview.

their submissions to the CRTC. their appearance before ... the [Information Highway] Advisory Council.[106]

## 4.6    Conclusion

From the interviewees' perceptions of the key players, a picture emerges of the organizations that would likely be the core organizations in this policy process. Although there were many organizations cited by at least one or two interviewees. only six were perceived to be important by a substantial number of the interviewees. Reflecting on Pross's image of a policy community (see Figure 1). in this policy process there should be a few organizations in the inner circle of policy decision-making. and a greater number of interested organizations positioned further from the centre. If the perceptions of the interviewees of the key players are accurate predictors. then Industry Canada. Stentor. Canadian Heritage. the CCTA. the CRTC and PIAC are the six organizations that will be at the core.

The six key players identified in this research are what Knoke (1990b. p.132) refers as the actors within the network with the highest *influence reputation*.  In this research I have defined the key players to be those organizations cited by the greatest number of interviewees as important organizations in this policy process.  Social network analysts such as Knoke have determined the *influence reputation* of actors involved in a social system simply by asking informants to rank or rate their perceptions of the other actors' capacities to achieve their goals within the system (p. 133).

According to Knoke (1983), an actor's *influence reputation* reflects its latent capacity to affect the outcome of events in which it has an interest (p. 1068).  As Knoke explains.

> An amalgam of past and expected behaviors. *influence reputation* is proportional to an actor's credibility in convincing others about the trustworthiness of his or her information and intended actions.  The higher

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[106] Fildes. interview.

the perceived *influence*, the greater others' awareness of an actor's
autonomy in pursuing his or her objectives [italics added]. (p. 133)

The participants in a social system such as a policy network therefore will logically focus their efforts on interacting with the players they believe are the most influential and can help them the most to achieve their policy objectives. Laumann and Pappi (1976), Galaskawiecz (1979), Knoke and Wood (1981), and Knoke (1983) have all found a significant correlation between a given actor's *influence reputation* and the number of ties the given actor has with other actors in a system. Their findings suggest that those organizations identified in this chapter as the key players will also be the organizations that have the greatest number of interaction ties with other organizations in this policy process. Those interactions are the focus of the next chapter.

# CHAPTER 5

## ANALYZING THE INTERACTIONS

### 5.1    Introduction

In this chapter I analyze the interactions that were reported among the participants in this policy process. In support of the exploratory nature of this research. the chapter has three primary goals. The first goal is to distinguish the types of the interactions and the relationships that were occurring among the participating organizations. and to identify their importance with respect to the outcomes of the policy process. The second goal is to determine the *core organizations* in the network since these organizations are theoretically thought to be in the best positions to influence the outcomes of the policy process. I define core organizations to be those organizations that have been ranked the highest overall over a range of prominence measures of interaction participation. I will compare these findings with those from chapter 4 where I identified six *key players*. that is the six organizations thought by the most interviewees to be important players in the process. The final goal of this chapter is to identify the patterns of interaction among the organizations and to determine what the patterns indicate about the structure of the network. the relationships of the organizations within the network. and the impact these relationships may have on the outcome of the policy process.

The findings of this chapter are aimed at responding to three of the research questions. First. the chapter aims to answer research question 1:

- Which organizations within the Canadian information highway policy community were the core organizations at the current stage of the process through which essential services were being determined?

This chapter also is aimed at responding to research questions numbered 3 and 4:

- During the process to determine essential services, with whom did the organizations interact and what were the characteristics of those interactions?

- How did the interactions influence the outcomes of the process through which essential services were being determined?

Sociologists have studied the interactions of organizations in a range of contexts and have provided many of the tools for analyzing inter-organizational interactions. Organizational sociologists such as Hall (1994) focus on inter-organizational relationships as one of a range of variables employed to understand the environments in which organizations operate and to comprehend the complex social structure of which organizations are a part (p. 233). Hall defines *inter-organizational relationships* as "interaction processes between organizations and within networks and sets [of organizations]" (p. 250) and he states that the organizations involved, the reasons for their interactions, and the form of the interactions, are all important elements for organizational analysis. He points out that different types of relationships occur for different reasons, hence organizations are often involved in several types of interactions.

Social network analysts take a narrower perspective in their study of inter-organizational interactions. Knoke and Kuklinski (1982) state that social network analysts study the relationships that occur within a social system for two purposes – to understand entire social structures and to comprehend individual elements within the structure (p. 10). These authors state that "different types of relations identify different networks, even when imposed on the identical set of elements" (p. 12). In this context, the term *network* refers to a particular set of relations (*i.e.,* interactions) occurring among a set of actors (Knoke, 1990b, p. 8). Burt (1983, p. 37) concludes that "analysis of the different types of interaction activities is integral, almost by definition, to a description of social structure in a multiple network system." Because of their emphasis on understanding social structures, social network analysts have also become known as structural analysts.

Political analysts have applied social network analysis techniques to the study of political behaviour. Knoke (1990b) states that "the basic objective of a structural analysis of politics is to explain the distribution of power among actors in a social system as a function of the positions that they occupy in one or more networks" (p. 9). He points out

that most formal definitions of social power[1] indicate a relational dimension between social actors.[2] Knoke contends that this dimension is evident in the two major types of power relations in large systems of actors – *influence* and *domination*. *Influence* "involves transmission of information that changes other actors' behaviors by changing their perceptions" (p. 11). In other words. influence occurs as the result of communication interactions.

*Domination*. on the other hand. is related to the promised or actual exchange of sanctions: that is. dominant actors provide subordinate actors with resources as rewards for acceptable performance or they withhold resources as punishment for unacceptable performance (Knoke. 1990b. p. 13-14). Kaufman (1996) states that sanctions in domination relationships are "intended to facilitate or restrain others' behaviors in directions desired by the initiator" (p. 102). Knoke. Urban. Broadbent & Tsujinaka (1996) argue that "by exchanging these resources in return for obedience to their commands. resourceful actors can coordinate collective actions toward the achievement of their preferred policy objectives" (p. 18). Hall (1994) explains this type of relationship in terms of dependencies. As noted by Hall:

> Analysts have argued that parties in a power relationship are tied to each other by the dependence of one party on the other. or perhaps by mutual dependence. Power lies in asymmetrical relations. (p. 253)

When an organization is dependent upon receiving a resource. the provider of that resource is in a dominant position in that relationship: that is, the provider has coercive power over the receiver. Or. when two organizations are dependent upon each other for resources. each of them has a degree of power over the other.

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[1] Knoke (1990b. p. 1) cites Bertrand Russell's reference to power as "the production of intended effects" (Russell 1938. p. 25) and Max Weber's two famous definitions of power (Weber. 1947. 1968). which feature the coercive aspect of relationships between actors.

[2] Knoke (1990b) defines *actor* as "a generic term for a unitary social entity. whether an individual person or a larger collectivity. such as a corporation or a nation state" (p. 1).

Thus, two fundamental types of interactions are especially relevant to the study of public policy-making – communication interactions and resource exchanges. The former involve the transmission of information, an intangible commodity, whereas the latter involve the exchange of physical commodities "such as money, labor power, or facilities" (Knoke et al., 1996, p. 18).

## 5.2    Analyzing the Interactions

I analyzed the interview transcripts to determine the main reasons for the basic types of interactions. Formal communication occurred predominantly when organizations presented policy positions or legal positions on specific issues in formal processes. These were the processes through which the regulatory bodies, the advisory bodies or the government departments made official decisions, legally-binding rulings or high-level policy recommendations. These interactions occurred following prescribed processes such as the written submissions and oral presentations to the Information Highway Advisory Council (IHAC) which occurred in response to the Council's discussion document on access, affordability and universal service on the information highway (see IHAC, 1995a).

Organizations also communicated formally in relation to legal relationships and government programs such as SchoolNet. For example, when acting as the legal counsel at a CRTC hearing for the National Anti-Poverty Organization (NAPO), the Public Interest Advocacy Centre (PIAC) communicated formally with NAPO to ensure that the latter organization's position would be accurately represented on the issue under consideration at that hearing.[3]

Informal communication appeared to occur when organizations discussed their policy perspectives outside of formal processes or formalized relationships. Organizations often used informal communication for obtaining or for transmitting information to develop or promote their position on a specific policy issue. Informal communication

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[3] Phillipa Lawson, interview with author, tape recording, Ottawa, Ont., 2 February 1996.

took place in many different types of interactions, including discussions at lunch meetings, at conferences, through informal telephone calls, and so forth.

A Vice-President of Stentor Telecom Policy explained the difference between formal communication interactions and informal ones this way:

> Broadly speaking there are the formal ones and the informal ones. The formal ones come by way of a process that's kicked into gear by the government department. And the informal one means chats over lunch, or maybe you just happen to be there about something else but you throw this on a *by the way* basis just because you think of it as something that's worthwhile chatting about at the very end or something.[4]

He continued:

> The formal processes are fairly defined and structured. Industry [Canada] puts out a request for comments in the *Canada Gazette*, Part I,[5] or does Heritage, or both as we now know. From the point of view of the CRTC, there are both written – those would just be file hearings, so to speak – to use a lawyer's term – that is to say they'd just be comments – and reply and comments, there's no oral portion. The CRTC has both kinds [i.e., written and oral processes] depending on the magnitude of the issue in question. They put out their own public notices. They don't publish in *Canada Gazette*, Part I, but they have a free Telecom mailing list, and they'll call for comments and reply to comments, whichever. But if the issue is more complex it can build itself up into more process, ultimately to include an oral public hearing component. And those are formal opportunities and indeed the May 19 hearing counts as one of those.[6]

Other researchers have distinguished between formal and informal channels of information flow across a variety of communication activities. Wilkinson (1992, p. 96) observed that formal communication is externally validated by being made public or

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[4] Greg van Koughnett, interview with author, tape recording, Ottawa, Ont., 8 December 1995.

[5] The *Canada Gazette* is the official news bulletin of the Government of Canada. Published every Saturday. *Canada Gazette*, Part I contains all formal public notices, official appointments, miscellaneous notices and proposed regulations from the government and private sectors that are required to be published by a federal statute or a regulation (Canada, Public Works and Government Services, 1998).

[6] van Koughnett, interview.

official in some way whereas informal communication includes all forms of communication which are not formal. Wilkinson examined the effect of the *Ontario Freedom of Information and Protection of Privacy Act, 1987* on both formal and informal channels of information in organizations affected by the *Act*. Garvey and Griffith (1968). who studied informal channels of communication in the behavioural sciences. stated that "formal channels' carry information which is public and remains in 'permanent' storage: 'informal channels' carry information to restricted audiences and its storage is relatively temporary" (p. 131). In her study of boundary-spanning communication among editors. book reviewers and scholars of children's literature. Weedman (1992) described formal channels of communication simply as those which were public whereas informal channels were those which were private. Crane's study (1972) of "invisible colleges" found that knowledge within scientific communities is diffused largely through informal communication channels.

All organization in this research were involved in both formal and informal communication activities. The Information Technology Association of Canada (ITAC). for example. made formal submissions to IHAC (see ITAC. 1995) and to the CRTC (see ITAC. 1996) on issues pertaining to the definition of essential services. According to its Vice-President of Policy. ITAC was also often involved in informal communication interactions. including with Industry Canada staff:

> Typically our contacts in government are saying. "Hey guys, we're thinking about this and such. Will you give us a hand?" In fact. I've just got something that's just come in from Industry Canada. A lot of it is from Industry Canada. although we tend to get calls from quite a number of governments. You know. "Please give us your thoughts." you know, early and [we] try to work it usually in as non-confrontational a way as we can.

Resource exchange interactions occurred when organizations exchanged staff resources and/or money. Some organizations were dependent upon other organizations for the receipt of resources to participate in the process to determine information highway

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Bob Crow. interview with author. tape recording. Toronto, Ont.. 13 February 1996.

policies. IHAC. for example. depended on other organizations to contribute staff members to act as Council members. to participate in its working groups. or to work in the IHAC Secretariat. Some organizations provided resources to assist other organizations in participating in the process. PIAC. for example. acted as legal counsel for four of the public interest groups at CRTC hearings. and it provided expert advice to the other two public interest groups.[5] These activities involved PIAC not only in resource exchanges to provide legal representation and policy advice. but also in informal and formal communication to develop and discuss policy positions. and in formal communication to present the policy positions. The Executive Director of Canada's Coalition for Public Information (CPI) provided a typical example of the types of interactions with PIAC described by members of public interest groups:

> I got to them [PIAC]. for instance. with this one [CRTC hearing] that's coming up in April. and say "what positions are you taking on this?" And. I have for instance. the draft PIAC position downstairs on the CRTC hearings that will take place in April on local service. With the one on preferred rates we sent them our position and said "give us some advice on this." and they did.[9]

The exchange of financial resources was especially important to public interest groups. An interviewee from the CRTC stated that her organization obtains funds from industry organizations to provide financial support to public interest groups to help them cover their legal costs for participating in telecommunications hearings:

> Lobby groups. especially on the side of the consumer, need legal and financial representation to appear before the Commission and ... the Commission determines how much money they're going to be funded after the fact. The Industry actually pays for it. because on the Telecom side. where it's debted. it's cost recovery.[10]

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[5] Lawson. interview.

[9] Stan Skrzeszewski. interview with author. tape recording, London. Ont.. 22 December 1995.

[10] Diane Rheaume. interview with author. tape recording. Ottawa. Ont.. 1 February 1996.

Without the financial resources provided by the CRTC. some of the public interest groups may not have been able to participate in the CRTC hearings. This scenario actually occurred. in that PIAC determined that it could not afford to participate in the oral presentations at the CRTC Convergence Hearings because there was no cost-recovery funding provided by the CRTC.[11]

In another instance. the Director of Consumer Information and Coordination in the Office of Consumer Affairs explained how her unit obtained research and policy advice from consumer groups by providing them with funding through the Small Grants and Contributions Program:[12]

> Once a proposal is approved there's a fairly lengthy agreement that says
> "You will deliver this and this. This is the scope and outline of your project
> and stuff." The purpose of the program is to generate research and policy
> advice [relating to consumers] by funding specific projects that the groups
> are doing. Obviously we have an interest in projects that are on the
> [information] highway. for example. [which] is very topical. and the groups
> know that they're interested in it too. So often those interests will
> coincide.[13]

This exchange of financial support produced benefits for the provider as well as the receiver. Nonetheless. the provider set the conditions and therefore was in the dominant position. that is. the provider of the resource was in the position with greater power.

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[11] Lawson. interview.

[12] PIAC. for example. received funding for a range of projects from Consumer Affairs. as well as other parts of Industry Canada. For examples of reports from PIAC which were published with funding from Industry Canada see: Davidson. 1992: Lawson. 1993: Lawson. 1994: Reddick. 1995: and. Reddick. 1998.

[13] Karen Ellis. interview with author. tape recording. Ottawa. Ont.. 7 December 1995.

## 5.3    Identifying the Core Organizations

While the interaction activities in the network can be differentiated to distinguish the main types of relationships occurring among the network actors. these on their own say little about the actors and the system of which they are a part. A major goal of this chapter is to identify the core organizations to determine whose ideas are most likely to influence the outcome of the policy process. I define the *core organizations* as the most *prominent players* in the network. *Prominence* is a key concept in social network analysis because it identifies empirically those actors who. through their interactions. have the highest visibility and are in the strongest positions to influence the outcomes of a process by controlling the flow of information and other valued resources (Knoke. 1990b). According to Knoke (1990b). "the core actors in any policy domain are public institutions and private sector collective action organizations[14] that are capable of exercising influence over the outcome of public decisions" (p. 19).

Social network analysts have developed two main classes of prominence measures. *centrality* measures and *prestige* measures. to describe and make inferences about social systems. Measures of *centrality* start with the premise that prominent actors are those who are extensively involved in relationships with other network members. In other words. "the more central an actor. the greater [is] his or her degree of involvement in all the network relations" (Knoke and Kuklinski. 1982. p. 52). According to Knoke (1990b. p. 13). actors who are central players in a communication network are more influential than those on the periphery. Thus. information exchange is an important variable when determining the prominent players among groups in collective action situations. Knoke explains:

> Centrality prominence in a communication network is synonymous with
> *influence* [italics added] ... Actors who are connected to other prominent
> actors gain power through their positional ability to tap into larger stores of
> useful political information. Persons on the periphery. or whose direct and

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[14] A collective action organization. according to Knoke (1990b). is any formal association or organization that seeks "non-market solutions to individual or group problems" (p. 5).

indirect ties link them mainly to other marginal actors. will encounter inadequate quantities and qualities of information. They are relegated to uninfluential locations. (p. 13)

Measures of centrality focus on symmetric relations. They are not concerned with whether an actor is the source or the object of a relationship – the direction of the exchange is not important. The fact that there is a relationship is the important part.

*Prestige* measures are based on the quality of interactions and "have developed from the assumption that prominent actors are those who are extensively the object of relations" (Knoke and Burt. 1983. p. 199). Being the object of a relation is of greater importance than being involved in a relation. and being the object of many relations distinguishes the leaders from the followers. "Leaders are the objects of extensive relations from followers. while the latter are the objects of few relations" (p. 199). Prestige measures index the deference accorded to an actor by other actors and "his probable control of valued resources" (p. 214). Because of the requirement to identify the object of relations. prestige measures require a focus on asymmetric relations. that is. knowing who cited whom. or who provided to whom. is essential for prestige measures.

Although measures of centrality prominence and prestige prominence highlight different aspects of each organization's involvement in a set of interactions. the two types of measures may give very similar results. I have chosen to test both types of prominence measures to assess their explanatory value to describe the structure of the network. both in terms of the organizations involved in the interactions. and the likely influences of their participation on the outcome of this policy process. In chapter 6. I analyze the outcome of the policy process for the period for which the data were gathered. and I compare the effectiveness of the prominence measures as predictors of the actual influence of the participating organizations. In chapter 7. I bring the research to the present by analyzing the outcome of this policy process from mid-1996 to date. and I similarly compare the effectiveness of the prominence measures as predictors of the level of influence of the participating organizations.

### 5.4    The Analysis

In this research. I asked the interviewees to identify the organizations with whom they had interacted regarding the policy issue under investigation, and to describe the nature and extent of those interactions. I did not present the interviewees with a list of organizations from which to choose because I did not want to influence their responses. As a result of this strategy I obtained interviews rich in information that was responsive to both quantitative and qualitative analysis. However. because of the semi-structured format of the interviews. I found that the interviewees discussed the interactions not only in response to this question. but in response to others as well.  To ensure completeness of coverage. I read each transcript carefully to identify all interaction activities regardless of when they were discussed during the interviews.

I used the *Ethnograph* software package (version 4.0) to code the transcript data. Employing an iterative process. I developed a set of codes to identify the different forms of interaction activities.  Based on the way the interviewees described the interactions. I identified 19 different forms of interactions.  I assigned each of the 19 forms of interactions to one of three basic interaction types: informal communication (IC). formal communication (FC) and resource exchanges (RE).  See Table 5 below.

After recording the interaction activities cited by the interviewees. I merged the activities identified by the interviewees from the same organization.  I then reduced the data down to the types of interactions that occurred among the 21 organizations represented by the interviewees. I operationalized this data by creating four binary-coded matrices – one to record each of the following: formal communication links between organizations: informal communication links between organizations: all communication links (*i.e.*. both formal and informal) between organizations: and one for resource exchange links between organizations. Each matrix was asymmetrical in form and was composed of 21 rows by 21 columns of data – the rows recording which organizations cited the linking interactions. and the columns recording which organizations were recipients of the interaction citations. These matrices appear in Appendix G as Tables G1

Table 5    Forms & Types of Interactions

| Code Number | Form of Interaction Activity | Interaction Type | | |
|---|---|---|---|---|
| | | IC | FC | RE |
| 1. | Provided advice about CRTC matters on informal basis | | | x |
| 2. | Activities related to committee work | x | | |
| 3. | Conference attendance | x | | |
| 4. | Casual discussion | x | | |
| 5. | Government inter-departmental working group responding to IHAC recommendations | | x | |
| 6. | Joint preparation of case or papers for CRTC hearing | | x | |
| 7. | Formal documentation of requirements for, or outcomes from, legal services, government programs, etc. | | x | |
| 8. | Mandated relationship | | x | |
| 9. | Activities related to membership on boards of directors, or steering committees | | x | |
| 10. | Obtained policy or legal advice | | | x |
| 11. | Obtained legal counsel to appear before CRTC | | | x |
| 12. | Participated in a prescribed process (e.g., CRTC hearing) | | x | |
| 13. | Received funding for a project | | | x |
| 14. | Provided funding for a project | | | x |
| 15. | Provided staff (e.g., for legal representation) | | | x |
| 16. | Received staffing support | | | x |
| 17 | Activities related to IHAC working group | | x | |
| 18. | General activities related to membership in an association or alliance | x | | |
| 19. | Intra-departmental working group | x | | |

**Codes for Types of Interactions:**
IC = Informal Communication     FC = Formal Communication
RE = Resource Exchange

Table 6      The Interviewees' Organizations (in Alphabetical Order) with Group
             Categories

| Organization Name | Group Category |
|---|---|
| Canada's Coalition for Public Information (CPI) | Public Interest Group |
| Canadian Association of Broadcasters (CAB) | Industry Organization |
| Canadian Broadcasting Corporation (CBC) | Industry Organization |
| Canadian Cable Television Association (CCTA) | Industry Organization |
| Canadian Heritage (Heritage) | Government Department |
| Canadian Library Association (CLA) | Public Interest Group |
| Canadian Network for Research. Industry and Education (CANARIE) | Industry Organization |
| Canadian Radio-television and Telecommunications Commission (CRTC) | Regulatory/Advisory Body |
| Competitive Telecommunications Association (CTA) | Industry Organization |
| Consumers' Association of Canada (CAC) | Public Interest Group |
| Fédération National des Consommateurs du Québec (FNACQ) | Public Interest Group |
| Human Resources Development Canada (HRDC) | Government Department |
| Industry Canada (Industry) | Government Department |
| Information Highway Advisory Council (IHAC) | Regulatory/Advisory Body |
| Information Technology Association of Canada (ITAC) | Industry Organization |
| National Anti-Poverty Organization (NAPO) | Public Interest Group |
| National Library of Canada (NLC) | Government Department |
| Public Interest Advocacy Centre (PIAC) | Public Interest Group |
| Stentor Telecom Policy (Stentor) | Industry Organization |
| Telecommunities Canada (TCC) | Public Interest Group |
| Treasury Board | Government Department |

through G4. In Table G1 (the matrix of asymmetrical organizational links from formal communication interactions). for example. the two interviewees from PIAC cited formal interactions with the Consumers' Association of Canada (CAC), the Fédération nationale des associations de consommateurs du Québec (FNACQ). NAPO. Telecommunities Canada (TCC). the Canadian Cable Television Association (CCTA). Stentor. the CRTC. Canadian Heritage. Industry Canada. and IHAC.

## 5.5    Group Categories of Organizations

To provide consistency in my analysis across chapters. I divided the organizations into the same four basic group categories I used in chapter 4. that is. Public Interest Groups. Industry Organizations. Government Departments. and Regulatory/Advisory Bodies.  Table 6 (above) provides a list of the names. and abbreviations where applicable. of the 21 organizations and the group category into which each was classed.

Note that the 21 organizations were selected because they were the organizations represented by the interviewees in this research. These organizations were also the 20 most frequently cited organizations as important players in this process (see Figure 2) with the addition of the Canadian Broadcasting Corporation (CBC) which. although it did not rank among the top twenty. was identified by two interviewees as an important player.

## 5.6    Identifying Core Organizations by Degree of Centrality

To identify the organizations that were the most centrally prominent. I used the *Degree of Centrality* measure which is one of the simplest measures of symmetric relations.  The Degree of Centrality is the proportion of other actors directly connected to a given actor who could have been connected to that actor.[15]  Because Degree of Centrality is a measure of symmetric relations. I created a half-matrix of "symmetrized"

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[15] Since there were 20 organizations with which a given organization could have interacted. the Degree of Centrality for a given organization was the number of organizations with which it interacted. divided by 20.

interactions from each of the four original matrices of asymmetric links.[16] Each matrix of symmetrized interactions identified the interactions that occurred between organizations. regardless of who cited the interaction. These matrices are provided in Appendix G as Tables G5 through G8.

From these matrices of symmetric relations I tabulated. for each organization. the number of other organizations to which it was linked and its Degree of Centrality for each of the three types of interaction. These data are presented below in Table 7. As a quantitative measure. Degree of Centrality identifies the number of other actors to which a given actor was linked and therefore it determines the actors which are best positioned to control information or other resources (Knoke and Burt. 1983. 214).[17]

In Figure 3 through Figure 6. which appear below. I present the 21 organizations in ranked order by their Degree of Centrality based on their interactions respectively in formal communication. informal communication. all communication and resource exchanges. As can be seen by examining the four graphs. the ranking of the organizations changes from interaction type to interaction type when using the Degree of Centrality variable.

In formal communication interactions (Figure 3). IHAC and the CRTC stand out as being highly prominent based on their Degree of Centrality. IHAC's Degree of Centrality is .90. which means that IHAC had links through formal communication

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[15] For these half-matrices of symmetrized interactions, when an interviewee from either organization i or organization j cited an interaction between them. I simply recorded a "1" in the cell at the intersection of the two organizations.

[17] Because the Degree of Centrality measure identifies the organizations that are central to the organizations of the interviewees. it is arguable that if I had started with a different set of interviewees I would have obtained a different set results. This is one of the reasons why other measures of prominence are used in this research. Refer to section 5.7 for more discussion of this issue.

Table 7        Number of Links to Other Organizations and Degree of Centrality by Types of Interactions

| Organization Identity Number& Name | Formal Communication | | Informal Communication | | All Communication | | Resource Exchange | |
|---|---|---|---|---|---|---|---|---|
| | Links | Degree of Centrality | Links | Degree of Centrality | Links | Degree of Centrality | Links | Degree of Centrality |
| 1. CAC | 7 | .35 | 8 | .40 | 10 | .50 | 7 | .35 |
| 2. CLA | 5 | .25 | 9 | .45 | 12 | .60 | 4 | .20 |
| 3. CPI | 7 | .35 | 8 | .40 | 10 | .50 | 8 | .40 |
| 4. FNACQ | 6 | .30 | 5 | .25 | 7 | .35 | 4 | .20 |
| 5. NAPO | 4 | .20 | 8 | .40 | 9 | .45 | 5 | .25 |
| 6. PIAC | 13 | .65 | 13 | .65 | 15 | .75 | 9 | .45 |
| 7. TCC | 8 | .40 | 6 | .30 | 10 | .50 | 5 | .25 |
| 8. CAB | 3 | .15 | 7 | .35 | 9 | .45 | 1 | .05 |
| 9. CCTA | 11 | .55 | 10 | .50 | 13 | .65 | 2 | .10 |
| 10. CTA | 5 | .25 | 4 | .20 | 5 | .25 | 1 | .05 |
| 11. ITAC | 3 | .15 | 7 | .35 | 7 | .35 | 0 | .00 |
| 12. Stentor | 13 | .65 | 17 | .85 | 19 | .95 | 3 | .15 |
| 13. CANARIE | 2 | .10 | 6 | .30 | 7 | .35 | 3 | .15 |
| 14. CBC | 3 | .15 | 3 | .15 | 5 | .25 | 1 | .05 |
| 15. CRTC | 16 | .80 | 6 | .30 | 16 | .80 | 9 | .45 |
| 16. Heritage | 10 | .50 | 12 | .60 | 14 | .70 | 3 | .15 |
| 17. HRDC | 5 | .25 | 3 | .15 | 6 | .30 | 5 | .25 |
| 18. Industry | 12 | .60 | 18 | .90 | 19 | .95 | 9 | .45 |
| 19. NBC | 5 | .25 | 7 | .35 | 9 | .45 | 0 | .00 |
| 20. Treasury | 4 | .20 | 2 | .10 | 5 | .25 | 0 | .00 |
| 21. IHAC | 18 | .90 | 7 | .35 | 19 | .95 | 11 | .55 |

**Figure 3.** Organizations ranked by Degree of Centrality based on formal communication interactions
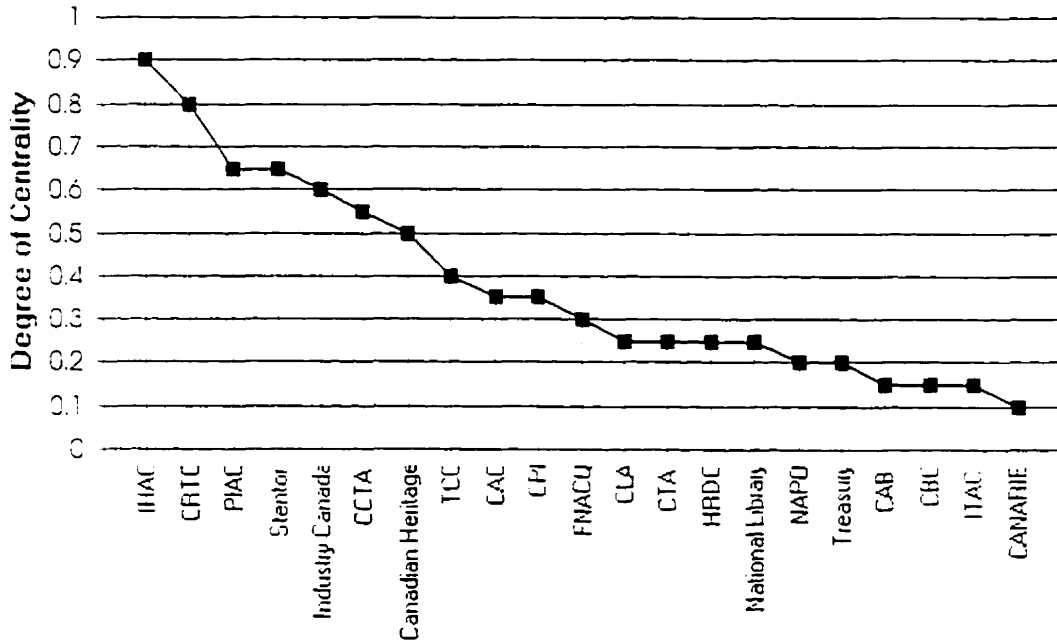


**Figure 4.** Organizations ranked by Degree of Centrality based on informal communication interactions
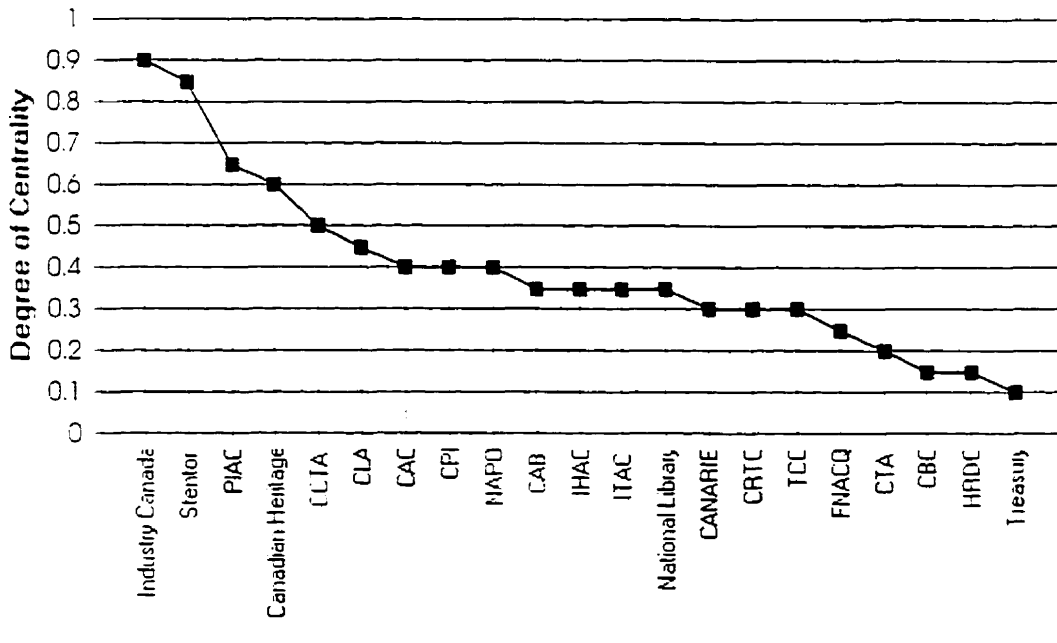
**Figure 5.** Organizations ranked by Degree of Centrality based on all communication interactions
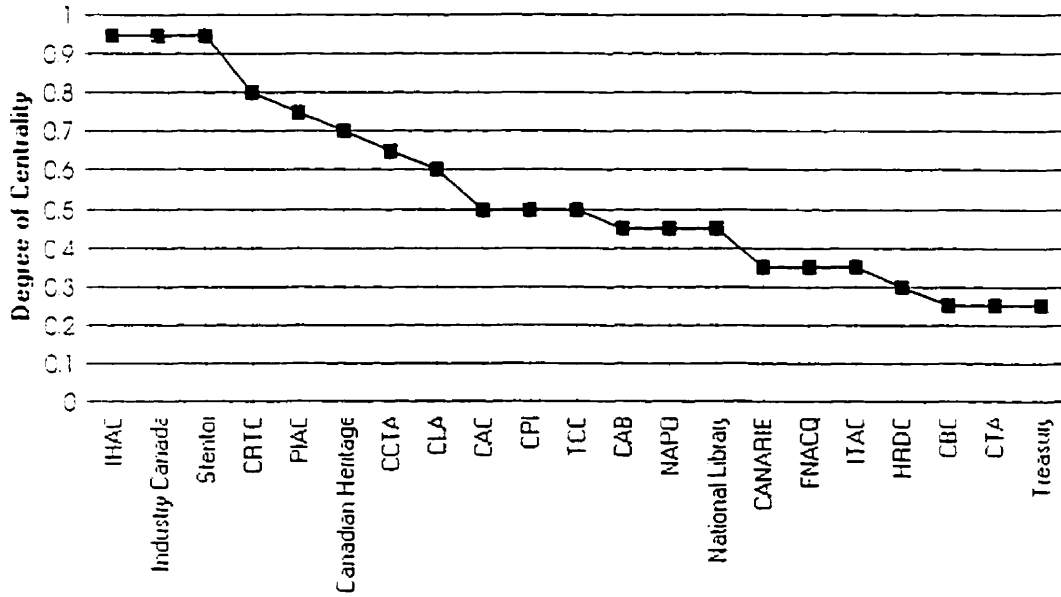


**Figure 6.** Organizations ranked by Degree of Centrality based on resource exchange interactions
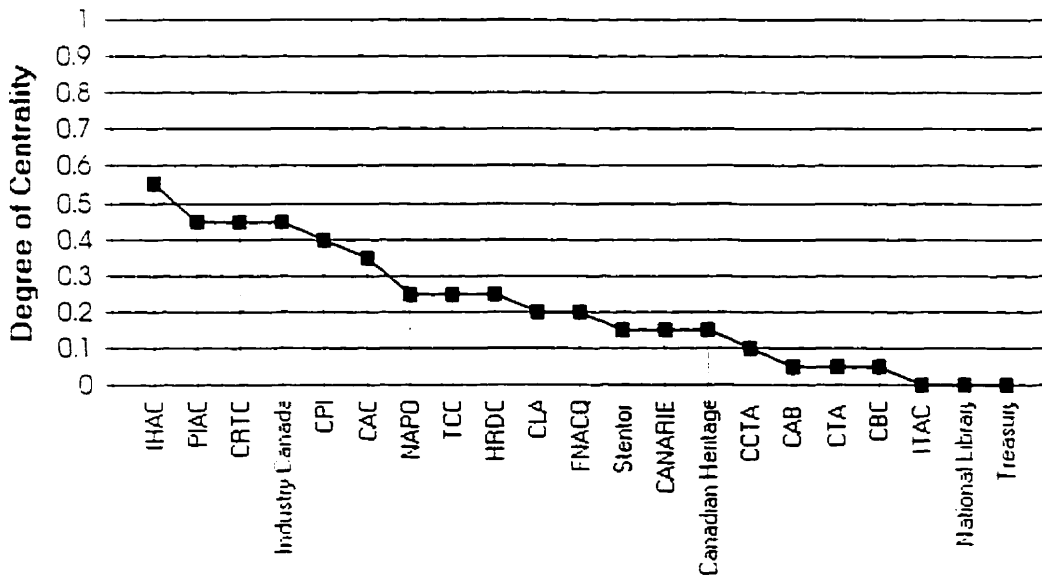
interactions with 18 of the 20 organizations. that is. with .90 of all possible organizations. The CRTC's Degree of Centrality is .80. PIAC and Stentor are tied for third position. but their Degree of Centrality (.65) is well below the two highest ranked organizations. Stentor. nonetheless. is clearly the most centrally prominent industry organization and PIAC the most centrally prominent public interest group in formal communication interactions. After these two organizations. there is a steady decline in the Degree of Centrality for the subsequent organizations until the middle of the graph. at which point the decline begins to slow. Industry Canada. which ranked in fifth position. is the leading government department. The CCTA. in sixth position. and Canadian Heritage. in seventh position. are the only other two organizations with a Degree of Centrality of .50 or higher[18] and they round out the top third of the network organizations. Public interest groups predominate in the middle range. occupying five of the seven middle positions. whereas industry organizations are prevalent among the bottom third of the organizations. accounting for five of the seven places.

In the informal communication interactions (Figure 4) two organizations are clearly the most prominent when using the Degree of Centrality variable. Industry Canada is the most centrally prominent organization. followed closely by Stentor. PIAC. with a Degree of Centrality almost 24% lower than that of Stentor. ranks as the third most prominent organization. followed in order by Canadian Heritage and the CCTA. Only the five highest ranked organizations have a Degree of Centrality of .50 or higher. The Canadian Library Association (CLA) is the only other organization ranked among the first third of the positions. From the 7th through the 16th ranked organization. there is a large "plateau" of mid-ranked organizations in which the Degree of Centrality of the organizations diminishes only slightly. All of the public interest groups with the exception of PIAC and FNACQ are within this large cluster. IHAC and the CRTC also rank among these mid-level organizations. showing that the two regulatory/advisory bodies used informal channels of communication much less frequently than they used formal channels.

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[18] A Degree of Centrality of .50 indicates that a given organization interacted with half of the other organizations.

When all communication interactions are examined together. the very strong network of connections of Industry Canada. IHAC and Stentor stand out as can be seen in Figure 5 above. The Degree of Centrality for each of these three organizations is .95 which means that each had communication links with 19 out of 20 possible organizations. The CRTC which communicated predominantly in formal communication is ranked in fourth position followed by PIAC. Canadian Heritage and the CCTA. These same seven organizations were the seven that were cited by the most interviewees as important players in the policy process as found in chapter 4. The difference. however. is that IHAC was not ranked as a *key player* because it had a substantially lower number of citers than the other six organizations: based on communication links. IHAC is ranked the highest along with Industry Canada and Stentor (the two highest ranked key players). The public interest groups again. when ranked by all communication links. tend to be in the centre of the range.

As is clearly visible in Figure 6 above. the Degree of Centrality of the network organizations is much lower in the resource exchange interactions than in the communication interactions. Organizations were simply had fewer links through resource exchange interactions than through either type of communication interaction. IHAC. which is ranked as the most centrally prominent organization. has a Degree of Centrality of only .55. and it is the sole organization with a Degree of Centrality equal to. or above. the .50 level. Three organizations. PIAC. the CRTC and Industry Canada. are tied for the second position. The remaining public interest groups are located in the middle range of organizations. occupying six of the next seven positions whereas every industry organization is ranked below the median point and below the lowest ranked public interest group. This finding demonstrates that public interest groups were involved in more resource exchange interactions than were the industry organizations. While both regulatory/advisory bodies were relatively active participants in exchanging resources. the same was not true for the government departments. IHAC and the CRTC were at the top of the rankings. but only Industry Canada was ranked highly from the government department category. Human Resources Development Canada (HRDC). which was tied

for seventh position. was the sole other government department ranked among the first half of the organizations. and two government departments (*i.e.*. the National Library and the Treasury Board) were not involved in any resource exchange interactions.

Only Industry Canada and PIAC appeared among the most centrally prominent organizations in the three different types of interactions (*i.e.*. formal and informal communication and resource exchange interactions). Five other organizations ranked highly in centrality prominence in at least two of the three types of interactions: IHAC and the CRTC were highly prominent in formal communication and in resource exchanges. but not in informal communication: Stentor. Canadian Heritage and the CCTA. on the other hand. were centrally prominent in both types of communication interactions. but not in resource exchanges. And when both formal and informal communication interactions were examined together. these same seven organizations were the seven most centrally prominent organizations: IHAC. Industry Canada. Stentor. PIAC. the CRTC. Canadian Heritage and the CCTA. The Degree of Centrality measure has therefore identified these seven organizations as those that through their many links with other organizations are in the best positions to control or obtain access to information (through both formal and informal channels) to change the perceptions of other actors. and/or to provide or withhold tangible resources to coordinate the collective actions of others "toward the achievement of preferred policy objectives" (Knoke et al.. 1996. p. 18).

