INDUSTRIALIZATION, TELECOMMUNICATION AND BROADCASTING DEVELOPMENT IN THE WESTERN ARCTIC: POLITICAL-ECONOMIC AND SOCIO-CULTURAL IMPLICATIONS FOR THE INUIT

by

Ursel Koebberling

Dipl.Pol. Universitaet Hamburg, 1978

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in the Department

of

Communication

SIMON FRASER UNIVERSITY

April 1984

APPROVAL

Name: Ursel Koebberling

Degree: Master of Arts (Communication)

Title of Thesis: Industrialization, Telecommunication, and Broadcast Development in the Western Arctic: Political-economic and Socio-cultural Implications for the Innuit.

Examining Committee:

Chairperson: Liora Salter, Associate Professor.

William H. Melody
Professor
Senior Supervisor

Robert S. Anderson
Associate Professor

William E. Rees
Associate Professor
School of Community and Regional Planning
University of British Columbia

Paz Buttedahl
Assistant Professor
Department of Administrative Adult
Education and Higher Education
University of British Columbia
External Examiner

Date Approved: March 29, 1984.

PARTIAL COPYRIGHT LICENSE

I hereby grant to Simon Fraser University the right to lend my thesis, project or extended essay (the title of which is shown below) to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users. I further agree that permission for multiple copying of this work for scholarly purposes may be granted by me or the Dean of Graduate Studies. It is understood that copying or publication of this work for financial gain shall not be allowed without my written permission.

Title of Thesis/Project/Extended Essay

Industrialization, Telecommunication, and Broadcast Development in the Western Arctic: Political-economic and Socio-cultural Implications for the Innuit.

Author: _____
(signature)

Ursel Koebberling
(name)

March 29, 1984.
(date)

ABSTRACT

The thesis examines the political-economic and socio-cultural implications of telecommunication developments for the Inuit in the Western Arctic, particularly the Beaufort region, in the context of industrialization. It is based on the assumption that potentials of new communication technologies cannot be realized independently from the political-economic environment, and argues that under present structures the new technologies tend to deepen the economic dependencies and reinforce cultural values of the southern Canadian society.

The study is based on a secondary literature review, as well as interviews with Native leaders, government and industry representatives.

The political-economic implications of telecommunication technologies are examined in the context of Inuit involvement in Northern industrial development. Particular emphasis is given to federal government incentives for telecommunication developments. I argue that the government intervenes to implement services that fit into its broader national policy objectives, such as promoting high technologies. Yet, this tends to widen the gap between settlements in the North because the inferior quality of telephone and related services continue to be a major barrier to economic developmnt in remote settlements.

The broader socio-cultural implications are examined with particular reference to the introduction of television, which has seriously disrupted community life and in the long term has

tended to homogenize tastes for media consumption. Effects of acculturation processes are surfacing in synthesized roles and behaviour that reflect values of both the traditional and the industrial society. Reference is made to experiences of Alaskan Natives since their land claim settlement in 1972.

The study concludes that the Inuit have gained some benefits from the development of communication facilities, particularly satellites in the expansion of telephone and broadcasting services to locations that could not be served. Yet these achievements have been moderate in comparison to the financial commitments of the federal government. The Inuit have acquired some political-economic independence, but the trade-off has been an increasing dependence on government and industry policies and a trend towards cultural replacement.

The study recommends that small-scale local economic initiatives and interactive forms of communication that emphasize north-north communication links should be strengthened to counteract the tendencies of dependent development, and that further research be directed to determine the interrelations and implications of specific programs.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

I. "If Development is the Answer, Why is Everybody so Dissatisfied?"- Introduction to the Research Problem

The study analyzes communication developments and their political-economic and socio-cultural implications for the Inuit in the context of industrialization of the Western Arctic. With a focus on Natives' concerns, it therefore analyses how economic development has influenced telecommunication development and how on the other hand, changes in telecommunications have facilitated socio-economic development. Particularly I address how the boom in activities after major oil discoveries has affected the pace and direction of communication development. The study thus treats telecommunications dialectically as both cause and effect of socio-economic processes. The significance of the relation between economic and telecommunication development becomes evident in the basic question: can the potential of new communication technologies be realized independently from the political-economic environment?