As can be seen in Table 8 below. across the three types of interactions the seven most prominent organizations were ranked in different positions. which supports the view that organizations play different roles depending on the reason for the interactions. For example. the two regulatory/advisory bodies were the most centrally prominent players in the formal communication interactions. but in the informal interactions they were among the peripheral players. IHAC and the CRTC relied on formal communication to make their decisions regarding policy recommendations and rulings. but they were not attempting through informal communication to influence other actors or to be influenced

Table 8     Ranked Order of Organizations by Degree of Centrality in Each Type of Interaction

*Note:*  *Organizations that are not separated by a horizontal line in a column are ranked equally.*

| Formal Communication | Rank | Informal Communication | Rank | All Communication | Rank | Resource Exchange |
|---|---|---|---|---|---|---|
| IHAC | 1 | Industry Canada | 1 | IHAC | 1 | IHAC |
| CRTC | 2 | Stentor | 2 | Industry Canada | 2 | PIAC |
| PIAC | 3 | PIAC | 3 | Stentor | 3 | CRTC |
| Stentor | 4 | Can. Heritage | 4 | CRTC | 4 | Industry Canada |
| Industry Canada | 5 | CCTA | 5 | PIAC | 5 | CPI |
| CCTA | 6 | CLA | 6 | Can. Heritage | 6 | CAC |
| Can. Heritage | 7 | CAC | 7 | CCTA | 7 | NAPO |
| TCC | 8 | CPI | 8 | CLA | 8 | TCC |
| CAC | 9 | NAPO | 9 | CAC | 9 | HRDC |
| CPI | 10 | CAB | 10 | CPI | 10 | CLA |
| FNACQ | 11 | IHAC | 11 | TCC | 11 | FNACQ |
| CLA | 12 | ITAC | 12 | CAB | 12 | Stentor |
| CTA | 13 | National Library | 13 | NAPO | 13 | CANARIE |
| HRDC | 14 | CANARIE | 14 | National Library | 14 | Can. Heritage |
| National Library | 15 | CRTC | 15 | CANARIE | 15 | CCTA |
| NAPO | 16 | TCC | 16 | FNACQ | 16 | CAB |
| Treasury | 17 | FNACQ | 17 | ITAC | 17 | CTA |
| CAB | 18 | CTA | 18 | HRDC | 18 | CBC |
| CBC | 19 | CBC | 19 | CBC | 19 | ITAC |
| ITAC | 20 | HRDC | 20 | CTA | 20 | National Library |
| CANARIE | 21 | Treasury | 21 | Treasury | 21 | Treasury |

by them. In resource exchanges. the regulatory/advisory bodies were also centrally
prominent – IHAC as a recipient of resources. and the CRTC primarily as a distributor of
resources. Industry Canada. on the other hand. was ranked as the most centrally
prominent government department in each type of interaction: communicating formally in
relation to policy development and program operations: communicating informally. for
example. to obtain the opinions of organizations on policy ideas: and providing and
receiving resources through a range of policy-related programs. Industry Canada.
therefore. played many roles in the process to determine essential services for the
Canadian information highway.

## 5.7    Identifying Core Organizations by Prestige: Choice Status and Power

While the Degree of Centrality measure identifies those organizations that are
linked to many other organizations through their interactions. it does not take into
consideration the strength of the relationships. Burt (1983) points out that when using a
snowball sampling technique (which I used in this research) to identify group members. it
is important to take the strength of the relationships into consideration. He says
"networks of actors located in part by snowball sampling are often so highly connected
indirectly that differences in actor prominence are obscured" (p. 203). Centrality on its
own. therefore cannot be used to determine the core organizations.

Network analysts have developed a range of prestige measures to overcome this
shortcoming. These measures start from the premise that the level of *demand* shown by
other actors for a given actor indicates the prominence of that actor. As explained by
Schott (1991):

> The general idea is demand. An individual who is the object of relations
> has something of interest to everyone sending the relations. That interest
> makes the individual prominent and gives her power. (p. 188)

For comparative purposes. I used two of the prestige measures: *Choice Status*
because of its simplicity in calculating prestige as a function of the recognition that a
network actor receives from other actors. and *Power* because of its discriminating abilities

in determining the degree of prestige as a function of the status of the organizations from which recognition is received.

*Choice Status* is the proportion of other actors who could have cited a given actor who, in fact, cited that actor (Knoke and Burt, 1983, p. 201). In informal communication interactions, for example, 20 organizations could have cited the National Library but only 2 in fact cited it. The National Library's Choice Status therefore was .10 (*i.e.*, 2/20). When based on the Choice Status variable, a given organization's prestige prominence derives from the fact that *other organizations recognize* that the given organization interacted with them in a specific type of interaction. High recognition of interaction confirms that a given organization is able to control and obtain access to information and other more tangible resources.

*Power*, as a measure for prestige, combines several important features of prominence: strong ties from many actors who are themselves the object of strong ties from many other actors. An organization that is the object of relations from prominent organizations has higher prestige than an organization that is the object of relations from peripheral organizations. Prestige rises even further if the organization is the exclusive object of relations from prominent organizations. In other words, when prominent organizations want something exclusively from a given organization, the value of the resource that the given organization possesses rises in comparison to the value of the resources that the other organizations have. This endows the given organization with power over the other organizations because it controls access to a valuable resource that the others wish to obtain.

Schott (1991, p. 190-191) explains that the *Power* measure is achieved by weighting relations by the power of their source using eigenvalues.[19] He employs an economic metaphor to elucidate:

> Power here corresponds to price in the general equilibrium model of economic markets. Interaction with i is expensive. valuable. to the extent that i is the object of exclusive relations from people whose interaction is highly valued. (p. 191)

The organization with the highest prestige measured by Power will always receive a score of 1.0. and as the prestige of the actors and their contacts diminishes. the value of the Power variable diminishes so that an organization that has no ties with strong actors receives a score approaching or equal to 0.

I used the *Structure* software (version 4.2)[20] to calculate the prestige measures of Choice Status and Power based on each of formal. informal and all communication interactions for each of the 21 organizations. The matrices of asymmetric organizational links for the communication interactions (Appendix G. Tables G1 through G3) were used as the input data for these calculations.[21] The resulting Choice Status and Power scores

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[19] Schott (1991. p. 190) provides the following equation for power:
$$\text{Power of } i = p_i = \sum_j [z_{ji}/\sum_{jk})] p_j$$
where the sum is across all N actors including ego (*i.e..* actor *i*. whereas the alter is actor *j*) and the relation in brackets ($z_{ji}$ is the observed relation between organizations *j* and *i*) is a proportional strength relation from *j* to *i*. In other words. for organization *i*. Power is the sum of the proportional strength of each cited interaction received. An interaction is weighted higher if the citing organization was itself the recipient of many cited interactions *and* it cites only the interaction with organization *i*. The matrices of asymmetric data for communication interactions (see Appendix G) were entered into the *Structure* software which applied the above equation to calculate the Power measure for all N organizations.

[20] The *Structure* software was developed by Burt and others to provide a range of descriptive and predictive measures based upon the connections among actors in a social system. A description of each of these measures. and the requirements for the data and the commands required to obtain these measures. are available in Burt (1991).

[21] The determine the Choice Status and Power for all communication interactions. the asymmetric matrices for both formal and informal communication interactions were submitted to the *Structure* software.

for each organization are presented below in Table 9. For comparative purposes. I have also presented the prestige data for Choice Status and Power in separate graphs to rank the organizations based on each type of communication interaction and the combined communication interactions (Figures 7 through 12 below). I have treated resource exchanges separately in section 5.9 rather than as part of this section on prestige prominence because these types of interactions reflect *dominance* and *dependency* rather than *influence*.

In Figure 7 and Figure 8. the Choice Status and Power variables respectively identify the same seven organizations as having the highest prestige in formal communication interactions and the same six organizations as having the lowest level of prestige. The two measures also rank IHAC and the CRTC in the first and second positions. Since the prestige measures are based on recognition by others. this finding demonstrates that the two regulatory/advisory bodies were perceived as the most desirable organizations with which to interact in the formal processes to develop a policy on essential services for the Canadian information highway. As the object of the greatest number of formal communication interactions and from the most prestigious other organizations. IHAC and the CRTC would therefore be the organizations most likely to control the information required to establish a public policy on the essential services issue.

The two prestige measures diverge. however. in terms of which organization is ranked in the third position in formal communication interactions. Using the Choice Status variable. Stentor is in the third position ahead of Industry Canada and Canadian Heritage. but based on the Power measure Stentor is in the 5th position behind those two government departments. Although Stentor received more citations for formal communication interactions than were received by Industry Canada or by Canadian Heritage. Stentor's prestige was lower using Power because the organizations citing Stentor had lower prestige than the organizations citing Industry Canada and Canadian Heritage. In other words. the organizations that cited formal communication interactions

Table 9        Organizations' Choice Status and Power by Interaction Type

| Organization Identity Number and Name | Formal Communication | | Informal Communication | | All Communication | |
|---|---|---|---|---|---|---|
| | Choice Status | Power | Choice Status | Power | Choice Status | Power |
| 1. CAC | .20 | .3704 | .30 | .4951 | .40 | .4404 |
| 2. CLA | .05 | .1428 | .20 | .3320 | .25 | .2337 |
| 3. CPI | .15 | .3195 | .30 | .5133 | .40 | .3899 |
| 4. FNACQ | .15 | .2277 | .15 | .3402 | .20 | .2827 |
| 5. NAPO | .10 | .1992 | .20 | .3727 | .25 | .2807 |
| 6. PIAC | .45 | .4993 | .60 | .7850 | .70 | .6519 |
| 7. TCC | .15 | .3419 | .20 | .2814 | .30 | .2766 |
| 8. CAB | .15 | .2706 | .10 | .0885 | .20 | .1652 |
| 9. CCTA | .45 | .6014 | .50 | .6382 | .65 | .7049 |
| 10. CTA | .00 | .0000 | .05 | .1238 | .05 | .0523 |
| 11. ITAC | .00 | .0000 | .15 | .2319 | .15 | .1148 |
| 12. Stentor | .60 | .7336 | .70 | .8575 | .80 | .9193 |
| 13. CANARIE | .05 | .0456 | .15 | .2550 | .15 | .1488 |
| 14. CBC | .00 | .0000 | .00 | .0000 | .00 | .0000 |
| 15. CRTC | .80 | .8952 | .15 | .1913 | .80 | .6556 |
| 16. Canadian Heritage | .45 | .7387 | .40 | .5610 | .60 | .7352 |
| 17. HRDC | .15 | .3658 | .10 | .1741 | .25 | .3041 |
| 18. Industry Canada | .55 | .8420 | .85 | 1.0000 | .95 | 1.0000 |
| 19. National Library | .15 | .2753 | .10 | .2462 | .15 | .3030 |
| 20. Treasury | .20 | .3518 | .05 | .1352 | .25 | .2495 |
| 21. IHAC | .90 | 1.0000 | .25 | .3717 | .95 | .8318 |

Figure 7. Organizations ranked by Choice Status based on formal communication interactions
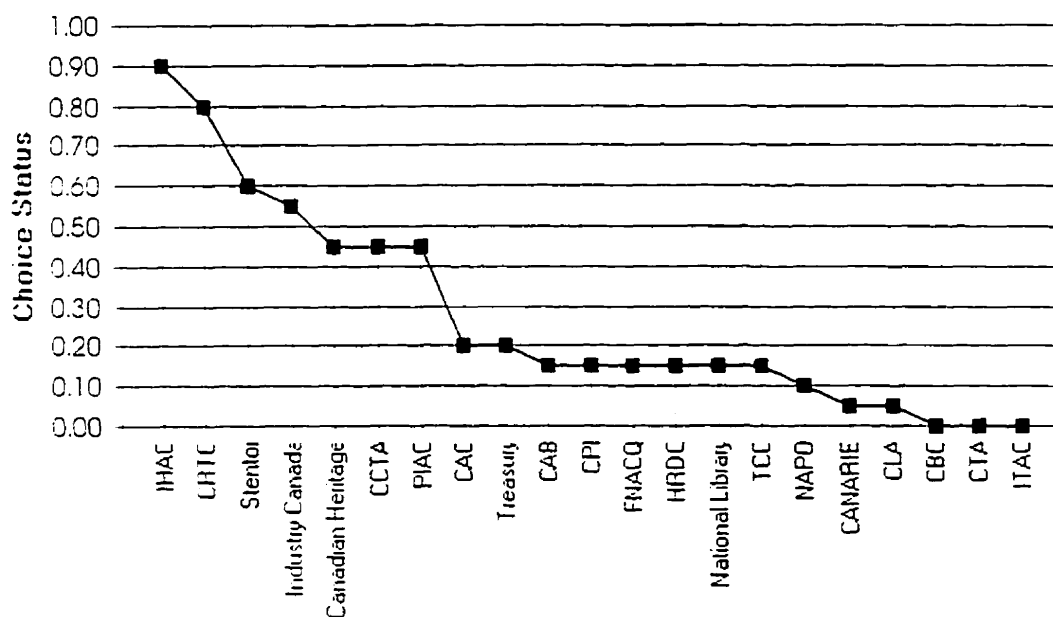


Figure 8. Organizations ranked by Power based on formal communication interactions
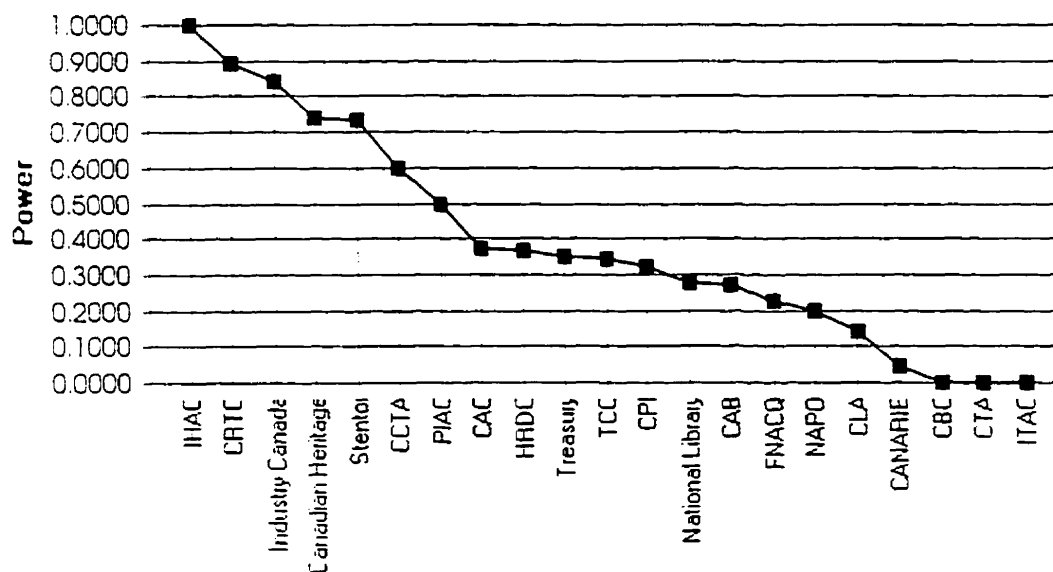
Figure 9. Organizations ranked by Choice Status based on informal communication interactions
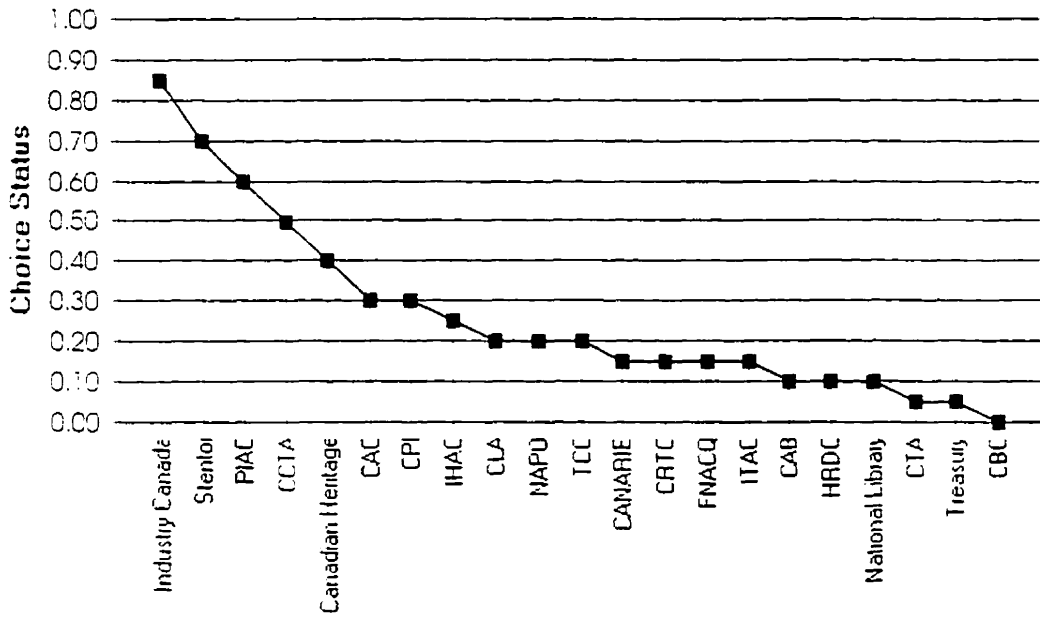


Figure 10. Organizations ranked by Power based on informal communication interactions
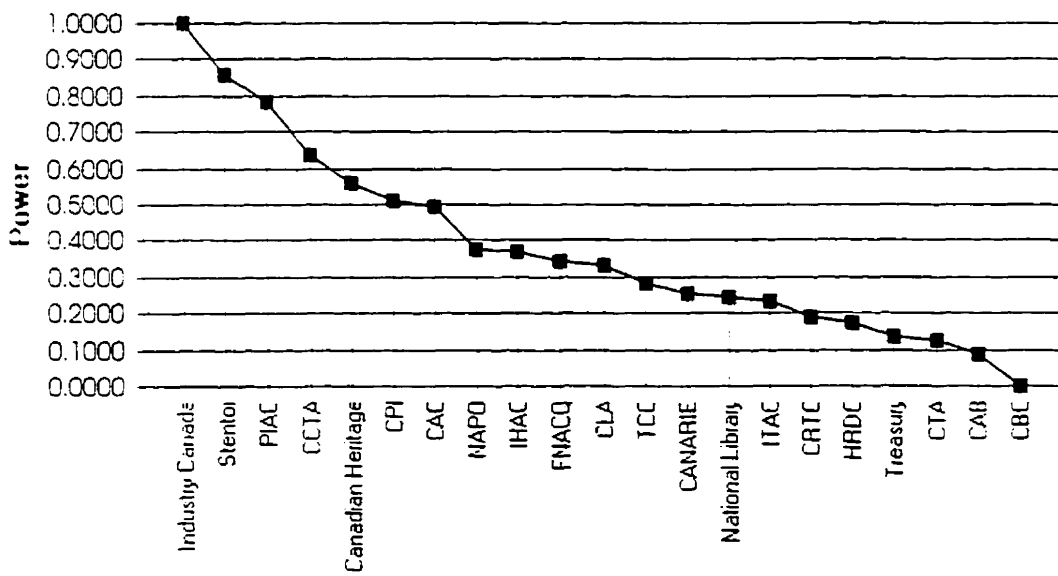
**Figure 11.** Organizations ranked by Choice Status based on all communication interactions
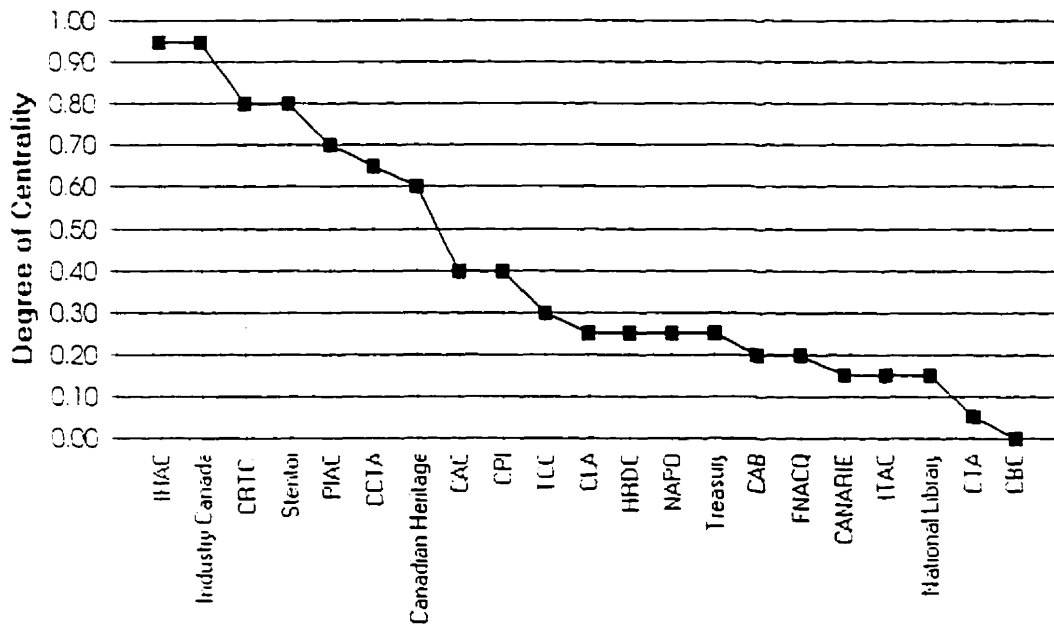


**Figure 12.** Organizations ranked by Power based on all communication interactions
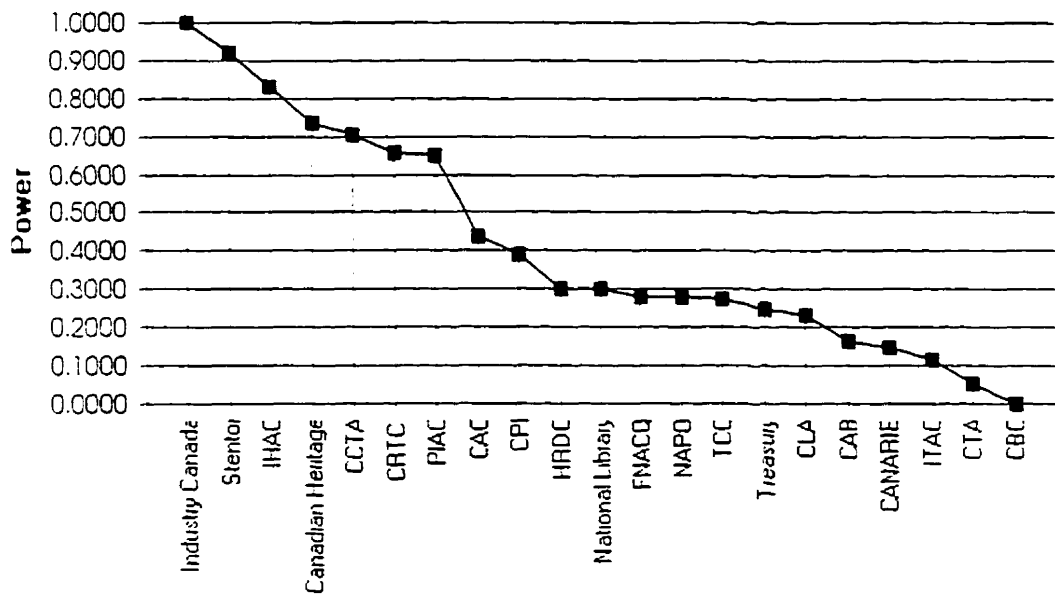
with Industry Canada and Canadian Heritage were prestigious and therefore more likely to be influential than those citing Stentor. As a result Industry Canada and Canadian Heritage controlled information of greater value than that controlled by Stentor. Therefore. the two government departments would be more likely to have a greater influence on the outcome of the policy process than would Stentor.

A second major difference between the two measures in the formal communication interactions is that Canadian Heritage. the CCTA and PIAC were ranked equally by Choice Status (in fifth position) (see again Figure 7). whereas the Power measure (see Figure 8) differentiated between them. Although those three organizations were cited by the same number of other organizations. Canadian Heritage was ranked the highest of the three by Power because of the higher prestige of its citing organizations. and PIAC was ranked the lowest because of the lower prestige of its citing organizations. In other words. Canadian Heritage received recognition from organizations with higher prestige and therefore it would more likely have greater influence on the outcomes of the policy process than either the CCTA or PIAC.

In informal communication interactions. the graph lines of the Choice Status and the Power measures are very similar (see Figures 9 and 10 above). with only slight variations occurring between the two measures in the ranked order of the organizations. The Choice Status and Power measures both identify the same ranked order for the five top organizations in informal communications. with Industry Canada and Stentor in the first and second positions. followed by PIAC. the CCTA. and Canadian Heritage. The CAC and CPI are tied in sixth position using Choice Status. but the Power measure ranks CPI slightly higher than the CAC. The rankings suggest that those seven organizations were recognized by others as the important organizations in terms of their informal discussions about the essential services policy issue. The fact that two additional public interest groups (i.e.. CAC and CPI) were ranked in the top seven organizations is not highly significant given that their rankings occurred because the two regulatory advisory bodies (IHAC and the CRTC) did not participate heavily in informal processes. The CAC

and CPI were not recognized to a great degree by other organizations. they simply moved up in the rankings because IHAC and the CRTC were not among the leading organizations in informal communication interactions.

When all communication interactions were taken into consideration. the Choice Status and Power measures (See Figures 11 and 12 above) both identify the same seven organizations as the most prominent ones. The two measures differ. however. in their rankings of these seven organizations. Using the Choice Status measure. Industry Canada and IHAC are tied for first position followed by the CRTC and Stentor (tied for third position). then by PIAC. the CCTA. and Canadian Heritage. As noted earlier. the Power measure is more discriminating in that the prestige of the citing organizations are factored into the calculation of prestige. Using Power. Industry Canada is ranked in first position based on all communication interactions. followed by Stentor. then IHAC. Canadian Heritage. the CCTA. the CRTC and PIAC. The rankings for IHAC. the CRTC and PIAC were all lower whereas those for Industry Canada. Stentor. Canadian Heritage and the CCTA all rose relative to the others. At the middle of the rankings for all communication interactions. the relative positions of the organizations are very similar for both measures. Only the seventh and eighth ranked organizations. the CAC and CPI. scored noticeably higher than the others in the middle of the two graphs. This result suggests that based on communication interactions the CAC and CPI were likely to have more influence than the other organizations that ranked behind the seven with the highest prestige prominence.

The picture that is emerging from this analysis of prestige prominence is one of a network with seven influential organizations based on the communication interaction links between organizations that occurred around the issue of essential services for the information highway. Two of these organizations. IHAC and the CRTC. were identified primarily in relation to formal communication interactions. whereas the other five were recognized in relation to both formal and informal communication. The findings from the prestige prominence measures demonstrate that those seven organizations were perceived by the network participants to be in control of information from formal and informal

Table 10    Ranked Order of Organizations Based on Choice Status and Power
for Communication Interactions

*Note: Organizations that are not separated by a horizontal line in a column are ranked equally by that measure.*

| Formal Communication | | | Informal Communication | | | All Communication | | |
|---|---|---|---|---|---|---|---|---|
| Choice Status | Rank | Power | Choice Status | Rank | Power | Choice Status | Rank | Power |
| IHAC | 1 | IHAC | Industry Canada | 1 | Industry Canada | IHAC Industry Canada | 1 | Industry Canada |
| CRTC | 2 | CRTC | Stentor | 2 | Stentor | | 2 | Stentor |
| Stentor | 3 | Industry Canada | PIAC | 3 | PIAC | CRTC Stentor | 3 | IHAC |
| Industry Canada | 4 | Canadian Heritage | CCTA | 4 | CCTA | | 4 | Canadian Heritage |
| Canadian Heritage CCTA PIAC | 5 | Stentor | Canadian Heritage | 5 | Canadian Heritage | PIAC | 5 | CCTA |
| | 6 | CCTA | CAC CPI | 6 | CPI | CCTA | 6 | CRTC |
| | 7 | PIAC | | 7 | CAC | Canadian Heritage | 7 | PIAC |
| CAC Treasury | 8 | CAC | IHAC | 8 | NAPO | CAC CPI | 8 | CAC |
| | 9 | HRDC | CLA NAPO TCC | 9 | IHAC | | 9 | CPI |
| CAB CPI FNACQ HRDC National Library TCC | 10 | Treasury | | 10 | FNACQ | TCC | 10 | HRDC |
| | 11 | TCC | | 11 | CLA | CLA HRDC NAPO Treasury | 11 | National Library |
| | 12 | CPI | CANARIE | 12 | TCC | | 12 | FNACQ |
| | 13 | National Library | CRTC FNACQ ITAC | 13 | CANARIE | | 13 | NAPO |
| | 14 | CAB | | 14 | National Library | | 14 | TCC |
| | 15 | FNACQ | | 15 | ITAC | CAB FNACQ | 15 | Treasury |
| NAPO | 16 | NAPO | CAB HRDC National Library | 16 | CRTC | | 16 | CLA |
| CANARIE CLA | 17 | CLA | | 17 | HRDC | CANARIE | 17 | CAB |
| | 18 | CANARIE | | 18 | Treasury | ITAC National Library | 18 | CANARIE |
| CBC CTA ITAC | 19 | CBC CTA | CTA Treasury | 19 | CTA | | 19 | ITAC |
| | 20 | ITAC | | 20 | CAB | CTA | 20 | CTA |
| | 21 | | CBC | 21 | CBC | CBC | 21 | CBC |

communication processes and therefore to be in strategic positions within the network – positions that would likely give rise to influence over the outcome of the policy process.

## 5.8    Identifying the Core

Across the interaction types, the three prominence measures (*i.e.*, Degree of Centrality. Choice Status and Power) provide relatively similar results. Although the ranked order of some of the organizations changes across the measures. these changes are not dramatic and reflect the different foci and the increasingly powerful discriminatory capabilities of the measures when moving from Degree of Centrality (refer back to Figure 3 through Figure 6) to Choice Status and Power (see again Figure 7 through Figure 12).

Knoke and Burt (1983) point out that there is no one way to determine overall prominence within a network where multiple types of interactions occur. They say "the decision of how to analyze prominence across multiple networks [*i.e.*, types of interactions within a network] is based on personal tastes. data analysis. and computations" (p. 218). I chose to re-use the findings for the Degree of Centrality measure and the Power measure to identify the organizations with the highest overall prominence in the process to determine essential services for the Canadian information highway. By using measures of both centrality prominence and prestige prominence I ensured that the determination of highly prominent organizations was not skewed by one aspect of prominence over the other. The Degree of Centrality measure identified those organizations that were linked to the most other organizations in each type of interaction, that is. the organizations that were central in the flow of information and resources related to the determination of essential services. The Power measure in this research was used specifically for communication interactions and it identified those organizations that had high prestige prominence based on the strength (*i.e.*, being the object of many citations) and the quality (the prestige of the citing organizations) of the communication interactions. I preferred to use Power over Choice Status here because the latter variable is based only on one

dimension (*i.e.*. the strength of the citation) and was far less discriminating in its ranking of the organizations.

To identify the organizations with the highest overall prominence in the process to determine essential services. I re-examined the data in Tables 8 and 10 (above) to identify those organizations with *high prominence* across the various types of interactions as measured by the Degree of Centrality and the Power variables. I define *high prominence* as recognition for being ranked among the top seven positions by a variable for a given type of interaction. This method ensured that organizations with high prominence in multiple instances but low prominence in other instances were not simply "averaged" into the middle-ranks with organizations that had medium prominence across all types of interactions. The data from this re-analysis are provided below in Table 11.

As can be seen in Table 11. only Industry Canada and PIAC had high prominence in all types of interactions on both measures of prominence. Stentor. the CCTA. and Canadian Heritage all had high prominence on the Degree of Centrality and Power in all three types of communication interactions. but not in the resource exchange interactions. The two regulatory/advisory bodies. IHAC and the CRTC. had high prominence in all cases except on the two measures of prominence in informal communication interactions. Based on their overall prominence in the rankings across the measures and types of interactions. those seven organizations – the two regulatory/advisory bodies (IHAC and the CRTC). the government departments with responsibilities for telecommunications policy (Industry Canada) and broadcasting policy (Canadian Heritage). the representative organization for the monopoly telephone companies (Stentor) and the monopoly cable companies (the CCTA) and one public interest group (PIAC) – are the *core organizations* in the network of interactions to determine essential services for the Canadian information highway. The remaining organizations are the *peripheral organizations* in this network.

Table 11    Organizations with High Prominence Overall Using Degree of Centrality and Power Across the Interaction Types

| Organizations | | Degree of Centrality | | | | Power | | |
|---|---|---|---|---|---|---|---|---|
| | | Formal Communication | Informal Communication | All Communication | Resource Exchange | Formal Communication | Informal Communication | All Communication |
| Core | Industry Canada | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Core | PIAC | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Core | Canadian Heritage | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Core | CCTA | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Core | Stentor | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Core | IIAC | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Core | CRTC | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Peripheral | CAC | | ✓ | | ✓ | | ✓ | |
| Peripheral | CLA | | ✓ | | | | | |
| Peripheral | CPI | | ✓ | | ✓ | | ✓ | |
| Peripheral | NAPO | | ✓ | | ✓ | | | |
| Peripheral | HRDC | | | | ✓ | | | |
| Peripheral | TCC | | | | ✓ | | | |

Note: "✓" indicates the organization was among the seven highest ranked organizations by the given variable for the specific type of interaction. In the Informal Communication and Resource Exchange columns under the Degree of Centrality variable there are more than seven organizations because multiple organizations were tied for the seventh position.

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Public interest groups predominated among the peripheral organizations that had high prominence in at least one instance:

- the CAC and CPI (three instances):
- NAPO (two instances): and
- the CLA and TCC (one instance).

HRDC, a government department. was the sole other peripheral organization to achieve high prominence. which it did once. The finding that the public interest groups predominated among the peripheral organizations in this policy process implies that the issue of essential information highway services was of greater concern to the public interest groups as a whole than to the other categories of organizations. Among the other group categories. with the exception of the two regulatory/advisory bodies. the issue appeared to be of serious concern only to the two government departments with direct interests in telecommunications and broadcasting distribution and to the telephone and cable companies.

From these results on overall prominence two salient points can be made about the categories of organizations involved. The first point is that the government was clearly well-placed centrally to be a leading force in the process: there were four government agencies among the seven core organizations. The prominence of these agencies was most noticeable on the Power measure of formal communication interactions (refer back to Figure 8) in which the government agencies occupied the four highest ranked positions. This suggests that as part of the process to develop a policy on essential services for the information highway the government was using its regulatory/advisory bodies (IHAC and the CRTC) and the two departments responsible for telecommunications and broadcasting policy development (i.e.. Industry Canada and Canadian Heritage) to manage the acquisition and dissemination of information through the formal communication interactions. Another part of the process was the informal communication interactions in which the government used the two leading departments to gather and disseminate information through informal processes. In these processes Industry Canada was the leader among all organizations as was demonstrated by both the Degree of Centrality and the Power measures.

The second point relates to the non-government organizations (NGOs). Among the three core NGOs, Stentor was ranked the highest on both the Degree of Centrality and Power measures in formal,[22] informal and all communication interactions. This finding suggests that Stentor was likely to be more influential than the CCTA and PIAC in influencing the outcome of this policy process.

These findings also show that PIAC was the only one of the three leading NGOs to have high prominence in all types of interactions. This meant that Stentor and the CCTA were concentrating their efforts primarily on communicating with others through the formal and informal channels. whereas PIAC not only expended effort on communication interactions. it also spent considerable effort on obtaining resources from and providing resources to other organizations. particularly other public interest groups.[23] In addition. three other public interest groups. CPI. CLA and TCC. were among the seven most prominent organizations based on Degree of Centrality in resource exchanges.

## 5.9    A Closer Look at Resource Exchange Interactions

As noted earlier. resource exchange interactions differ from communication interactions.   Unlike communication interactions. which identify influence through the control of information. in theory resource exchange interactions establish dominance and dependency or subordination through the control of valued resources.  Actors who provide valued resources can use their dominant positions to direct the actions of dependent actors toward attaining a desired policy outcome (Knoke et al.. 1996. p. 18).

When I recorded the resource exchange interactions onto an asymmetric matrix (see again Appendix G. Table G4). I simply encoded which organizations cited resource exchange interactions with which other organizations. Since power in a resource exchange

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[22] On the Degree of Centrality measure for formal communication Stentor was tied in third position with PIAC.

[23] PIAC was linked to every other public interest group through resource exchange interactions.

is based upon dependency (Hall. 1994) or domination (Knoke. 1990b). I realized the prestige measures in the resource exchanges needed to be viewed in the context of which organization was dependent and which was dominant in a given resource exchange.

To provide this contextual information I re-analyzed the data to determine which organization was the provider and which was the recipient of the resource in each resource exchange interaction. I recorded these data onto a new matrix (see Appendix G. Table G9) in which I used the rows to register when each organization provided a resource in an interaction and I used the columns to record when each organization received a resource in an interaction. The number of organizations to which an organization provided resources is its row total and the number of organizations from which a given organization received resources is its column total. The data obtained in this matrix are presented in Table 12 below.

The data in Table 12 show that IHAC was clearly the major recipient of resources but it provided no resources to others. IHAC's high centrality prominence in resource interactions as identified in Figure 6 therefore comes from interactions in which IHAC received resources from eleven other organizations. Knoke (1990b. p. 132) points out that in a resource exchange network an organization's relationship with other organizations is strongly related to its *influence reputation*. that is. its ability to convince others that its information and intended actions are worthy of support (pp. 132-133). As described in chapter 4. I found that IHAC was not among the key players and therefore its reputation did not appear to be particularly high. The large number of organizations that provided IHAC with resources. however. indicates that its reputation may have been higher than suggested by the relatively few interviewees who cited it as a key player. Although IHAC was not in a dominant position. it nonetheless was considered worthy of support by other organizations involved in this policy process.

Table 12    Resources provided and received by the participating organizations

| Organizations | Resources Provided | Resources Received | Organizations | Resources Provided | Resources Received |
|---|---|---|---|---|---|
| 1. CAC | 4 | 6 | 12. Stentor | 3 | 0 |
| 2. CLA | 3 | 2 | 13. CANARIE | 1 | 2 |
| 3. CPI | 4 | 6 | 14. CBC | 1 | 0 |
| 4. FNACQ | 2 | 4 | 15. CRTC | 7 | 2 |
| 5. NAPO | 3 | 5 | 16. Cdn. Heritage | 3 | 1 |
| 6. PIAC | 7 | 8 | 17. HRDC | 5 | 0 |
| 7. TCC | 3 | 4 | 18. Industry Canada | 6 | 5 |
| 8. CAB | 1 | 0 | 19. National Library | 0 | 0 |
| 9. CCTA | 2 | 0 | 20. Treasury | 0 | 0 |
| 10. CTA | 1 | 0 | 21. IHAC | 0 | 11 |
| 11. ITAC | 0 | 0 | | | |

Note: Public interest groups are listed first, followed by industry organizations and government agencies.

PIAC. in comparison to IHAC. received resources from eight organizations. but it also provided resources to seven organizations. Of particular importance here is the fact that most of PIAC's resource exchange interactions were with other public interest groups. A closer analysis of the data in Table 12 shows that PIAC received resources from five of the six public interest groups to which it provided resources. Rather than being in a dominant position by virtue of these interactions. PIAC was essentially in a mutually dependent relationship with most other public interest groups. However. PIAC's high level of resource receipt (second only to IHAC) also suggests that PIAC had a high reputation and it also correlates well with the fact that on earlier measures of centrality and prestige PIAC had high prominence among network organizations. The fact that the other public interest groups were also largely involved in the provision of

resources to. and the receipt of them from. other public interest groups highlights the high level of interdependency among all of the public interest groups for resources to participate in the process to determine essential information highway services.

Among the other organizations. Industry Canada was also both a receiver and a provider of resources. but it was connected to only two other organizations (CANARIE and PIAC) through reciprocated resource exchange interactions. Industry Canada's relatively high Degree of Centrality in resource exchanges (see again Figure 6) therefore appears to have derived from both domination and reputation. The CRTC. on the other hand. was primarily a provider of resources. distributing funds to the public interest groups that were involved in telecommunications hearings. Although the CRTC and Industry Canada were ranked evenly on the Degree of Centrality measure in resource exchanges. the CRTC had a higher level of dominance in the network than did Industry Canada. The public interest groups were dependent on the CRTC to obtain funding to participate in the CRTC's formal communication interactions.

These findings on resource exchanges suggest that PIAC. and the public interest groups in general. did not have adequate resources to succeed individually in the policy process. In other words. public interest groups were dependent on each other and on the government for additional resources to develop and communicate their policy positions. On the other hand. the industry organizations did not engage extensively in resource exchanges which implies that those organizations had adequate resources to succeed without dependency on other organizations. As the organizational characteristics identified in chapter 3 suggest, and as will be further analyzed in chapter 6. there was an imbalance of resources between the organizations in this study. These findings on resource exchange interactions confirm that public interest groups. who were under-resourced compared to the major industry organizations. were far more dependent on outside resources. and hence had more resource exchange interactions. than did the industry organizations. This imbalance of resources required the public interest groups to expend organizational effort on obtaining additional resources to participate in the policy

process. This would appear to provide the industry organizations with a major advantage over the public interest groups in this policy process as will be further discussed below in section 5.10.