Change is rapidly advancing in the Western Arctic of Canada, dramatically altering its face and future. Old and new are side by side: stretched skins hang outside homes while helicopters fly over the community and skidoos speed through the settlements. Inside the prefab-houses, some elders are stone carving while the rest of the family watches "Hockey Night in Canada" on colour TV.

But the shift to modernization has had its price. Native societies are beset by a host of social problems. Open violence, neglect of children, substance abuse and suicides have become common among a people whose tolerance and good humor have been proverbial. The leaders of northern Natives are making their case in political and economic development forums, and one is tempted to talk about this movement as a burst of Native power. As new communication technologies and services become available, Inuit are concerned with the negative impacts of these technologies and how they could be used instead for community integration, participation and cultural synthesis.

The study discusses whether and how telecommunication developments support the realization of economic self-reliance - which is understood as using one's own resources and ingenuity, based upon confidence to develop on one's own terms. Both the federal government and the Inuit see this as a general objective in northern development. It involves asking, as well, whether and why communication technologies might inhibit self-reliance. An hypo-thesis to be tested is that the technologies and services reinforce and deepen the cultural values of the dominant southern society and thus perpetuate historical structures of dominance-dependency. The term "southern" and its analogue "white" will refer to the metropolitan Euro-Canadian majority culture.

The Beaufort region has been selected because of the dramatic increase in petroleum exploration and extraction during

the last decade, the advanced communication technologies employed to facilitate economic development in the region, and the tremendous social and cultural impacts these economic and communication developments have had on Native people. At the core of the study are the Inuit of the Western Arctic, the Inuvialuit. Yet, developments in the Beaufort Sea region affect the whole area of the Western North (above the 60th latitude). Therefore, Northern Natives living along the Mackenzie River and in the Yukon are included, particularly when referring to Native experiences and initiatives to regain control over their political-economic and communication systems.[1]

Since the late 60's, the Canadian government and the oil industry have jointly promoted major hydro-carbon developments in the Beaufort region. Yet, the implications for the Arctic environment are not fully understood and remain highly controversial. For the Inuit an eventual destruction of Arctic wildlife and fish resources might not only mean the loss of the renewable resource base of their economy but of their cultural identity as well.

As mineral and petroleum resource developments have encouraged economic growth, the relative deprivation of Northern people has called for social change. Particularly in the U.S., theries about the role of electronic media for industrialization and modernization processes developed, arguing that communication technologies were capable of breaking the

---

[1] Data included in this study is pre-January 1984.

communication barrier and facilitating the transition from a marginal people to a modern industrial society.[2] But the effort has not been as successful as the developers had hoped. Rather, as Gail Valaskakis[3], Herbert Schiller[4], and others argue, they have deepened and accelerated the marginalization process from the very beginning. The study attempts to assess the benefits and the trade-offs of telecommunications, and to consider possible alternative uses for communication technologies.

Radio and telephone entered the North in the early 1920's, at the same time as airplanes made the region relatively accessible. Yet, the communication facilities were designed for, and mainly used by, southern non-Native businesses, government agencies and private residents who had moved north. This changed drastically with the introduction of television, which made its first appearance in the Arctic in 1967 through delayed transmission of 4-hour videotaped packages. In 1972 Canada launched its first domestic satellite, which has since provided relayed TV and telephone messages to an ever-increasing number of northern communities. Since January 1982, four southern Canadian commercial channels have been distributed by CANCOM,

---

[2] See for example Wilbur Schramm, Mass Media and National Development (Stanford: Stanford University Press, 1964), Everett Rogers, ed., Communication and Development. Critical Issues (Beverly Hills, Ca.: Sage Publications, 1976.

[3] Gail Valaskakis, Technology Transfer and the Canadian Inuit (Montreal: Concordia University, unpublished paper, 1983).