## 5.10    Structural Equivalence: The Patterns of Interaction

To determine the structure of the network and the roles of the participating organizations. I now examine their *structural equivalence* in each of formal. informal. and all communication interactions. resource exchange interactions and across all interactions. Unlike prominence measures which are based on the frequency. quality and strength of ties between network organizations. structural equivalence is based on the similarity of the patterns of interaction among the network organizations. Two organizations "are structurally equivalent in a network to the extent that they have identical relations with every individual in the network" (Schott. 1991. p. 125-156). When two organizations are structurally equivalent. they jointly occupy the same position in the network (Knoke. 1990b. p. 239). Having exactly identical links to every other actor. however. is a highly stringent criterion. Therefore. in most applications the researchers require only that two organizations have a degree of similar ties to other actors to be placed in a jointly occupied position (Knoke. 1990b. p. 239).

Organizations that are structurally equivalent exchange information with similar other organizations. and therefore are faced with the same socializing influences (Burt. 1983. p. 271). Thus. organizations that are structurally equivalent are more likely to adopt similar views than organizations that are not structurally equivalent. Structural equivalence can also highlight emulation among network actors that jointly occupy a position as they compete for the attention of third parties (Burt, 1987). Social network analysts have employed structural equivalence to identify the causes of contagion in areas such as the adoption of technical innovations (*e.g.*. Burt, 1987), the achievement of consensus on educational policy (Friedkin. 1984) and the use of marijuana by adolescents (Shrout and Kandel. 1981).

The structural equivalence of organizations within a network can be used to determine the proximity of the organizations on a physical space such as a map. The locations of the organizations are determined by the similarity and dissimilarity of the organizations' patterns of interaction and the resulting map can then be used to help explain the structure of the network. White, Boorman, and Breiger (1976) point out that a social system's structure is demonstrated by the "regularities in the patterns of relations" among the system's main entities which may be actors, objects, events and so forth. Laumann and Knoke (1987) observe that "in a social system, structure is revealed by the linkages among its key elements" (p. 128). Kaufman (1996), for example, uses structural equivalence to map the locations of the various categories of players in each of the U.S., German and Japanese labour policy domains to compare and determine the impact of resource exchange relationships across these national networks. I use structural equivalence for mapping the organizations' positions in relation to each other to analyze the roles the organizations play in the network and to assess the implications that their positions may have on the outcomes of the policy process under investigation.

I employed the *Structure* software (version 4.2) to obtain the Euclidean distances[24] between organizations based on each organization's citations of interactions with others and their receipt of interaction citations from others for each interaction type and across all interactions. To present the data visually, I input the Euclidean distance

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[24] Schott (1991) explains:

> The extent to which two individuals i and j are involved in identical relations so as to be structurally equivalent can be expressed as the Euclidean distance, $d_{ij}$, between their relation patterns:
>
> $$d_{ij} = [(Z_{ij}-Z_{ji})^2 + \sum_q(Z_{iq}-Z_{jq})^2 + \sum_q(Z_{qi}-Z_{qj})^2]^{1/2}, \quad q \neq i,j$$
>
> where a distance of zero indicates completely equivalent patterns and increasing values of $d_{ij}$ indicate increasingly equivalent patterns. (p. 126)

The raw Euclidean distance measure used here "ignores all relations beyond those involving i or j" (p. 127).

measures into *S-Plus* (version 3.4) to produce positional maps of the organizations using multidimensional scaling.[25] According to the *S-Plus* online user documentation. multidimensional scaling

> is the process of representing. in a small dimensional space. the distances (or dissimilarities) of a group of objects. It is similar to cluster analysis but returns points in space rather than distinct groupings. (Classic multidimensional scaling. 1996)

Below. I present the maps for each of the interaction types and for the combined interactions in Figures 13 through 17. In the maps. organizations with little variance in the distances to other organizations are structurally equivalent whereas those with large variance are structurally disparate. In each figure there are two images of the map – one showing the organizations by numeric code. the other showing them by group category code. By presenting the data in this way. it is possible to locate and assess each organization's position in relation to the other organizations in the first image and to assess and compare the locations of the organizations within and across group categories in the second image.

In the maps that follow. the positions of the organizations in relation to their distance from the Y axis are based on the similarities in the organizations' interaction ties from citations *received from* other organizations. In other words. alignment on the vertical plane shows which organizations *were the targets of interaction ties* from citations made by similar other organizations. The locations of the organizations in relation to their distance from the X axis are based on the similarities in the interaction ties from *citations made by* the organizations. In other words. alignment on the

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[25] According to Venables and Ripley (1994). multidimensional scaling is one of several methods to represent the observed "cases in a low dimensional Euclidean space so that their proximity reflects the similarity of the variables" (p. 306). Venables and Ripley comment that multi-dimensional scaling

> seeks a configuration in $R^d$ such that distances between points best match those in the distance matrix. Only the classical or metric form of multidimensional scaling is implemented in S. which is also known as *principal coordinate analysis*. (p. 306)

horizontal plane illustrates which organizations *targeted their interactions* with similar other organizations. The organizations that are structurally equivalent appear close together since their interaction patterns are aligned on both dimensions.

Looking across the maps in Figures 13 through 17. three features help explain the structure of the network and the roles of the organizations within it. The first feature is that for each type of interaction. the seven organizations that were identified earlier in this chapter as the seven core ones based on prominence measures (see again Table 11) are generally situated in small sparse vertical clusters on the right half of the maps while the peripheral ones are located in relatively large dense vertical clusters on the left half of the maps. Although not absolute. there is a strong relationship between each organization's prominence and its distance from the Y axis on the maps. This feature demonstrates that the organizations in general are differentiated with regard to prominence through the pattern of interaction ties they received in citations from other organizations.

The second feature is that clustering *by group category* is strongest on the horizontal plane (using distance from the X axis as the point of reference). that is. when based on the similarities in the pattern of the citations made by the organizations within the group categories. Organizations of the same category type. therefore. usually had similar targets for their interaction ties in each type of interaction. This characteristic is most evident for two group categories: the Public Interest Group category whose members expressed close cooperation with each other through regular communication and exchange of resources: and the government departments which worked closely with each other in the inter-departmental working groups responding to the IHAC recommendations. With the industry organizations. especially Stentor and the CCTA. the

# Key to Figures 13 through 17

## The Organizations

1. Consumers Association of Canada
2. Canadian Library Association
3. Coalition for Public Information
4. Fédération National des consommateurs de Québec
5. National Anti-Poverty Organization
6. Public Interest Advocacy Centre
7. Telecommunities Canada
8. Canadian Association of Broadcasters
9. Canadian Cable Television Assoc.
10. Competitive Telecommunications Association
11. Information Technology Association of Canada
12. Stentor
13. CANARIE
14. Canadian Broadcasting Corporation
15. CRTC
16. Canadian Heritage
17. Human Resources Development Canada
18. Industry Canada
19. National Library
20. Treasury
21. Information Highway Advisory Council

## The Group Categories

G: Government Departments
I: Industry Organizations
P: Public Interest Groups
R: Regulatory/Advisory Bodies

**Figure 13.** **Positions based on formal communication interactions**

The Organizations

Group Categories
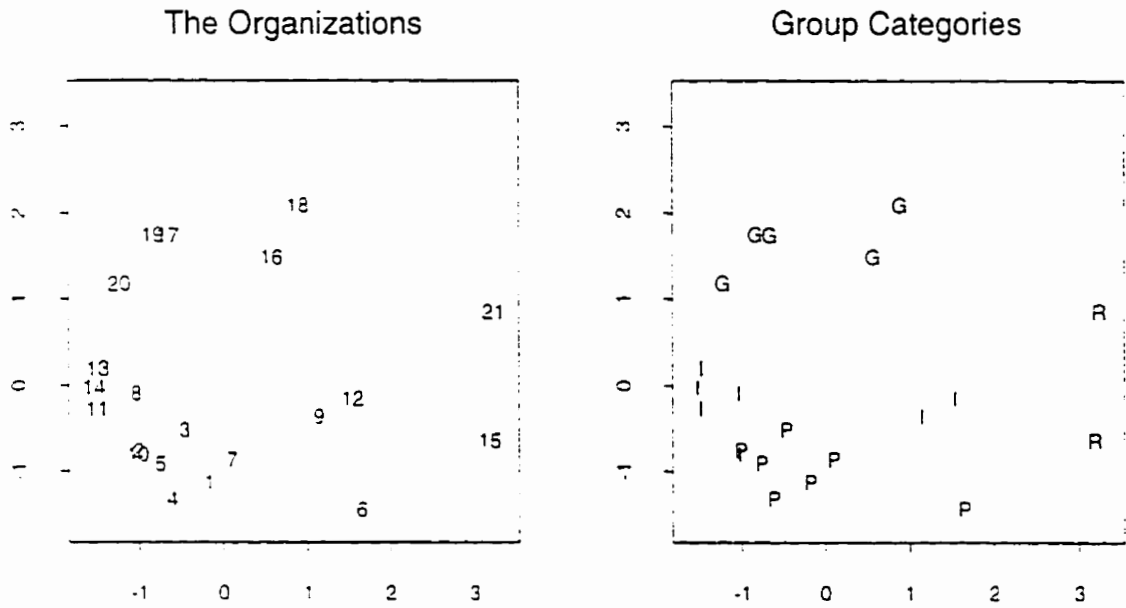


**Figure 14.** **Positions based on informal communication interactions**

The Organizations

Group Categories
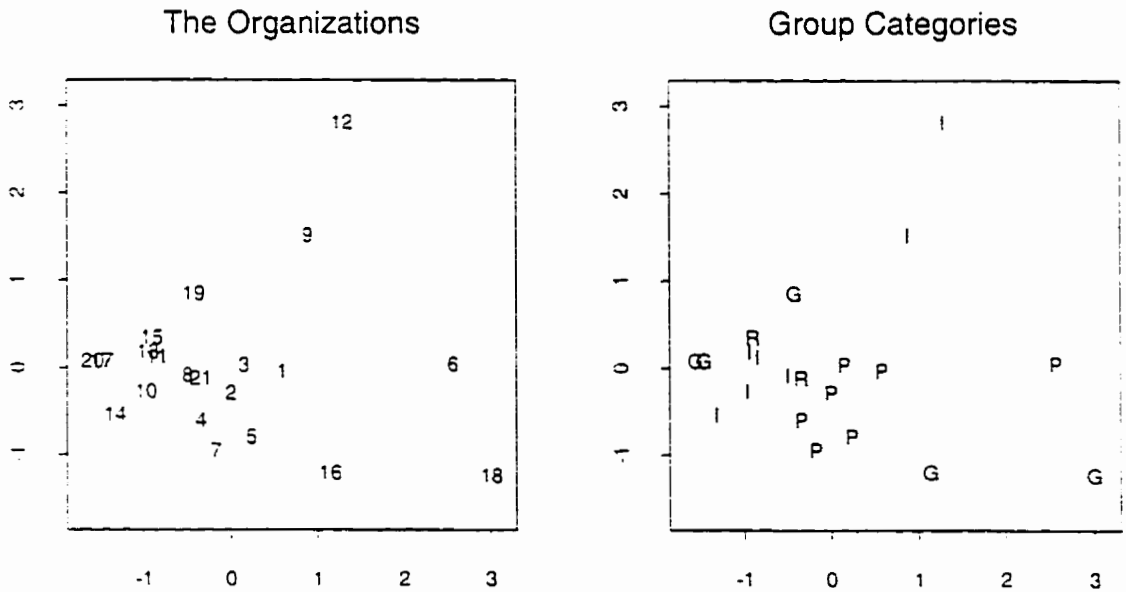
# Figure 15. Positions based on all communication interactions

The Organizations

Group Categories
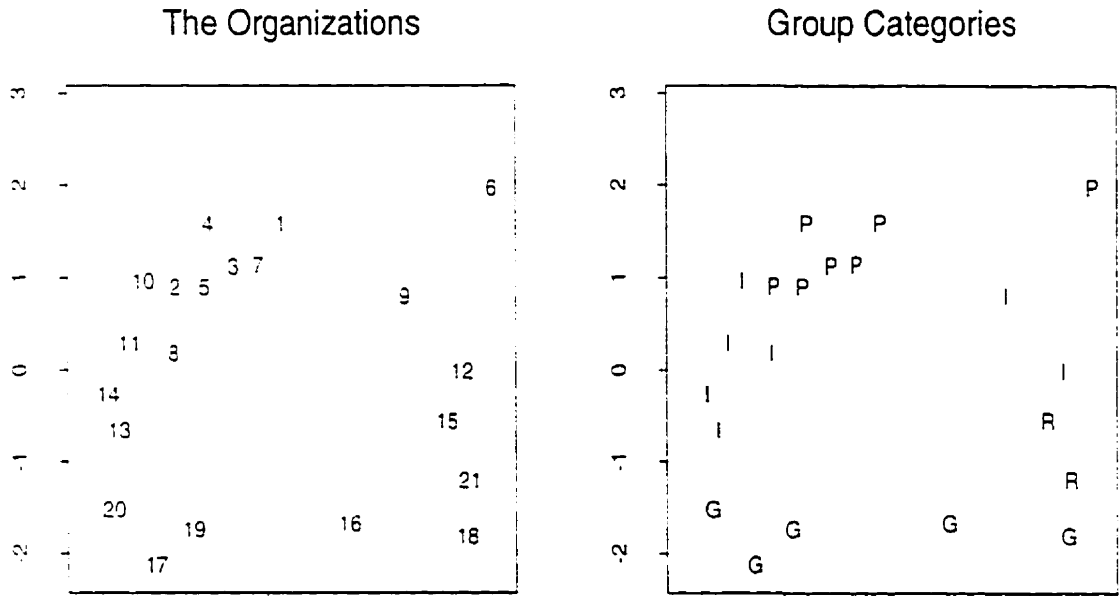


# Figure 16. Positions based on resource exchange interactions

The Organizations

Group Categories
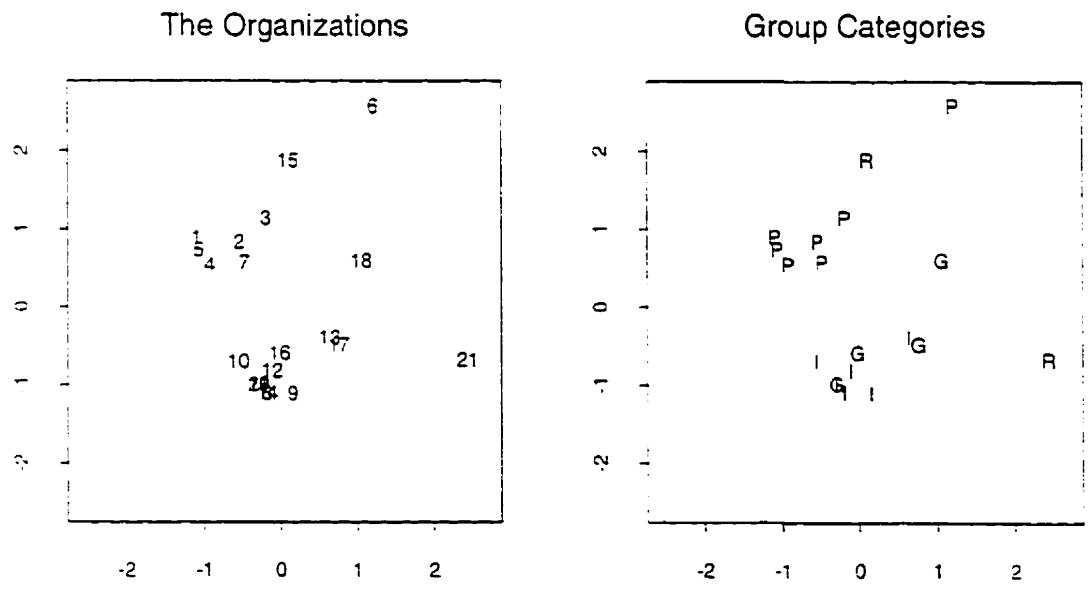
## Figure 17.   Positions based on all interactions

The Organizations                                Group Categories
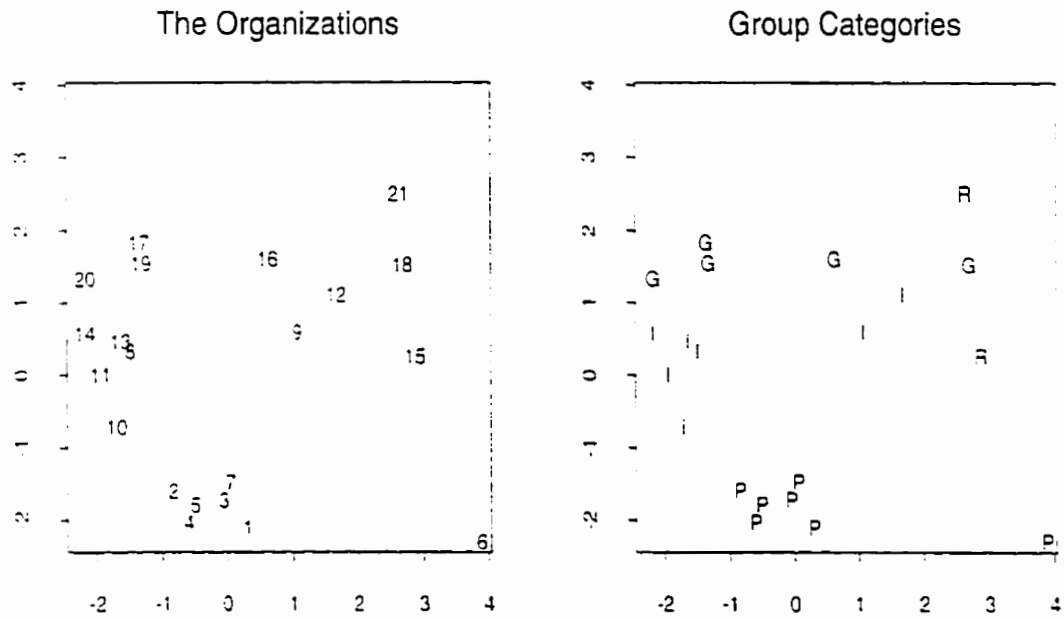


similarity in their interactions seemed to result generally from direct competition although interviewees also cited occasions where industry groups formed alliances.[26] The fact that clustering by group category was weakest for the Regulatory/Advisory Bodies category suggests that IHAC and the CRTC each had unique aims and they each targeted their interactions to different sets of organizations to achieve their distinctive goals.

The third feature is that the *degree and strength of clustering* varies across the interaction types. The clustering is most apparent in the formal communication interactions (Figure 13) and when all interactions are considered (Figure 17). The evidence here suggests that in formal communication there was a high degree of structure

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[26] For example. the Executive Director of the CTA (Braden. interview) said that his organization developed common positions with the CCTA in relation to the Stentor telephone companies.

in which the organizations within each group category cited interactions with similar other organizations but across group categories they had diverse citation patterns. The government departments are isolated in the upper portion of the map, showing that they cited interactions with different organizations than those cited by the industry or public interest groups. The government departments are nearer to IHAC than to the CRTC which implies the government departments had a closer relationship through formal communication channels with IHAC than with the CRTC. The industry groups were well positioned in relation to both IHAC and the CRTC but the public interest groups were close only to the CRTC. The industry organizations were thus better positioned than the public interest groups to influence IHAC, but the industry organizations and the public interest groups were both well positioned to influence the CRTC through the formal communication channels.

In informal communication interactions (Figure 14) there appears to be far less structure than in formal communication interactions and much more inter-mixing across group categories, especially in the pattern of citing other organizations. Only the CCTA and Stentor are located remotely on the horizontal plane, which means they each had a unique pattern in the citations they made of interactions with others. Since informal communication is about obtaining and spreading ideas and opinions about policy positions through informal channels, the unique patterns suggest that the CCTA and especially Stentor, which is furthest away from the other organizations, were more effective in communicating informally with a broad range of other policy participants. All of the peripheral organizations, which in this case includes the regulatory/advisory bodies, are loosely clustered. The alignment of Canadian Heritage and Industry Canada on the horizontal plane shows that these two government departments sought informal communication with similar sets of other organizations while their distance on the vertical plane shows that quite distinct sets of other organizations sought informal communication with them. This seems to suggest that although Industry Canada and Canadian Heritage sought to discuss the issue of essential services with similar sets of organizations, these

other organizations perceived the two government departments as having distinct areas of responsibility.

When all communication interactions are examined together (Figure 15). three features are evident in addition to the clear horizontal banding by group categories and the distinct vertical groupings of peripheral and core organizations. The first feature is that the government departments occupy a very narrow band across the bottom of the map. This feature demonstrates that more than any other category, the government departments targeted their discussions of the essential services issue to similar other organizations. The second feature is that the four government agencies that were identified earlier as core. that is. Industry Canada. Canadian Heritage. the CRTC and IHAC. are clustered relatively close together in the bottom right corner. Those four organizations therefore targeted and were the targets of communication interactions with similar other organizations. which suggests that the four agencies had access to similar information resources to consider the essential services issue. The third feature is that among the NGOs. Stentor is the closest to the government agencies. and PIAC is the furthest from them. This feature implies that based on all communication activities Stentor was the best positioned NGO to influence and be influenced by the government agencies (and especially the CRTC to which it was the closest) because it had access to very similar sources of information. On the other hand. PIAC was in the worst position because it was exchanging information with a very different set of organizations than those of the government agencies.

In resource exchange interactions (Figure 16) the network appears to be relatively unstructured. although on close inspection there is a distinct cleavage on the horizontal plane across the centre of the map which divides the organizations into two main clusters. The top cluster is composed of the organizations that both made citations of resource exchange interactions with others and received citations from others. This group is composed of all the public interest groups as well as the CRTC and Industry Canada. both of which provided valuable resources to the public interest groups. The

lower cluster contains the organizations that made no citations or few citations and generally received few citations of interaction ties in resource exchange interactions. The exception in the lower cluster is IHAC. which is situated on the far right. It received the most citations from others but it cited no interaction ties with others. All of the industry organizations are in the lower cluster. as are IHAC and all government departments except Industry Canada. The positions of the organizations in this map demonstrate that the public interest groups were the most active category and that PIAC. the CRTC and Industry Canada were important to this group. both as citers of interactions and receivers of citations relating to the public interest groups. On the other hand. the organizations in the lower section of the map were less active overall with the exception of IHAC. which was by far the principal target of citations from the industry organizations and government departments. This structure of this map suggests that resource exchange interactions were more important to the public interest groups since they interacted more frequently than did government departments and industry organizations. It also suggests that the latter two categories devoted their attention principally to providing resources to IHAC. whereas the public interest groups were mainly attending to obtaining and providing resources to each other.

When all the interactions. that is. the formal communication. informal communication and resource exchanges, are taken into account (Figure 17). the structure of the system is clearest overall. The groupings are well-defined with the peripheral organizations situated in clusters by group category on the map's left. The peripheral public interest groups are about the same distance away from IHAC and the CRTC as the peripheral industry organizations. The core organizations are situated on the map's right side. with Canadian Heritage. the CCTA. Stentor. IHAC. Industry Canada and the CRTC forming a loose cluster of six core organizations in the upper right quarter of the map. This loose cluster of six core organizations. with Stentor at its centre. appears to be the core of the network. that is. the organizations that formed the decision-making circle. PIAC. the sole public interest group among the core organizations. is situated on its own. isolated in the bottom right corner. excluded from the decision-making circle. The closest

organization within the cluster to PIAC (and to the other public interest groups) is the CRTC. This structure suggests that Stentor was having the most influence of the NGOs on the core organizations, whereas PIAC the least influence. PIAC's influence was likely to be the strongest on the CRTC and the weakest on IHAC which was situated the furthest away from PIAC.

When looking at the locations of the core organizations in each of the maps, a detailed picture of the network emerges. Stentor and the CCTA are located in relative proximity in each of the maps. These two organizations have the highest degree of structural equivalence among the core organizations. As the representative bodies of the original monopoly telephone companies and cable companies. Stentor and the CCTA were highly competitive organizations, seeking to obtain the best policy outcomes for their members' companies. As structurally equivalent organizations. Stentor and the CCTA had very similar patterns of interactions, which suggests that there was a high degree of emulation and close competition between them. In the maps of formal communication interactions (Figure 13), all communication interactions (Figure 15) and the combination of all interactions (Figure 17), Stentor is located in very central positions among the core organizations – central to IHAC, the CRTC, Industry Canada and Canadian Heritage, as well as to the CCTA. The CCTA is also relatively well-positioned in the maps for formal communication interactions and all the interactions, but it is not as central as Stentor. In informal communication interactions, Stentor and the CCTA are distant from the other organizations but, as discussed earlier, this distance is advantageous here because it shows that both organizations were able to communicate informally with a more diverse range of other participants than were the rest of the community members. In resource exchanges Stentor and the CCTA were among the peripheral organizations which implies that these two industry organizations did not need additional resources nor did they provide many resources to others.

On all the maps, PIAC is located on the right hand side with the core organizations, but it is always situated on its own. In terms of the interaction ties cited by

PIAC (the horizontal plane). PIAC generally acted like the other public interest groups, but this places PIAC in a disadvantageous location. On each map except for informal communication, PIAC is very close to the perimeter and at a distance from the other core organizations, and particularly from IHAC, Industry Canada and Canadian Heritage. PIAC's nearest government agency on these maps is always the CRTC, which strongly suggests that PIAC was more likely to influence the outcome of the policy process though the CRTC than through any other government agency. On the map of informal communication interactions (Figure 14). PIAC is in alignment on the horizontal plane with the peripheral organizations, which demonstrates that PIAC was not effective in extending its informal communication channels beyond those used by the peripheral organizations. In the resource exchange interactions, PIAC's position at the top of the map shows that PIAC interacted with a broad range of other organizations and was very important to the other public interest groups which relied heavily on it for policy advice and legal representation. However when all interactions are taken into account, PIAC is situated far from the other core organizations and is clearly outside of the decision-making cluster. It could be interpreted that PIAC's isolation reflects its unique role as the spokes-organization for the public interest groups. However, it is likely that this isolation has major implications in terms of predicting PIAC's influence on the outcome of the policy process to determine essential services. PIAC's isolation shows that the organization's interaction patterns were very different from the other core organizations which indicates that PIAC was far less likely than Stentor and the CCTA to influence the government agencies in their decision-making about the policy to determine essential services for the Canadian information highway.

While I originally anticipated that Industry Canada and Canadian Heritage would have a strong degree of structural equivalence. I found that this did not occur. In formal communication interactions. Industry Canada and Canadian Heritage displayed relatively strong structural equivalence, but this was the only type of interaction in which that happened. A possible explanation is that in the period immediately before the interviews were held, the government departments had been involved in inter-departmental working

groups in preparation of the government response to the IHAC recommendations. All government departments. therefore. tended to cite interaction ties with each other in formal communication. As a result. Canadian Heritage and Industry Canada cited interactions with the same other government departments and they similarly received citations from those government departments. In each of the other maps. Industry Canada and Canadian Heritage were relatively distant from each other on the vertical plane. meaning that they received citations from different sets of other organizations. This suggests that the other organizations perceived Industry Canada and Canadian Heritage as having distinct areas of responsibility in information highway policy development. When all the interaction ties were taken into account. it is evident that Industry Canada's interaction pattern was much closer to IHAC's and the CRTC's than was Canadian Heritage's. This situation gives the distinct impression that. overall. Industry Canada interacted much the same as a regulatory/advisory body, whereas Canadian Heritage. although core. had a tendency to interact like a peripheral government department.

IHAC and the CRTC. the two regulatory/advisory bodies. did not display strong structural equivalence. In the maps in Figures 13. 15. and 17. IHAC and the CRTC were aligned relatively closely on the vertical plane showing that they had similar patterns of citations received from other organizations in formal communication. all communication. and the combination of all interactions. However. IHAC and the CRTC were not closely aligned on the horizontal plane in any of the maps. thus they always cited ties with different sets of other organizations. This finding indicates that IHAC and the CRTC were perceived to be similar by other organizations but they in fact targeted interaction ties with different sets of organizations and therefore they played different roles in the policy process. In formal communication. all communication and the combination of all interactions (see again Figures 13. 15 and 17) the CRTC was situated on the horizontal plane between the industry organizations and the public interest groups. Therefore. the CRTC appears to have been mediating between these two sets of organizations. IHAC. on the other hand. in the maps of formal communication and all

communication interactions. is situated between the government departments and NGOs. and appears to have been mediating between those two categories of organizations in its communication activities. When all interactions are taken into consideration (Figure 17). IHAC is in a unique position. Although IHAC is part of the cluster of six core organizations. it is slightly removed from all others on the horizontal plane. that is. IHAC was in a unique position in terms of its overall interaction pattern with other organizations. One interpretation of IHAC's position might be that it was acting as a liaison organization among the vast majority of participants in the network. The location of the other organizations in relation to IHAC suggests that the influence on IHAC's decisions would be greatest from the government departments. followed by the industry organizations. then the CRTC. and finally the public interest groups. The CRTC's position based on all interactions is parallel with the peripheral industry organizations but between the public interest groups on the lower side and the core industry organizations and other government agencies on the other side. This location suggests that in the process to determine essential information highway services the CRTC's role was to mediate between the industry organizations and the public interest groups.

Returning to the map of all the interactions (Figure 17). the arrangement of the seven core organizations provides evidence of the type of policy network that was in operation at that time in relation to the policy issue of essential services. The isolation of PIAC in one corner. and the loose clustering of the four core government agencies and the two industry organizations in a single sub-cluster suggests that either a pressure pluralist. a clientele pluralist or a corporatist network had emerged at this stage of the policy development. The actual type of network that emerged will be examined in greater detail in chapter 6. when I analyze the actual processes involved at this stage of the policy development.

### 5.11    Conclusions

Through an analysis of the data in the interview transcripts, I identified 19 different forms of interaction (refer back to Table 5) that occurred among 21 organizations participating in the process to determine essential services on the Canadian information highway. I employed theory from organizational sociology and social network analysis to categorize the different forms of interaction into three fundamental types that reflect the relationships that occurred among the 21 network organizations: formal communication; informal communication; and resource exchanges. I found that communication interactions are particularly useful for identifying potential influence within a network, whereas resource exchange interactions are valuable for identifying domination and dependence relationships within a network.

I applied three variables developed for social network analysis (*i.e.*, Degree of Centrality, Choice Status and Power) to the types of interaction data singularly (*i.e.*, for formal communication, informal communication and resource exchange interactions) and to the combination of both types of communication interactions (*i.e.*, all communication interactions) to determine the prominence of the 21 organizations based on their centrality and their prestige. While there was some variation in the levels of prominence and the rankings of the organizations *across the three variables*, I found that these variables identified the same, or very similar sets of organizations as the seven most prominent ones in each type of interaction. The differences between the variables simply reflected the fact that each one focussed on a different aspect of the organizations' interaction ties: the Degree of Centrality measured centrality prominence and focussed on the quantity of a given organization's interaction ties regardless of which organizations cited them; Choice Status measured prestige prominence and was based on a quality factor, that is, the number of interaction ties a given organization received through citations made by other organizations; and, Power measured prestige prominence by taking into consideration two quality factors, the number of interaction ties a given organization received from other organizations and the status of the citing organizations. When determining which variable or variables to select for a research application, it is necessary to determine which aspects

**Table 13    Impacts of Prominent Organizations (listed alphabetically) in Types of Network Interactions**

| Impacts | Types of Interaction | | | | |
| --- | --- | --- | --- | --- | --- |
| | Formal Communication | Informal Communication | All Communication | Resource Exchanges | Overall |
| Influence through control of information | Canadian Heritage CCTA CRTC IHAC Industry Canada PIAC Stentor | CAC Canadian Heritage CCTA CLA CPI Industry Canada NAPO PIAC Stentor | Canadian Heritage CCTA CRTC IHAC Industry Canada PIAC Stentor | | |
| Dominance through control of resources | | | | CRTC HRDC Industry Canada PIAC | |
| *Influence Reputation* through receipt of resources | | | | IHAC Industry Canada PIAC | |
| Dependence on others & mutual dependence | | | | Public Interest Groups | |
| Overall influence (through control of information and reputation) | | | | | Canadian Heritage CCTA CRTC IHAC Industry Canada PIAC Stentor |

of the relationships are important to that particular research project. In this research I ultimately used the findings from the Degree of Centrality variable and the Power variable to determine the organizations that were prominent overall in the network because the together the two measures take into consideration both the quantity and the quality aspects of the interaction ties between the network organizations.

From these data I found that the level of prominence and the rankings of the organizations based on the Degree of Centrality and Power measures varied *across the three types of interactions* and *the combinations of interaction types*. These variations identified the organizations that, through their prominence in each type of interaction, were likely to have the most influence on the outcomes of the process to determine a policy on essential information highway services. The variations also showed that it is necessary to look at the nature of the interactions to understand the kinds of relationships that were occurring among the organizations and the types of influence being exerted within the network.

Table 13 (above) shows the impacts that the prominent organizations (identified by Degree of Centrality and Power) were having on the policy process through the various the types of interactions. IHAC and the CRTC, as expected, were the most prominent organizations in formal communication but were among the peripheral organizations in informal communication. IHAC and the CRTC, therefore, exerted influence by controlling the flow of information through the formal communication channels. In resource exchanges interactions, both IHAC and the CRTC were among the prominent organizations but the reasons for their high rankings were very different. IHAC received resources from 11 other organizations which, according to Knoke's (1990b) theory, would mean that IHAC had a higher *influence reputation* among network members than was found in the previous chapter. The CRTC, on the other hand, provided financial support to all of the public interest groups. The CRTC therefore was in a *dominant position* in resource exchange interactions with regard to public interest groups and therefore was in a position to exert power over those groups.

Among the NGOs. Stentor. the CCTA and PIAC were all highly prominent in formal and informal communication interactions. PIAC. however. was the only one of the three that ranked highly in resource exchanges. In fact. all public interest groups were ranked in relatively high positions in resource exchanges largely because they both provided and received resources from each other. whereas the industry organizations all ranked among the bottom half of organizations. This suggests that public interest groups cooperated amongst each other because they lacked resources and were dependent on each other in order to participate effectively. The industry organizations. on the other hand. were not active in resource exchanges which suggests they were not dependent on other organizations for resources nor did they share their resources with others. In other words. industry organizations had an adequate supply of resources and therefore were better able to participate in the communication interactions than were the public interest groups.

I also determined the *structural equivalence* within the network to identify the organizations with similar patterns of interaction which were therefore likely to have similar levels of influence on other organizations or to be influenced to the same degree by similar other organizations. As with the measures of prominence. there was a variation in terms of the organizations that were found to be structurally equivalent across the types of interactions. Only Stentor and the CCTA displayed strong structural equivalence across the types and combinations of interactions. This finding showed that these two organizations were strong competitors and very likely to have similar levels of influence on the other organizations. Although I had anticipated that Industry Canada and Canadian Heritage would also display strong structural equivalence across the types of interactions. they did so only in formal communication interactions. I originally believed that these two government agencies would exhibit tendencies. such as competing for information from the same other organizations. that were caused by overlapping responsibilities. In this instance. at least. my assumption was not supported by the evidence.

Another key finding through the use of structural equivalence was that when all the interactions were taken into consideration (refer back to Figure 17). there is a distinct cluster of six core organizations with Stentor occupying the most central position within the cluster. PIAC. on the other hand. is excluded from this cluster of core organizations. The positions of the organizations strongly suggests that Stentor would be the most influential NGO because of its central position. and that PIAC would be the least influential among the core organizations because of its exclusion from and distance from the cluster of other core organizations.

The major findings of this chapter also support the main findings of chapter 4. In this chapter (i.e.. chapter 5) seven organizations (Canadian Heritage. the CCTA. the CRTC. IHAC. Industry Canada. PIAC and Stentor) were identified as the *core organizations* in this policy network. These organizations are the same seven organizations that were ranked in the top seven positions by the number of interviewees who cited them as important players in this policy process (refer back to Figure 2). In chapter 4. however. IHAC was not identified as one of the *key players* because it was cited by far fewer interviewees than the six highest ranked players. While I had expected IHAC to be identified as a key player by the interviewees. the data did not support my expectation. In this current chapter IHAC was ranked among the core organizations. and IHAC's prominence was particularly strong in formal communication interactions.

An important finding from this chapter has been that the interactions among the organizations provide very fruitful data for analyzing the structure of a social system such as a policy network. By analyzing the interaction data. I obtained a variety of perspectives of the network's structure. and in doing so I came to deeper understandings both of the relationships among the participating organizations and the organizations' potential to influence the outcomes of the policy process under investigation.

# CHAPTER 6

## UNDERSTANDING THE POLICY IDEAS AND DETERMINING THE INFLUENCE

### 6.1    Introduction

The majority of this chapter is a qualitative content analysis of the interview transcripts and supporting documents from the seven core organizations. I begin by discussing the interviewees' view of the stage of the policy process. which contributed to developing a response to research question 5:

- What insights did the core organizations have of the process through which essential services were being determined?

The aims of the main content analysis are to understand the policy positions of the seven core organizations. to determine the outcomes of the policy process. and to identify the core organizations that were the most influential on those outcomes. This analysis seeks to answer research questions 6 and 7:

- How did the core organizations conceptualize the dimensions of the policy problem?

- What ideas. including attitudes. values. beliefs. and philosophies did the core organizations hold regarding the issue(s)?

A further aim is to compare the influence that actually occurred in this policy process with that predicted using structural characteristics. *influence reputation* or prominence. This content analysis responds to research questions 1. 2. and 3.

- Which organizations within the Canadian information highway policy community were the core organizations at the current stage of the process through which essential services were being determined?

- What was the influence of the structural characteristics of the core organizations on the policy process?

- How did the interactions influence the outcomes of the process through which essential services were being determined?

## 6.2    Insights into the Policy Process

To gain insights into the process through which essential services were being defined. I posed a direct question to the interviewees asking them to tell me the stage at which they believed this process to be. In this section. I report the results of my analysis of what they said about the policy process in answer to that question. As discussed in chapter 2. in this research I used Doern and Phidd's (1992) simple stages model of the policy process in which they identified six distinct stages. After reading aloud a description of this six-stage model to each participant. I asked the interviewee to identify the stage at which he or she thought the policy process was currently. I also probed the interviewees to find out how the breakup of the Department of Communications (DOC) in 1993. with the separation of its telecommunications policy components to Industry Canada and its broadcasting policy components to Canadian Heritage. was affecting the process. Because I was interested in obtaining organizational perspectives. I took the majority view of interviewees from the same organization as being representative of that organization's view.

Twenty-four of the 28 interviewees from the core organizations responded to this question. In all but one instance. determining the organizational perspective was a relatively straight forward task. In the case of the Information Highway Advisory Council (IHAC) Secretariat. however. one of the two interviewees chose Stage 2.[1] which is the problem definition stage. while the other appeared to select Stage 3.[2] which is the stage when alternatives to the problem are sought and analyzed. Upon re-examining the two transcripts I found that the interviewee who selected Stage 3. when explaining his decision. was actually discussing what was going to occur next. that is. he was saying that Stage 3 had not yet begun. Because his colleague had selected Stage 2. I felt that the organizational perspective was closer to Stage 2 than Stage 3. I therefore classed the

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[1] Peter Ferguson, interview with author. tape recording, Ottawa. Ont.. 11 March 1996.

[2] Richard Simpson. interview with author. tape recording, Ottawa. Ont.. 5 February 1996.

IHAC Secretariat's position as Stage 2. The organizational views on the stages are presented below in Table 14.

When I set up this project in late 1995, the CRTC had already completed its Convergence Hearing and had published its report in May of that year. Likewise, IHAC had recently completed its first phase and had published its recommendations in September of 1995. Although the government had not yet made public its response to IHAC's recommendations, I anticipated that the interviewees would think that the process was at Stage 2 because of IHAC and the CRTC Convergence Hearing. As is shown in Table 14, my expectation was confirmed by the majority view, but not every organization held that view.

A majority of the seven core organizations (i.e., 5 of 7) thought that the process was at Stage 2. Only one organization, the CRTC, considered the process to be at Stage 1, and likewise, only one organization, the Canadian Cable Television Association (CCTA), felt it was at Stage 4. From the interviewees' explanations of their decisions it was evident that their various perspectives were closely tied to two factors: the events in which their organization had participated or was planning to participate, and the issues that their organization considered to be important. When I realized that some interviewees had explained their choices in terms of their own organization's activities, I thought at first that these interviewees had misinterpreted the question I had posed to them. On closer examination of their responses, however, I realized that these interviewees had not misinterpreted my question. Some of them felt that their organizations' recent activities were important aspects of the process, and still others, especially interviewees from the CRTC, gave the impression that they felt the actual policy-making process consisted *primarily* of activities conducted by their organization. For example, the Manager of Broadcast Technology at the CRTC listed numerous past

proceedings as well as current proceedings that he believed were part of the process to determine essential services for the information highway.[3]

Among the three core non-government organizations (NGOs), both Stentor and the Public Interest Advocacy Centre (PIAC) considered the policy process to be at the second stage. whereas the CCTA felt the process was much further along, at Stage 4. From the interviewees' discussions on the policy process. it was apparent that both PIAC and Stentor considered the problem of determining essential services to be of greater importance than did the CCTA. All three organizations. however. held one view in common. that the actual process was not linear and it was far more complex than the model. involving multiple events. some occurring concurrently. others happening at different points in time.

Stentor perceived that the policy process to be at the second stage and that the issue was only recently being addressed. The two Stentor officials who were interviewed identified the IHAC activities as well as CRTC proceedings as being elements of the process to determine essential services. The Executive Director of Research at Stentor commented that over the past few years the CRTC had been concentrating on introducing competition and had not addressed this problem. and that senior staff within Industry Canada also had not wanted to address universal access and essential services because they were pre-occupied with other issues.[4] He noted that of the multiple policy venues in which essential services for the Canadian information highway could be considered as a policy problem. only IHAC had overtly attempted to resolve it. but he believed its attempt was unsuccessful.[5] He observed that the problem was now coming up in other guises. such as the CRTC telecom hearing on preferential telephone rates for health and

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[3] Gerard Bersin. interview with author. tape recording. Hull. Que.. 31 January. 1996.

[4] Brian Milton. interview with author. tape recording. Ottawa. Ont.. 1 February 1996.

[5] Milton. interview.

**Table 14      Core Organizations' Perceptions of the Current Stage in the Policy Process**

| Organization | | Stage 1 Identification of problem | Stage 2 Definition of problem into practical limits | Stage 3 Search for & analysis of alternatives | Stage 4 Choice of policy & allocation of resources | Stage 5 Implementation of policy | Stage 6 Evaluation of policy |
|---|---|---|---|---|---|---|---|
| Industry Groups | Stentor | | ✔ | | | | |
| | Canadian Cable Television Association | | | | ✔ | | |
| Public Interest Group | Public Interest Advocacy Centre | | ✔ | | | | |
| Government Departments | Industry Canada | | ✔ | | | | |
| | Canadian Heritage | | ✔ | | | | |
| Regulatory/ Advisory Bodies | Information Highway Advisory Council | | ✔ | | | | |
| | CRTC | ✔ | | | | | |

educational organizations. and the one on defining basic telephone service.[6]   He described the problem as "a sleeper" that was important to the telephone companies and was being addressed by Stentor because the telephone companies have traditionally borne the burden of providing universal access.[7]

Both of the Stentor interviewees believed that the breakup of the DOC was a positive step for the telecommunications industry.  As Stentor's Director of Research said. "it meant that [tele]communications was put into an economic portfolio whereas it had been lingering in a cultural portfolio over at DOC."[8]  Stentor's VP of Legal and Social Policy explained more fully:

> Telecommunications has always been seen like hydro or water – an essential service. but one that's so easy to take for granted. The result has been – was – still is – that content considerations were always key to the Department of Communications. So. under the Department of Communications. from '68 to '93. you always had telecommunications. or the engineering side of things. or the industrial strategy side of things. playing hand maiden to Canadian content issues. This was an advantage to the programming side of the communications industry and of course running disadvantage to the infrastructure side of the industry. which is us. For us. it has to be better to have telecommunications seen as part of Canada's industrial strategy – and housed therefore in the Industry Department.[9]

Nonetheless. the Stentor VP still had concerns because of Canadian Heritage's involvement in developing the government's policy on the convergence of telecommunications and broadcasting. Nonetheless. for Stentor the DOC's breakup was

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[6] The proceedings to which Brian Milton referred were: CRTC Telecom Public Notice 95-44: Proceeding on Preferential Rates for Educational & Health Entities: and CRTC Telecom Public Notices 95-49 and 95-56: Proceeding for Local Service Pricing Options.

[7] Milton. interview.

[8] Milton. interview.

[9] Greg van Koughnett. interview with author. tape recording. Ottawa. Ont.. 8 December 1995.

positive because telecommunications policy would henceforth be seen primarily in the context of economic and industrial issues rather than in the context of cultural issues.

The CCTA's view of the stage of the policy process, as expressed by the Association's Vice President of Telecommunications, was that the problem of essential services had already been defined by the CRTC for telephony and cable. As a result, the process for defining essential services on the information highway was already well advanced at Stage 4.[10] He also suggested that the policy on providing universal access to essential services was going to be constantly evolving and therefore the process would continually be moving in a circuit through Stages 4, 5, and 6.[11]

With regard to the breakup of the DOC, the CCTA's VP of Telecommunications felt that the practicality of separating telecommunications and broadcasting was proving difficult for the government. He believed that it was logical to place telecommunications in an industrial-based department that had an economic outlook rather than a social or cultural one, but Canadian Heritage was given the "more difficult task of focussing on the social policy objectives without having the responsibility for the carriage function underlying it."[12] In his view, the division of responsibilities left the government with a strong department (Industry Canada) and a weak one (Canadian Heritage).

PIAC considered the policy process to be at Stage 2, but comments made by the two interviewees from PIAC demonstrated that much of their organization's efforts had been focussed on defining the problem and at the same time trying to convince some government officials and the CRTC that a problem actually existed. The Director of Research at PIAC commented:

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[10] Ian Scott, interview with author, tape recording, Ottawa, Ont., 1 February 1996.

[11] Scott, interview.

[12] Scott, interview.

Right now, we are between one and two, I would say. We've spent most of the last year and a half, PIAC and myself, and others, you know in different venues, depending on who's working where and what time. basically trying to identify the problem or raise the issue with the government and the CRTC and others that it is a problem, that the problem does exist out there.[13]

PIAC's Legal Counsel was one of the interviewees who pointed out that reality did not correspond closely to the linear nature of the six-stage policy model.[14] Although she believed the process was at Stage 2 or 3, she commented that the policy makers were actually making decisions without undertaking the earlier stages in the model:

They are going ahead in making decisions. practical decisions. which effectively define what people can afford or what they can't. without having the preliminary analysis done. So I would say we are at point [i.e.. Stage] two or three in terms of the analysis. but in terms of the practical reality they're probably near the end. four or five. So I think we need to back up. That's what I'm saying, they need to back up and we're going to be telling them that.[15]

The two core government departments believed that the policy process was at Stage 2, but they differed markedly in their impression of the impact of the DOC's breakup on the process. Officials in Industry Canada considered the purpose of the current stage of the process was to obtain public input on the issues pertinent to determining essential services for the information highway. As a policy advisor in Industry Canada observed. the current stage was "not so much identifying the problem – but describing the problem in a really precise way."[16] A Senior Policy Advisor in the Telecommunications Policy Branch of Industry Canada commented. however. that the

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[13] Andrew Reddick, interview with author. tape recording. Ottawa. Ont.. 4 December 1995.

[14] Phillipa Lawson, interview with author. tape recording. Ottawa. Ont.. 2 February 1996.

[15] Lawson. interview.

[16] Anne Pigeon. interview with author. tape recording. Ottawa. Ont.. 4 December 1995.

issue of how much public input should be obtained was a sensitive one within Industry Canada.[17] Another official in Industry Canada discussed the complexity of the policy process to determine essential services. He believed that the process started with the issue of universality in telephony and broadcasting but that the IHAC process was responsible for identifying the problem in relation to the information highway:

> There is a process in place now. and I believe the process has identified the problem. largely through the work of the [Information Highway Advisory] Council. And there is a process of trying to at least get the opinions of the major stakeholders. both through informal consultations and with the inter-departmental and intra-departmental work going on in the Government of Canada. That process. I believe is ongoing. It's messy. It does not correspond to the idealized world. and it has to take into account the very conflicting interests. even within an organization like the Government of Canada. as to how the problem should be defined and what the policy response should be. because the way in which you define the problem and the stakeholders often determines. to a large extent. the policy response.[18]

This interviewee also pointed out that obtaining consensus on essential services from the stakeholders would not be easy and he felt that a separate process should be established to reach this end.[19] Although Industry Canada officials felt that the problem of determining essential services was being defined. they were still grappling with the difficulty of how to obtain public input.

Canadian Heritage staff believed that the issue of defining essential services was of more importance to Industry Canada than to their department.[20] They felt that the issue had only recently arisen in relation to Canadian cultural material. and. as a result. for them

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[17] Jacques Drouin. interview with author. tape recording, Ottawa. Ont.. 5 December 1995.

[18] Prabir Neogi. interview with author. tape recording. Ottawa. Ont.. 30 January 1996.

[19] Neogi. interview.

[20] Gratton. interview.

the process had only progressed to Stage 2. As a Senior Policy Advisor in the Broadcasting Policy Branch put it:

> And as a matter of fact. it's an issue that hasn't even received a lot of attention in terms of defining what's an essential service until fairly recently. So that we're definitely at the early stages... It would be hard to put a number on it – probably somewhere around [stage] two. I guess. [21]

The Director General of the Broadcasting Policy Branch also felt that the process was at the second stage but it still included elements of identifying a problem.[22] She explained that most people involved in the process had not yet considered broadcasting to be an important element in the debate on essential services. yet broadcasting was a key component of the issue.[23]

Industry Canada and Canadian Heritage had contrasting perspectives on the impact of the breakup of the DOC. Although Industry Canada staff acknowledged that policy-making had become slightly more complex because it now involved two departments.[24] they felt the DOC breakup was positive for telecommunications policy development. A Senior Policy Analyst in the Telecommunications Policy Branch of Industry Canada explained that the new structure enhanced the government's telecommunications policy-making capacity because it brought together the telecommunications policy expertise from the former Department of Communications and the technical and economic expertise from the former Department of Industry.[25] In his view the restructuring helped the Telecommunications Policy Branch move forward quickly on policy aspects of the information highway policy development which brought credit to the Minister and the

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[21] Gratton. interview.

[22] Susan Baldwin. telephone interview with author. tape recording. Ottawa. Ont.. 27 February 1996.

[23] Baldwin. interview.

[24] Drouin. interview: Neogi. interview.

[25] Drouin. interview.

Department.[26] The Senior Policy Analyst also noted that the placement of the Telecommunications Policy Branch in Industry Canada re-emphasized for his unit that the government was committed to the principle of using market forces as a major part of its telecommunications policy.[27]

Canadian Heritage staff were unanimous in their view that the separation of broadcasting and telecommunications policy development into two departments made the policy-making process more complex and that the policy decision-making had become slower. The Director of the Broadcasting Policy Branch explained that Industry Canada and Canadian Heritage had two fundamentally different mandates which meant that the scope of policy issues had broadened because there were now considerations that had to be taken into account that weren't there before.[28] A Senior Policy Analyst in the Broadcasting Policy Branch made another interesting point. She stated that staff in her branch formerly had access to the technical expertise in the Spectrum Engineering Branch but they lost that access in the restructuring which made it more difficult and time consuming to deal with technical aspects of broadcasting policy.[29]

The two core regulatory/advisory bodies, IHAC and the CRTC, differed in their perception of the stage of the process. IHAC perceived the process to be at Stage 2, but the CRTC considered it to be at Stage 1. A senior member of the IHAC Secretariat commented that determining the stage in the process was difficult "because there's policy and then there's subsets of the policy which may themselves be called policy."[30] He contended that components of a policy on essential services were already in place through

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[26] Drouin. interview.

[27] Drouin. interview.

[28] Baldwin, interview.

[29] Kathleen Fildes. interview with author. tape recording. Ottawa. Ont., 6 December. 1995.

[30] Ferguson. interview.

the *Telecommunications Act* and the work of the CRTC.[31] However. he felt that a

process still needed to be established that would define the essential services:

> I think there are a couple of things going on here at the same time. But I
> would say that we're back – I don't think we've identified what the issues
> are – at least satisfactorily. A lot of us have a sense of what they are. And,
> part of that problem is the innate difficulty in government with
> understanding what it is the public wants. We certainly know what industry
> wants. or we think we do. We certainly hear it often enough. But from a
> user perspective. I don't think we're necessarily in tune with what the
> public is thinking about the [information] highway.[32]

Similarly the Executive Director of the IHAC Secretariat believed that a new consultative

process was needed to obtain input from the public.[33] Like officials in Industry Canada.

members of the IHAC Secretariat perceived the process to have reached the stage of

problem identification but they were concerned about the ability of the process to obtain

public input.

The officials at the IHAC Secretariat had mixed views about the impact of the

DOC's breakup on the policy development process. On the one hand. the Secretariat's

Executive Director felt that the DOC had made Canada a world leader in

telecommunications by providing the government with the capacity to view social and

cultural issues alongside economic ones in telecommunications policy development.[34] He

felt that it was vital for IHAC to work especially hard to overcome the loss of that critical

mass. On the other hand. the Secretariat's Director of Council Operations believed that

the separation of telecommunications and broadcasting was a positive move because it

allowed technology to be the driving force in information highway policy development. In

his view. it was particularly important to separate cultural issues from the economic ones

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[31] Ferguson. interview.

[32] Ferguson. interview.

[33] Simpson, interview.

[34] Simpson, interview.

at this point in time to free up telecommunications development so that Canada would be able compete with the United States which did not have cultural concerns to hold it back.[35]

The interviewees at the CRTC viewed the process to be very much a regulatory one. tied to the CRTC's own activities. The CRTC felt strongly that the process was only beginning to address the issue in relation to the information highway. but that the issue had already been addressed in relation to telephone service. As one CRTC staff member explained. until recently there wasn't a need for a process to define essential services "because historically the telecom world has been a lot simpler. and there has been sort of plain old telephone service – the basic kind of telephone service."[36] According to the Manager of Broadcast Technology. the CRTC's past. current and future proceedings are all part of the process from which a definition of essential services for the Canadian information highway history would evolve. but he did not think that in the future there would be a proceeding focussed narrowly on defining those services.[37] The Director General of Broadcasting Analysis. who chaired the CRTC's Convergence Hearing. felt that the process to define essential services was largely technology driven and unorganized because that was the nature of the Internet: "So. I think we're all waiting – nobody is really taking charge and trying to move this thing. Everybody is sort of letting it happen."[38]

Unlike all the other core organizations. the CRTC felt that the restructuring of the DOC had no real impact on the policy development process. As the CRTC's Director General. Competition. Social and Convergence Policy pointed out. although the

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[35] Ferguson. interview.

[36] Daphne Fry. interview (along with Malcolm Andrew) with author. tape recording. Hull. Que.. 6 December 1995.

[37] Gerald Bersin, interview with author. tape recording. Hull. Que.. 31 January 1996.

[38] Diane Rheaume. interview with author. tape recording. Hull. Que.. 1 February 1996.

telecommunications component of the DOC went to Industry Canada and the broadcasting component went to Canadian Heritage, "day to day it didn't change much – it's still the same players."[39]

In review, the majority of the core organizations in this research perceived the policy development process to be at Stage 2, that is, at the stage when the policy problem was being defined into its real meaning. Many of the participants, however, commented that the process was far more complex than the linear model presented to them, that is, it involved a variety of issues some of which had been decided previously and others which were being examined concurrently through different processes. Most of the core organizations also felt that the breakup of the DOC was having an impact on the policy process, although there were mixed views about whether the impact was a positive one or a negative one. Some organizations perceived the breakup of the DOC as a positive move because it put telecommunications policy development into a department with an industrial base and an economic focus which expedited information highway policy development. Other organizations felt that the DOC's breakup slowed down the process by making it more complex and it weakened the government's policy making capacity by eliminating its ability to view economic, social and cultural issues together.

## 6.3    The Core Organizations' Explanations of the Policy Problem

The analysis of the seven core organizations that follows examines the organizations' conceptualization of the problem of defining essential services on the Canadian information highway. This analysis examines the content of the interview transcripts of the employees from the core organizations and the supporting documents gathered from those organizations to explain the organizational views of the actual policy problem. In particular I focussed on obtaining the organizations' thoughts on the following aspects of the policy problem – its genesis, the stakeholders, the most important issues, any previous or existing legislation or policies that establish the problem's

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[39] Malcolm Andrew, interview with author, tape recording, Hull, Que., 6 December 1995.

parameters, and the possible solutions to resolve the problem. I also examined the broader context into which the organizations placed the issue of essential services. Finally, I examined the language in the interview transcripts and the supporting documents because the way the organizations framed their information highway policy discussions provided evidence of the broader values held by the organizations relative to the narrower essential services issue.

In Chapter 5, I presented in Figure 17 a positional map which used multidimensional scaling to place the 21 network organizations relative to one another based on the similarities of their patterns of interaction. This map showed that six of the seven core organizations (Stentor, the CCTA, Industry Canada, Canadian Heritage, the CRTC and IHAC) were situated together in a loose cluster, while the seventh one (PIAC) was located on the periphery, isolated from the others. In this sixth chapter, I found that the same group of six core organizations framed their information highway policy discourse in economic terms, and even though some of these organizations considered cultural and social issues to be important when explaining the problem of defining essential services, these organizations nonetheless focussed primarily on economic factors when selecting alternatives to resolve the policy problem. Again, I found that PIAC was on its own, framing its policy discourse in social terms, although even PIAC appeared to concede the importance of economic considerations when making recommendations related to the definition of essential services.

### 6.3.1 Stentor

Although the DOC had been examining the need to restructure the regulatory environment for local telephone and cable television networks since 1989 (DOC, 1992), it was Stentor in mid-1993 that first urged the new Liberal government to create a national policy development process to foster the rapid development of the Canadian information highway.[40] For Stentor, the problem of determining essential services for the information

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[40] Milton, interview.

highway was related to the issue of universal access which was an issue that needed to be addressed because of the changing policy environment caused by the introduction of competition and the convergence of telecommunications and cable technologies. According to Stentor's Executive Director of Research, essential services in the telephone industry first arose in the old monopoly environment when the telephone companies had a social contract requiring them to provide universal and affordable access to basic telephone service in exchange for the government providing them monopoly protection in their service areas.[41] The Executive Director contended that the social contract had been severed over the past ten years because the government had shifted to a telecommunications policy based on competition.[42] Stentor's Vice-President of Legal and Social Policy pointed out that the shift to competition now made it impossible to maintain the elaborate system of cross-subsidies that had been used for providing universal access.[43]

Stentor equated essential services with the concept of *basic service*, and the Executive Director of Research at Stentor claimed that in the current environment, the definition of basic service could be broadened to include not only telephony but also broadcasting and computing:

> What's the definition of a basic service right now? ... You'd probably define the current environment [on the telephone side] as dial tone, 9-1-1, operator service, and then on the broadcast side it would be over the air broadcast. I think that's all there is on the broadcasting side. Everything else is not deemed essential because they don't have the same strict mandate as the telcos had. Their contract was on the culture side, it wasn't on the social side. And then if you add the computer thing, and the freenets have pushed this one, it's data, access to data lines, at affordable rates – that kind of thing. Okay, so there's the current environment.[44]

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[41] Milton, interview.

[42] Milton, interview.

[43] van Koughnett, interview.

[44] Milton, interview.

While the cultural component of basic services received little attention from the two Stentor interviewees, at the CRTC Convergence Hearing Stentor strongly supported the idea that "Canadian information, educational and entertainment products and services are essential components of the national identity" (Stentor, 1995, paragraph 319). Stentor promised that when granted a license or exempted from holding a license for distribution undertakings,

> the telephone companies will respect and abide by the principles of priority carriage of Canadian television services, including any services that may be deemed essential or mandatory, and will respect and honour section 11 of the *Cable Television Regulations, 1986* which requires that a licensee will devote a greater number of video channels of this undertaking to the distribution of Canadian programming services. (paragraph 326)

Although Stentor thought it would be unnecessary for the telephone companies to provide community programming channels on their cable services, it nonetheless made commitments for the telephone companies to support community programming initiatives (paragraph 327).

Stentor believed its own telephone companies were stakeholders on the essential services issue, because the telephone companies were very concerned about the financial implications of defining essential services. Other stakeholder groups in its view included the following: the cable companies which, according to Stentor's Executive Director of Research, wanted access to a non-existent subsidy to provide affordable access upon starting their telephone services;[45] subscribers to telephone services, who based their desire for, and conceptualization of, affordable access to the information highway on their experience with cheap telephone services;[46] rural residents who were concerned that the telecommunications companies might find it too expensive to extend the information highway to their residences;[47] and educational and health organizations, which because of

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[45] Milton, interview.

[46] van Koughnett, interview.

[47] van Koughnett, interview.

cuts in government funding, would benefit from preferential rates for telecommunications services.[48]

The interviewees' comments in 1995 and 1996 were fully consistent with earlier published policy documents by Stentor. In its earliest public discussions about the information highway, Stentor framed its policy discourse in very strong economic terms. This strategy was evident in Stentor's two early information highway documents. In October 1993, Stentor published its "vision statement" in which it presented the information highway as an advanced information infrastructure whose rapid development was essential for the renewal of Canada's economy, for the creation of new jobs for Canadian workers, and for Canadian companies to compete successfully in a global marketplace (Stentor, 1993). Interestingly, Stentor's vision was published one month after a report published by the Clinton administration's Information Infrastructure Task Force which was entitled: *The National Information Infrastructure: Agenda for change*. The report presented the U.S. vision of the information highway which recognized the private sector as the leading force in the information highway's development and called for an advisory council of private sector members to advise the government's own inter-agency Task Force on the Information Infrastructure. The Task Force was charged with developing the public policies for a regulatory and tax environment that would foster the private sector investment required for the speedy deployment of a national information infrastructure (United States. Information Infrastructure Task Force, 1993). Stentor's vision offered a similar strategy. The private sector's role would be to implement the information highway by making large capital investments into network upgrades and by developing innovative products and services for the benefit of users, while the role of the government would be to act as a facilitator by developing a coherent policy environment and by reforming and streamlining regulation to encourage private sector investment and implementation (Stentor, 1993, p. 14-15). To guide the information highway's development, Stentor offered six principles:

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[48] Milton, interview.

- fair and open access for service providers;
- affordable and widely available access to consumers;
- common standards for interconnectivity and interoperability for all components of the information highway;
- private and secure information to protect against misuse of the information highway;
- incentives for increased research and development; and
- the promotion of Canadian culture to strengthen Canada's cultural identity and cultural industries (pp. 13-14).

In April 1994, Stentor announced its *Beacon Initiative*,[49] in which it claimed that the telephone companies' investment in the initiative would "stimulate the Canadian economy, first creating new jobs in telecommunications and computer industries and leading directly to new opportunities in education, health care, retailing, publishing, entertainment and a host of other industries" (Stentor, 1994a, p. 4). The underlying argument in Stentor's position was that the telephone companies' investment in the information highway was critical for Canada's economic health. Therefore, any policy decisions related to the information highway had to be considered in light of their impact on the telephone companies' ability to make this critical investment.

The interviewees at Stentor described the problem of defining essential services using the same underlying argument. According to Stentor's VP of Legal and Social Policy, the timing of the requirement to provide essential services on the information highway was particularly bad, occurring when the telephone companies' revenues were down and when they needed large capital investments to fund their information highway initiatives.[50] He claimed that because of the introduction of competition in long distance services, Bell Canada in 1995 received only half the amount that the CRTC considered to

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[49] The Beacon Initiative was the Stentor telephone companies' commitment to the development of the information highway. It involved the promise of an $8 billion investment into upgrading their existing networks so that they would be able to deliver multimedia communications (Stentor, 1994a, p. 5).

[50] van Koughnett, interview.

be fair under its legal test for a reasonable rate of return on investment.[51] He said that because of the low rate of return, senior executives at Bell were losing their fervour for investing in broadband facilities when there would not be a payback in the short or even long term. Furthermore, the Stentor VP commented that the concept of essential services reminded Bell Canada's senior executives of "the kind of social engineering" that occurred in a monopoly narrowband world and when this concept was raised in relation to Stentor's expansion into the broadband world, it raised up "a red flag" in the executives' minds:

> They don't know where the money is going to come from for them to be able to do that anymore. The result is that it's difficult to make commitments in the abstract, because these commitments will have a negative bottom line implication. So, in essence, although discussions take place about the need to ensure that we don't have in the information economy an exacerbated have and have-not society with the rurals being the have-nots – and at the conceptual level everyone can agree to that – it's not so easy to see a way to achieve that without necessarily having a negative [impact] on the bottom line of the companies.[52]

By linking the definition of essential services with the telephone companies' reduced revenues and their ability to invest in the development of the information highway. Stentor was framing the problem as an economic issue, not as a social one. As the representative organization for the telephone companies, Stentor was attempting to convince the policy makers that when determining the criteria to be used to define essential services, it was in the public interest to ensure the economic well-being of its members. For Stentor, the problem was how to define essential services in a competitive broadband environment in a way that the funding of those services did not impact negatively on the profitability of the telephone companies.

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[51] van Koughnett, interview.

[52] van Koughnett, interview.

## 6.3.2   The CCTA

The cable companies, unlike the telephone companies, were not operating in a regulated environment which included universal access requirements. Probably as a result, the CCTA perceived that the concept of essential services was originally related to telephony and not cable. For that reason the Association had only recently begun to view the problem of defining essential services as a concern for the cable companies. According to the CCTA's then Vice-President of Telecommunications, Ian Scott, telephony was regulated as a utility because it was considered essential, but there was "not the same notion of essential cable."[53] In his view, telephones have had tremendous social importance because they could be used in critical situations to contact emergency services. Cable has had a cultural importance, something viewed as less essential than the role played by the telephone.

Although perceiving its role as more marginal in the essential services area, the CCTA, like Stentor, used a strategy expressing information highway concepts in economic terms. Again, the interviewee's views were consistent with earlier policy publications. In 1993, the CCTA published its vision of the cable industry in 2001. Although this document appeared in advance of the information highway discourse in Canada, the CCTA depicted the cable industry as a technological innovator, a creator of jobs, and a provider of additional revenue to the Canadian economy (CCTA, 1993, p. 2). A key feature of the CCTA's discourse was its emphasis on the importance of cable to the future survival of Canadian broadcasting and the attainment of the objectives of the *Broadcasting Act* (p. 28). The CCTA's vision was for the cable industry to become a consumer-oriented provider of traditional and new services (p. 17). To achieve its vision, the CCTA claimed the cable industry would need to invest $6 billion to upgrade its networks to "digital ready" capability and to establish new services in the "unclaimed territory" between the cable industry and telephone industry (p. 27). The CCTA stressed that "an environment of regulatory certainty and regulatory support for investment incentives must

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[53] Scott, interview.

be established in order to attract the necessary funding" (p. 28). The CCTA's vision document also emphasized the role of the Canadian cable industry as a prime vehicle for the government to achieve its cultural objectives by providing access to Canadian content. including local programming and community channels (pp. 21, 24). To meet consumer demands for more choice and to deal with the competitive threat from providers of direct access foreign programming, the CCTA called for "regulations that balance cultural objectives with market forces" (p. 28). Like Stentor, the CCTA's policy position was aimed at linking its members' financial concerns to public policy issues.

During his interview, the CCTA's VP of Telecommunications identified a range of stakeholders and issues related to the problem of defining essential services. He believed that during the implementation of the information highway, the cable companies needed a transition period during which the dominant telephone companies should not be allowed to enter into the provision of cable services. The cable companies, when entering into the provision of local telephone services, should, he felt, get access to the subsidies received by the telephone companies to equalize the cost of providing telephone service across low- and high-cost areas.[54] Consumers would benefit from a regulatory environment that would promote fair competition and would ensure a choice of access and service providers for the information highway.[55] The VP also pointed out that investors required an unambiguous investment environment, especially given the confusion that resulted from the overturning of a CRTC decision by Industry Canada, a reversal which allowed the telephone companies to increase subscriber rates without a corresponding decrease in long distance rates. This last issue, according to the CCTA's VP, meant that Industry Canada, which "was championing letting the market work and having a competitive environment in the industry." was actually "picking winners."[56] He contended that Industry Canada's action assisted the telephone companies in obtaining substantial additional revenues

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[54] Scott, interview.

[55] Scott, interview.

[56] Scott, interview.

directly from their subscribers to fund expansion into core cable services. This action. he said. left cable's potential investors confused about the investment environment – was it really a competitive one, or was it still a managed one? The CCTA VP stressed that the uncertainty was hurting investment into the cable companies' expansion into new services which were needed to compete with the telephone companies.

The CCTA focussed on the uncertain investment climate in its explanation of the problem of defining essential services. The CCTA VP of Telecommunications said that the information highway was currently the Internet. and he defined essential services for the Canadian information highway as affordable access to the Internet.[57] He maintained that one of the main suggestions made by the public interest groups to provide affordable access was "the public lane,"[58] a concept that was not well defined and was not economically feasible. he claimed. because the cable companies could not afford to provide free bandwidth. The CCTA VP also pointed out that any attempt by the government to ensure universal access by regulating rates for Internet service would hurt the cable companies:

> But it's very hard to say. "Now, well. we are going to say that rates are
> going to be tied to some socio-economic factor or some social policy
> objective." It's very hard to do when you are talking about businesses.
> People have businesses to run. The revenues they get from that are used to
> upgrade their network to allow them to do digital television and telephony.
> You take away those revenues [and] then they don't have those additional
> revenues to leverage additional financing and so on and so on. It's not a
> question of private interest as much as simple business math. Cable
> operators need their cash flow in order to get additional investment.[59]

In his view. if any social policy obligations for providing essential services. such as public lanes or cheap regulated access to the Internet. were to be imposed. the cable companies

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[57] Scott. interview.

[58] A public lane is some of the capacity on a broadband network that is made available for "public use or community participation" at minimal or no cost (Skrzeszewski. 1995). According to Avis (1995). non-commercial use of public lanes are "inextricably linked to" the concepts of universal service and basic service on the information highway.

[59] Scott. interview.

would find it difficult to remain viable, and this would have a negative impact on the development of the information highway.

To the CCTA the problem of defining essential services boiled down to making the package of essential services affordable in a manner that would allow the cable companies to remain economically viable and competitive with the telephone companies. The CCTA VP explained:

> So, again I reduce it to that package or range of services being made available at affordable levels, and that's a function of the health of – well, partly of social policy – you can subsidize and tax it, but also, I mean ideally you make the industry healthy and they can do it.[60]

In other words, the CCTA was arguing that any decisions regarding the definition of essential services needed to bear in mind the cable companies' difficult financial position, given that it would be in the public interest to ensure that the cable industry remained healthy. Although it was not the same exact point as Stentor, the CCTA's position was from the same policy perspective.

## 6.3.3   PIAC

PIAC's policy position was based predominately on social considerations. In relation to the other core organizations, PIAC's policy perspectives were closest to those held by the CRTC. But as noted below, even the CRTC looked at the information highway policy issues predominantly from an economic point of view.

As an organization that has represented poor people, senior citizens and rural and remote residents on affordability issues at the CRTC proceedings, the starting point for PIAC was that essential services in telecommunications were already defined as basic telephone service.[61] The Centre's Director of Research pointed out that in terms of Canada's legislative framework, the current definition of essential services in

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[60]   Scott, interview.

[61]   Lawson, interview.

telecommunications was somewhat fuzzy because of the different interpretations provided in the regulatory approaches for cable television, broadcasting and telephony.[62] He explained that basic service in cable television is prescribed under the *Cable Regulations 1986* in relation to the priority carriage of certain types of broadcast programs by different classes of cable service operators. In broadcasting, the *Broadcasting Act* included "a requirement to make sure signals are available."[63] He said that telephony, however was different.

> On the telephone side, it's never been formally defined by the CRTC, though it's been done vicariously through rate setting and obligations when rates are set. It's when a phone company comes in and says, "This is our rates for the next year." then the CRTC said, "Okay, your obligations are the following – ." And that has become basic service or essential service definition.[64]

PIAC considered the issues involved in defining essential services to be particularly relevant to poor people and to those who lived in rural or remote areas, or who were elderly, disabled or illiterate, all of whom needed affordable access to telecommunications services to participate fully in society.[65] PIAC felt strongly that, for these people, the essential service was, and would continue for some time, to be access to the telephone. PIAC's two interviewees believed that the move to a competitive regulatory environment in telecommunications was the key issue because competition and market forces in telecommunications worked against the achievement of universal access.[66]

PIAC was the only core organization to concentrate its policy position primarily on the social benefits of providing universal access in telecommunications. In the period from

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[62] Reddick, interview.

[63] Reddick, interview.

[64] Reddick, interview.

[65] Lawson, interview.

[66] Lawson, interview; Reddick, interview.

1992 through 1996 PIAC published at least 10 monographs in which it discussed a range of social issues relevant to public policies in telecommunications. In the opening paragraph of a 1993 document on defining basic telephone service. PIAC argued that, in the enthusiasm to embrace the economic benefits of telecommunications. Canadians must not lose sight of the fact that telecommunications is a public utility to which everyone should have access:

> Increasingly telecommunications is seen as a strategic investment. There is no doubt that widespread and innovative uses of advanced telecommunications technology by Canadian business will improve our economic health. But in this enthusiasm to embrace the information age. we must not lose sight of the public utility function of the technology. As much as it has become a strategic investment. telecommunications remains a public utility. which should be available to all citizens regardless of income level. (Lawson. 1993. p. 1)

In this document. PIAC underscored the social benefits of the telephone for individuals: "A telephone in the home has become necessary to full participation in society" (p. 1).

In a 1994 document on the regulation of telecommunications in Canada. PIAC focussed on the benefits of universal access to telecommunications to society as a whole. PIAC stressed that, as with education and health. universal access to telecommunications has "significant positive externalities" (Lawson. 1994. p. 1) for society: "We subsidize the provision of all these services, regardless of income level. for the same reason: the benefit of subsidization outweighs the cost" (p. 1). PIAC also claimed that "the proper functioning of Canadian democracy" (p. 2) requires the encouragement and support of strong civic organizations. such as local volunteer networks and service clubs. national interest groups and professional associations. and that "widespread access to telecommunications services is critical" to their development and growth (p. 2).

A key element of PIAC's information highway policy strategy appeared in the 1994 document – a focus on the requirements of citizens and a democratic society in contrast to the needs of consumers and the benefits of markets when considering policy issues:

As our society becomes more information-driven, the need to ensure that all citizens have access to that information grows in importance. This is a fundamental requirement of democracy in the information age. and one that will not be satisfied by the free-market alone. (Lawson, 1994. p. 3)

PIAC's Director of Research articulated this approach when describing the general context of the problem of determining essential services on the information highway:

> A lot of it comes down to how one conceives of what information networks are all about. There's a duality to them. On the one hand. they are a public utility. You can't participate in society, you can't achieve economic, social or cultural goals unless you have access. And that's going to be increasingly so over the next twenty. thirty years. At the same time. they are also commodities. It's also market activity. And there's a real tension and contradiction actually between those two things. So the problem comes down to how much you define one as a democratic right of access to a utility and how much is it for open-market competition so people can pick and choose based on their ability to pay. You know – participatory democracy versus dollar democracy.[67]

PIAC's Legal Counsel described the specific problem as determining which information highway services are the ones that people need to participate fully in society.[68] She believed that the range of services that people consider essential will continue to evolve as the information highway develops. Although she recognized that market forces largely determine which services are considered essential, she was adamant that the public good also needed to be taken into consideration. Both interviewees from PIAC pointed out that the commodification of telecommunication services, which had occurred because of the introduction of competition. had put at risk universal access to the current level of essential services. that is. access to basic telephone services. PIAC's Legal Counsel explained it this way:

> What we have is in jeopardy. This is the problem. And what is most important to people is the ability to communicate. And I guess that if you're asking me what the information highway is. it's maintaining the ability to communicate but in new and different ways. But the key thing is. if we're going to new and different ways. let's not jeopardize what we have

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[67] Reddick. interview.

[68] Lawson. interview.

already – the basic form of communication which is over the telephone line – it's the voice.[69]

Thus, the problem as defined by PIAC had three perspectives to it. First. there was the issue of whether telecommunications services should be defined as a public utility to which citizens have a right of access, or whether they should be viewed as commodities available in the market for consumers to determine whether they are willing to pay for them, and whether they actually need the services. The second perspective focussed on what criteria and what process should be used as new services are made available on the information highway to determine which of those services are essential for people to participate in society. And the third perspective looked at how. in a competitive environment. universal access to the current level of essential service can be preserved.

By emphasizing the public utility function of telecommunications and the essential nature of telecommunications to individuals as citizens and to Canadian society as a whole. PIAC was attempting to persuade the policy makers and regulators that. even in an age of free markets and information highways, social concerns were just as important. if not more important. than economic concerns. Whereas the other core organizations placed economic concerns at the top of their priorities and based their policy positions primarily on economic considerations. PIAC placed social concerns at the top of its priorities and based its policy positions around social considerations.

### 6.3.4 Industry Canada

Industry Canada was responsible within the federal government for information highway policy development (Canada. Treasury Board Secretariat. 1995. p. 467). Although Industry Canada staff recognized that two technologies and two pieces of legislation were relevant to information highway policy development. Industry Canada's concerns were primarily with telecommunications and the telecommunications legislation.

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[69] Lawson. interview.

which had economic objectives.[70] Industry Canada believed that concerns relating to broadcasting legislation, with its cultural objectives, were the Department of Canadian Heritage's responsibility, and Industry Canada left Canadian Heritage to deal with those issues.[71] Industry Canada staff considered their department to be both a facilitator of the policy process and an active participant in it. Industry Canada developed the government's information highway strategy, including the IHAC process.[72] Departmental staff wrote the IHAC policy discussion documents on essential services in 1994.[73] Some of the Department's staff were seconded to the IHAC Secretariat for the duration of the IHAC process, and others were seconded for shorter terms to act as *sherpas* for the IHAC working groups.[74] When I conducted the interviews for this research, many Industry Canada staff had been or were still participating in the government's inter-departmental working groups which were drawing up responses to IHAC's recommendations. These activities, as well as participation in a range of other information highway related events, had been shaping the perspectives of Industry Canada policy staff on a wide range of information highway policy issues including the one being investigated in this research.

Industry Canada articulated its information highway policy positions in terms of the economic importance of the information highway's development to Canada and the need for urgent action, an approach which was very similar to Stentor's approach. Industry Canada was given responsibility for developing the federal government's information highway strategy.[75] which was announced in the 1994 Speech from the Throne and the Budget "as part of its plan for long term job creation and growth"

[70] Neogi, interview.

[71] Drouin, interview.

[72] Arthur Cordell, interview with author, tape recording, Ottawa, Ont., 6 February 1996.

[73] Neogi, interview.

[74] Ferguson, interview.

[75] Cordell, interview.

(Canada. Industry Canada, 1994b). The first IHAC policy discussion document, which, as mentioned above, was written by Industry Canada staff, began with the following sentence: "The terms *information highway* or *electronic highway* denote the advanced information and communication infrastructure that is essential for Canada's emerging information economy" (Canada. Industry Canada. 1994a, p. 1). The document stressed the transformative effect that the information highway would have on the Canadian economy and it stated that the success of the government's Canadian information highway strategy would be measured "in large part. by the extent to which it creates opportunities for Canadians to succeed in the fast developing global information economy" (p. 7). Urgent action was required to accelerate infrastructure development to ensure that opportunities for network. product and service development would not be lost to competing nations. along with the resulting economic and new growth (p. 5). The document also emphasized that "job creation and economic growth are the top priorities" of the information highway strategy (p. 11).[76] By announcing these priorities. the Department was saying that the economic objective for the information highway (creating jobs through innovation and investment) would take precedence over the cultural objective (reinforcing Canadian sovereignty and cultural identity) and the social objective (ensuring universal access at reasonable cost) when policy issues crossed the boundaries between the three areas.

Industry Canada staff considered the concept of essential services to be linked closely with the concept of universal access which originated in a simpler environment when the situation was very clear: two monopolies provided access to basic services. the technologies were simple. and the CRTC regulated the technologies (telephony and cable

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[76] Arthur Cordell. a Special Advisor in Information Technology in Industry Canada. was the only interviewee from Industry Canada who expressed opposition to the Department's emphasis on job creation. He said that the information highway was a labour saving tool and it was destroying jobs rather than creating them. He noted. however. that "governments run on agendas – jobs and growth agendas. The current government [has chosen to do so], and that's not going to work."

television) separately." This perspective differed from the one held by the CCTA. which did not consider basic service in cable broadcasting to have been an element of the essential services concept. A Special Advisor on Information Technology Policy in Industry Canada pointed out that in Canada access to essential telecommunications and broadcasting services, unlike access to medical services and basic education, has not been a statutory entitlement – it has been a policy objective,[78] which he felt was an important difference. He explained that the government's policy objectives did not give right of access – the policy objectives in the *Telecommunications Act* simply meant that the government wanted to make telecommunications services as widely available as possible. and the objectives in the *Broadcasting Act* meant that the government wanted to make Canadian broadcasting signals available to all Canadians."[79]

Industry Canada thought that the problem of defining essential services was closely tied to the changes that were occurring in the operating environment for the cable and telephone industries. An Industry Canada policy analyst pointed out that three factors were affecting that environment: the introduction of competition. the convergence of the technologies. and the globalization of the industries and markets.[30] From the perspective of Industry Canada's policy staff. the introduction of competition, with its reliance on market forces. was the principal factor impacting on the current situation. Competition in telecommunications officially became government policy in the *Telecommunications Act 1993*[81] and Industry Canada incorporated "competition in facilities. products and services" as one of the four principles to guide the development and implementation of the government's information highway strategy (Canada. Industry Canada. 1994a. p. 2). Even

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[77] Neogi. interview.

[78] Neogi. interview.

[79] Neogi. interview.

[30] Drouin. interview.