[4] Herbert Schiller, Communication and Cultural Domination (White Plains, N.Y.: International Arts and Science Press, 1976).

and in September 1983 the U.S. networks were added to the package. Inuit are intense listeners to both radio and television.[5] Granzberg's work suggests that, in addition, they may be highly susceptible to the messages of the new communication facilities.[6] Yet there is no study available that discusses the implications of television on Natives in the Western Arctic. The question is whether radio and television have reinforced theInuit's economically and socially marginal position, regardless of the benevolent intentions of the federal government.

The Berger Inquiry revealed general disagreement between government agencies and the Inuit over what is beneficial to the well-being of the northern indigeneous population. Meanwhile, Native people have begun to assume an active role in the political and economic development of the Western Arctic and are increasingly involved in oil and gas development as joint venturers. They have set up communication societies to regain control over their communication system, and to attempt to use the potential of the new technologies and services to their benefit.

---

[5] See for example Canadian Broadcasting Corporation, Radio and Television in the Keewatin District of the Northwest Territories: A Survey of Listening and Viewing Behaviour in Rankin Inlet, Baker Lake and Eskimo Point (Ottawa: CBC, 1979).

[6] Gary Granzberg, "Television as Storyteller: The Algonkian Indians of Central Canada," Journal of Communication, Vol. 32, No. 1 (Winter 1982), pp. 43-52.

Northern Frontier - Northern Homeland: Theoretical Framework and Research Methods

From the normative point of view as taken in this study, "development" is based on the acceptance of cultural diversity rather than cultural evolution towards homogenity through industrialization and modernization. The study intends to outline why this is of such particular importance in the northern Native context. For the Inuit self-reliant development based on cultural identity is crucial for their social well-being. I therefore argue that this is a value worth recognizing and and supoprting. A recently published paper of a federal task force on multi-culturalism reemphasized the value of cultural diversity of Canada's minorities, of which the Inuit are an important part.[7] In the following, self-reliance is understood as using one's own resources and ingenuity, based upon confidence and ability to develop on one's own terms, to adapt the means of production appropriate to the local environment and resources.

Cultural identity is defined as having positive attitudes toward one's own historical values, institutions and accumulated knowledge, and adaptation of a mode of production to the

---

[7] House of Commons, Special Committe on Visible Minorities in Canadian Society, Equality Now! (Ottawa: House of Commons, March 1984).

specificity of local human and social needs.[8] The categories that are included in the definition of cultural identity refer to:

1. values and beliefs, such as man-man relationship, man-nature relationship, visions of social change, importance of material goods;
2. institutions, such as ownership of the means of production, distribution of goods, government, community and general service institutions, family; and
3. behavior, such as relations between generations, work, leisure, rites, and types of consumption.

This is by no means an exhaustive list, but rather an attempt to show how broadly the concept of culture should be understood. It thus not only includes behaviour and customs, but traditional ways of doing things, believing things, structuring thoughts, organizing society and so on.[9] Culture is, to use a phrase of James Carey, "the place of the mind in nature and to study culture is to study the constructions men place upon their experiences."[10]

---

[8] Roy Preiswerk, "Cultural Identity, Self-Reliance, and Basic Needs," Development: Seeds of Change No. 3/4, 1981, p. 84.

[9] Louise Spindler, Culture Change and Modernization. Mini Models and Case Studies (New York: Holte, Rinehart & Winston, 1977), p. 4.

[10] James Carey, "Canadian Communication Theory: Extensions and Interpretations of Harold Innis," Studies in Canadian Communications, eds. Gertrude Joch Robinson and Donald F. Theall (Montreal: McGill University, 1975), p. 35.

Further, one has to keep in mind that there is a difference between the impacts of certain individuals or families, and the effects on the Inuit socio-cultural system, as argued by Evan Vogt.[11] It means that we should not conclude that full acculturation will soon take place simply because we observe a certain segment of the population leaving the Inuit world and taking up residence in the White world.[12]

I use the term "electronic media" when referring to both telecommunication and broadcasting facilities.[13] The approach used for this study sees electronic media as an integral and interrelated factor in the industrialization process of the Western Arctic. Authors like Harold Innis argue that telecommunication developments are a pre-requisite to facilitate economic development.[14] My analysis, however, tests the assumption that economic activities encourage telecommunication

---

[11] Evan Vogt, "The Acculturation of American Indians," Perspectives on the North American Indians, Ed. Mark Nagler (Toronto: McClelland & Stewart, 1972), p.3.