[31] Fry. interview.

though Industry Canada's official position was that "the market will provide." [32] the three staff members who had been *sherpas* for the IHAC Access and Social Impacts Working Group were concerned that with the introduction of competition and the reliance on market forces in telecommunications. some people would be left without access to the information highway because it would be uneconomical to extend it to where they lived or it would be exorbitantly priced. One of the three staff members expressed it this way:

> What about people in the North? What about people with disabilities? Or. what I call *high-cost markets* – remote and rural areas. So ... we have tried to say. okay the market will supply access to most. but there is this significant slice of the population that won't have it through just pure market. Or. it will be too high cost, it won't be affordable. [33]

Industry Canada staff recognized that there would be circumstances when the market would fail. As one official explained. it was the government's responsibility to create policies that balanced market forces with the public interest. [34] The Associate Director General of the Telecom Policy Branch, however. believed that in Canada market penetration in the telephone and cable industries was so high that there was no need to deal with essential services as a separate issue:

> Yeah. I don't believe there is a problem of essential services. Certainly not one that can't be resolved or dealt with in the normal course of events. Perhaps you have to be vigilant. But at the same time there isn't a problem now. and I think a major effort devoted towards this essential services thing would be a solution in search of a problem. [35]

He noted. however. that within Industry Canada. his view was not held by the majority of the staff.

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[32] Pigeon. interview.

[33] Pigeon. interview.

[34] Neogi. interview

[35] Larry Shaw, interview with author. tape recording. Ottawa. Ont.. 5 December 1995.

Industry Canada policy analysts also believed that defining essential services involved more than ensuring affordable access to networks. As one person observed. there were two parts to the essential services issue:

> If you define essential services in a two part fashion – one is to say. first you must have access to networks – on that there is agreement that all Canadians [must have access] to as many networks as possible at affordable rates. Then if you say. in addition you must have access to a ¨package of essential services," there is absolutely no consensus on what that package should be. And I think the crux of our problem is how to develop some kind of consensus, or better still. some kind of consensus on a process which will lead to a dynamic definition of essential services. That I think is the crux of the problem.[36]

The question of how to obtain consensus was a vexing one for Industry Canada policy staff. For them. ensuring that there was adequate public input was a key concern that had been raised at IHAC and had led to further questions: Who should be consulted? How quickly should the government act? How much consultation should occur? With regard to the latter issue. a Senior Policy Analyst in the Telecommunications Policy Branch commented:

> How much consultation should we do? We did some in the past. We had to tell the Minister that. He's aware of this. However. the issue is a sensitive one.[37]

A Policy Analyst in the Bureau of Consumer Affairs also mentioned that the public interest groups already were feeling that their concerns were not being adequately addressed.[38]

Although the official departmental view (*i.e.*, that the market will provide) was consistently presented across interviews and departmental documents. Industry Canada staff. especially those who had worked as *sherpas* on the IHAC Access and Social Impacts Working Group. felt that steps needed to be taken to ensure that the public interest was not forgotten when policy decisions were being made. or even when they

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[36] Neogi, interview.

[37] Drouin. interview.

[38] Pigeon. interview.

were not being made. This led to a degree of tension in the department that had arisen from the singular pursuit by senior officials of the free-market objectives and the pursuit by policy staff of what they considered to be the government's obligation to establish public policies that would meet social objectives.

### 6.3.5 The Department of Canadian Heritage

The sole organization to focus primarily on cultural issues when discussing essential services was the Department of Canadian Heritage. This focus reflected the Department's responsibilities for "promoting the development of a strong Canadian identity and common values among all Canadians" (Canada. Treasury Board Secretariat, 1995, p. 135) and for developing and overseeing Canada's broadcasting policy (p. 135). Canadian Heritage, however, was ambivalent in its approach to defining essential services.

Like the other core organizations, Canadian Heritage considered the problem of defining essential services on the Canadian information highway to be related both to access and to content issues. On the access side, Canadian Heritage officials considered both the *Telecommunications Act* and the *Broadcasting Act* to be relevant pieces of legislation. However, these officials also felt that the concept of essential services had come out of the *Telecommunications Act* and was therefore more pertinent to Industry Canada. A Senior Policy Analyst in the Distribution Systems section of the Broadcasting Policy Branch suggested that in the context of the priority carriage rules in the *Cable Broadcasting Regulations*, which require cable companies to carry Canadian programs as part of their basic package, Canadian content could be considered an essential service. Another Senior Policy Advisor in the Broadcasting Policy Branch of Canadian Heritage, who had been the chief *sherpa* for IHAC's Canadian Content and Culture working group, pointed out that the discussion of essential services, within both IHAC and Canadian Heritage, had only recently expanded to include Canadian content and culture because the concept of essential services was originally considered only in the context of

telecommunications.[89] He said that even though Canadian Heritage staff believed that Canadian content should be made available on the information highway. mechanisms to promote its universal availability were not viable in the context of the Internet. On the Internet all content was equally accessible, unlike on cable television systems where the service providers had limited capacity in terms of the number of programs that could be carried.[90]

The Director of the Broadcasting Policy Branch of Canadian Heritage believed that the IHAC process had focussed too heavily on infrastructure development. and she wanted the cultural objectives of the *Broadcasting Act* to have a higher profile in the information highway policy debates.[91] In her view, the public broadcaster in Canada was an essential service because of its role in gathering information, building knowledge. and understanding the values that are part of "the intellectual debates ... about issues concerning Canadians."[92] The Director felt strongly that as Canada progressed into an information society, it was becoming increasingly important for Canadians to get access to Canadian content on the information highway to find out about their own country and to get access to essential government services such as health. education. and income allowances – services that were increasingly being delivered over the information highway.

Canadian Heritage realized that the telephone and cable industries were important stakeholders because of their large investment in infrastructure development and their concern about how to fund essential services. But Canadian Heritage staff also believed that groups which had content interests were equally important stakeholders. This group

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[89] Gratton. interview.

[90] Gratton. interview.

[91] Baldwin. interview.

[92] Baldwin. interview.

included content developers[93] and cultural institutions,[94] all of whom would benefit from policies that encouraged the development of Canadian cultural products and services for the information highway. Canadian Heritage officials also believed that the government and its employees were stakeholders as suppliers of essential government services,[95] and the Canadian public was a stakeholder because it would benefit by getting access to Canadian content on the information highway.[96]

Although Canadian Heritage appeared to be interested primarily in cultural aspects of information highway policies. the Department framed its policy position in economic terms. largely because it perceived culture as a product. As explained by one official. "When we talk about content. the way we generally tend to approach content is as a product. as a consumer product and then a cultural product."[97] It is interesting to note that in the initial IHAC policy discussion document prepared by Industry Canada. culture had been depicted largely as an industry that required "policies and mechanism to ensure that competitive cultural products and services" would have a prominent place on the information highway (Canada. Industry Canada. 1994a. p. 12). This depiction was consistent with a speech made to IHAC on 30 September 1994 by the Minister of Canadian Heritage. the Honourable Michel Dupuy, who spoke principally about the economic aspects of the government's cultural objective for the information highway (Dupuy, 1994). He discussed issues such as "the economic impact of the arts and culture sector" in Canada (p. 3), the negative balance of trade with the United States on cultural products (p. 4), the impact of fiscal restraint on Canadian cultural products in an era of technological change and globalization (p. 5), and content provisions in policies and

[93] Susan Katz. interview with author. tape recording, Ottawa. Ont.. 12 March. 1996.

[94] Charles Gruchy. interview with author. tape recording, Ottawa. Ont.. 12 March 1996.

[95] Baldwin. interview.

[96] Gratton. interview.

[97] Gratton. interview.

legislation that have "produced tremendous economic benefits for Canada" (p. 6). The Minister emphasized the importance of encouraging "fair and sustainable competition" to ensure the development of new cultural services (p. 8). On raising the issue of competition and culture he said "we want both, we expect both and we will have both!" (p. 7).

When talking about policy discussions related to defining essential services, Canadian Heritage officials who participated in this research consistently raised economic concerns as critical factors in the policy decision-making process. The Senior Policy Advisor who had participated in the IHAC process said that, had he recommended a particular service as essential for cultural or other purposes, the first question that would have been asked at the Cabinet level or in Treasury would be "what does it mean in terms of costs?"[98] Even though Canadian Heritage was responsible for creating and maintaining policies to promote Canadian culture, by articulating the issues primarily in economic terms the Department seemed to be following Industry Canada's cue and making cultural concerns on the information highway secondary to economic ones.

## 6.3.6  IHAC

IHAC's approach to the essential services issue was very similar to the one taken by Industry Canada, reflecting the close ties between the two organizations. The Chair of IHAC and the terms of reference for IHAC were both announced by the Minister of Industry in a press release in March 1994 (see Canada. Industry Canada, 1994b). As mentioned earlier, Industry Canada housed the IHAC Secretariat. provided its administrative staff, and wrote the initial policy discussion documents for IHAC. It was not surprising then that the explanation of the essential services issue by IHAC Secretariat staff closely mirrored Industry Canada's explanation.

Because of IHAC's genesis as part of the information highway strategy developed by Industry Canada, IHAC highlighted the importance of the information highway for

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[98] Gratton, interview.

Canada's economic well-being. IHAC's terms of reference stated that the information highway strategy was part of the Government of Canada's long term plan for job creation and economic growth (IHAC, 1995b. *Terms of reference*, p. 1). The terms of reference emphasized that "the information highway initiative will radically change our economic geography so that all regions of Canada will have increasingly equal opportunities to create and attract new information businesses and to determine where and how their products are sold" (p. 1). Because IHAC's terms of reference came from Industry Canada. the Council's primary objective was to assist Industry Canada in implementing the information highway for economic growth and job creation purposes.

The explanation of the essential services problem given by the Executive Director of the IHAC Secretariat was almost identical to the one that came out of Industry Canada. He identified two main components to the issue: (1) how to ensure universal access to information highway networks. and (2) how to ensure that certain services are made available universally on the information highway.[99] He explained that the first component had been previously addressed in relation to existing networks in Canada through public policies and the CRTC regulatory process. He believed that as a result of these mechanisms Canadians have had universal access to the telephone network and over-the-air broadcasting. and have had a very high level of access to the cable television network. The Executive Director added that due to converging network technologies and competition between the networks. "the challenge will be to determine ways in which access to the information highway. this network of networks. in the future will be made as universally available as some of the networks are now."[100] The Secretariat's Director of Council Operations. on the other hand. felt that universal access to the information highway hinged on affordability. In his view the cost of access was going to become the

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[99] Simpson. interview.

[100] Simpson. interview.

major issue, because Canadians have become accustomed to subsidized basic telephone service.[101]

According to the Secretariat's Executive Director, the second component of essential services (ensuring that certain services are made available universally on the information highway) was far more complex than access to networks:

> because it involves realizing or determining what makes certain services essential for the well being of citizens – of Canadians in this case. And when you begin to make those judgements you're automatically involved into a large number of areas that are shared by jurisdictions, that are shared by different ministers and ministries of government, and between the private and public sectors.[102]

Demonstrating some of this complexity is the following list of seven questions relating to the essential services issue, questions that were posed in the first IHAC discussion document:

> How far should the concept of basic telephone service be broadened to include new types of services? Who should determine the range of essential services to which all Canadians should have access? How can we ensure that all Canadians continue to have access to their government and its services as we move toward electronic delivery? What measures will be needed to ensure that all Canadians, including those in remote communities, Canadians with disabilities, those who are functionally illiterate, new Canadians and other groups with special needs, have access to an adequate range of services? Should the government play a role in establishing and/or promoting pilot networks – for example, community or specialized networks? Should pricing structures be designed to ensure access by individuals and public institutions? Will there be a continuing need for subsidies – as income supports, rate subsidies or some combination of measures – to ensure that basic services are affordable?
> (Canada. Industry Canada. 1994a, p. 31)

The first question showed that IHAC's initial conceptualization of essential services problem, and its thinking on how to resolve the problem, were initially tied directly to the telecommunications environment. The diversity of groups represented in the remaining

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[101] Ferguson, interview.

[102] Simpson, interview.

questions demonstrated that IHAC, via Industry Canada policy staff, felt that there was a broad range of potential stakeholders involved with the essential services issue, including the general public, people in remote communities, Canadians with disabilities, people who were functionally illiterate, new Canadians, other groups with special needs, and even the government and public institutions (p. 31).

Although both Secretariat interviewees considered Canadian content to be an integral component of the essential services issue, I discovered that the connection of Canadian content with the essential services discussion did not occur until the eighth IHAC meeting, eight months after the initial IHAC policy discussion document was released. At this meeting, members of the Canadian Content and Culture Working Group expressed concerns that broadcasting was not part of an IHAC discussion paper that was being prepared on access, affordability and universal service on the information highway (IHAC, 1994c). The late consideration of broadcasting – and Canadian content and culture – as an important consideration in the essential services issue is again a primary reflection of IHAC's genesis in Industry Canada's telecommunications-dominated policy sections.

The close relationship between IHAC and Industry Canada on the universal access issue meant that over time each of the two organizations had influenced each other. Those influences and their impact on the outcomes of the process to determine essential services were a critical feature of this stage of the process, and will be examined in the final part of this chapter.

### 6.3.7   The CRTC

The CRTC was more complex than any of the other core organizations because it is an independent public authority operating under two pieces of legislation that required separate regulatory frameworks. As the regulatory agency for both telecommunications

and broadcasting, the CRTC was divided into two distinct areas.[102] On the telecommunications side, the CRTC acted primarily as an economic arbiter ensuring that the telecommunications system operated efficiently. A component of this role was to achieve the universal access objective that was spelled out in the *Telecommunications Act*.[104] On the broadcasting side, the CRTC played the role of a cultural agency whose task was to ensure that the Canadian broadcasting system met the objectives spelled out in the *Broadcasting Act*. This task required the CRTC to ensure that the Canadian programming provided by the cable television systems promoted and maintained the Canadian identity and Canada's cultural sovereignty.[105] As a regulatory agency whose obligations are spelled out in law, the CRTC had very specific guidelines for approaching the problem of defining essential services.

In the CRTC's eyes, the concept of essential services on the Canadian information highway originated with the regulation of the telephone network as a public utility. The Director General of Broadcast Analysis[106] explained that the *Telecommunications Act* gave the CRTC powers to ensure that basic telephone service was available to everyone in Canada.[107] She pointed out that although basic service existed in the *Cable Regulations* as the service to which all subscribers should get access as part of their basic package, cable was not regulated as a utility and there was nothing in law to ensure that basic cable service was made universally available. She commented:

> It's nice if it happens. We encourage it to happen. We don't really have any power. On the *Telecom Act* side we can make sure it happens.[108]

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[102] To ensure that I obtained a balanced view from the CRTC, I made certain that I interviewed at least two members from each side of the CRTC's operations.

[104] Fry, interview

[105] Peter Fleming, interview with author, tape recording, 31 January 1996.

[106] Diane Rheaume had managed the CRTC's Convergence Hearing process.

[107] Rheaume, interview.

[108] Rheaume, interview.

According to an official in the CRTC's Telecommunications Directorate, who had been working on convergence issues, the CRTC had never actually defined *essential services*, but rather its approach historically had been to ensure that in the *plain old telephone service* environment basic service was made universally available by funding it through cross-subsidization.[109] The CRTC had power to do this through provisions spelled out in the *Telecommunications Act*. The Director General of Broadcast Planning explained that on the broadcasting side, the government considered Canadian content to be an essential service for nation-building purposes, using it to express the Canadian identity and maintain Canada's cultural sovereignty.[110] He noted, however, that "from that point of view, broadcasting is an essential service, but then when you go into what is essential within that, again, as I say, it's not the same as a utility sort of thing."[111]

The CRTC also articulated the concepts involved in information highway policy discourse primarily in relation to economic issues, although social and cultural issues were also taken into consideration. The CRTC, however, appeared to have had few options in terms of developing its own policy agenda for two reasons. First, as a regulatory agency, the CRTC was mandated to regulate telecommunications pursuant to the legal requirements of the *Telecommunications Act 1993*, and to regulate broadcasting pursuant to the legal requirements of the *Broadcasting Act 1991*. Each of those acts included a set of objectives which established what the CRTC was aiming at, as it made decisions based on those acts. In telecommunications, it was chiefly to create economic efficiency through an increasing reliance on market forces. In broadcasting, it was to promote the Canadian identity. Because of the introduction of competition and the convergence of telecommunications and broadcasting, the Commission had already made a number of decisions to develop a regulatory environment that would clarify the situation for the two industries (see CRTC, 1992b, 1994b, 1994d). To a large extent, those decisions, along

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[109] Fry, interview.

[110] Fleming, interview.

[111] Fleming, interview.

with the Order-In-Council (OIC) for the Convergence Hearing, had already set the tone
for the CRTC's policy positions for the information highway.

The second reason determined the CRTC's information highway policy focus more
specifically. The government mandated the CRTC, as part of the information highway
strategy, to conduct a review and to report on matters pertaining to the information
highway as they related to the CRTC's areas of responsibility. Through an OIC, the
government established three policy areas to be addressed in the review: facilities,
competition and content (Canada. Privy Council, 1994). The OIC made clear that the
review, which became known as the Convergence Hearing, was part of the initiative to
create the government's economic vision of the information highway. The "Background"
section of the OIC began with the following paragraph:

> The term "Information Highway" describes a network of networks that will
> link Canadian homes, businesses and institutions to a wide range of
> services. The Information Highway will provide the necessary
> infrastructure for Canada's emerging knowledge-based economy, and
> therefore, development of the highway will be critical to the
> competitiveness of all sectors of the economy. (Canada. Privy Council,
> 1994)

In addition, the OIC stressed that the most important operating condition for the
information highway would be the provision of communications services within a
competitive framework that would stimulate investment and innovation of new
technologies, products and services, "thereby quickly expanding the range of products and
services available to consumers" (Canada. Privy Council, 1994).

In the "Introduction" in the *Overview of Issues* published by the CRTC for the
Convergence Hearing, the CRTC referred to the importance in the OIC of content and its
role in reinforcing Canadian sovereignty and culture, and to the need to reconcile the goals
and objectives of broadcasting's regulatory and legal framework with those of
telecommunications (CRTC, 1995c, p. 1). However, the major focus of the Hearing
turned out to be something different. As noted in the *Overview*:

> In more practical terms, the main focus of this proceeding is to recommend *when* telephone company competition, and other alternative and emerging technologies should be introduced into the cable market and under *what terms and conditions* with respect to such issues as sharing, interconnection and interoperability of competing networks. Related issues include: the financing of competing networks and associated cost allocation methodologies and safeguards; cross ownership; programming; carriage requirements and restrictions; and rate regulation issues. (p. 1)

Like the other core government agencies, and consistent with the core organizations from the private sector (Stentor and the CCTA), the CRTC's approach to the essential services issue was primarily based on economic considerations.

The CRTC considered the introduction of competition to be more important than the convergence of the telecommunications and cable broadcasting networks to the problem of defining essential services. The CRTC planned to continue to regulate telecommunications and broadcasting separately by treating the signal carriage function under the *Telecommunications Act* and the content distribution function under the *Broadcasting Act*. By maintaining this separation, the problem for the CRTC of defining essential services came down to two issues: (1) ensuring universal access to the telecommunications infrastructure, and (2) determining the content to which all Canadians must be provided access.

For the CRTC, ensuring access to the telecommunications infrastructure involved both social and cultural considerations, but the problem required an economic solution. The introduction of competition was already making it more difficult to maintain universal access to basic telephone service, and the CRTC foresaw that the reliance on market forces for developing and implementing the information highway would be detrimental for certain groups of stakeholders. This perspective placed the CRTC closer than the previously examined core organizations to the position held by PIAC. As noted by an official in the CRTC's Telecommunications Directorate, access to the information highway and its interactive features would offer greater benefits to people with disabilities or who lived in remote areas than to the public at large. Therefore the relationship

between market forces and universal access needed careful consideration.[112] The problem
from her perspective was not in requiring the carriers to build the information highway; it
was in trying to achieve universality by requiring the carriers to build the infrastructure
while at the same time restricting their profitability by forcing them to offer access to the
infrastructure to consumers at a specified price.[113]

The content side of the problem for the CRTC was how to determine the criteria
to be used for defining the basic package of essential services as the networks moved from
the current narrowband environment to the future broadband environment. Although the
CRTC staff did not try to provide definitive answers regarding what the criteria for
determining which content services should be considered the essential ones, they did make
some suggestions, such as services for which people have already paid taxes, for example
the CBC and health services,[114] and information or communication services required by
people to participate fully as citizens in their community.[115] Nonetheless, several CRTC
interviewees pointed out that because of the evolving nature of the information highway,
the types of services considered by people to be essential would be a moving target.
Again, the CRTC perspective here was closer than the previously examined core
organizations to the position put forward by PIAC.

Because the CRTC is a regulatory body, it can only make policy decisions through
the processes that are available to it through the *Broadcasting* and *Telecommunications*
*Acts*. Although the CRTC staff had insights and opinions about the issue of defining
essential services for the Canadian information highway, the actual recommendations and
decisions made by the CRTC were to be found in the report of the Convergence Hearing,
and in relevant decisions arising from its telecommunications and broadcasting

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[112] Suzanne Blackwell, interview with author, tape recording, 31 January 1996.

[113] Blackwell, interview.

[114] Fleming, interview.

[115] Blackwell, interview; Fleming, interview.

proceedings such as the review of the regulatory framework decision (see CRTC, 1994d) and the local services pricing options decision (see CRTC, 1996e).


## 6.4    The Policy Positions and Outcomes

### 6.4.1    Introduction

Stage 2, the problem definition stage of the policy process, according to Doern and Phidd (1992), includes the provision by the participants of recommendations for alternative solutions to resolve the policy problem. In this part of the chapter, I turn to an examination of the main recommendations made by the core organizations and of the outcomes that resulted from those recommendations. The examination covers the period between October 1993, when Stentor published its vision of the information highway, and the end of May 1996, when the government published its action plan in response to IHAC's first phase recommendations. The purpose of this analysis is to identify the main recommendations made by the core organizations and explore their influence on the initial outcomes of the policy process to determine essential services for the Canadian information highway.

In my analysis I found instances when the recommendations made by a core organization were reflected in the recommendations made by others. In other instances I found that some of the recommendations had already been acted upon in decisions made by the government or the CRTC. These instances of recommendations receiving action were, in essence, the initial outputs of this policy process.

As identified in the previous section of this chapter, the core organizations perceived the policy problem to have two main aspects that can be summed up as (1) achieving universal access to networks or infrastructure, and (2) establishing criteria for determining the essential services. Even though the problem could be summarized simply around two concepts, it involved economic, cultural and social issues and its complexity meant that the core organizations recommended a variety of approaches to its resolution.

This section is organized around the main recommendations made by the core organizations to resolve the issues related to the problem of determining essential services for the Canadian information highway.

### 6.4.2   Achieving universal access to networks

For the core organizations the problem of determining essential services was. at least in part. related to ensuring that access to the information highway was affordable and universally available.  The introduction of competition was considered to be an important element of the issue by all of the core organizations because it affected the system of cross-subsidies that had been used in the monopoly era to ensure that telephone service was universally available and affordable throughout Canada.  Competition and an increased reliance on market forces in the provision of telecommunications services were introduced as official government policy in the *Telecommunications Act 1993.*[116]  In March 1994. in its terms of reference for IHAC. Industry Canada included "competition in facilities. products and services" (Canada. Industry Canada. 1994a. p. 2) as one of four guiding principles for Canada's information highway strategy.  These principles were also included in the OIC to the CRTC for the Convergence Hearing (Canada. Privy Council. 1994).

Stentor was an early proponent of competition among the core organizations. In its October 1993 vision statement. Stentor recommended the use of competition. and if necessary. targeted subsidies. for making the information highway "widely available and affordable" (p. 13):

> Both government and industry have a responsibility to make this happen. Competition among multiple service providers will help by driving prices down and by providing a range of services. If government subsidies are necessary for public policy reasons. they should be provided to end users directly or through special tariffs as opposed to offsetting the cost of networks or distribution of services themselves. (p. 13)

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[116] Fry. interview.

In its submission to the CRTC Convergence Hearing dated 1 January 1995. Stentor was succinct in summarizing its recommendation to the CRTC on competition: "competition in the provision of all services to be carried on the Information Highway should be implemented immediately" (Stentor. 1995). Stentor argued that the urgency to develop the information highway required immediate action, and that the cable companies were well positioned to receive competition both in terms of their financial strength and with regard to the types of services they already had on offer (pp. 6-7). Stentor also recommended that "the government should reject any request for a moratorium on telephone companies' applying for a broadcasting licence" (p. 14).

The CCTA. however. was worried that competition between the cable and the telephone companies would affect the viability of the cable industry, given the superiority of the economic strength of the telephone companies. In its submission to the CRTC Convergence Hearing. the CCTA stated that "unregulated competitive entry by the dominant telephone companies [into the provision of core cable services]. accompanied by cross-subsidization and other anti-competitive behaviour" (CCTA. 1995b. p. 4) would both undermine the cable companies' ability to invest in upgrades to its system and prevent them from being competitors with the telephone companies in the provision of information highway services (p. 4). To ensure fair and sustainable competition. the CCTA proposed a seven year transition period with a review by the CRTC in five years to determine whether the transition period should be kept at seven years, shortened or lengthened (p. 26). The CCTA's proposal would permit cable companies. as soon as they were capable, to provide local telephone service. but the transition period would have to pass before the telephone companies would be allowed to provide broadcasting services to the home (p. 26). The CCTA believed that to compete on equal terms with the local telephone companies, it would be necessary for the cable companies to obtain access to the subsidy provided to local telephone companies from long distance services (p. 17). However. the CCTA was in general against the use of cross-subsidies in

telecommunications because they could be used to obtain a competitive advantage.[117] The CCTA also wanted a policy and regulatory framework that would have as one of its principles that "two or more financially viable competitors" would provide separate network transmission facilities (p. 5). In other words, the CCTA wanted a guarantee that the regulatory framework would ensure the survival of the cable companies.

Although PIAC did not participate directly in the CRTC Convergence Hearing, it made known its dissatisfaction with the way the CRTC framed the competition component of the Hearing. The Executive Director of PIAC, representing the National Anti-Poverty Organization (NAPO), made a submission cooperatively with the Consumers' Association of Canada (CAC) to the Hearing (see Consumers' Association of Canada, & National Anti-Poverty Organization, 1995). The major point of the submission was that the CRTC's premise for competition in its call for submissions to the Convergence Hearing was fundamentally flawed (p. 2). The submitters believed that the Convergence Hearing was not meant to create true competition, but instead was meant to provide a compromise among the interests of the major industries that were converging (pp. 6-8). The Convergence Hearing, according to the submission, prejudged that it was better to have a duopoly of telephone and cable networks rather than a single competitive sector of firms that would integrate carriage and content services. The submission argued that the fair and sustainable competition envisioned by the government and incorporated into the Convergence Hearing was aimed at ensuring the survival of both the telephone and the cable industries (p. 6). Consumers, as a result, could end up subsidizing an inefficient sector. A single sector of competitive firms, on the other hand, operating through a single facility, would be cheaper to develop and would save consumers money.

PIAC advocated an alternative approach to achieve universal access to the information highway – cross-subsidies, such as those employed to achieve universal access to basic telephone service. PIAC felt that cross-subsidies could keep the cost of access

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[117] Scott, interview.

affordable, especially for people with disabilities requiring special access services and for people in high-cost remote and rural locations.[118] PIAC was opposed to using targeted subsidies because it felt that they stigmatized recipients, and experience from the United States showed that targeted subsidies had a low take-up rate.[119] PIAC's views on cross-subsidies were strenuously opposed. Stentor argued that cross-subsidies worked against allowing the market to function properly.[120] Likewise, the CCTA was opposed because it thought cross-subsidies could be used for unfair competitive advantages.[121] The preferred option for the two private sector organizations was to allow market forces and competition to stimulate development of the information highway and to keep access charges affordable. This was also the preferred option for Industry Canada, and it was already part of the government's policy objectives for telecommunications. Within Industry Canada, there was strong opposition to the use of cross-subsidies from the Bureau of Competition Policy's Director of Investigation and Research, who argued that cross-subsidization was inefficient and would disadvantage new competitors in local telephone service, thus working against the objectives of the *Telecommunications Act* (Canada, Industry Canada, Director of Investigation and Research, 1996). The Director felt that if a subsidy was necessary it should be targeted to the consumer as a voucher or tax credit.

One of PIAC's key recommendations for achieving universal access was the proposal to ensure adequate *public space* on the information highway. This concept of public space encompassed the following elements: it would be a space accessible to all people at low cost; and it would be used for communication, for retrieval of information.

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[118] Phillipa Lawson. Universal service notes for presentation to Advisory Council on Information Highway, Working Group on Universal Access [unpublished notes]. 18 August 1994.

[119] Lawson, interview.

[120] Milton, interview.

[121] Scott, interview.

and for access to government and commercial services.[122] Other public interest groups at that time used the similar term *public lane* for that concept.[123] PIAC promoted the concept of public space on the information highway to the IHAC Access and Social Impacts Working Group in August of 1994.[124] Other public interest groups. notably Canada's Coalition for Public Information and Telecommunities Canada, made similar recommendations to the CRTC Convergence Hearing in March 1995.[125] Community networks were a key element of PIAC's concept of public space.[126] PIAC felt that these non-profit networks would provide low-cost access to essential elements of the information highway. However. there was strong opposition to this idea. The CCTA, for example. felt that the public lane concept was ill defined and it might lead to requirements for the cable companies to provide bandwidth for public use which they could not afford to do.[127] Nonetheless. the CRTC used the public lane concept in its Convergence Report. noting that it was unlikely the government's policy objective of universal access to the information highway would be achieved by market forces alone. The Report stated that the Commission believed the vision of a universally accessible and affordable information highway. captured by the multi-faceted image of a "public lane." would be realized "through various means. including market forces. subsidies and co-operation" (CRTC. 1995a. p. 43).

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[122] Lawson. Universal service notes.

[123] Canada's Coalition for Public Information, for example. used the term *public lane* in its 1995 information highway policy document entitled *Future-knowledge* (see Skrzeszewski and Cubberley, 1995).

[124] Lawson. Universal service notes

[125] Garth Graham, interview with author. tape recording. Ottawa. Ont.. 2 February. 1996.

[126] Lawson. Universal service notes.

[127] Scott. interview.

PIAC also believed that public libraries could provide free or low-cost access points to the information highway for people who did not have access from home. When Stentor and some of its member telephone companies applied to the CRTC to allow discriminatory rates for educational and health service entities, PIAC lobbied Stentor to have community networks and public libraries included in the types of organizations to which the preferential rates would be provided.[128] The idea of providing preferential rates to non-profit educational and health organizations was originally proposed by Stentor and was conditionally endorsed in the CRTC's Convergence Report (CRTC, 1995a, p. 45) and by IHAC (Recommendation [Rec.] 13.9) (IHAC, 1995b, p. 173). Stentor, however, pointed out that "telephone company shareholders would be prepared to support preferential tariffs where they believed positive returns would result" (CRTC, 1996d), and because the proposed reductions to tariffs would be customer-specific, Stentor did not want to expand the eligibility criteria to include community networks. Stentor, nonetheless, accepted PIAC's recommendation to include non-profit libraries.[129] The CRTC approved Stentor's application, with some conditions, and agreed with Stentor to exclude community networks but include non-profit libraries as organizations to which preferential rates could be provided (CRTC, 1996d).

Industry Canada offered an alternative vision to the community network model for providing public access to the information highway. Industry Canada had already established the Community Access Program (CAP) to assist rural and remote communities to get the technology and training required for providing public access points to the information highway.[130] CAP involved a partnering relationship between Industry Canada

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[128] Reddick, interview.

[129] The CRTC approved Stentor's application with some conditions, and agreed with Stentor to exclude community networks but include non-profit libraries as organizations to which preferential rates could be provided (CRTC, 1996d).

[130] Hull, interview.

and Stentor,[131] as well as the involvement of some public interest groups.[132] Stentor participated in the CAP program because it fit well with Stentor's vision of allowing market forces to stimulate the development of the information highway, and where market forces failed. to partner with the government and other organizations to pool resources to resolve the problem.[133] In its Convergence Report the CRTC endorsed "programs that provide access points within each community" as "an important focus of governmental strategy in moving towards universal access" (CRTC. 1995a. p. 43). Similarly. IHAC in Rec. 13.11 supported the idea of a "network of public access points in all communities to enable Canadians lacking other means of access to connect to the Information Highway" (IHAC. 1995b. p. 173). IHAC's vision. however. included community networks and programs such as CAP. Specifically. IHAC Rec. 13.11 called for the federal government. along with other stakeholders. to develop financial support mechanisms to ensure the long term viability of community networks and to establish and maintain programs such as CAP. In its response to the IHAC recommendations. the federal government endorsed Industry Canada's CAP program. labelling it as a "prototype" for resolving universal access questions (Canada. 1996a. p. 24). but it did not mention community networks or any financial support mechanisms to ensure their long term viability. The alternative selected by the government. in this case. was the model of community access promoted by Industry Canada and favoured by Stentor. It was also an alternative that had progressed well beyond the problem identification stage because resources had already been allocated to many community projects.

[131] Milton, interview.

[132] Elizabeth Hoffman. interview with author. tape recording. Toronto. Ont.. 26 January. 1996.

[133] Milton. interview.

At the time of the Convergence Hearing, the CRTC was already moving towards a regulatory framework in telecommunications based on competition.[134] However, in the Convergence Report, the CRTC recognized that there were broad public concerns that "a competitive model for the provision of facilities, products and services may jeopardize important public benefits and policy objectives that have been built into the existing regulatory frameworks for telecommunications and broadcasting" (CRTC, 1995a, p. 2). The CRTC, nonetheless, stated that "increased and sustainable competition is fundamental to the development of the information highway" (p. 11). The Commission's approach included recommendations to increase competition in the provision of local telephone service while re-examining the need for, and the size, nature and administration of, cross-subsidies to ensure that they were not preventing the entry of competitors into the local telephone service market (pp. 14-16). The CRTC also reported that it would be examining the issues of rate-rebalancing and subsidies in the proceeding on splitting the rate base[135] and in other proceedings on local competition issues such as price cap regulations.[136] Of particular note, the CRTC stated in its Convergence Report:

> While basic telephone services can continue to be supported by subsidized rates, the Commission considers that decisions on funding and priorities for infrastructure development in high-cost areas should be made by governments. (p. 44)

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[134] The CRTC announced its Regulatory Framework Decision for telecommunications in September 1994. The framework was based in large part on the premise that "the public interest is best served if basic telecommunications and innovative information services are competitively provided and made accessible to all sectors of the public" (CRTC, 1995a, p. 11).

[135] Splitting the rate base related to partitioning all components of basic service so they could be priced according to their true costs. The decision on Implementation of Regulatory Framework – Splitting of Rate Base and Related Issues came out as CRTC Telecom Decision 95-21, on 31 October 1995.

[136] Price Cap Regulations and Related Issues referred to a four-year plan devised by the CRTC to regulate the rates charged by the telephone companies to ensure that they could not use monopoly services to subsidize competitive services. The decision came out as CRTC Telecom Decision 97-9, on 1 May 1997.

Although the CRTC had been working to introduce competition. it felt that the responsibility for determining how to extend the information highway in a competitive environment into high-cost areas was best left to the governments. The CRTC also decided that there should not be a formal transition period to introduce competition between telephone and cable companies (CRTC. 1995a). The Commission estimated that "factors such as technology. market forces (including investment decisions) and the regulatory proceedings already under way" (p. 22) would lead to a 3 to 4 year period before telephone companies would begin to enter the cable market. and that issues relating to local telephone competition would take 12 to 18 months (pp. 22-23). The CRTC maintained that in an information economy "multiple suppliers. rather than monopolies" can best serve the demand for diverse communications services (p. 11). While this statement did not guarantee the survival of the cable companies. it certainly showed that the CRTC wanted more than one supplier to survive competition.

In recognition of the high public concern about access to the information highway. the very first recommendation made by IHAC (1995b. p. 42) on the issue of universal access (*i.e.* Rec. 13.1) called for government departments. under the leadership of Industry Canada. to "develop a national access strategy" (p. 169). The strategy should include "policy. regulatory and other measures to ensure affordable access by all Canadians to essential communication services" (p. 24) and it should be based on four principles which were set out in Rec. 13.2: universal and equitable access. consumer choice and diversity of information. competency and citizens' participation. and open and interactive networks (p. 170). With regard to universal and equitable access. IHAC recognized that there would be occasional instances where the market would create inequities of access. and that government intervention and the use of non-market mechanisms would be needed to ensure that all Canadians would be "able to use the information highway and derive its benefits" (pp. 42-43). Rather than recommending specific mechanisms for overcoming market failure. IHAC recommended (Rec. 13.4) that the government or the CRTC should conduct a public consultation process to choose non-market mechanisms that were explicit. transparent and competitively neutral such as "a

Universal Service Access Fund, targeted subsidies, cross-subsidies or preferential tariffs"
(p. 171). Although the IHAC report did not use the terms *public lane* or *public space*, it
did recognize the importance of community networks:

> Universal access is also a function of the availability of non-commercial and
> community-based networks and public interest services. Special assistance
> measures will be required for some time if all segments of Canadian society
> are to benefit from their availability. The public funding that supports
> shared networks such as CommunityNets, SchoolNets, and LibraryNets
> and common-user access centres will be an important feature for some time
> to come.

IHAC recommended (Rec. 3.6) that all such public networks should be interconnected to
enable subscribers maximum access to other subscribers, and (Rec. 3.7) that as a baseline
level of access to the public telecommunications network, "individual line 'touch-tone'
service and digital switching service should be available universally at reasonable rates"
(pp. 172-173).


With regard to the introduction of competition, IHAC supported the CRTC's
approach. Based on the need for urgent action in developing the information highway,
and on the belief that competition hastens development, IHAC recommended (Rec. 2.15)
that the CRTC should move quickly to resolve the rules of entry of the cable and
telephone companies into each other's markets, making certain that competition would
begin as soon as possible and protecting companies against head starts that would give
undue advantages to competitors (IHAC, 1995b, pp. 100-101). In effect, IHAC endorsed
the CRTC's position that there should not be a transition period for competition in the
provision of cable services. IHAC also recommended (Rec. 2.6) that competition should
be permitted in all areas of business on the information highway when competition is
viable and sustainable (p. 97) and that (Rec. 2.9) "monopoly service providers should not
be permitted to cross-subsidize competitive services" (p. 99). Another IHAC
recommendation (Rec. 13.9) called for the CRTC to establish a tariff policy for affordable
access to networks and essential services on the information highway" (p. 173). This
seemed to be opposite to the CRTC's wish that the government should make the decisions
on this issue. The tariff policy, according to IHAC, should address "the unique

circumstances of rural and remote areas, people with disabilities, and public services such as education, libraries and health care" (p. 173). IHAC's recommendation, however, did not provide any advice to the CRTC on how such a tariff policy should work.

IHAC felt uneasy about endorsing the CCTA's desire to ensure two viable competitors that would provide transmission facilities. At IHAC's ninth meeting, the Council decided to strike out the words "over at least two national wireline infrastructures" from a draft discussion paper being prepared on universal access (IHAC, 1995d, p. 3) The sentence which raised the issue read: "How do we ensure that there is a viable and sustainable competition over at least two national wireline infrastructures offering access and universal and affordable services to Canadian households?" (p. 3). IHAC did not want to give the impression that it was also helping the cable and telephone companies come to a compromise policy framework on competition that would ensure the survival of both industries. The situation, however, was paradoxical because if one of the two industries did not survive, there would once again be a monopoly situation.

In its action plan for developing the information highway, which was issued in response to the IHAC recommendations, the federal government appeared eager to get competition moving. The government announced that the Ministers of Industry and Canadian Heritage were working toward finalizing a policy to clear the way for competition between cable and telephone companies (Canada, 1996a, p. 6), although no date was given for the policy's completion.[137] The plan pointed out that

> The resulting competition between two of the largest industries in the Canadian communications system – in both the delivery of television signals and the provision of local telephone services – will stimulate investment and innovation in the new technologies and services critical to building Canada's information highway. (p. 6)

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[137] The Ministers of Industry and Canadian Heritage jointly announced the policy on convergence on 5 August 1996, which stated that the government endorsed the concepts of no transition period, no head starts and competition in all business areas.

Recognizing the importance given by IHAC to the universal access issue, the government accepted the IHAC recommendation for a national access strategy.[138] The action plan announced that the Ministers of Industry and Canadian Heritage would develop by 1997 "a national strategy for access to essential services" which would involve widespread consultations with interested parties (p. 24). The plan noted that where market forces could not provide access to the essential services, the strategy would "identify the means – regulatory, financial or otherwise – of providing them to people living in rural, remote and northern communities" (p. 24). This strategy anticipated some situations where the market would fail (e.g., rural areas, and services to Canadians with special needs) and it committed the government to take action in situations when these situations occurred. The strategy would include, according to the action plan, "policy, regulatory and other measures to ensure affordable access by all Canadians to essential communications services" (p. 24). Determining how to define and how to deliver essential services on the information highway services was a fundamental question to be addressed in the national access strategy (p. 24).

### 6.4.3 Determining the Essential Services

The second part of the policy problem, according to the core organizations, was how to determine which services on the Canadian information highway were the essential ones to which universal access should be provided. This analysis now shifts to examining the recommendations and outcomes related to this aspect of the problem

The members of the core organizations interviewed for this research felt that determining which were the essential services was the most daunting task related to the policy problem. As a Special Advisor on Information Technology Policy in Industry Canada pointed out, there was no consensus on what should be included in a package of

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[138] The fact that no subsequent action was taken by the Ministers of Industry and Canadian Heritage on a national access strategy will be discussed in chapter 7.

essential services on the information highway.[139] The fact that the information highway was a *work in progress* made it difficult to determine which services were the essential ones since they would continually change. The CRTC Convergence Report noted that "over time, as present methods of delivering services are replaced with electronic delivery, certain interactive or on-demand services delivered over the information highway may come to be viewed as essential services" (CRTC, 1995a, p. 44). The CRTC Convergence Report, however, did not make any recommendations on how to determine the essential services.

Many organizations already had ideas about some types of content and services that should be considered essential. Industry Canada staff realized that the various levels of government in Canada were already beginning to use the information highway to provide many of their services electronically. Therefore, according to one Industry Canada official, it was becoming increasingly important to ensure that all members of the public are provided with access to those services for which they have statutory rights of access, such as education and health services.[140] Canadian Heritage believed that the CBC and other types of Canadian content should be considered essential for achieving the cultural objectives of the Broadcasting Act. Stentor, PIAC and the CRTC, as discussed earlier, had been involved in establishing preferential rates for telecommunications services for categories of education and health organizations. Likewise, IHAC (1995b, p. 173) had identified health, education and library services as potential candidates for preferential tariffs to ensure universal access to them (Rec. 13.9), and further recommended (p. 176) that education should receive preferential status for special tariffs to telecommunications services (Rec. 13.19). IHAC recommended (Rec. 13.13) that the federal government should consult with the provincial and territorial governments to develop criteria "for which content-based services should be made available universally" (p. 174). The recommendation stated that in determining the criteria, the government bodies should

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[139] Neogi, interview.

[140] Neogi, interview.

consider the importance of the content-based services' contribution to: "Canadian culture and identity; public safety; health care; administration of justice and government services; and lifelong learning and training" (p. 174). IHAC (p. 123) also recommended that government policies should stimulate French-language content and navigational and menu systems (Rec. 7.3) to ensure that all Canadians had universal access to content resources on the information highway. On the one hand, IHAC felt that an ongoing public review process was necessary to determine the criteria for essential services. However, on the other hand, the Council already had clear ideas about the characteristics of content-based services which should be used to determine essential services. Nonetheless, IHAC concluded that "few services will meet the criteria for universal service" (p. 44).

PIAC and other public interest groups[141] considered that there should be a consultative process to determine the essential services. PIAC raised the idea during its presentation to the IHAC Access and Social Impacts Working Group in August 1994.[142] PIAC proposed that the government should establish a process to determine which information and communication services were the essential ones. PIAC felt that the process should be ongoing because the services that people would need to participate fully in society would continue to change as the information highway continued to evolve. PIAC also recognized that the market would be, and should be, an important determinant of essential services. However, PIAC also believed that the functionality of a particular service should be the primary criterion for determining whether it was essential.[143]

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[141] Canada's Coalition for Public Information, for example, discussed the idea of a national access board in its vision document of the information highway entitled *Future-knowledge* (see Skrzeszewski and Cubberley, 1995).

[142] Lawson. Universal access notes.

[143] Lawson, interview.

Stentor also came to the view that a public forum should be held to examine outstanding issues related to universal access to the information highway.[144] However. Stentor was not specific about which issues should be on the agenda for the forum. Stentor wanted the government to clarify its own position on universal access issues so that the telephone companies could plan with more certainty, and Stentor believed that a public forum would help achieve this.[145] Stentor's own position was that the market model was the best option for deciding essential services. but there also should be an economic evaluation of the feasibility of providing universal access to the essential services before any decisions were made about the issue.[146]

The government officials who had been *sherpas* on IHAC working groups also suggested that there should be a review process to determine the criteria for essential services. Those who were in Industry Canada had been holding meetings about the IHAC recommendations and were examining the feasibility of establishing a process to determine the essential services.[147] They felt that it was vital to get public input. but that it would be difficult to get consensus. IHAC had already recommended the idea of a periodic public review process conducted by the CRTC. but IHAC stated clearly that public demand should be the first criterion for considering "candidates for universal service" (IHAC. 1995b. p. 43). IHAC (Rec. 13.5) stated that the review should be for:

- developing, or updating. as the case may be. a set of criteria for defining universal services:
- designating services. i.e.. the Internet. that should be provided on a universal basis: and
- determining the conditions under which these services should be provided at just and reasonable rates. (p. 171)

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[144] Milton. interview.

[145] Milton. interview.

[146] Milton, interview.

[147] Drouin. interview.

Not everyone in Industry Canada agreed with the idea of a public review process. The Associate Director General of Telecommunications Policy, for example, stated that the most important thing to do was the following:

> to develop a logical coherent framework ... I think you have to take very much a market based approach to this. Not because of any sort of abstract ideology of the market place – the market is always right – but in fact because the market is often right. Yet a service is essential largely because that's what people want, and that's what people use. I don't think you can define a service as essential if it's something that is not in general use. it is not highly desired by the general populace.[148]

Because the official view in the Department was that the market would provide, it seemed that any kind of public consultation that might be seen as pre-empting the market was not a popular option among the more senior staff in Industry Canada.

With regard to content. there were two related issues that the CRTC was requested to investigate in the Convergence Hearing that bore relevance to the essential services issue: the clarity of the legal definition of certain terms under the *Broadcasting Act* and the *Telecommunications Act*. and the requirements placed upon content-based services to further the cultural objectives of the *Broadcasting Act*. With regard to the former. the government was concerned that certain definitions in the *Broadcasting Act* and the *Telecommunications Act*, such as those for *broadcasting* and *telecommunications service*. needed to be reviewed to ensure that the acts did not impede the development and introduction of new and emerging multimedia products and services (Canada. Privy Council. 1994). The definition of such terms could have an impact on the requirements for contributions to Canadian programming by network providers if these providers were deemed to be broadcasters. And, if Internet service providers were considered to be distributors of television programming under the terms of the *Broadcasting Act* and *Cable Regulations*. then Internet-based multimedia and interactive services that were being distributed via these multimedia by Internet service providers would come under the priority distribution requirements for Canadian content that applied to distributors of

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[148] Shaw. interview.

television programming. Examples of the types of services that could be affected included interactive courses offered by educational institutions and educational multimedia materials directed to schools (CRTC, 1995a, p. 30).

Stentor did not present strong views to the CRTC Convergence Hearing on the definitional issue. Stentor commented, however, that the CRTC should bear in mind that the definitions were important to companies that might sometimes act as common carriers (*i.e.*, providers of telephone services) and sometimes as distribution undertakings (*i.e.*, providers of cable services). Therefore it was important for the CRTC to clarify definitions or state its views explicitly for the benefit of entrepreneurs and investors who need clear rules for their decision-making (Stentor, 1995, pp. 11-12). With regard to the cultural requirements placed upon broadcasters and cable television companies to achieve the objectives of the *Broadcasting Act*, Stentor advised the CRTC that its member telephone companies would abide by all requirements for contributions to Canadian programming and the priority carriage rules when granted cable licences.

In its submission to the Convergence Hearing, the CCTA stated it believed the current definitions in the *Broadcasting Act* were still satisfactory. The CCTA felt that the *Broadcasting Act* had expanded the definition of *broadcasting* to include "a wide range of services that provide sounds or visual images by means of telecommunications" (CCTA, 1995b, p. 25). This definition was broad enough, in the CCTA's view, to include video-on-demand and certain interactive multimedia services. The CCTA felt, however, that the Commission should exempt specific new multimedia services from regulation on a case by case basis after assessing their benefits to the broadcasting system and their impact on the achievement of the *Broadcasting Act's* objectives (pp. 25-26). With regard to the entry of telephone companies into broadcasting or cable services, the CCTA argued that any new licensee for either service, should be required "to contribute at least as much to the maintenance of Canada's sovereignty and cultural identity as do existing infrastructure operators, such as cable and over-the-air broadcasters" (p. 29).

The CRTC was worried that some of the definitions in the *Broadcasting Act*
would "capture many new and emerging services that would not contribute materially to
the achievement of that *Act's* objectives," thus impeding the development of those services
(CRTC, 1995a. p. 30). The CRTC felt that rather than using exemption orders it would be
more expeditious to amend the *Broadcasting Act* by subtly changing the definition of
*program*

> so as to exclude, in addition to predominately alphanumeric text, other
> services that, while they likely will fall within the definition of broadcasting,
> will not foreseeably contribute materially to the achievement of the
> *Broadcasting Act's* objectives. (p. 30)

The Commission believed that the existing tools of the *Broadcasting Act* were sufficient to
ensure that content-based services could be made available in a manner that would further
the Canadian cultural policy objectives (p. 32). The CRTC also announced that all new
programming undertakings and new distribution undertakings should contribute to the
cultural objectives under the same terms as existing undertakings (pp. 32-42). This
recommendation, in the eyes of the Commission, would provide for continuing support for
maintaining Canada's cultural sovereignty and promoting the Canadian identity on the
information highway.


In its final report for Phase I, IHAC commented that there was a divergence of
opinions within the Council on the need to change the definitions within the *Broadcasting
Act*, but it also noted that Council members concurred that it would be unnecessary to
change any definitions if the CRTC used exemption orders judiciously (IHAC, 1995b, pp.
29-30). IHAC took the position (Rec. 7.1) that strong broadcasting and cultural policies
and programs "must be reaffirmed in relation to the new information infrastructure" (p.
29), and it recommended (Rec. 7.2) that the government should confirm the role of the
CRTC "to ensure the implementation of long-standing cultural policy objectives for the
Information Highway" (p. 29). The Council noted in particular that the importance of the
priority carriage rules for Canadian broadcasting stipulated in the *Broadcasting Act* must
not be underestimated. In recognition that the information highway is a network of
networks, the Council recommended

that government policy continue to recognize and implement measures that
give priority to the services of the Canadian programming undertakings
and, in particular, ensure the pivotal role of local private and public radio
and television broadcasters as key universal providers of Canadian
information and programming services (Rec 7.5). (pp. 30-31)

IHAC made a range of recommendations for mechanisms to support the creation of
cultural products that would provide a strong Canadian presence on the information
highway, with particular emphasis on Canadian content in educational programs and
learning and training materials.

Curiously, within the federal government Industry Canada and not Canadian
Heritage had established a program to digitize Canadian heritage content for the
information highway. Although it could be expected that the objective of the SchoolNet
Digital Collections program would be to reinforce Canadian sovereignty and cultural
identity (the second objective in the government's information highway strategy), or even
to ensure universal access to an essential service, this was not the case. The main objective
of the program was explained by the Director General of the Science Promotion and
Academic Affairs Branch of Industry Canada in whose area the project resided:

> We're in the process of digitizing large quantities of national heritage and
> using students to do that. In other words, we're not really doing it because
> of the heritage nature, but we're doing it because we can use this to train
> students for the new economy and managing digital information.[149]

Being situated in Industry Canada rather than in Canadian Heritage, the rational for the
project appeared to be related to the priorities given to the three objectives for the
information highway in the government's information highway strategy. As pointed out
earlier, the creation of jobs through innovation and investment in Canada, the economic
objective, had a higher priority than either the cultural objective or the social objective.

In its action plan for the information highway, the federal government considered
"growing Canadian content" (Canada, 1996a, p. 11) to be an important component of its

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[149] Hull, interview.

overall information highway strategy, a component that was related more to the economic objective of job creation than to the cultural objective of promoting Canadian sovereignty. The government's action plan stated that the Minister of Heritage would develop a strategy. in consultation with other ministers and the provinces and territories, for Canadian cultural content in the information society. The strategy involved four elements:

- expanding opportunities for economic growth and job creation:
- employing a range of measures to support the production and growth ... of Canadian cultural content that reflects our linguistic duality and cultural diversity;
- fostering an ongoing dialogue within Canada:
- promoting the dissemination of the government's public information holdings. (p 12)

In addition. the government's plan stated that the Ministers of Industry and Canadian Heritage would be developing ways in the coming year to facilitate access to capital for developers of Canadian multimedia products. and that government ministers would be developing and implementing an export development strategy for Canadian content products. The plan also explained that many government departments had already created web sites. others with holdings of cultural materials had been digitizing their collections. and Industry Canada had set up the SchoolNet Digital Collections program to digitize Canadian content and to provide "opportunities for young people to develop multimedia and business skills" (p. 14). All of those projects were considered part of the government's strategy for growing Canadian content.

## 6.5 Whose Views Prevailed – Determining the Levels of Influence of the Core Organizations

In this section, I examine the influence of the core organizations on the outputs of the policy process. As discussed in chapter 5. influence involves transmitting "information that changes other actors' behaviors by changing their perceptions" (Knoke. 1990b. p. 11). To determine the influence of the core organizations. I analyzed the interview transcripts and policy documents to establish which core organizations' ideas were evident in other core organizations' policy decisions. that is. in the outcomes of the policy process during this period. Based on this objective analysis. I have assessed the levels of influence

of each of the seven core organizations into one of three categories: *Strong*, *Moderate* or *Weak*.

Stentor was the only core NGO whose influence I classed into the Strong category. There were two reasons for this decision. First. Stentor's 1993 vision statement was highly influential in framing the policy debates and in providing a model for the policy development process. In this regard. Stentor was able to direct the policy outcomes toward its own objectives. The economic tenor of the government's information highway strategy and the initial information highway policy discourse emanating from Industry Canada bore a strikingly similarity to Stentor's vision document. As noted by Stentor's VP of Legal and Social Policy:

> Well. we put out the vision statement in October of 1993 that really led to the concept of the information highway being discussed in Canada. It had. so far as I know, never been discussed in Canada prior to that document. We assisted the Industry Department in – or like to think we assisted the Industry Department – in the formulation of their own policy which took root by virtue of their document called something similar to ours in the Spring of 1994 – that was *The Information Highway - a Vision for Canada.*[150]

Much of Stentor's vision was adopted by Industry Canada for the government's information highway strategy: the rhetoric about the importance of the information highway to Canada's economy and future well-being: the urgent need for action to ensure that Canadian companies would be internationally competitive: the roles to be played by government and industry; many of the policy objectives and guiding principles: and much of the agenda for action to stimulate the information highway's rapid development. Industry Canada also adopted Stentor's idea of establishing an national advisory body on the information highway, resulting in a large part of Stentor vision's of the information highway being incorporated into IHAC and the IHAC process.

Stentor was also influential on *specific outputs* from the policy process and this is the second reason for classing Stentor's influence in the Strong category. For example. the

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[150] van Koughnett. interview.

CRTC decision in the Convergence Report to recommend that cross industry competition between telephone companies and cable companies should start without a fixed transition period (CRTC, 1995b, pp. 22-23) was in accord with the Stentor position and not the one submitted by the CCTA. With regard to the specific issue of determining essential services. Stentor's argument that the economic position of the telephone companies required consideration when decisions were made regarding essential services was echoed by officials within Industry Canada[151] and the CRTC.[152] In addition. Stentor's influence extended into the Cabinet. which allowed the Stentor telephone companies to increase local rates without a corresponding decrease in long distance rates. This Cabinet decision overturned a CRTC ruling because. according to the Minister of Industry. the Stentor companies needed the additional revenues to develop new types of services and to compete internationally ("Bell wins." 1995; "CRTC Chairman says." 1996). Although not all of Stentor's policy positions were accepted by the government or the CRTC. Stentor's influence extended from the very broad level of the policy discourse to the more specific decisions that were involved in information highway politics.

The CCTA was less influential than Stentor in the information highway policy process and I classed the CCTA as having had only a Moderate degree of influence. To begin. the CCTA's 1993 vision document for the Canadian cable industry (see CCTA. 1993) was short-sighted in comparison to Stentor's 1993 vision of the information highway. Unlike Stentor. which stressed the need for quick action. during the early stages of the information highway policy debates the CCTA took a position that was largely reactionary and defensive. The CCTA tried to slow down the introduction of competition in the provision of cable services by having a transition period to protect the cable companies from the larger better-financed telephone companies. while at the same time allowing immediate entry for the cable companies into local telephone service. The CRTC decided against the CCTA on that issue. IHAC's decision to eliminate the reference to

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[151] Neogi. interview.

[152] Blackwell. interview.

ensuring "viable and sustainable competition over at least two national wireline infrastructures" (IHAC, 1995d, p. 3) from the draft discussion document on universal access also went against the CCTA's desires. However, the CCTA did obtain two significant successes. In the Convergence Report the CRTC agreed with the CCTA on two key issues relevant to universal access and essential services. First, the CRTC agreed with the CCTA's view that it was necessary to address the issue of the subsidies being used for universal access purposes so that prospective entrants would be able to enter the market for providing local telephone service (CRTC, 1995b, pp. 14-16). And second, the CRTC decided that it would require new types of broadcasting distribution services to abide by the same Canadian content rules and the same rules for contributing to Canadian television programming as those required of the cable companies (pp. 39-42). The first of these decisions, at least in theory, would make it easier for cable companies to enter into the provision of local telephone service. The second decision would ensure that the telephone companies entering into the provision of cable television services would have to abide by the same rules as the cable companies.

PIAC was a very determined participant in the policy debates on universal access and essential services issues and was more influential than its staff realised. I placed PIAC's level of influence in the Moderate category for the following reasons. Among the core players PIAC was the only public interest group and the sole organization to frame its policy positions only on social concerns. PIAC's argument that essential services needed to be viewed in terms of what Canadians as *citizens* require to participate fully in society was evident in comments made by interviewees from the IHAC Secretariat.[153] Industry Canada[154] and the CRTC.[155] Several of PIAC's main ideas were addressed as recommendations by IHAC in its first phase report. These included the recommendations for a regular public review process (Rec. 13.5), for a national access strategy to deal with

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[153] Simpson, interview.

[154] Siman, interview.

[155] Fleming, interview.

universal access and essential services issues (Rec. 13.1), and for supporting the role of public libraries in providing access to the information highway (Rec 13.12).[156] PIAC's Legal Counsel, who presented PIAC's position to IHAC's Access and Social Impacts Working Group, felt her presentation was not well-received but she was pleased with the outcome:

> I think the IHAC report contains really good suggestions. And actually they did make a lot of suggestions that I had made in my presentation to them. I mean, such as setting up an ongoing process for constantly re-evaluating the definition of basic communication service and ensuring we don't lose sight of it.[157]

Even though PIAC did not participate directly in the CRTC Convergence Hearing, PIAC provided advice to other public interest groups for the Hearing. Ultimately, the Convergence Report included ideas that had been promoted by PIAC, such as public space on the information highway and the need to re-examine the traditional concept of essential services in telecommunications as more services become available only in electronic form. As discussed in section 6.3.3, in 1994 PIAC argued that the market would fail in some circumstances and that non-market mechanisms would be needed to ensure universal access when this occurred. Later recognition by Industry Canada, by IHAC and by the CRTC of these two possibilities demonstrates an important influence that PIAC exerted on the policy process. PIAC's overall influence, however, can only be viewed as conditional, since key ideas such as the periodic public review process and the idea of public space on the information highway appeared only as IHAC recommendations and had not actually received further action from the CRTC or the government. PIAC's inability to convince public officials that it was *the representative of the public interest* reduced the effectiveness of PIAC's participation that lacked effectiveness. These

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[156] Other public interest groups, such as Canada's Coalition for Public Information and the Canadian Library Association, also appeared before IHAC and made similar recommendations. It is important to bear in mind that their presentations may also have contributed to IHAC's recommendations on universal access and essential services.

[157] Lawson, interview.

comments from the Director of Council Operations in the IHAC Secretariat provided a case in point:

> We certainly know what industry wants, or we think we do. We certainly hear it often enough. But from a user perspective. I don't think we're necessarily in tune with what the public is thinking about the highway.[158]

Among the government agencies. Industry Canada was very influential in the outcomes of this policy process and I classed it into the Strong category. Industry Canada's role as the lead government department in information highway policy development was evident in nearly all components of the policy process to determine essential services. Although the Department adopted much of Stentor's vision of the information highway. the vision fit well with the Industry Canada's own economic agenda. The Department was able to use the vision to shape the government's information highway strategy. most specifically in the terms of reference for IHAC and the OIC for the CRTC's Convergence Hearing. Both processes were directed at developing a Canadian information highway as rapidly as possible because it was needed for the nation's economic well-being. This view appeared to have been adopted by Industry Canada from Stentor's vision document. Industry Canada's staff. who played important roles in managing the information highway policy development process. were key instruments of Industry Canada's influence. For example, Industry Canada staff wrote the initial IHAC policy discussion documents and they acted as *sherpas* for the IHAC Access and Social Impacts Working Group. Industry Canada staff were also members of the federal government's inter-departmental working group that responded to the IHAC recommendations on the access issues. Through participation in these activities. Industry Canada staff members provided input directly into the IHAC process from its very beginning in early 1994 through the publication of the final report and recommendations from IHAC's first phase in September 1995 and then through the government's action plan which was published in response to the IHAC recommendations in May 1996. A third aspect of Industry Canada's influence was evident in the Department's information

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[158] Ferguson. interview.

highway programs – programs such as the Community Access Program and the SchoolNet Digital Collections Program. In this regard Industry Canada influenced the central agencies of the government to accept the importance of the economic objectives for the information highway – influence that was demonstrated by the funding provided for the Community Access Program and the SchoolNet Digital Collections Program.

Canadian Heritage was the least influential among the core organizations on the outcomes of the policy process to determine essential services and I classed its influence as Weak. Although Canadian Heritage appeared to have a leading position in the information highway policy process because of its responsibilities related to the *Broadcasting Act*. the Department played a relatively minor role in the process to determine essential services. In comparison to Industry Canada. which was given the lead for managing the government's information highway strategy including the IHAC process. Canadian Heritage appeared to be the junior member of the government's two-department information highway team. Canadian Heritage staff originally considered the issue of essential services to be a telecommunications issue which fell outside of their department's scope. When they finally considered Canadian content and culture to be related to essential services. much of the first phase of IHAC had already been completed. Another sign of the relatively minor influence of Canadian Heritage was the fact that the government program to digitize Canadian heritage material was being operated by Industry Canada and was based on an economic objective. Logically. the program should have been within Canadian Heritage and been based on the cultural objective of reinforcing Canadian sovereignty and cultural identity.

I classed IHAC as having a Moderate degree of influence on the outcomes of this policy process. Although IHAC made many policy recommendations. it did not have the authority to create actual policies or establish regulations for the information highway. IHAC's influence derived primarily from three sources. First. IHAC provided the process for Industry Canada to apply its prioritized objectives for the information highway to the policy issues. In doing so. IHAC acted as an agent for Industry Canada and shaped the

way other organizations could achieve success for their policy positions. The priority order for the objectives meant that economic arguments were given precedence over social and cultural ones – even in relation to social issues such as universal access and essential services. Second, IHAC provided a venue for a broad range of stakeholders to raise issues. In doing so, IHAC influenced a wide variety of participants (as well as non-participants) by raising their awareness of others' concerns and perspectives. And third, many recommendations made by IHAC were directed at the government which, because of the high level of publicity given to IHAC, compelled the government to respond to IHAC with a strategy to deal with the recommendations. With regard to the universal access and essential services, the government's response, however, addressed only some of IHAC's recommendations. Although the key national access strategy recommendation was included in the government's action plan, the plan did not mention community networks. Instead, the action plan highlighted the Community Access Program as a prototype for providing access to the information highway for people in rural and remote areas. Although IHAC made recommendations directed at the CRTC, the CRTC could address those recommendations only in relation to its ongoing regulatory processes. Like PIAC, IHAC's overall influence was conditional on further actions by others.

As the regulatory agency for telecommunications and broadcasting, the CRTC was well positioned to have a high level of influence on information highway policy decisions. I classed the CRTC, however, as having had only a Moderate degree of influence at this stage of the policy process. During this early period of the information highway policy process, the CRTC was focussed more on how to introduce competition and deal with convergence than on how to determine essential services for the information highway. The CRTC's role was largely dictated by the OIC for the Convergence Hearing, which was mainly concerned with ensuring that the economic potential of the information highway was achieved through rapid changes to the regulatory framework in order to promote the development of the information highway. Like IHAC, the CRTC influenced the outcome of the policy process by providing a venue for the different stakeholder groups to air their positions on a range of information highway policy issues. But again,

Industry Canada's prioritized objectives for the information highway (as discussed earlier), which were given to the CRTC in the OIC, had to be given preference by the CRTC when assessing the positions advanced by the stakeholders. Although universal access was not one of the issues that the OIC for the Convergence Hearing asked the CRTC to address, the concept of universal access was listed as an objective in the OIC. In the end, the issue was described in the Convergence Report because of concerns expressed by participants that the competitive model could place universal access at risk (CRTC, 1995a, p. 2). The CRTC noted that it would specifically address the issue of universality in the context of future applications that would come before it (p. 44). From that perspective, the CRTC's influence regarding universal access issues was largely deferred until actual applications raised those issues in real cases rather than in the abstract. The CRTC also stated that important decisions regarding the funding and priorities of infrastructure development (which would have a direct bearing on whether the information highway became universally available), should be made by the government and not the CRTC (p. 44). Although the CRTC suggested that the information highway policy initiatives required a balanced approach which needed to consider both economic and cultural issues, in reality, because of the OIC and the economic objectives of the telecommunications policy, the CRTC's influence was more often as an economic arbiter for the information highway rather than as a cultural agency promoting the Canadian identity and maintaining Canada's cultural sovereignty.

To summarize – in the preceding analyses of the core organizations' policy positions and the policy outcomes evident in the process as of mid-1996 (*i.e.*, the IHAC recommendations, the CRTC Convergence Report and the Industry Canada information highway-related programs): Stentor and Industry Canada had a *Strong* degree of influence; the CCTA, PIAC, IHAC and the CRTC had a *Moderate* degree of influence; and Canadian Heritage had a *Weak* degree of influence.

## 6.6  Determining the Best Predictor of Influence

### 6.6.1  Introduction

Measures of influence, such as the level of organizational resources, the *influence reputation* of organizations or the number of communication links that an organization has with other organizations, have been important parts of policy research in both political science and sociology. Earlier, in the third chapter, I gathered data on a range of structural characteristics for the organizations participating in this research. According to policy researchers, those characteristics should demonstrate the capacity of the organizations to participate effectively in the policy process and identify the organizations with the greatest potential to be members of the sub-government, that is, the inner circle of policy-makers in the policy community. Below, I establish the strength of the structural characteristics that each of the seven core organizations possessed in order to determine whether the structural characteristics were a good predictor of the policy outcomes. In chapters 4 and 5, I employed several variables on different aspects of the interview data to identify potentially influential participants in this policy process. Table 15, which appears below, provides the rankings of the seven core organizations with respect to those measures.

### 6.6.2  Determining the Strength of Structural Characteristics

To determine the strength of the structural characteristics that each core organization possessed, I analyzed the data in Table 1 (NGOs) and Table 2 (Government Agencies) from chapter 3. I categorized the relative strength of each organization's structural characteristics into one of three relative categories (Strong, Moderate or Weak) based on a composite evaluation of all of the variables. Four organizations were considered to have structural characteristics that were in the Strong category: Stentor, the CCTA, Industry Canada and the CRTC. Two of the organizations had characteristics that were in the Moderate category: Canadian Heritage and IHAC. And, one core organization, PIAC, was classed as having weak structural characteristics.

I assigned these organizations to these categories for the following reasons. Two of the core NGOs were classed as having strong characteristics – Stentor and the CCTA. Stentor had only one weak characteristic (Age). Therefore. that decision was straightforward. Incorporation as a business meant that Stentor had an advantage over the other NGOs. Stentor could devote its full attention to maximizing the profits of its owners – the monopoly telephone companies. Another variable that demonstrated Stentor's strength was the number of lobbyists registered – more than twice as many as any other organization. The CCTA's structural characteristics were not as strong as Stentor's. but they still rated a classification of Strong. The only weak points for the CCTA were the number of lobbyists (only five). and the fact that it was incorporated as a not-for-profit organization. Therefore. by law. the CCTA's activities could not be aimed at monetary gain for its members. This latter characteristic. however. was relative only to Stentor and the Canadian Broadcasting Corporation. since they were the only two NGOs of a different organizational type. PIAC was the only core organization to have structural characteristics that were classed as Weak. PIAC's *Member Status* was only moderate because PIAC represented a variety of different organizations in front of the CRTC. none of which was strong socio-economically. These organizations. for example. included the National Anti-Poverty Organization and the Consumers' Association of Canada.[159] In addition. PIAC had a small staff. no registered lobbyists and no technical expertise. Compared to the two core industry organizations. PIAC had weak structural characteristics.

Of the four core government agencies. two were classified as having strong structural characteristics and two were classed in the Moderate category. Industry Canada. which I classed as having Strong structural characteristics. was weak on only one variable – Age. because the Department was formed in the 1993 government restructuring. Although the government departments in general did not have the same level of decision-making autonomy as the Treasury Board or the CRTC. Industry Canada had a strong mandate. a large policy staff. six policy branches. as well as technical

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[159] Lawson. interview.

expertise. Canadian Heritage's structural characteristics were classed in the Moderate category because of weakness in two variables. First, its mandate was only moderately strong because the Department had responsibility only in the broadcasting policy area of the information highway and in copyright policy including copyright of digital media. And second, Canadian Heritage did not have technical experts on staff – the engineers, to whom Broadcasting Policy staff used to have access, were placed in Industry Canada when the Department of Communications was broken up.[160] IHAC was also classed as having Moderate strength in terms of its structural characteristics. As a temporary advisory body. IHAC was a very young organization and it could not make policies – IHAC's mandate was to advise on policy issues. IHAC's diverse membership meant that it could not hold strong positions on all of the issues that came before it. IHAC's temporary nature also meant that IHAC would not be around long enough to follow up on recommendations which received no action by the government. Therefore. compared to other government agencies. IHAC was weak in its organizational type. The final government agency. the CRTC. was categorized as having Strong structural characteristics. As a regulatory agency. the CRTC had a high degree of autonomy in decision-making. The CRTC was a well-established organization with responsibilities in all areas of the information highway. In addition, the CRTC had a relatively large policy staff in four branches, and had in-house technical experts.

### 6.6.3   Choice Status for All Communication Interactions: The Best Predictor

To determine which measure was the best predictor of the actual influence which I have described above in section 6.5, I now compare those findings with the rankings of the core organizations presented in chapters 4 and 5, based on predictive models. and the rankings set out in the preceding section. based on structural characteristics. As discussed above. I categorized my conclusions about the strength of actual influence for each core organization. as either Strong, Moderate or Weak. I then reviewed the numeric evidence behind the rankings assigned to each of the organizations on the potential predictor

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[160] Fildes. interview.

variables (refer to the discussions in chapters 4 and 5 and section 6.6.2). Based on this review. I was able to group the rankings into the same categories I used in classifying observed influence. Rankings of 1 through 3 were considered to be evidence of a potentially strong actor in the process; rankings of 4 through 6 were considered to be evidence of a potential actor of moderate influence; and a rank of 7 was classified as evidence of a potentially weak actor. Using this conversion. it was possible then to compare the predictive value of each of the predictive approaches to see whether the core organizations which they predicted would be either Strong. Moderate or Weak influencers. were actually classified as such based on their actual observed influence on the process. An examination of Table 15 (below) shows that none of the rankings based on any of these predictors corresponds directly to the actual observed influence exerted by the core organizations as described above. One measure. however. was closer than the others: Choice Status for all communication interactions most closely mirrors the categories assigned to the organizations under observed influence.[161] It matches exactly for 5 of the 7 organizations. a level of congruence which none of the other measures matched. For IHAC and the CRTC. it slightly over-estimated their influence. Choice Status is based on an organization being the object of recognition made by other organizations. An organization with high Choice Status for all communication interactions is one that other organizations recognized as a body with which they communicated either formally or informally. Choice Status here measures prominence based on the prestige an organization received by being recognized by others for communicating with them. As mentioned in chapter 5. high Choice Status identifies the leaders within a social network and measures the probable control of important resources (Knoke and Burt. 1983).

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[161] The row for this measure and the row for the observed influence are both highlighted in bold lettering in Table 15.

Table 15    Comparison of Core Organizations' Rankings Across Predictors of Influence and Observed Level of Influence

| Organizations / Influence Measure | Non-Government Organizations | | | Government Agencies | | | |
|---|---|---|---|---|---|---|---|
| | Stentor | Canadian Cable Television Association | Public Interest Advocacy Centre | Industry Canada | Canadian Heritage | Information Highway Advisory Council | CRTC |
| Key Players (Chapter 4) | 2 | 3 | 5 | 1 | 3 | 7 | 5 |
| Degree of Centrality - Formal Communication | 3 | 6 | 3 | 5 | 7 | 1 | 2 |
| Degree of Centrality - Informal Communication | 2 | 5 | 3 | 1 | 4 | 6 | 7 |
| Degree of Centrality - All communication | 1 | 7 | 5 | 1 | 6 | 1 | 4 |
| Choice Status - Formal Communication | 3 | 5 | 5 | 4 | 5 | 1 | 2 |
| Choice Status - Informal Communication | 2 | 4 | 3 | 1 | 5 | 6 | 7 |
| *Choice Status - All communication* | 3 | 6 | 5 | 1 | 7 | 1 | 3 |
| Power - Formal Communication | 5 | 6 | 7 | 3 | 4 | 1 | 2 |
| Power - Informal Communication | 2 | 4 | 3 | 1 | 5 | 6 | 7 |
| Power - All communication | 2 | 5 | 7 | 1 | 4 | 6 | 7 |
| Structural characteristics | Strong | Strong | Weak | Strong | Moderate | Moderate | Strong |
| *Observed Influence: 1994 - June 1996* | Strong | Moderate | Moderate | Strong | Weak | Moderate | Moderate |

The numbers provided above are based on the ranked order of the core organizations as key players (Figure 2), and on each of the prominence measures for the formal communication, informal communication and all communication interactions (Figures 3 to 5 and Figures 7 to 12.

## 6.7    Conclusions

Several conclusions can be drawn from the findings of this chapter. First, the core organizations identified earlier in this chapter were verified as the most influential organizations in this policy process. The earlier measures used to identify the *key players* and the *core organizations* were therefore useful for identifying the influential organizations. However, one measure was the best predictor for determining the actual degree of influence of the organizations in the policy process: the Choice Status variable across all communication interactions. This finding demonstrates that communication is important for influencing others and that the recognition of that communication is a recognition of influence. When many organizations identify that they have communicated with a specific organization, then the specific organization is likely to be influential, that is, it is likely to be a leader among the organizations. In this process, the Choice Status measure across all communication interactions identified Industry Canada and IHAC as the most prominent organizations, followed by Stentor and the CRTC. PIAC, the CCTA and then Canadian Heritage. These organizations were recognized as the leaders, that is, the most influential organizations. The evidence of actual influence bears out this assessment. The analysis of the interview transcripts and the policy documents undertaken in this chapter showed that Stentor and Industry Canada were the two organizations that influenced the outcomes the most, followed by the CCTA. PIAC, IHAC and the CRTC. then by Canadian Heritage.

It is also possible from this result to conclude that the separation of communication interactions into formal and informal categories was of no value, and that the use of the Degree of Centrality and Power measures were also of little value. This conclusion, however, would be erroneous. The separation of communication interactions into formal and informal categories was an important element of this research because it identified the types of activities in which each organization engaged in order to achieve its influence. Each of the measures (*i.e.*, Degree of Centrality, Choice Status, and Power), and its application to the different types of interactions (*i.e.*, formal, informal, and all communication interactions, and resource exchange interactions), explains a different

aspect of the process of influencing the outcomes of the policy process. In this regard, it is also important to examine the actual results from the application of each measure and not just the ranking of the organizations.

Table 16 below[162] shows the results from the various measures of prominence for the core organizations in the different types of interactions. These data demonstrate that the recognition of informal communication with Industry Canada was acknowledged by most other organizations. In other words. it was largely through informal channels that this policy-maker obtained its information and influenced the outcomes of the policy process. Table 16 also demonstrates that formal communication interactions with the CRTC and IHAC were important – and it was through the formal communication channels that the regulatory/advisory bodies obtained their information. Although it may seem obvious that formal communication interactions were important for these two agencies. the three measures of prominence each explain something different about those interactions. The results from the Degree of Centrality measure illustrated that the CRTC and IHAC were central in the formal communication channels through their links to many other organizations. The results from the Choice Measure and Power variables illuminated what is not obvious. The fact that many other organizations identified their formal communication links with the two regulatory/advisory bodies tells us that the CRTC and IHAC obtained high prestige from the formal communication processes and were therefore likely to be influential. Similarly. the data in Table 16 also explain the low influence of Canadian Heritage.

Of the three prominence measures. the least informative for communication interactions was the Power measure. Although the results for Power make sense for formal and informal communication. they do not make sense for all communication interactions. The CRTC is ranked sixth of the seven core agencies when using Power for

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[162] The data in this table are drawn from Tables 7 and 9.

**Table 16** Core Organizations' Prominence by Types of Interactions

| Organization: Identity Number and Name | Types of Interactions | | | | | | | | | Resource Exchange |
|---|---|---|---|---|---|---|---|---|---|---|
| | Formal Communication | | | Informal Communication | | | All Communication | | | |
| | Degree of Centrality | Choice Status | Power | Degree of Centrality | Choice Status | Power | Degree of Centrality | Choice Status | Power | Degree of Centrality |
| 6. PIAC | .65 | .45 | .4993 | .65 | .60 | .7850 | .75 | .70 | .6519 | .45 |
| 9. CCTA | .55 | .45 | .6014 | .50 | .50 | .6382 | .65 | .65 | .7049 | .10 |
| 12. Stentor | .65 | .60 | .7336 | .85 | .70 | .8575 | .95 | .80 | .9193 | .15 |
| 15. CRTC | .80 | .80 | .8952 | .30 | .15 | .1913 | .80 | .80 | .6556 | .45 |
| 16. Canadian Heritage | .50 | .45 | .7387 | .60 | .40 | .5610 | .70 | .60 | .7352 | .15 |
| 18. Industry Canada | .60 | .55 | .8420 | .90 | .85 | 1.0000 | .95 | .95 | 1.0000 | .45 |
| 21. IHAC | .90 | .90 | 1.0000 | .35 | .25 | .3717 | .95 | .95 | .8318 | .55 |

The information contained in Table 16 has been drawn from Tables 7 and 9.

all communication interactions. even though it was tied for third position using the Choice Status measure. The core organizations were involved in many resource exchanges. but to interpret the dominance and subordination involved in those exchanges requires further analysis of the data. In this research. the data on resource exchanges provided the least useful information for identifying influential organizations. However, this data still has proven useful. The Degree of Centrality measure identified the organizations that were involved in many resource exchange interactions. When viewed in the context of the structural characteristics of the organizations and the categories of the NGOs. the resource exchange interactions demonstrate the impact of the structural characteristics on the policy process.

## Chapter 7

## Conclusion: Policy Outcomes and Influence Over Time

### 7.1    Introduction

On 19 October 1999 the CRTC announced its decision from a proceeding on services to high-cost serving areas[1] (See CRTC, 1999b). This decision establishes that the basic level of telecommunications service that must be made available to all Canadians now includes access to the Internet (CRTC, 1999b). It is the most recent outcome from the policy process to determine essential services on the Canadian information highway. In this chapter I will discuss, inter-alia, the degree to which this important outcome could have been contemplated, using the theories of policy analysis, from the perceptions of the process as it was occurring in 1995-96.

Overall, this chapter has two goals. The first goal is to review and explore the results of this research by following two themes: (1) looking at the capacity of the various objective measures to predict outcomes in the policy process, and (2) exploring the subjective perceptions of the policy participants about the policy development exercise in which they were engaged and also the degree to which these perceptions were predictive of the outcomes of the policy process. This will include responding to the seven original research questions listed in the first chapter. The second goal is to relate the findings of this research both to selected theoretical constructs and to the subsequent policy history of this issue. Finally, this chapter will return to the question posed at the outset of this chapter, to re-examine the predictors of influence over the policy process obtained by the analysis of my data from 1995-96 in light of the recent policy outcomes in determining essential services on the Canadian information highway present to the time of writing.

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[1] The CRTC defined a high-cost serving area as "a clearly defined geographical area where the incumbent local exchange carrier's monthly costs to provide basic service are greater than the associated revenues generated by an affordable rate as approved by the Commission" (CRTC, 1999b, paragraph 17).

## 7.2     The Findings Based on the Objective Data of the Interactions

In chapter 5, I analyzed the interactions of the 21 participating organizations in order to identify the core organizations in the network.[2]   (It will be recalled that core organizations, according to Knoke (1990a, p. 19), are those which are capable of influencing the outcomes of the policy process.)  By analyzing the interviewees' descriptions of the various interactions, I distinguished three basic types of interactions that had occurred among the participating organizations: formal communication, informal communication and resource exchange.[3]  In this research, I used three variables for measuring organizational prominence (developed for social network analysis) in order to identify the organizations which, according to their interactions, appeared to have the highest potential for influencing the outcomes of the policy process under investigation.  I applied the three prominence variables to the objective data of the links between the organizations which resulted from their interactions.  The Degree of Centrality variable measured the *quantity* of interaction ties that an organization had to other organizations. Those organizations which were linked to the most other organizations were thought to be potentially the most influential ones because they were the most central organizations in the flow of information.  This variable was explored for all types of interaction.  The Choice Status and Power variables, on the other hand, measured the *quality* of the interaction links that an organization had with others and were only explored with respect to the communication interactions.  The Choice Status variable identified those organizations whose communication links were acknowledged by the most other organizations, and the Power variable identified those organizations to whom communication links were acknowledged by the most prestigious organizations. Organizations which were ranked highly by those latter two measures had high prestige

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[2] This analysis responded to research question 1: Which organizations within the Canadian information highway policy community were the core organizations at the current stage of the process through which essential services were being determined?