[12] Acculturation studies generally present evidence that there are groups who have assimilated into the dominant society, while others have maintained strong ties to the traditional way of life. In between those poles are many variations. To base the argument on only one group is therefore inadequate. See for example, Louise Spindler, Culture Change and Modernization. Mini-Models and Case Studies (New York: Holte, Rinehardt & Winston, 1977).

[13] The term telecommunication refers to point-to-point electronic communication such as telephone, teletext etc., whereas broadcasting media is based principally on a one-way flow of information from a centre to dispersed receivers.

[14] Harold Innis, Problems of Staple Production in Canada (Toronto: The Ryerson Press, 1933).

developments as necessary infrastructure, which in response facilititate and strengthen economic growth. The theoretical frame employed in this study is based on a juxtaposition of three theoretical approaches dealing with economic and cultural change and the role of media:

1. diffusion theories explaining the political-economic role of mass media for cultural change, as developed within a "dominant" paradigm and a "new" paradigm, which evolved from the modification of some assumptions of the former;
2. dependency theories as an explanation of underdevelopment, political-economic dependence and cultural dominance;
3. Harold Innis' concept of time and space bias and knowledge monopoly to explain cultural implications of particular communication technologies, which Gail Valaskakis and Edmund Carpenter applied and extended in a non-Western context.[15]

Diffusion theories do not adequately address the power relations, dependencies, and cultural embeddedness of technology, which influence the diffusion process. Dependency theories are useful in analyzing the general implications of developmental processes, but fall short in the particularities of the Canadian and Inuit cultural context, which Innis in particular addresses. The combination of these three approaches emphasizes ecological dimensions, as for example expressed by

---

[15]Gail Valaskakis, Communication and Control in the Canadian North: The Potential of Interactive Satellites Montreal: Concordia University, unpublished paper, November 1981); Edmund Carpenter, Oh, What a Blow That Phantom Gave Me (New York: Bantam, 1972).

Peter Usher regarding the change in the Western Arctic:

> Underlying the visible evidence of change in language, material culture, and folkways, is the transformation of the mode of production: the entire system of social and economic organization, and the prevailing ideas about rights and obligations among members of society.[16]

The theoretical frame is a critical, historical-materialist approach to inquire into power relations that are not addressed by the empirical, behavioural and scientistic studies, mainly undertaken in the U.S. In contrast to this latter approach, this study is based on the assumption that there is not a given and incontrovertible set of facts, innocent of the framework of theory in which they are identified and which can be subject to empirical verification according to a universal scientific method. Rather, issues of social and political power, of social structure and economic relations are included in the frame of reference. This implies a further assumption, that there is no independent cause-effect relationship of media influence, but rather general trends in the total reality within which the media system plays an important role.

Research Methods

The historical method was considered most appropriate for the first part of the study, in order to provide both enough flexibility to include a broad and general outline of economic

---

[16] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region (Ottawa: Beaufort Sea Alliance Report, 1982), p. 65.

and telecommunication policy and implementation processes, and at the same time enough specificity to indicate the particular implications for the Inuit in the Western Arctic. This involved a review from a wide variety of sources, including secondary literature on the following subjects: - early political-economic and cultural history of the Inuit, as presented in descriptions of explorers, traders and many anthropological studies; - government policies and the political-economic history of the Western Arctic, as discussed in political, historical, economic and sociological studies; - telecommunication developments, as presented in government documents, corporation brochures, and other sources, such as the Telecommission Studies; - transcripts of hearings, such as the Berger Inquiry, and other selected hearings of the commissions, dealing with economic and communication developments in the Western Arctic; - surveys undertaken by Native groups, the CBC, government agencies, university, and other institutions.

To assess impacts, the literature review was complemented by an in-depth interview method of selected Native leaders, industry and government representatives. The financial limitations restricted the selection of interview partners to those available while I was travelling in the North. The restriction to Native leaders and only very few Native people from small settlements seems justifiable for two reasons: Native leaders define the course of action. Secondly, the particularities in Native decision making processes, such as

consensus finding, regular band meetings and the like, keep Native leaders in comparatively close contact to the community members.

The interviews lasted between one and two hours. The interviews were conversational within the parameters of the type of information I was seeking. My approach to each interview partner was in the spirit of wanting to talk about his/her work, concerns, and position on particular developments. I therefore did not ask the same questions to every interview partner. All conversations were tape-recorded with the permission of the interviewees. By keeping the interviews informal and conversational, I was able to develop the kind of in-depth response I sought. The interviews were also facilitated by the fact that I was although a non-Native from the south, but from another country.

Historical Context

The first stage of analysis provides a brief review of the socio-economic and communication developments in the Western Arctic . In particular, it addresses the impacts of early contacts with white men on the Inuit traditional way of life. The aim is (1) to clarify early links between economic development and the provision of communication technologies and services, prior to the accelerated change since the discovery of oil and gas in the Beaufort region and the launching of Canada's first geostationary satellite; and (2) to outline the impacts of

communication technologies, such as print and radio, on the oral tradition of the Inuit and the related social system.

I then review the changes in northern development since the Prudhoe Bay oil discovery in 1969 together with related shifts in electronic media policy and service provision. Of particular interest is the development of space technology and related services, as they have accompanied the industrialization process in the North. The intention is not to provide a detailed picture but a review of general trends in order to determine if historical patterns of north-south relations still apply and an analysis of the implications of electronic media.

Inuit Strategies of Self-Reliance and the Role of Telecommunication and Broadcasting Technologies

The second stage of analysis concentrates on the underlying approaches to and assumptions of northern development, the resulting strategies of the Inuit to regain control over their economy and the communication system, and the political-economic implications of presently available communication facilities.

Experiences of Alaskan Inuit are included because their land claims were settled ten years ago. Since then Alaskan Natives have been actively involved in industrial economic development and have made use of new communication facilities. The particulars of telecommunication policies and implementation processes to facilitate socio-economic development in rural Alaska are therefore a helpful comparison with some of the

prospects, problems and impacts which may be faced by Native groups in the Canadian Beaufort region.

Socio-Cultural Impacts of New Communication Technologies

The third component of analysis concentrates on the cultural implications of electronic media development in the context of industrialization. I examine the socio-cultural benefits, constraints and potentials of presently available communication technologies, and study northern Native experiences with the tools newly available to meet their objectives of self-reliance and cultural identity.

Conclusions

The final part addresses the thesis of the study, the interrelationship of the two sectors of economic development and communication technologies and services in the broader context of dependent development. On this basis, some ideas and proposals are developed to improve the policy definition and implementation processes in a way that serves northern Native needs while accommodating national interests.

I was often encouraged to maintain a sense of humour and to remain optimistic by Natives and non-Natives involved in northern development. This has become a guideline for this study which deals with urgent economic and socio-cultural problems, facing a population that refuses to disappear as a distinctive

people.

II. "Do you think we have chosen to become beggars in our own homeland?" - Framework of Theories and Methods

In the last few decades volumes of papers, articles, and books have been produced discussing mass media as a vehicle specially suited to change. Yet, for many, the "electronic media's impact on and usefulness to small-scale non-Western societies remains at best controversial, and at worst obscure."[1]

To develop a framework to assess the implications of telecommunication development in the context of industrialization, the following part reviews three theoretical approaches that have been developed to explain the structural relationships of core-hinterland development and the role of communication technologies to promote and facilitate economic and cultural change:

1. the concept of economic and cultural dominance and dependency;
2. the concept of diffusion, addressing the role of media for modernization as developed in the "Dominant" and "New Paradigm";
3. communication approaches explaining the implications of communication technologies for cultural change, as described by Harold Innis on a macro level, and by Gail Valaskakis and

---

[1] Gail Valaskakis, Media and Acculturation Patterns: Implications for Northern Native Communities (Winnipeg: 12th Annual Conference of the Canadian Association for American Studies, 1976), p.1.

Edmund Carpenter in a particularly non-Western context.