[3] This portion of the analysis responded to research question 3: During the process to determine essential services, with whom did the organizations interact and what were the characteristics of those interactions?

prominence and were therefore thought to be potentially the most influential ones because communication ties to them were acknowledged by many other organizations.

From this quantitative analysis of prominence, I identified seven organizations as the core organizations in the process of determining essential services for the Canadian information highway (listed in alphabetical order): the Canadian Cable Television Association (CCTA), Canadian Heritage, the CRTC, Industry Canada, the Information Highway Advisory Council (IHAC), the Public Interest Advocacy Centre (PIAC), and Stentor. Interestingly, as reported in my fourth chapter, these seven organizations were also the highest-ranked ones based on the analysis of the interviewees' subjective perceptions of importance (although IHAC was perceived to be substantially less important than the other six).

I found that the Choice Status variable when applied to all communication interactions was the most accurate measure for predicting the degree of influence exerted by each of the core organizations (see section 6.6.3).[4] Communication, therefore, was the essential predictive component of the policy development process. The organizations participating in this policy process used both formal and informal channels of communication to influence the policy outcome. While some organizations were much more prominent in formal communication than in informal communication (e.g., IHAC and the CRTC), and others were more prominent in informal than formal (e.g., Industry Canada and Stentor), I found that actual influence was reflected most accurately when all communication interaction was taken into consideration. This suggests that influence occurred as a result of both types of communication. It didn't matter whether an organization used one channel over another – what was important, apparently, was that an organization communicated to the maximum extent possible. Similarly, Raboy (1995a, 1995b) found, that in the development of the Canadian broadcasting policy, influence

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[4] The Degree of Centrality measure, which was the simplest prominence variable to apply, also proved useful for comparing the level of each organizations' participation in the various types of interactions.

occurred through both formal processes and direct informal contact with government officials. While social interest groups in Raboy's study viewed public consultation processes as their most effective means for influencing the process, industry organizations considered direct access to public officials as more important. Raboy ultimately concluded that any actor who wished to influence the process had to participate in the public consultations. but each actor also had to seek direct access to the decision-makers to the extent that "resources and channels of communication allow" (1995a, p. 429). The results of my research fully agree with Raboy. The use of both formal and informal channels of communication to the maximum extent will increase an organization's opportunities for influencing the outcome of a public policy process.

In the analysis of the interaction data. I also found that resource exchange interactions proved to be less predictive in this research than communication interactions. Resource exchange interactions involved the exchange of a tangible resource such as labour or money and reflect dominance and subordination rather than influence. I found that only four of the seven core organizations were among the seven most prominent ones based on the *quantity* of resource exchange interactions. Nonetheless, in my study, the resource exchange data. when measured using the Degree of Centrality variable. proved valuable for understanding the relationships that existed between the strength of the organizations' structural characteristics and the types of interactions in which the organizations participated.

## 7.3 The Findings Based on the Objective Data of the Policy Process Pre-June 1996

Having established a group of core organizations in chapter 5 through the quantitative analysis of interactions amongst all the organizations in the policy network. in the sixth chapter I analyzed the content of both the interviews with members of those organizations and the documentary evidence gathered from those organizations in order to

establish each organization's position on the problem of determining essential services for the Canadian information highway.[5]

I found that Industry Canada and Stentor had the strongest influence on the outcome of the policy process to the middle of 1996. My data showed that Stentor had established the predominant framework for the information highway policy debates. I also discovered that Industry Canada adopted Stentor's vision of the information highway. had set the agenda for the government's information highway strategy and. with some participation from Canadian Heritage. had instituted the CRTC Convergence Hearing and the IHAC process. My evidence indicated that during these processes. IHAC and the CRTC had established a moderate degree of influence by making recommendations. primarily to the ministers responsible for Industry Canada and Canadian Heritage. on a range of issues including the essential services issue. These recommendations. in turn. incorporated elements of the positions put forward by Stentor. the CCTA. and PIAC. While. as mentioned. I found Stentor to be very influential in the process to determine essential services. I found the CCTA and PIAC. like IHAC and the CRTC. to be moderately influential in the process. Interestingly, PIAC appears to have achieved a higher degree of influence than its own Legal Counsel thought it would achieve. given the poor reception of her presentation to the IHAC Access and Social Impacts Working Group.[6] PIAC seems to have had this success by influencing key recommendations from IHAC and by triggering the incorporation of social perspectives into CRTC decisions. I

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[5] This analysis provided responses to research questions numbered 5. 6 and 7. Research question 5: What insights did the core organizations have of the process through which essential services were being determined? Research question 6: How did the core organizations conceptualize the dimensions of the policy problem? Research question 7: What ideas. including attitudes. values. beliefs. and philosophies did the core organizations hold regarding the issue(s)?

[6] Phillipa Lawson. PIAC's Legal Counsel. said that her presentation to IHAC's Access and Social Impacts Working Group did not appear to be well received. However. she also told me that the IHAC report had incorporated many of the recommendations she had made (Phillipa Lawson, interview with author. tape recording, Ottawa. Ont.. 30 January 1996).

found that the least influence among the core organizations, even pre-1996, has been exerted by Canadian Heritage. That department's influence was much less than anticipated given its recognition as a key player by the interviewees and given the level of anticipated influence accorded to Canadian Heritage based on the interactions identified by the interviewees.

As stated earlier. I found that Industry Canada (the government's lead agency) framed the information highway policy debates using Stentor's vision of the information highway. The central theme in Industry Canada's framework was that it was imperative to develop the information highway as rapidly as possible because it would create jobs. make Canada competitive internationally. and lead to economic growth and prosperity for Canadians. In addition. competition and market forces were considered necessary to stimulate investment. and the regulatory environment in telecommunications and broadcasting was considered to be in need of revamping to initiate competition between the telephone and cable broadcasting industries and to further their convergence. Because of the information highway's perceived strategic importance. Industry Canada directed the CRTC and IHAC to conduct information highway policy development processes and to give priority to the economic objective of job creation. ahead of the cultural objective of reinforcing Canadian sovereignty and cultural identity and ahead of the social objective of ensuring universal access at reasonable cost.

My data showed that the core organizations all believed that the issue of ensuring universal access to essential services on the information highway had its antecedents in the universal access objective in the *Telecommunications Act* and the objective to maintain and enhance Canada's national identity and cultural sovereignty in the *Broadcasting Act*. This view led all the core organizations to perceive *basic service* in telephony and *basic service* in cable broadcasting as fundamental concepts for determining essential services for the Canadian information highway. The core organizations considered the policy problem being addressed to have two fundamental aspects: 1) how to ensure universal access to the telecommunications networks which would carry the information highway;

and 2) how to determine which information and content services should be the essential ones to which universal access is provided. All the core organizations accepted the position that this first aspect of the problem involved determining mechanisms to ensure that the telecommunications carriers provided access to the information highway to all Canadians. including those with physical disabilities. or who lived in rural or remote areas. or who were on low incomes. However, the predominant view among the core organizations was that economic considerations were of the highest priority when making decisions related to those universal access considerations. These core organizations believed that competition and market forces should be used as the primary means for extending the information highway to all parts of Canada and for maintaining affordable access to it. and intervention should occur only when the markets failed to provide affordable access to particular groups. The minority view. which was held by PIAC. was that social rather than economic concerns should be given the highest priority. PIAC argued that market forces worked against universal access. and that because citizens need access to telecommunications to participate fully in society. telecommunications must be viewed as a public utility to which all people should be guaranteed access. PIAC was the only core organization that adopted an alternative way of framing its information highway policy positions. PIAC stressed that social considerations must be placed before economic ones. arguing that the needs of individuals as citizens rather than as consumers must be the first consideration in decisions about essential services on the information highway.

The second aspect of the policy problem. according to the core organizations. involved determining the types of content and services that should be considered essential. On this aspect there was little agreement among the core organizations about what process should be used to determine the criteria for identifying the essential content and services. For example. Stentor and the CCTA argued that market forces alone should be the determining factor, whereas PIAC and IHAC recommended that an advisory council should be established. along with a formal mechanism that would allow essential services to be re-defined as technology and services evolved and as people's needs changed.

My findings about the essential services on the Canadian information highway only partially support those made by Schultz (1998) when he examined the inter-relationship of cross-subsidies and the provision of universal access to telephone service in Canada. My findings concur with Schultz's in that: (1) there was general agreement among the policy process participants that a mechanism is needed to address the negative consequences of relying entirely on market forces to determine telecommunications and information highway policy; and (2) as the information highway process necessarily includes consideration of telecommunications policy, the industry organizations (indeed the same organizations are involved in both processes) favour eliminating the system of cross-subsidies from long distance to local telephone rates. My findings differ from those of Schultz, however, in two key respects. First, my analysis leads me to a different interpretation from Schultz on a major point related to the definition of basic services in the context of the information highway. Schultz claimed that IHAC advocated a broad definition of the concept of universal access and that PIAC "seized upon the IHAC recommendation to urge a broad definition of 'basic' service'" (p. 145). I disagree with Schultz's interpretation. I have found that PIAC had urged a broad definition of basic service to IHAC, and not that PIAC had seized upon IHAC's recommendation. Even though IHAC had incorporated some of PIAC's ideas into its recommendations, I found that IHAC ultimately held a narrow view of basic services. In its 1995 report, IHAC stated that "though few services will meet the criteria for universal service, certain others ought to be provided to limited cross-sections of society or certain geographic areas" (p. 44). As can be seen, IHAC's recommendation was certainly not meant to define basic (i.e., essential) services broadly. The second point upon which my analysis leads me to disagree with Schultz is over his interpretation of the federal government's role on the issue of affordability and its link to the information highway. Schultz claimed that "the government has been more of a spectator than a participant in the debates and developments to date" (p. 145). Based on my data, I contend that the government, led by Industry Canada, was a very active participant in the process: establishing the agenda and shepherding the debates for developing all future information highway policies to reflect

Industry Canada's own economic objectives. Far from being a spectator, Industry Canada was the most influential participant, manipulating the policy process.

One issue which did not appear to be significant to the determination of essential services, based on my data, was the international trade aspect discussed earlier, in chapters 1 and 2, which was raised by writers such as Globerman and Carter (1988), Courchene (1991), and Intven (1995). Although a main part of Stentor's and, subsequently, Industry Canada's, information highway vision was that the information highway was essential for Canada's competitiveness for international trade, the core organizations did not raise international trade directly as an aspect of the essential services policy problem.

## 7.4 The Findings Based on the Subjective Data of Influence Reputation

In the fourth chapter I have reported on my quantitative analysis of the subjective views of the interviewees about which organizations they viewed as the most important in this policy process. I found that the interviewees in my study cited the following six organizations as important much more frequently than they did the other organizations (listed here in ranked order): Industry Canada; Stentor; Canadian Heritage and the CCTA (tied); and the CRTC and PIAC (tied). These six organizations, the *key players*, had the highest *influence reputation* in the network. The notion of influence reputation is simply that the subjective perceptions of the interviewees can be used to identify the players in the policy process who are the most likely ones to influence the outcome of this process.¯

## 7.5 Assessing the Value of *Influence Reputation* as a Predictor of Actual Influence

Knoke (1983, p. 1083) discovered that organizations which had numerous interactions with other organizations in a network also tended to have a high influence reputation. In other words, numerous interactions beget high reputed influence which

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¯ Whereas I had not specified to the interviewees any reasons for citing organizations as important players, most measures of influence reputation ask informants to rank or rate their perceptions of other players' capacities to achieve their desired outcomes in the system (Knoke, 1990b, p. 133).

begets numerous interactions. My findings agreed with those of Knoke. As mentioned earlier. I found that the interviewees' subjective perceptions of the most important players in this policy process were predictive of the objective evidence of the organizations that participated most frequently in communication interactions. As noted. however. the subjective measure of reputed influence identified six key players. with the seventh. IHAC. trailing significantly behind this lead group in my data. while the analysis of actual interactions established that seventh player as clearly one of a group of seven core organizations. This study found that the influence reputation of the seven core organizations did not accurately predict the observed degree of influence of those organizations based on my qualitative analysis of the objective evidence. IHAC. most obviously. exerted a higher degree of influence than was anticipated by the influence reputation variable. And, Canadian Heritage had a much weaker level of influence than was expected from its ranking based on influence reputation. Moreover. as I will discuss later. the objective evidence of interactions more reliably predicted actual outcomes. both to the middle of 1996 and to the present. than did the subjective evidence.

## 7.6    Impact of Structural Characteristics

In the third chapter I have provided a range of comparative data relating to the structural characteristics of the participating organizations (separated into non-government organizations (NGOs) and government agencies). to determine the likely impact of these characteristics on the policy outcomes.[5]

I found that among the NGOs. industry organizations in general had much stronger levels of resources than had public interest groups. indicating the industry organizations had greater capacity to participate effectively and therefore to affect the outcomes of the policy process. I found that within the range of government agencies participating there was a wide variety of structural strength, with Industry Canada and the CRTC appearing to have the greatest capacity to develop policies and the highest degree of autonomy for

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[5] The analysis here responds to research question 2: What was the influence of the structural characteristics of the core organizations on the policy process?

decision making. However I also found that responsibility for information highway policy-making appeared to be spread across a range of agencies, though their mandates varied in strength.

The structural characteristics of organizations appeared to have several major influences on the policy development process. Organizational *category* (*i.e.*, whether an NGO was an industry organization or a public interest group, and whether a government agency was a department or a regulatory/advisory body) bore directly on the level of prominence the organization achieved in specific kinds of interactions. Among the NGOs (see Table 1), the public interest groups generally had small numbers of staff, few if any lobbyists, and no technical expertise (in addition, only PIAC and the Consumers' Association of Canada had in-house legal expertise which is an important resource for participating in the formal communication processes such as the CRTC telecommunications hearings). Industry organizations, on the other hand, had large numbers of staff, relatively moderate to large numbers of lobbyists, and in-house technical expertise (as well as legal expertise). I found that probably because of their weaker structural characteristics, the public interest groups participated more frequently than the industry organizations in resource exchange interactions in order to obtain resources needed to participate more effectively in the communication interactions. This finding supports Buchwald's (1999) results. She found that in the Canadian information highway policy process, public interest groups had limited resources and tended to work together as frequently as possible:

> This allowed them to share resources such as issue and process expertise
> and legal advice... This was the only way they could participate on a
> regular basis and as part of a larger constituency. (p. 135)
> With regard to the government agencies, the CRTC and IHAC (the

regulatory/advisory bodies in this policy process) were ranked by all three prominence measures as the two most prominent organizations in the formal communication processes. In informal communication, Industry Canada was the highest ranked of all participants in the prominence measures. When all communication interactions were taken into account, the Choice Status variable ranked government agencies in the three top

positions (IHAC, Industry Canada, and the CRTC). In the process to determine essential services for the information highway, government agencies were discovered to be highly prominent organizations in the communication processes. This finding corresponds with Laumann and Knoke (1986), who found that, although the flow of policy information is highly unequal among the organizations in a policy domain, government actors generally rank at the top in communication activity.

There were different types of organizations within each of the two main categories (government and non-government). Within each category, organization *Type* was found to be important, although for different reasons in each main category.[9] Among the NGOs, Stentor was the only organization in my study which was incorporated as business. As a result, Stentor was able to apply the full strength of its formidable resources to the task of making money for the company's shareholders, which were the major telephone companies. All of the other NGOs, because of their status as non-profit corporations, or in the case of the CBC, as a crown corporation, had, at least ostensibly, to meet some public service obligations. It is perhaps not surprising then that Stentor had 33 lobbyists registered to work for the benefit of its owners, whereas the next highest number was 13 lobbyists for the Canadian Association of Broadcasters (CAB). The fact that Stentor was the most influential NGO (the only NGO to have been inside the sub-government in the early part of the information highway policy process) can be attributed to its structural characteristics which not only gave it greater policy-making capacity, but also seems to have increased its access to the decision-making apparatus of government.

One NGO in particular appeared to be anomalous in terms of its structural strength and its achieved level of influence. PIAC had only a moderate structural strength, and in three respects was very weak. It had a full-time staff of only four people, no lobbyists and no technical experts. Theoretically then, based on these characteristics, PIAC should not have been a core organization or an influential member of the policy community.

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[9] Confirming Wilkinson's (1992) finding the importance of organization type, although in an entirely different context.

However, PIAC was ranked highly in prominence in all types of interactions and exerted a moderate degree of influence on the policy process. Three reasons are offered here in explanation. First, PIAC was recognized as a leader within the policy community as a provider of the public interest perspective on telecommunication issues. PIAC's high rankings based on the Choice Status variable attest to its high recognition within the community. Buchwald (1999) noted that CPI, the focus of her case study, suffered from a lack of recognition, and that PIAC "had established a positive profile in Ottawa and was often called upon [by government officials she interviewed] as an example of an effective public interest group" (p. 186). The second reason is that PIAC makes effective use of its limited resources, as is evident by its high ranking in communication interactions based on the Degree of Centrality measure. Raboy (1995a) similarly found that successful social interest groups involved in the broadcasting policy development process were well organized and used tactics similar to those used by the industry organizations for promoting their policy positions – including, when their resources allowed, participation in both formal and informal communication activities. The third reason relates to Raboy's finding that in the broadcasting policy process, the organizations participated to a level on a specific issue only to the extent that it affected their members. PIAC was highly motivated on the essential services issue because of its importance to the groups it represented, whereas industry organizations such as the CAB were not strongly motivated on this issue. Thus, PIAC's greater success over organizations with stronger structural characteristics was likely, at least to some extent, because those industry organizations chose not to participate to the full extent of their resources, whereas PIAC was highly motivated and fully applied its limited resources to this issue.

## 7.7 Comparison of the Predictive Value of Structural Characteristics of Organizations and the Choice Status Predictor

I found that the Choice Status variable for all communication interactions was a better predictor of influence than the structural characteristics of the organizations. As already discussed, most industry organizations, based on their structural characteristics alone, should have had higher degrees of influence than they actually exerted. Among the

public interest groups, PIAC was an anomaly because it achieved a much higher level of influence than was expected from the levels of resources it possessed. The structural characteristics were accurate for predicting the actual degree of influence for only three of the seven organizations. While examining the structural characteristics is useful for pointing out the wide variations in resources, and in some cases is useful for providing reasons for certain outcomes, structural characteristics cannot be used on their own to predict policy outcomes. Pross (1992) is clear that an organization not only needs to possess resources, it needs to be well-organized and have the incentive to participate in order to influence a policy. The Choice Status measure for all communication is a better predictor of actual influence because it is based on recognition of an organization's participation in the most important ingredient for influencing policies, that is communication with others.[10]

## 7.8    Findings Related to Assumptions Based on Canadian Public Policy Theorists

As outlined in the early chapters, my thesis has been guided by two theories of public policy development that have come out of the Canadian political science literature: Doern and Phidd's simple stages theory of the public policy process and the policy community and network theory of Coleman and Skogstad (1990b) and Pross (1992). This section examines the major findings of this research related to assumptions that I had based on those two theories.

### 7.8.1    Policy Development Process

As I conceptualized this research project, the report from the first phase of IHAC and the CRTC's Convergence Report were both only a few months old. It seemed to me, that with respect to Doern and Phidd's (1992) simple stages model of the ideal policy process, the process under investigation was still at an early stage, most likely the stage when the policy problem was being defined into its real meaning (stage 2). The interviewees from the core organizations, as I found out, also believed that the policy

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[10] This answers research question 4: How did the interactions influence the outcomes of the process through which essential services were being determined?

process was at the problem definition stage. However, many of the interviewees pointed out that the policy process was much more complex than the simple stages model described by Doern and Phidd (1992). These interviewees felt that because of the complexity of the problem, elements of past decisions by bodies such as the CRTC were part of this policy process and elements of future decisions would also become part of this process. From the vantage point of late 1999, I concur with the interviewees' perception that at the end of 1995 and in early 1996 the second stage of the six-stage model was the one that most aptly described the events that had just occurred, if Doern and Phidd's model applies at all. However, my study establishes that the essential services problem is multi-faceted and the policy process was much more complex than the one described by Doern and Phidd's theoretical model. Their model, nonetheless, still seems to have explanatory value in describing the process studied, although as Diesing (1971) points out:

> every formal theory, even the most complex, is a simplification of the
> subject matter it intends to describe. Consequently there is always some
> discrepancy between what it describes and what actually happens. (p. 110)

## 7.8.2 Policy Network Theory

As explained in chapter 2, Coleman and Skogstad (1990b) suggest that there are six basic types of policy networks which reflect the structural properties of state agencies and organized interests and the resulting dynamics of the policy process. As I planned this research project I believed that, because the information highway was a new and important area for public policy development, the decision-makers within the government would allow the members of the policy community to act only as *policy advocates*[11] in this policy process. And indeed, I found in the qualitative analysis of my data that the government, led by Industry Canada, wanted to give the impression that it was acting as a facilitator for the development of information highway policy by establishing the IHAC process and the CRTC Convergence Hearing. These formal processes were ostensibly established to provide all interested parties with opportunities to express their views on the problems and

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[11] Policy advocates are those groups which are outside the decision-making circles, and which approach the state as lobbyists seeking to influence public policies (Coleman and Skogstad, 1990a, p. 20).

to recommend the best options for resolving them. The government also wanted to give the impression that, after receiving this input, it would make informed and objective decisions. The type of network just described is most similar to a pressure pluralist network. According to Coleman and Skogstad, a pressure pluralist network exists when specialized groups, competing with one another, assume primarily an advocacy role, and the state agencies remain autonomous (p. 27). I found out, however, that this was not the type of network that was in operation.

On close examination of the data I found that in the early stages of the policy process, Stentor was inside the core of the decision-making circle. As already discussed, the evidence indicates that much of Stentor's 1993 vision statement for the information highway (see Stentor, 1993) was adopted by the government, led by Industry Canada, and was used as the basis for the government's information highway strategy. In addition, Stentor convinced the government to overturn a CRTC decision on rate increases for local telephone service to allow the telephone companies to obtain additional revenues for upgrading their networks to be competitive on an international basis. Thus, Stentor had a very high degree of influence which came from being inside the sub-government. Although the CCTA and PIAC also were influential on the outcomes of the information highway policy development process during that early period, neither of them had the same level of influence as Stentor. Stentor appeared to be a *policy participant* in the early stages, whereas the CCTA and PIAC were merely *policy advocates*. The data also showed that the authority within the government for information highway policy-making was concentrated within Industry Canada. The CRTC, IHAC and Canadian Heritage all had responsibilities related to information highway policy-making, but they were playing supporting roles to Industry Canada. The type of network that actually was in operation when the information highway policy process started was therefore similar to a concertation network. Coleman and Skogstad (1990a) define a concertation network as one in which "a single association represents a sector and participates with a corresponding state agency in the formation and implementation of policy" (p. 28). In chapter 6. I employed a social network analytical tool called *structural analysis* in

conjunction with multidimensional scaling in order to create a set of maps of the network participants based on the similarities and differences in their actual patterns of interaction. The map based on all of their interactions (Figure 17) provides a visual image of the network that was in operation. On this map. Stentor is in a central position among six core members of the policy process (Canadian Heritage. the CCTA. the CRTC. IHAC. Industry Canada and Stentor). The image predicts. according to the theory of Burt (1983). which was discussed in chapter 6. that Stentor occupies the most influential position of all network participants. and in fact my findings confirm that Stentor actually was a strong influencer. Interestingly. on this map. one core organization. PIAC is isolated from the other six core organizations. and PIAC was indeed the only core organization to have adopted a different perspective from the predominant one which originated with Stentor. In the period up to mid-1996. the impression that the government wanted to give. that is that the NGOs could act only as policy advocates. was not what actually occurred.

## 7.9   The Subsequent History: Policy Development Since Mid-1996

The policy process to determine essential services on the Canadian information highway did not end in June 1996. The policy decisions taken since I gathered the original data for this research provide an ideal opportunity for testing the predictors of influence over a longer period of time. However. it should be noted that, since the original data were gathered. the shape of the information highway policy community has changed dramatically. The telephone industry has become fragmented: the Stentor Alliance has broken up: British Columbia Telecom and Telus Corporation from Alberta have merged: and competition has erupted among the former Stentor member companies (see "Stentor silenced." 1998). In addition. IHAC was dissolved in September 1997 after issuing a final report with 101 recommendations from its second phase. Today. there is no longer a single voice lobbying for the old monopoly telephone companies. nor is there a government advisory council providing information highway policy recommendations and monitoring the progress of the various government agencies in implementing those recommendations.

Industry Canada, as expected, continues to be the most influential player in the information highway policy process. It has maintained control of the policy development agenda and has been focussing on implementing its six-part *Connecting Canadians* strategy[12] which is aimed solely at ensuring that the information highway is developed to meet the Department's own economic objectives. Even those components of the Connecting Canadians strategy which are aimed at providing universal access to the information highway have economic rather than social goals, as is illustrated by this excerpt relating to the Community Access Program[13] from a speech in early 1999 by the Minister of Industry:

> The Community Access Program links communities into a competitive global economy. When the product is knowledge-based, the format is digital; and when you have on-line access, the buyers and sellers of the world are only as far away as your keyboard, whether you're in Prince George or Paris, France. (Manley, 1999)

Indeed, Industry Canada's strong degree of influence is reflected by the policy recommendations it has chosen *not to implement*. For example, Industry Canada has not acted on two key policy recommendations made by IHAC after input by PIAC: the national access strategy and the advisory council on universal access issues.

Canadian Heritage, which appears now to be focussing more on economic aspects of culture on the information highway than on issues of sovereignty,[14] continues to have

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[12] The six parts of the Connecting Canadians initiative are: Canada On-Line, Smart Communities, Electronic Commerce, Canadian Content On-Line, Canadian Governments On-Line, and Connecting Canada to the World (Manley, 1999).

[13] The Community Access Program is part of the Canada On-Line component of the Connecting Canadians initiative.

[14] Audley's (1994) view that the perception of the public interest necessarily comes to reflect commodification of culture when the dominant view is economic, is supported by the data obtained from Canadian Heritage for this research. As was noted in chapter 6, Canadian Heritage has accepted Industry Canada's economic vision for the information highway, and as a Senior Policy Analyst pointed out, the Department views culture first as a consumer product and then as a cultural one.

only a weak degree of influence on the process to determine essential services.[15] The level of influence exerted by the Treasury Board Secretariat. however. has been growing stronger. The Treasury Board Secretariat has assumed the role of the coordinating department for *Service Canada*. a national citizen-centred service strategy "to provide Canadians with one-stop access to a range of government services in a fast. reliable. convenient and cost-effective manner" (Canada. Treasury Board Secretariat. 1999). A key aim of the program is to "define the suite of services (information and transactions) that citizens want to access through each Service Canada channel. and the best approach to service clustering" (Canada. Treasury Board Secretariat. 1999). By defining the suite of government services to which citizens will have access. and by eventually involving all government departments and provincial governments. the Treasury Board's influence is increasing in this policy process.

The degrees of influence of the two regulatory/advisory bodies in this policy process have moved in opposite directions. IHAC's degree of influence has been diminishing. As mentioned in chapter 6. IHAC's influence was to a large degree dependent on other actors implementing its recommendations. Since IHAC's demise in late 1997. those other actors no longer have a body to monitor progress on those recommendations. and. in the case of Industry Canada. it seems that when the IHAC recommendations were not in accord with that department's economic agenda. it has simply been ignoring them. The further removed we become from the period in which IHAC operated. the more likely its degree of influence will continue to decrease.

The CRTC's influence. on the other hand. has risen since the initial period of information highway policy development. Since mid-1996. the CRTC has been conducting proceedings and making decisions on convergence and competition which

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[15] The only major contribution from Canadian Heritage since mid-1996 was the launching in 1998 of the *Multimedia Fund*. a $30 million dollar program which was recommended by IHAC to support the development of new Canadian multimedia projects (Canada. Information Highway Advisory Council. 1997. p. 69).

have radically altered the regulation of telecommunications and broadcasting, and have paved the way for the introduction of new types of information highway services. Many of these decisions[16] have significance for the essential services issue. The new *Broadcasting Distribution Regulations*, for example, which came into effect on 1 January 1998, include a definition, based on priority carriage for Canadian content, for the *basic service* that distribution undertakings must provide to their customers (CRTC, 1997a). The most important CRTC decision with regard to the essential services issue, however, has been the one introduced at the outset of this chapter, announced on 19 October 1999 – the decision relating to services to high-cost serving areas.[17] In this decision, the CRTC clearly states what many participants in this research raised earlier as the main challenges involved in the problem of determining essential services for the Canadian information highway:

> The Commission's challenge is to establish a reasonable level of service and to determine how, in a competitive era, all Canadians may gain access to that service. To fulfil the requirements of the [Telecommunications] Act, the Commission must balance social policy objectives (for example, high quality, affordable service) with competitive ones (for example, minimizing subsidies). It must weigh the cost of any programs to improve service against the financial burden placed on those paying for these programs. This is especially important given the Commission's goal of ensuring affordable basic service. (CRTC, 1999b, paragraph 24)

In this decision, the CRTC states that basic telecommunications service is the level of service currently available to most Canadians (CRTC, 1999b, Summary). The definition of basic service includes single line, touch-tone service with local dial-up access to the

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[16] These CRTC decisions include, among others: the introduction of local competition in telephone service (CRTC, 1997f); the implementation of a price cap scheme in local telephone service (CRTC, 1997g); the introduction of competition between the telephone companies and cable companies in services to distribute broadcasting programs (CRTC, 1997d); the introduction of new broadcasting distribution regulations (CRTC, 1997e); and the decision not to regulate new multimedia on the Internet (CRTC, 1999c).

[17] High cost serving areas occur primarily in remote, rural regions and in the far north (CRTC, 1999b, paragraph 14). The CRTC decision announced on 19 October 1999 relates only to southern Canada. The CRTC recognized that the far north, which is served by Northwestel, has unique circumstances and a separate proceeding has been established to deal with those circumstances.

Internet, along with access to long distance service, operator services, enhanced calling features such as 911 (paragraph 24). This decision means that, for the first time, access to the Internet at local calling rates is considered by the CRTC to be a basic telecommunications service, that is, an essential service which must be made available to all Canadians at an affordable rate. The decision also notes that the definition of basic service "may change over time as service expectations evolve" due to rapidly changing technologies and the new services on offer (paragraph 25). The need for continual re-evaluation of the definition of basic service in both broadcasting and telecommunications suggests that the CRTC will continue to be an influential player on the essential services issue into the future.

The recent CRTC decisions have also reflected the influence of PIAC, Stentor and the CCTA, the three NGOs identified in this research as core organizations in the policy process to determine essential services. In fact, the most surprising findings in this research have been those relating to the success of PIAC with respect to the regulatory and advisory bodies. The recent decision on high-cost serving areas demonstrates that PIAC has remained as an influential participant in the policy process. Since mid-1996, PIAC has continued to provide legal representation for organizations such as the National Anti-Poverty Organization at CRTC proceedings. In these representations, PIAC regularly has been placing its position on the essential services issue into the policy debates and has been able to incorporate important aspects of *public interest* policy perspectives into CRTC decisions. In the recent CRTC decision on high-cost serving areas, PIAC was successful on a key element of its policy position – a definition which provides a baseline for the basic level of telecommunications services – for which PIAC has argued continuously over the years at CRTC hearings. The inclusion of access to the Internet at local calling rates as part of basic services, which is included in the CRTC decision, has also been a part of PIAC's position on essential services (see, for example, Reddick, 1998b). However, it is important to realize that, even though the recent CRTC decision is a major success for PIAC, several of PIAC's key policy ideas, which were included in IHAC's first and second phase recommendations, have not been acted upon by the

relevant government agencies. As in the early part of the policy process, PIAC continues to have a moderate level of influence on the outcome of the process to determine essential services for the Canadian information highway.

In the regulatory proceedings on competition and convergence held since mid-1996, the CRTC has been acting as a mediator between competing commercial interests, primarily those of the telephone companies represented by Stentor and those of the cable television companies represented by the CCTA. In the decisions from those proceedings, the CRTC has claimed to be ensuring fair and sustainable competition between the telephone and cable industries which was the basis of the government's 1996 Convergence Policy.[18] The result has been that aspects of both Stentor and the CCTA's positions have been blended into the overall decisions made by the CRTC. A clear example of this occurred on 1 May 1997 when the CRTC announced the local competition decision (Telecom Decision CRTC 97-8) which allowed for the immediate entry of new competitors (including cable companies) into the provision of local telephone service and, on the same day, announced that the telephone companies could begin making applications immediately to provide broadcasting distribution services starting on 1 January 1998 (Public Notice CRTC 1997-49). The attempt to implement fair and sustainable competition has meant that both Stentor and the CCTA have achieved moderate degrees of influence as neither has predominated in the CRTC's overall regulatory reform package.

The evidence from the policy outcomes since mid-1996 demonstrates that the arrangement of the relationships between the state agencies and organized interests has meant that the current policy network is much closer to the pressure pluralist style described by Coleman and Skogstad, primarily as the result of the move to fair and sustainable competition. The evidence demonstrates that the government agencies have been allowing the NGOs to act as *policy advocates* and not as *policy participants* as the

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[18] The Convergence Policy was announced in August 1996 by the ministers responsible for Industry Canada and Canadian Heritage (see Canada, 1996b).

framework for introducing convergence and competition is being implemented. The
evidence also demonstrates that the policy process has been progressing in relation to
some facets of the policy problem but not others. For example, the move to a competitive
framework is one facet that has moved rapidly forward. As another example, both the
CRTC Convergence Report and the first phase report from IHAC anticipated that services
to high-cost serving areas would be problematic in a market-driven environment. Both
reports recommended that steps should be taken to resolve the problem. From May 1998
until February 1999, the CRTC conducted a public proceeding to obtain input from
interested parties on this problem. That proceeding corresponded to the third stage of
Doern and Phidd's model, that is, the stage during which alternatives for resolving the
problem are sought and analyzed. In October 1999 (as discussed above), the CRTC
announced its decision on high-cost areas, which included a definition of basic
telecommunications services. That decision conforms to the fourth stage of the policy
process model, that is, the stage during which a policy is chosen and resources are
allocated. On the other hand, the resolution of what *content* on the information highway
should be considered essential does not appear to have progressed beyond stage 2. Some
might argue that the content facet of the essential services issue now requires re-
identification as a policy problem (stage 1) in order to place it back on the agenda for
discussion.

### 7.10 Have the Earlier Predictors of Influence Been Effective in Foreshadowing the Current State of Policy Development in Defining Essential Services?

As can be seen in Table 17 below, the major finding from the original pre-1996
time frame is still valid, that is, that Choice Status for all communication interactions,
appears to continue as the best predictor of influence in the current policy process on
determining essential services for the information highway.

This finding is not surprising because the selected best predictor encompasses two
important aspects of influence: recognition by others and communication. To be
recognized by many other organizations confirms that the given organization is the target

of information and is therefore likely to control and obtain access to valuable information (Knoke and Burt, 1983, p. 214). This recognition demonstrates high prestige for the organization receiving the recognition and deference from the organizations citing the given organization (Knoke and Burt, 1983). The second aspect of the selected best predictor is communication. Knoke (1990b) explains that "*influence* occurs when one actor intentionally transmits information to another that alters the latter's actions from what would have occurred without that information" (p. 3). Knoke emphasizes that influence "originates in communication structures that link a set of disparate social actors into a genuine community of political discourse" (p. 4). In the process investigated in this research, the participants have described their use of both formal and informal communication channels to convey and receive information about information highway policy ideas and, in particular, policy ideas relating to essential services for the Canadian information highway. Pross (1992) observes that "even affluent and established groups cannot make an impression on policy if they are denied access to the flow of information and if they are granted no opportunity to present their case" (pp. 266-267). In other words, it is through the act of communicating that influence occurs. Even though it is a relatively simple measure to apply, Choice Status when applied to all communication interactions is the best predictor of influence because it measures the degree to which an organization's communication is recognized by others.

Table 17    Comparison of Core Organizations' Rankings Across Influence Predictors and Observed Influence in Both Time Periods

| Organizations / Influence Measure | Non-Government Organizations | | | Government Agencies | | | |
|---|---|---|---|---|---|---|---|
| | Stentor | Canadian Cable Television Association | Public Interest Advocacy Centre | Industry Canada | Canadian Heritage | Information Highway Advisory Council | CRTC |
| Key Players (Chapter 4) | 2 | 3 | 5 | 1 | 3 | 7 | 5 |
| Degree of Centrality - Formal Communication | 3 | 6 | 3 | 5 | 7 | 1 | 2 |
| Degree of Centrality - Informal Communication | 2 | 5 | 3 | 1 | 4 | 6 | 7 |
| Degree of Centrality - All communication | 1 | 7 | 5 | 1 | 6 | 1 | 4 |
| Choice Status - Formal Communication | 3 | 5 | 5 | 4 | 5 | 1 | 2 |
| Choice Status - Informal Communication | 2 | 4 | 3 | 1 | 5 | 6 | 7 |
| Choice Status - All communication | 3 | 6 | 5 | 1 | 7 | 1 | 3 |
| Power - Formal Communication | 5 | 6 | 7 | 3 | 4 | 1 | 2 |
| Power - Informal Communication | 2 | 4 | 3 | 1 | 5 | 6 | 7 |
| Power - All communication | 2 | 5 | 7 | 1 | 4 | 3 | 6 |
| Structural characteristics | Strong | Strong | Weak | Strong | Moderate | Moderate | Strong |
| Observed Influence:   1994 - June 1996 | Strong | Moderate | Moderate | Strong | Weak | Moderate | Moderate |
| Observed Influence:   July 1996 - Nov. 1999 | Moderate | Moderate | Moderate | Strong | Weak | Weak | Strong |

The numbers provided above are based on the ranked order of the core organizations as key players (Figure 2) and on each of the prominence measures for the formal communication, informal communication and all communication interactions (Figure 3 to Figure 5 and Figure 7 to 12). The *Observed influence: 1994 - June 1996* is from chapter 6 (section 6.5).

## 7.11 Implications of the Research

This research has concentrated on understanding *the content* of the participating organizations' ideas on essential services, and *the process* of developing a public policy on essential services. To achieve this dual task, this research has had to travel beyond the boundaries of the discipline of library and information science to acquire theories and to apply methods from two other disciplines, in this case, political science and sociology. I have found that a combination of quantitative and qualitative approaches has provided a powerful package of tools for an exploratory project such as the one undertaken here. The quantitative approach in this research has used methods and software acquired from social network analysis which have proven highly successful for coming to an understanding of how the policy process worked. By applying those tools to the data of this project. I have found that among the measures tested, the Choice Status variable for communication interactions is the most reliable predictor of expected policy influence. An examination of the qualitative evidence has also been necessary to deepen the understanding of the issues and positions held by the core organizations on essential services, and to determine which organizations' ideas were the most influential on the outcomes. By examining the results from both approaches. it has been possible to determine how the interactions influence the outcomes of the process and to come to greater understanding of factors affecting an organization's influence on a particular policy issue.

One practical implication from this study is the indication that organizations will enhance their potential for success by starting from an informed position. that is, by understanding the contextual positions from which the decision-making organizations in the policy network approach a policy problem. Organizations which are interested in information highway policy issues need to understand that the government, led by Industry Canada, is basing its decisions for information highway policies and programs on economic and industrial considerations. Public interest groups attempting to influence the outcomes of the information highway policy process will improve their potential for success if they can express their views as facets of the economic concerns of importance

to the government – even if the primary concerns of the public interest group are social or cultural ones. As noted by Knoke (1990b), "influence is possible only if perceptions of situations can be framed in ways that are compelling to audiences" (p. 3). Regardless of the policy issue or the policy area, by creating a dialogue within the dominant ideology of the day, a public interest group will legitimate its policy positions – and increase the chances of their adoption. Similarly, an organization such as a public library or civic group wanting to improve its services to the community by obtaining resources through a government sponsored information highway program will legitimate its application and improve its likelihood of success by understanding the values of importance to the government and by framing its application in terms of those values.

It is also imperative for public interest groups to use their resources to maximize the communication of their policy ideas. As can be seen in the results achieved by PIAC. public interest groups can achieve positive outcomes on social issues and broad policy principles by applying their limited resources to the full extent possible in order to communicate frequently and effectively in the processes involved in developing public policies. It is also important for public interest groups to realize that they can have an impact even when raising a new issue in a public policy process. By raising a new issue. a public interest group can identify a new problem for the policy community to address – which is the first stage of any public policy process. By persuasive argumentation using the values of the policy community. the interest group may be able to place the problem on the decision-makers' agenda for further definition. which is another step forward in the policy development process.

## 7.12    Future Research

Many possibilities for future research arise out of this study. As was discovered in this research, some organizations within this policy network lost influence over time, whereas others gained influence. This research project could be extended to analyze the interactions and outcomes that occur during distinct periods of time to determine how and why the relationships between organizations change and what impact these changes have

on the longer term outcomes of policy development. Research that explains the dynamics of this policy network over time will add extensively to our understanding of information highway policy development, especially in relation to socio-economic issues such as essential services on the information highway. A project such as this would also expand the base of knowledge on policy development in general and contribute to theory-building in that area.

The expanded use of the blend of quantitative methods developed for social network analysis and the qualitative methods of content analysis is another obvious choice for additional research in information policy development. For example, a project that used quantitative network analytic tools and qualitative content analysis methods to compare the relationships and policy positions of different network actors across a selection of information highway issues would help to identify and understand the range and success of strategies employed by different actors to deal with the various types of policy concerns. Again, such a study would extend our fundamental knowledge of information highway policy issues, the tools of policy analysis, and the dynamics of public policy development.

A third area of future research would be to undertake a comparative study of information highway policy development in countries such as Canada and New Zealand which have many similar characteristics but many different ones as well. New Zealand and Canada, for example, have similar parliamentary styles of government, but New Zealand does not have a body such as the CRTC to regulate the telecommunications and broadcasting industries. In New Zealand public interest groups do not have access to the same types of formal communication channels which are available in Canada and which in Canada give voice to groups which identify social issues and present policy positions related to the information highway. Therefore, it would be informative to compare and contrast the information highway policy communities, policy processes, and policy outcomes and impacts in New Zealand and Canada to investigate how the two different styles of policy development affect the whole policy process. A study such as this would

identify the differences between the countries in who participates and who wields power. and it would also demonstrate how formal processes. or lack thereof, affect each nation's public policies on socio-economic issues such as universal access and essential services.

Research in other areas of library and information science could also benefit by employing social network analytic techniques. Research areas such as bibliometrics and webometrics. in which links between different published works. people or institutions are important for explaining outcomes such as the adoption of ideas or the impact of an area of research. could make use of a range of the quantitative tools developed for social network analysis. For example. prestige measures such as Choice Status and Power. and software created to apply those measures. could be employed to quantify the relative influence of certain published works. individual researchers. specific research institutions or even web sites within or across different research areas. The concept of structural equivalence and tools for measuring and mapping the structural equivalence of network actors could be used to map the similarities and differences in the adoption and diffusion of ideas by researchers to determine the leaders and followers in new research areas.

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**APPENDICES**

## APPENDIX A

## INFORMATION ABOUT THE
## INFORMATION HIGHWAY ADVISORY COUNCIL

The information provided below was obtained from *Connection Community Content: The Challenge of the Information Highway* which was the final report of Phase I of the Information Highway Advisory Council, published in September 1995.

### Policy Objectives
The work of the Advisory Council was guided by three policy objectives that were central to the government's vision for the information highway.

- Create jobs through innovation and investment in Canada
- Reinforce Canadian sovereignty and cultural identity
- Ensure universal access at reasonable cost.

### Operating Principles
The Council was also given four operating principles to guide the national strategy:

1. an interconnected and interoperable network of *networks*
2. collaborative public and private sector development
3. competition in facilities, products and services
4. privacy protection and network security.

The Advisory Council formally added a fifth operating principle in November 1994:

5. lifelong learning as a key design element of Canada's Information Highway.

### Phase I Policy Issues
1. How fast should the advanced network infrastructure be built? How will network improvements be financed?
2. What is the proper balance between competition and regulation?
3. Should requirements for Canadian ownership and control of communications networks be reviewed?
4. How quickly can Canadian industries move toward universal standards and how should these standards be determined?
5. How can the federal government coordinate its activities with other governments?
6. How should copyright and intellectual property issues be addressed?

7.  What measures are needed to support Canadian cultural and other content-based products and services?

8.  What controls, if any, should be placed on the information that is put on the network?

9.  How can the Information Highway be used to improve government services to the public?

10. How can personal privacy and security of information be protected?

11. How can we ensure that Canadian information industries take full advantage of the R&D and technological development opportunities presented by the Information Highway?

12. How can the Information Highway best be used to improve the growth and competitiveness of all Canadian businesses, especially small and medium enterprises throughout Canada?

13. How can Canadians be assured of universal access to essential services at reasonable cost?

14. What consumer awareness and learning opportunities should be provided to enable Canadians to be effective users of the Information Highway?

15. What opportunities does the Information Highway present to improve government operations?

## Phase I Working Groups

The issues assigned to each working group follow the group's name. Note that some issues were assigned to more than one working group.

- Competitiveness and Job Creation: Issues 1, 2, 5, 12 and 15.
- Canadian Culture and Content: Issues 2, 3, 6, 7, 8, 12, and 13.
- Access and Social Impacts: Issues 8, 9, 10, 13 and 14.
- Learning and Training: Issue 14.
- Research and Development, Applications and Market Development: Issues 4, 11 and 12.

## Phase I Task Forces

- Competition and Regulation
- Growth, Employment and Competitiveness
- Copyright Subcommittee

## APPENDIX B
## TABLE OF INTERVIEWEES

| Interview number & date | Name of Interviewee | Organization Represented | Position Title |
|---|---|---|---|
| 1 - 12/4/1995 | Andrew Reddick | Public Interest Advocacy Centre | Director of Research |
| 2 - 12/4/1995 | Anne Pigeon | Industry Canada, Office of Consumer Affairs | Senior Policy Analyst |
| 3 - 12/5/1995 | Larry Shaw | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Associate Director General, Telecom Policy Branch |
| 4 - 12/5/1995 | Jacques Drouin | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Senior Policy Analyst, Telecom Policy Branch |
| 5 - 12/6/1995 | Kathy Fildes | Canadian Heritage, Cultural Development and Heritage Sector | Senior Policy Analyst, Distribution Systems, Broadcasting Policy Branch |
| 6 - 12/6/1995 | Malcolm Andrew (with Daphne Fry) | CRTC, Telecommunications Directorate | Director General, Competition, Social and Convergence Policy |
| 7 - 12/7/1995 | Karen Ellis | Industry Canada, Office of Consumer Affairs | Director of Consumer Information and Coordination |
| 8 - 12/7/1995 | Greg van Koughnett | Stentor Telecom Policy, Inc. | Vice-President, Legal and Social Policy |
| 9 - 12/22/1995 | Stan Skrzeszewski | Coalition for Public Information | Chief Executive Officer |
| 10 - 1/25/1996 | Elizabeth Hoffman | Coalition for Public Information | Chair, Steering Committee |
| 11 - 1/25/1996 | Graham Stoodley | Blind Community | |
| 12 - 1/29/1996 | Rosalie Daly Todd | Consumers' Association of Canada | Executive Director |
| 13 - 1/29/1996 | Gwynneth Evans | National Library of Canada | Director General, National and International Programs |
| 14 - 1/29/1996 | Joanne Kennedy | Canadian Heritage, Cultural Development and Heritage Sector | Senior Policy Analyst, Distribution Systems, Broadcasting Policy Branch |
| 15 - 1/30/1996 | Prabir Neogi | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Special Advisor on Information Technology Policy, Communications Development and Planning Branch |
| 16 - 1/30/1996 | Doug Hull | Industry Canada, Industry & Science Policy | Director General, Science Promotion and Academic Affairs |

| Interview number & date | Name of Interviewee | Organization Represented | Position Title |
|---|---|---|---|
| 17 - 1/31/1996 | Suzanne Blackwell | CRTC, Telecommunications Directorate | Chief of Regulatory Policy, Competition, Convergence and Social Policy |
| 18 - 1/31/1996 | Gerald Bersin | CRTC, Broadcasting Sector | Manager, Broadcast Technology |
| 19 - 1/31/1996 | Peter Fleming | CRTC, Broadcasting Sector | Director General, Broadcast Planning |
| 20 - 2/1/1996 | Diane Rheaume | CRTC, Broadcasting Sector | Director General, Broadcast Analysis |
| 21 - 2/1/1996 | Brian Milton | Stentor Telecom Policy, Inc. | Executive Director, Research |
| 22 - 2/1/1996 | Ian Scott | Canadian Cable Television Association | Vice-President, Telecommunications |
| 23 - 2/2/1996 | Lynne Toupin | National Anti-Poverty Organization | Executive Director |
| 24 - 2/2/1996 | Phillipa Lawson | PIAC | Legal Counsel |
| 25 - 2/2/1996 | Garth Graham | Telecommunities Canada | Member, Board of Directors |
| 26 - 2/5/1996 | Karen Adams | Canadian Library Association | Executive Director |
| 27 - 2/5/1996 | Robert Scarth | Canadian Association of Broadcasters | Vice-President, Television |
| 28 - 2/5/1996 | Richard Simpson | Information Highway Advisory Council Secretariat | Executive Director |
| 29 - 2/6/1996 | Kathy Fry | Northern & Remote Communities | |
| 30 - 2/6/1996 | Arthur Cordell | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Special Advisor on Information Technology Policy, Communications Development and Planning Branch |
| 31 - 2/7/1996 | Mary Frances Laughton | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Chief of Social Informatics Applications, Communications Development and Planning |
| 32 - 2/13/1996 | Don Braden | Competitive Telecommunications Association | Executive Director |
| 33 - 2/13/1996 | Bob Crow (with William Munson and Gaylen Duncan) | Information Technology Association of Canada | Vice-President of Policy |
| 34 - 2/27/1996 | Susan Baldwin | Canadian Heritage, Cultural Development and Heritage Sector | Director, Broadcasting Policy Branch |
| 35 - 3/1/1996 | Andrew Bjerring | CANARIE | President and Chief Executive Officer |
| 36 - 3/8/1996 | David Keeble | Canadian Broadcasting Corporation | Senior Director, Strategic Planning and Regulatory Affairs |
| 37 - 3/8/1996 | Michael McKewen | Canadian Broadcasting Corporation | Senior Vice-President, Media |
| 38 - 3/11/1996 | Peter Ferguson | Information Highway Advisory Council Secretariat | Director of Council Operations |

| Interview number & date | Name of Interviewee | Organization Represented | Position Title |
|---|---|---|---|
| 39 - 3/11/1996 | Tony Chu | Treasury Board Secretariat, Office of Information Management, Systems and Technology | Team Leader, Blueprint for Renewing Government Services |
| 40 - 3/11/1996 | Peter Sagar | Industry Canada, Entrepreneurship and Small Business | Director General |
| 41 - 3/11/1996 | Denis Gratton | Canadian Heritage, Cultural Development and Heritage Sector | Senior Policy Advisor, Distribution Systems and New Media, Broadcasting Policy Branch |
| 42 - 3/12/1996 | Gay Richardson (with Lisa Dorman) | Human Resources Development Canada, Human Resources Investment Branch | Director, Learning, Employment and Labour Policy |
| 43 - 3/12/1996 | Susan Katz | Canadian Heritage, Cultural Development and Heritage Sector | Acting Director, Cultural Industries Branch |
| 44 - 3/12/1996 | Charles Gruchy | Canadian Heritage, Cultural Development and Heritage Sector | Director General, Heritage Branch |
| 45 - 3/13/1996 | Andrew Sinan | Industry Canada, Spectrum, Information Technologies and Telecommunications Sector | Director, Communications Development and Planning Branch |
| 46 - 4/2/1996 | Marie Vallee | Fédération nationale des associations de consommateurs du Québec | Executive Director |
| 47 - 4/3/1996 | Marita Moll | Public Information Highway Advisory Council | Co-manager of email discussion list. |

# APPENDIX C
## LIST OF CONTACTS FOR FIRST ROUND INTERVIEWS

I.      **Government Agencies**

1.      **Industry Canada**

235 Queen St.
Ottawa. ON
K1A 0H5


Spectrum. Information Technologies and Telecommunications Sector

**Radio and Broadcasting Regulations**
Jan Skora. Assistant Deputy Director          (613) 991-0180


        Regulatory Policy and Planning
        Jan Skora. Director          (613) 991-0180
        F. Letarte. Secretary          (613) 990-4817


**Telecommunications Policy**

Michael Helm. Director General          (613) 998-4242


        Industry Structure and Services
        Larry Shaw. Acting Director          (613) 998-4298


**Secretariat for the Advisory Council on the Information Highway**
Peter Leibel. Executive Director          (613) 993-3085
Parke Davis. Director General          (633) 990-4262


2.      **Department of Canadian Heritage**

Ed. Jules Lege
Terrasses de la Chaudière,
15. rue Eddy
Hull. PQ
K1A 0M5
Fax (819) 994-5987


**Cultural Development and Heritage Sector**
365 Laurier Ave.
Ottawa. ON
K1A 0M5

Telephone: (613) 993-4393
Fax (613) 957-3557
Paul Racine. Assistant Deputy Minister

Cultural Industries Branch
Adam K. Ostry. Director                              (613) 990-4874

Broadcasting Policy Branch
Susan Baldwin. Director General of Broadcasting

3.      CRTC

Physical Address:
Terrasses de la Chaudière
1. Prom. du Portage.
Hull. PQ

Mailing Address:
Ottawa. ON
K1A 0N2

## Television Programming
Peter Fleming. Director General                      (819) 997-3643

> Policy
> Mary Wilson. Director

## Radio Programming
Diane Rheaume. Director General                      (819) 997-5225

> Policy
> Sjef Frenken                                       (819) 997-4400

## Competition. Social and Convergence Policy
Michael Hennessy, Director General                   (819) 997-4581

> Regulatory Policy
> Suzanne Blackwell. Chief                           (819) 994-6131

> Regulatory Research and Planning
> Ian Scott. Chief                                   (819) 997-4677

## Cable Distribution and Broadcast Technology Directorate
Wayne Charman, Acting Director General       (819) 997-5369

•• **Non-Government Organizations**

• **Public Interest Advocacy Centre**

1 Rue Nicholas St.
Suite 1204
Ottawa. Ontario
K1N 7B7

Andrew Reddick          Tel:    (613) 562-4002      Fax:    (613) 562-0007
Researcher

•• **Coalition for Public Information**

Box 726 Adelaide St. PO
Toronto. Ontario
M5C 2J8

Stan Skzeszewski        Tel:    (519) 471-9445
CEO

• **Stentor Telecom Policy, Inc.**

World Exchange Plaza
Suite 1800
45 O'Connor St.
Ottawa. Ontario
K1P 1A4

Greg van Koughnett       Tel:    (613) 567-7000      Fax:    (613) 567-7001
VP Legal and Social Policy

• **Canadian Cable Television Association**

Suite 1010
360 rue Albert St.
Ottawa. Ontario
K1R 7X7

Richard Stursberg        Tel:    (613) 232-2631      Fax:    (613) 232-2137
CEO

## APPENDIX D
## RESEARCH PROTOCOL

### Check-List of Resources for Interviews

- Tape recorder.
- Tapes - including extra tapes in case of problems.
- Extra batteries for the tape recorder.
- Pens.
- Writing pad.
- Business card.
- Copy of signed consent form from interviewee.
- Copies of Letter of Information. Interview Consent Form. Main Interview Topics - - to be provided to interviewee if I have not received signed consent form from interviewee.

[Sample day schedule]

### Interviewees scheduled for: 1 February 1996 - Ottawa/Hull

| Time | Name - Organization & Position - Address & Phone |
|------|--------------------------------------------------|
| 10:00 am | Diane Rheaume – CRTC. Broadcasting Sector. Director General. Broadcast Analysis |

- Terrasses de la Chaudière. 1 Promenade du Portage. Hull Quebec
- Telephone: (819) 997-5225

2:00 pm    Brian Milton – Stentor Telecom Policy, Executive Director. Research
- World Exchange Centre. 45 O'Connor St.. Ottawa
- Telephone: (613) 567-7000

4:00 pm    Ian Scott – Canadian Cable Television Association. Vice President Telecommunications
- c)    Suite 1010. 360 Albert St.. Ottawa
- d)    Telephone: (613) 232-2631

### Personal Contact Details
Contact phone number in Ottawa (with answering machine) 613- 247-1164
London contact details:
- Home phone - (519) 433-5931
- Work phone - (519) 661-3542
- Work fax - (519) 661-3506
- Email - dorner@julian.uwo.ca

## Protocol Questions

Problem definition is considered the most crucial stage in the policy process since it sets the stage for decision-making by establishing certain activities as solutions (Dery, 1984). An agency's formulation of a problem states the values the agency wishes to serve by means of a solution. (Dery, 1984). This research seeks to understand the influences on the key policy players' formulation of the problem of determining essential services on the Canadian information highway.

**Areas or themes about which to gather evidence:** Individual Interviewees. Organizations. the Policy Process. Problem Definition. Alternatives. Relationships. Other sources of data

Sources of data – the interviewees first-hand knowledge: documents such as reports. submissions. records of proceedings and minutes of meetings related to the issues and the process: organization charts.

## Sample Questions

### Individual Interviewee
1. What is the interviewee's position within the organization?
2. His/her responsibilities?
3. Has interviewee been on any advisory committees. or panels related to information highway policy development?
4. How does interviewee characterize his/her role in information highway policy development?

### Organizational
1. Which organizations were the most important players?
2. What are the roles and responsibilities of the main organizations and key individuals with regard to the definition of essential services?
3. What have they done to date?
4. Who do they represent? What % of the population, etc.?
5. How are they funded?
6. What are the structural characteristics of the organizations - eg size of staff. specialized knowledge of staff. backgrounds of staff? How does the organizations make policy decisions?
7. What are the individuals perceptions of the roles/responsibilities of other organizations (including the CRTC) in this process?

## The Policy Process:

1. What are the perceptions of the key actors of the process through which essential services are being determined?
2. Where do the actors think they are in the process?
3. Given the six stages identified by Doern and Phidd, at which stage do the actors think they are at?

## Problem definition

1. What are the most important issues (probes: economic, social, cultural)?
2. What are the principle values here (probes: equity, commerce, national unity)?
3. Whose interests and what are at stake?
4. Are these the values supported?
5. What factors impinge on the definition?

## Alternatives

1. What alternatives are there to solve the issue?
2. Which alternative is
   a. the best – the most promising?
   b. the most likely to succeed?
3. Who proposed this alternative?
4. Why is this one the most promising?

## Relationships

1. Who are interacting with whom regarding the definition of essential services?
2. What was the nature of their interactions: eg. how often, why, any documentation?
3. Did the ideas of the interacting organizations about the problem of essential services differ? How so?
4. Did the ideas of one organization affect those of the other?

## Documentation - i.e. , other sources of data to ask for

1. Names of other key actors
2. Organizational charts
3. Annual reports

## APPENDIX E

## DOCUMENTS RELATING TO ETHICAL CONCERNS

### Letter to Chair of Research Committee, Graduate School of Library and Information Science

16 November, 1995

Dr. Jean Tague-Sutcliffe
Chair, Research Committee
Graduate School of Library and Information Science
University of Western Ontario

Dear Jean:

I am responding to the concerns raised about my application for ethics approval for my doctoral research. I hope that my response will be given speedy attention because I hope to be in the field in early December.

After consulting with my thesis advisors on this, I feel I can satisfy the Research Committee's concerns and clarify any confusions by providing some additional information and by modifying my documents being sent to the subjects.

I also wish to bring to your attention that as a result of several discussions with faculty members, I am modifying the content of the Letter Requesting Interview and Information Sheet and merging the two documents into one – an Information Letter. After these discussions, I became aware that I might be providing too much information in the Letter and Information Sheet and, as a result, I might contaminate the interviews. Therefore, the information related to the theoretical aspects of the research has been eliminated. The Letter Requesting Interview and the Information Sheet have been combined within the modified letter to reduce the confusion for them. According to Dr. Kinnucan, who is a member of the UWO Review Board for Non-Medical Research involving Human Subjects, one Information Letter is the standard accepted by that Board.

Also note that I now wish to tape record the interviews. This information has been added to the Information Letter and Consent Form. I received advice to record the interviews from several sources, primarily to allow me to attend more fully to the process of interviewing rather than splitting my attention between conducting the interviews and taking notes. However, interviewees will have the option of requesting that the interview not be recorded on tape.

I will address each of the Committee's concerns, in the order in which they appeared in your email to me.

4. Confidentiality/anonymity **will not** be offered to respondents. My faculty advisors and I believe that as long as this fact is made clear to potential interviewees before the interview and they agree to be interviewed with this understanding, then no ethical problem exists. The objectives of this research are to understand the dimensions of the issue of determining essential services on the Canadian information highway, to identify and explain the policy positions held by the key actors, and to examine the influence of the network of relationships among the key actors which has formed around this policy issue. As a result, anonymity cannot be offered to anyone who agrees to be interviewed.

Raymond L. Gordon (*Interviewing: Strategies, Techniques and Tactics.* 4th ed. Chicago: Dorsey Press, 1987) states that

> There are circumstances where the respondent would prefer to remain anonymous but should not be granted the wish by the interviewer. This would be the case in studying a controversial issue in a community attempting to predict who will take what public stand. (p. 256)

In this research, individuals will be interviewed because they are reporting the positions of organizations which are taking public stands on the issue of essential services. In some instances, the positions of these organizations have already been made public as submissions to various policy processes (e.g. those undertaken by the CRTC, and by the Information Highway Advisory Council).

Dr. Donald Abelson, who is my advisor from the Political Science Department, is conducting research on the role and influence of policy experts in American presidential campaigns. He told me that if someone requested anonymity for his research, he would not agree to interview this person. Dr. Abelson told me that my proposed research, like his research, requires public access to the points of view of individuals, who are clearly aware of their rights to say or not to say certain things. If they do not want to make known their views on some issues, they can say no.

Dr. Margaret Ann Wilkinson told me that the individuals who are approached to be interviewed in my research need to be told very clearly that anonymity is not being promised because of the nature of the research. I agree that I could have made this clearer in my original application and I have made appropriate changes.

The advice provided to me by Drs. Abelson and Wilkinson agrees with what Gordon (1987) says. He said that

> The granting or withholding of anonymity is not decided upon the basis of tradition or the respondent's desires, but upon the purpose of the interview. One ethical point must

be observed in any case. If the respondent is promised
anonymity, that promise should be scrupulously kept; if the
respondent is not to be given anonymity, this should be clear
to him or her before the interview begins. (p. 257)

The revised Information Letter clearly states that anonymity will not be given.

Also note that the Information Letter and Consent Form will now inform the
respondents that I plan to record the interview on audio tape, but they may
request, if they desire, that it not be taped.

5.      The Follow-up Letter in my application was copied, almost word for word, from
        one used by Dr. Abelson in his most recent research. His application to the
        University's Ethics Review Board was approved and his letter formed part of the
        application. The purpose of his letter was to facilitate use of the material by other
        researcher and for other reasons than those in the original research project.
        However, I now realize that because I am undertaking doctoral research. Dr.
        Abelson's approach is not fully appropriate for my research.

        In the Information Letter I have promised the participants that I will keep the
        interview material safely in a locked file cabinet and /or in a password protected
        computer file at my home office during this research project. Consent for use of
        this material in the thesis research will have already been received prior to the
        Follow-up Letter. However, I have modified in the Information Letter and the
        Follow-up Letter to clarify to participants that when the project is completed there
        will be options available to them for the storage and use of the interview material.
        The initial set of options in the Follow-up Letter, which related to the use of the
        interview material by others, has been removed.

6.      Regarding the "List of Key Questions" - in the proposed research I will be
        following a protocol as described by Yin (*Case Study Research: Design and
        Methods*. Rev. ed. Newbury Park: Sage Publications, 1989), and conducting semi-
        structured or focussed interviews. As Yin stated, the focussed interview may
        "remain open-ended and assume a conversational nature, but the interviewer is
        more likely to be following a certain set of questions derived from the case study
        protocol" (p. 89). However, since the research is exploratory, there has to be a
        degree of flexibility in the gathering and analysis of data.

        Because the research is exploratory, I cannot say for certain what other questions I
        will need to ask. My protocol, however will keep my questioning focussed to the
        following ideas.
        1.      understanding the process of determining essential services for the
                Canadian information highway;
        2.      identifying the key actors, both individuals and organizations, and
                determining their roles in the process;

3.    identifying factors impinging on the definition of essential services;

4.    establishing the arguments or positions being held by the major actors on the problem, and the possible alternatives they see for resolving the issues;

5.    and, exploring the network of relationship among these actors as an influence on the outcomes of the policy process.

As you know, Dr. Kinnucan sits on the UWO Review Board for Non-Medical Research Involving Human Subjects. According to Dr. Kinnucan, that Board routinely approves protocols with open-ended interviews in which the researcher is unable to provide the exact wording of every question to be asked.

7.    The name of my advisor has now been added to the information sheet.

The modified documents are attached. As I mentioned at the outset, I hope you can give my response speedy consideration because I hope to be in the field in early December.

Sincerely


Daniel G. Dorner

PACKAGE OF INFORMATION TO INTERVIEWEES

Sample Copy of Letter of Information

# LETTER OF INFORMATION

### Defining Essential Services
### On the Canadian Information Highway

Date

Dear [Name of interviewee].

I am writing this letter further to our telephone conversation on [date]. Thank you for agreeing to participate in the research project I am conducting for my doctoral thesis at the University of Western Ontario's Graduate School of Library and Information Science. As we agreed on the phone. I will come to your office to interview you on [date and time].

The title of my thesis is *Defining Essential Services on the Canadian Information Highway*. The purposes of this letter are to inform you about the project and to obtain formal consent to interview you as one of the key actors involved in the process of determining essential services on the Canadian information highway.

My research is concerned with understanding the principal factors which are influencing the outcome of the process through which essential services on the Canadian information highway are being determined. It will focus on the key actors and the core organizations involved in developing public policy on this issue.

During a "conversational" interview lasting approximately 30 minutes. I would like to ask you about your insights regarding the process and the problem of defining essential services on the Canadian information highway, your role and the role of others in this process, your perceptions on the issues and the possible alternatives, and your recent interactions with others on this subject. I will also be asking you for any written reports. correspondence. minutes of meetings. etc.. that would provide me with useful information on this issue. To provide you with a clear picture of what I wish to discuss with you. I have appended to this letter a list of the main interview topics.

../2

Your interview will be one of 30 to 40 interviews I am conducting. These interviews will serve as a primary source of data for this research. Statements made by you in the interview may be used and attributed to you in my thesis. If you cannot agree to speak publicly on the subjects of this research, you may not want to agree to be interviewed. However, if you do agree to be interviewed, you may refuse to answer any questions and you may request to end the interview at any time.

With your permission I would like to make an audio tape of the interview session to be used to verify that my written notes are correct. You may request that I not use the tape recorder at all during the interview or that I turn it off at any point. The notes and audio tapes recorded during your interview, and any records made from them, will be kept safely in a locked file cabinet and/or in a password protected computer file at my home office.

Enclosed with this letter you will find a Consent Form to verify that you have been informed about the project and that you agree to participate in the interview. Please read the Consent Form carefully, sign it and return it to me in the stamped envelope I have provided with my return address on it.

If you are interested in learning more about the study, or if you would like to have a report on the results, you are welcome to contact me at the Graduate School of Library and Information Science: telephone: (519) 661-2111 ext. 8482; fax: (519) 661-3506; or email: <dorner@julian.uwo.ca>. The faculty advisor for this project is Dr. Mark Kinnucan, who can be contacted at the same address or fax number as above, or by telephone: (519) 661-2111 ext. 8513; or email: <kinnucan@julian.uwo.ca>.


Sincerely,



Daniel G. Dorner

<u>Sample Copy of Interview Consent Form</u>

# DEFINING ESSENTIAL SERVICES
# ON THE CANADIAN INFORMATION HIGHWAY

## Interview Consent Form

Participation in the study involves an interview of approximately 30 minutes in which I will be asked about my perceptions and ideas regarding the process and the problem of defining essential services on the Canadian information highway. I will also be asked about the interactions I have had with others regarding this issue.

At any time during the interview I may refuse to answer a question or I may choose to withdraw from the study.

It is planned that the interview will be recorded on audio tape. However. I may request that the tape recorder not be used. or that it be turned off at any point in the interview.

I. _____. have read the letter of information. have had my questions answered to my satisfaction. and agree to participate in the study.


_____

(Signature)


Date: _____

Sample Copy of List of Main Interview Topics

# DEFINING ESSENTIAL SERVICES
# ON THE CANADIAN INFORMATION HIGHWAY

## Main Interview Topics

1. **The Process Through Which Essential Services are being defined**
   * your perceptions about what the process is. who the key players are. and how far the process has progressed. i.e. the stage it is currently at
   * your organization's role in the process
   * your role
   * the roles of government departments and non-government organizations

2. **Perspectives on Defining Essential Services**
   * the most important issues to be addressed
   * the major stakeholders
   * the chief external factors
   * the principal arguments/positions
   * alternatives/solutions

3. **Interactions**
   * who you have been working/interacting with on this
   * the nature of the interactions
   * other key actors whom I should interview

4. **Documentation**
   * reports, submissions. letters. etc.. which would contain information relevant to the definition of essential services
   * documents from the interactions you have had with others on this subject

APPENDIX F

SAMPLE MIND MAP OF ACCESS ISSUES ANALYSIS

**To Which networks**

Telephone

Broadcasting
- Over air
- Cable

Converged

**Citizens**

Participation in democratic society

Community Access

Community Networks

**Consumers**

- Affordability
- Geography
- Disability
- Literacy

**Access Issues**
Ver 6    10/19/99

**Service suppliers**

**Perception of Networks**

As Public Utilities

As Markets

**To What content**

Base level to participate (Reddick)

Commercial content (Let markets decide)

Public spaces - comm nets

Government services

# APPENDIX G
# INTERACTION DATA

## Organizations Listed in Tables of Interaction Links

| ID Number & Abbreviation | Full name of Organization |
| --- | --- |
| 1. CAC | Consumers' Association of Canada |
| 2. CLA | Canadian Library Association |
| 3. CPI | Canada's Coalition for Public Information |
| 4. FNACQ | Fédération nationale des associations de consommateurs du Québec |
| 5. NAPO | National Anti-Poverty Organization |
| 6. PIAC | Public Interest Advocacy Centre |
| 7. TCC | Telecommunities Canada |
| 8. CAB | Canadian Association of Broadcasters |
| 9. CCTA | Canadian Cable Television Association |
| 10. CTA | Competitive Telecommunications Association |
| 11. ITAC | Information Technology Association of Canada |
| 12. Stentor | Stentor Telecom Policy |
| 13. CANARIE | Canadian Network for Research. Industry and Education |
| 14. CBC | Canadian Broadcasting Corporation |
| 15. CRTC | Canadian Radio-television and Telecommunications Commission |
| 16. Heritage | Canadian Heritage |
| 17. HRDC | Human Resources Development Canada |
| 18. Industry | Industry Canada |
| 19. NLC | National Library of Canada |
| 20. Treasury | Treasury Board |
| 21. IHAC | Information Highway Advisory Council |

**Table G1   Asymmetric Organizational Links from Formal Communication Interactions**

| Citing Organizations | Cited Organizations | | | | | | | | | | | | | | | | | | | | | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | |
| 1. CAC | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 6 |
| 2. CLA | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| 3. CPI | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 4. FNACQ | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| 5. NAPO | 1 | 0 | 0 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 6. PIAC | 1 | 0 | 0 | 1 | 1 | | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 10 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 8 |
| 8. CAB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 5 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 4 |
| 13. CANARIE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 15. CRTC | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | | 1 | 0 | 1 | 0 | 0 | 1 | 12 |
| 16. Heritage | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | 1 | 1 | 1 | 0 | 1 | 6 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | 1 | 1 | 1 | 1 | 5 |
| 18. Industry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | 1 | 1 | 1 | 6 |
| 19. NLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | 1 | 1 | 4 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 | 1 |
| 21. IHAC | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | | 13 |
| Number of links cited to | 4 | 1 | 3 | 3 | 2 | 9 | 3 | 3 | 9 | 0 | 0 | 12 | 1 | 0 | 16 | 9 | 3 | 1 | 3 | 4 | 18 | 114 |

When organization i cited a formal communication interaction with organization j, a "1" was entered in the cell for row i, column j. When no formal communication interactions took place between organizations i and j, a "0" was entered in the corresponding cell.

**Table G2    Asymmetric Organizational Links from Informal Communication Interactions**

| Citing Organizations | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. CAC | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 |
| 2. CLA | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 3. CPI | 0 | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 4. FNACQ | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 5. NAPO | 1 | 0 | 1 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 11 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 8. CAB | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 6 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 7 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 4 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 15. CRTC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | 1 | 0 | 1 | 0 | 0 | 1 | 4 |
| 16. Heritage | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | | 0 | 1 | 1 | 0 | 1 | 10 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | 1 |
| 18. Industry | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | 1 | 0 | 1 | 9 |
| 19. NLC | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | | 0 | 0 | 7 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 |
| 21. IHAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 2 |
| Number of links cited to | 6 | 4 | 6 | 3 | 4 | 12 | 4 | 2 | 10 | 1 | 3 | 14 | 3 | 0 | 3 | 8 | 2 | 17 | 2 | 1 | 5 | 110 |

When organization i cited an informal communication interaction with organization j, a "1" was entered in the cell for row i, column j. When no informal communication interactions took place between organizations i and j, a "0" was entered in the corresponding cell.

**Table G3**    **Asymmetric Organizational Links from All Communication Interactions**

| Citing Organizations | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. CAC | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 7 |
| 2. CLA | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 9 |
| 3. CPI | 0 | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 8 |
| 4. FNACQ | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 5. NAPO | 1 | 0 | 1 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 7 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 13 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 9 |
| 8. CAB | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 8 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 6 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 9 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 5 | |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| 15. CRTC | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | | 1 | 0 | 1 | 0 | 0 | 1 | 12 |
| 16. Heritage | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | | 1 | 1 | 1 | 0 | 1 | 12 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | 1 | 1 | 1 | 1 | 5 |
| 18. Industry | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | | 1 | 1 | 1 | 13 |
| 19. NLC | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | | 1 | 1 | 9 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | | 1 | 2 |
| 21. IHAC | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | | | 13 |
| Links cited to | 8 | 5 | 8 | 4 | 5 | 14 | 6 | 4 | 13 | 1 | 6 | 3 | 1 | 3 | 0 | 16 | 12 | 19 | 5 | 3 | 19 | 169 |

When organization i cited a formal or informal communication interaction with organization j, a "1" was entered in the cell for row i, column j. When no formal or informal communication interactions took place between organizations i and j, a "0" was entered in the corresponding cell.

## Table G4 Asymmetric Organizational Links from Resource Exchange Interactions

| Citing Organizations | \ Cited Organizations | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
| 1. CAC | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 6 |
| 2. CLA | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 3. CPI | 0 | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 7 |
| 4. FNACQ | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 5. NAPO | 1 | 0 | 0 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 8 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 |
| 8. CAB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 15. CRTC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 16. Heritage | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | 2 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 1 |
| 18. Industry | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 5 |
| 19. NLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| 21. IHAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Links cited to | 3 | 3 | 4 | 3 | 2 | 9 | 3 | 0 | 1 | 1 | 0 | 2 | 2 | 0 | 3 | 1 | 4 | 6 | 0 | 0 | 11 | 58 |

When organization i cited a resource exchange interaction with organization j, a "1" was entered in the cell for row i, column j. When no resource exchange interactions took place between organizations i and j, a "0" was entered in the corresponding cell.

### Table G5    Symmetrized Organizational Links from Formal Communication Interactions

| Citing Organizations | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 14. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. CAC | | | | | | | | | | | | | | | | | | | | | | 0 |
| 2. CLA | 0 | | | | | | | | | | | | | | | | | | | | | 0 |
| 3. CPI | 0 | 0 | | | | | | | | | | | | | | | | | | | | 0 |
| 4. FNACQ | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 5. NAPO | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | 2 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 5 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | 2 |
| 8. CAB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | 0 |
| 9. CCTA | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | 5 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | 2 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | 0 |
| 12. Stentor | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | | | | | | | 9 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | 1 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | 1 |
| 15. CRTC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | | | | | | | | 13 |
| 16. Heritage | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | 6 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | 1 |
| 18. Industry | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | | | | | 9 |
| 19. NLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | 3 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | 3 |
| 21. IHAC | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 18 |
| Links cited to | 7 | 5 | 7 | 6 | 2 | 8 | 6 | 3 | 6 | 3 | 3 | 4 | 1 | 2 | 3 | 4 | 4 | 3 | 2 | 1 | 0 | 80 |

In this half-matrix of symmetrized interactions, when an interviewee from either organization i or organization j cited a formal communication interaction between them. I simply recorded a "1" in the cell at the intersection of the two organizations.

**Table G6  Symmetrized Organizational Links from Informal Communication Interactions**

| Citing Organizations | Cited Organizations | | | | | | | | | | | | | | | | | | | | | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13 CANARIE | 14. CBC | 14. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | |
| 1. CAC | | | | | | | | | | | | | | | | | | | | | | 0 |
| 2. CLA | 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| 3. CPI | 0 | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| 4. FNACQ | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 5. NAPO | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | 4 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 5 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | 2 |
| 8. CAB | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | | | | | | | | | | | | | | 2 |
| 9. CCTA | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | 5 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | 2 |
| 11. ITAC | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | 3 |
| 12. Stentor | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | 8 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | 3 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | | | | | | | | | 3 |
| 15. CRTC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | | | | | | | | 3 |
| 16. Heritage | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | | | | | | | 9 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | | | | | 1 |
| 18. Industry | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | 15 |
| 19. NLC | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | | | | 7 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | | | 2 |
| 21. IHAC | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | 7 |
| Links cited to | 8 | 8 | 7 | 5 | 4 | 8 | 4 | 5 | 5 | 2 | 4 | 9 | 3 | 0 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 83 |

In this half-matrix of symmetrized interactions, when an interviewee from either organization i or organization j cited an informal interaction between them, I recorded a "1" in the cell at the intersection of the two organizations.

**Table G7**    **Symmetrized Organizational Links from All Communication Interactions**

| Citing Organizations | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. CAC | | | | | | | | | | | | | | | | | | | | | | 0 |
| 2. CLA | 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| 3. CPI | 0 | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| 4. FNACQ | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 5. NAPO | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | 4 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 5 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | 2 |
| 8. CAB | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | | | | | | | | | | | | | | 2 |
| 9. CCTA | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | 6 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | 2 |
| 11. ITAC | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | 3 |
| 12. Stentor | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | 10 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | 3 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | | | | | | | | | 3 |
| 15. CRTC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | | | | | | | | 13 |
| 16. Heritage | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | | | | | | | 10 |
| 17. HRDC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | | | | | 2 |
| 18. Industry | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | | | | 16 |
| 19. NLC | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | | | 7 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | 4 |
| 21. IHAC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 19 |
| Links cited to | 10 | 11 | 9 | 7 | 5 | 10 | 8 | 7 | 7 | 3 | 4 | 9 | 4 | 2 | 3 | 4 | 4 | 3 | 2 | 1 | 0 | 113 |

In this half-matrix of symmetrized interactions, when an interviewee from either organization i or organization j cited a formal or informal interaction between them, I simply recorded a "1" in the cell at the intersection of the two organizations.

**Table G8    Symmetrized Organizational Links from Resource Exchange Interactions**

| Citing Organizations | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 15. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. CAC | | | | | | | | | | | | | | | | | | | | | | 0 |
| 2. CLA | 0 | | | | | | | | | | | | | | | | | | | | | 0 |
| 3. CPI | 0 | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| 4. FNACQ | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 0 |
| 5. NAPO | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | 2 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 5 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | 2 |
| 8. CAB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | 0 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | 0 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | 0 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | 0 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 13. CANARIE | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | 1 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | 0 |
| 15. CRTC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | 9 |
| 16. Heritage | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | 2 |
| 17. HRDC | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 4 |
| 18. Industry | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | | | | | 8 |
| 19. NLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 |
| 21. IHAC | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | | 11 |
| Links cited to | 7 | 4 | 7 | 4 | 3 | 4 | 3 | 1 | 2 | 1 | 0 | 3 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 45 |

In this half-matrix of symmetrized interactions. when an interviewee from either organization i or organization j cited a resource exchange interaction between them. I recorded a "1" in the cell at the intersection of the two organizations.

**Table G9**   **Asymmetric Links Identifying Resource Providers and Resource Receivers in Resource Exchange Interactions**

| Organizations that Provided Resources | Organizations that Received Resources | | | | | | | | | | | | | | | | | | | | | Links cited by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1. CAC | 2. CLA | 3. CPI | 4. FNACQ | 5. NAPO | 6. PIAC | 7. TCC | 8. CAB | 9. CCTA | 10. CTA | 11. ITAC | 12. Stentor | 13. CANARIE | 14. CBC | 14. CRTC | 16. Heritage | 17. HRDC | 18. Industry | 19. NLC | 20. Treasury | 21. IHAC | |
| 1. CAC | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 4 |
| 2. CLA | 0 | | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 3. CPI | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 |
| 4. FNACQ | 0 | 0 | 0 | | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5. NAPO | 1 | 0 | 0 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 6. PIAC | 1 | 1 | 1 | 1 | 1 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| 7. TCC | 0 | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 8. CAB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9. CCTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 10. CTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11. ITAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12. Stentor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| 13. CANARIE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 14. CBC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 15. CRTC | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 16. Heritage | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 1 | 3 |
| 17. HRDC | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 5 |
| 18. Industry | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 6 |
| 19. NLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 |
| 20. Treasury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| 21. IHAC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Resources received | 6 | 2 | 6 | 4 | 5 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 5 | 0 | 0 | 11 | 56 |

When organization i provided a tangible resource to organization j, a "1" was entered in the cell for row i, column j. When no resource exchange interactions took place between organizations i and j, a "0" was entered in the corresponding cell.