The literature reviewed thus does not fully represent the work that has been written addressing the role of communication technology for political-economic and socio-cultural development. Emphasis is given to the applicability for the Western Arctic Inuit.

2.1. Industrialization, Media and Change: The "Dominant" and "New Paradigm"

In the 50's and 60's, particularly in the United States, evolved a tradition of studies that emphasized the role of media in national development, theoretically expressed in the writings of Schramm,[2] Lerner,[3] Pye,[4] and others. They stress the role media can play in the process of national development, correlating economic growth with development. Industrialization is seen as the point from which social modernization processes evolve. Media are seen as an important tool for the transfer of social values and perspectives, which are considered necessary to accompany the industrialization process. The result would be, so they claim, a socio-cultural shift as a normal outcome to facilitate the modernization process. To use Wilbur Schramm's

---

[2] Wilbur Schramm, Mass Media and National Development (California: Stanford University Press, 1964).

[3] D. Lerner, The Passing of the Traditional Society: Modernization in the Middle East (New York: Free Press, 1958).

[4] L. Pye ed., Communications and Political Development (Princeton: Princeton University Press, 1963).

formulation:

> Free and adequate information is not only a goal, it is also a means of bringing about social change. Without adequate and effective communication, economic and social development will inevitably be retarded, and may be counter-productive.[5]

Another trend in this research approach focused on the obstacles which traditional cultural elements presented for development, asking how media can support the adaptation of modern values and modes of behavior, especially with regard to consumerism, wage employment and modernization of the traditional sector. However, as evidence of the inability of older "one-way" models of communication,[6] a diffusion theory evolved which claims to use an alternative paradigm rather than the criticized authoritative one. Everett Rogers in particular developped a "diffusion model" that stresses "two-way" communication links, analyzing the distribution and feedback of information and technologies within a society. The main elements in the model of diffusion of new ideas are seen as (1) the innovation, defined as an idea which is (2) communicated through certain channels (3) over time (4) among the members of a social system.[7]

---

[5] Wilbur Schramm, p.18.

[6] For a critical overview see: Goran Hedebro, Communication and Social Change in Developing Nations. A Critical Review (Ames: Iowa State University Press, 1981), pp.9-25.

[7] Everett Rogers, "Where are We in Understanding the Diffusion of Innovations?" Communication and Change, ed. W. Schramm, D. Lerner (1976), p. 207.

He emphasizes the necessity to study how the audience can control the media institutions through feed-back in order to narrow "the gap between the socio-economically advantaged and disadvantaged segments of the total audience."[8] However, the shift towards a more liberal understanding of development, including social issues, still continues in the tradition of a linear causal approach to communication and technology. Most diffusion research, as Rogers argues, has an inherent pro-change bias in that it assumes the innovations studied are 'good' and should be adapted by everyone.[9]

His own approach is modified by multi-step flows of diffusion processes. Yet this "new" approach still reinforces the same objectives as the previous models, i.e. "that communication plus information plus technology would generate development."[10] Network analysis, which is sought to reflect two-way flows of information does not allow or include dependency relationships. To see communication flows as participation and sharing of information includes the assumption that those relations are mutually beneficial and positive, and that all the participants enter voluntarily. Underlying this

---

[8] Everett Rogers, "New Perspectives on Communication and Development," Communication and Development. Critical Perspectives, ed. E. Rogers (Beverly Hills: Sage Publications, 1976), p.9.

[9] Everett Rogers, Where are We in Understanding Diffusion of Innovations, p. 211.

[10] Robin Mansell, "Adaptation versus Transformation: The Impact of the New Paradigm on the Communication and Development Field," Canadian Journal of Communication, Vol. 8, No. 3 (1982), p. 48.

assumption is the existence of reciprocity and balance. Imbalances in power and authority are not considered. In addition, the dominant as well as the new paradigm leave institutional relations unquestioned and unexamined and thus are unable to critically reflect when media do not become carriers of cultural exchange but powerful instruments of cultural domination.

Radio is the medium used most extensively for development purposes. However, there exists a general lack of evaluation. The real outcomes are more or less unknown, partly because it is easier to link effects to figures and scales than to actual changes in behaviour. The ideological premise of the "free flow of information" remains implicit in the model. Factors that constrain communications are not incorporated. Yet, as dependency theorists suggest, they are crucial. Goran Hedebro points out:

> Indeed, the cultural values spread through these channels were often opposite to the development aims of the majority of people. The creation of nationness benefitted little from any of the media, particularly television, which instead promoted the values of western industrialized societies.[11]

Applied to satellite technology in the North, William Melody, for example, supports the argument that the extension of communication systems can provide certain benefits - such as medical, educational and other services - to some people. However,

---

[11] Goran Hedebro, pp.41-42.

> ...when it comes to social, cultural and human consequences, especially the long-term effects beginning with the generation that will grow up within the new communication system, little is known. We are 'flying blind' hoping that any detrimental consequences will not be too bad.[12]

He emphasizes the necessity to address the structural arrangements that promote or hinder a particular development. These relationships form the core of studies of dependency.

2.2. The Open Veins of the North: Theories of Dependent Development and Cultural Dominance

In Latin America after World War II a distinctive pattern began to evolve in theories about development. These theories emphasized the structural relations between nations, and the internal economic, political and social consequences.[13] In recent years this approach has widened and included communication technologies and services and their implications for socio-economic development.

The Structure of Dependency

The centre-periphery argument states that the international capitalist system is based on exploitation and reproduces simultaneously development in the metropole and underdevelopment

---

[12] William Melody, Satellites: On a Runaway Course of Technological Development? Paper prepared for the Ninth Annual Conference Canada Council for Southeast Asian Studies (Burnaby: S.F.U. Dept. of Communication, 1979), p.4.

[13] For an overview of theories of development, see: Harold Brookfield, Interdependent Development. Perspectives on Development (London: Methuen & Co., 1975), p.140.

in the periphery. Both are part of the same process. They are "...the opposite faces of the same coin."[14] The parallel development of underdevelopment and development continues both on the global and on the various national levels. As a result, underdevelopment is not a transient stage towards more development, but is a historical part of the evolution of the international economic system, whereby the dependent reproduction in the periphery is based on the demands of the core.[15]

Through direct investments and favourable terms of trade, the core expropriates economic surplus from its hinterlands and appropriates it for its own economic development. Necessarily the periphery remains underdeveloped for lack of access to its own surplus while at the same time replicating internally core-hinterland relationships. This is the case, for example, in U.S. - Canadian relations of branch-plant industries and is internally reproduced in north-south structures within Canada.

Using the dependency approach, the vulnerable position of the northern economy, based on very few staples, becomes obvious. Variations in world demand and world market prices have accute effects on the regional economy which provides cheap, unprocessed staples, as well as profitable capital investment opportunities. It results in a lopsided, rather than balanced,

---

[14] Andre Gunder Frank, Capitalism and Underdevelopment in Latin America (New York: Monthly Review Press, 1967), p. 9.

[15] Dieter Senghaas, Elemente eine Theorie des peripheren Kapitalismus (Frankfurt: Suhrkamp Verlag, 1974), p.18.

pattern of boom-bust development. Thus development actually operates in an anti-development manner. The question is: can nations modify the way the international world economy works for them, and what role do non-economic factors play in this modification? Applied to the North: Can the competitive commercial system develop a human face appropriate to Northern Native cultural and socio-economic values?

Social and Structural Problems

In the 1930's Harold Innis studied the development of Canada's staples and conluded that these staples are so important that their impacts extend far beyond the realm of economics. Social and political patterns tend to be profoundly influenced by the nature of the staple and by the interrelationships among employers, employees, government regulators and consumers.[16] The technology of producing the staple shapes the lives of those involved in its production.[17]

Innis' approach is of further interest, because he studied the relationship between economic priorities and government intervention over time. He linked shifts in governmental and industrial policy priorities concerning national objectives,

---

[16] Harold Innis, Problems of Staple Production in Canada (Toronto: The Ryerson Press, 1933).

[17] Gurston Dachs, A Choice of Futures. Politics in the Canadian North (Toronto:Methuen, 1981), pp.13/14.

with the incentive system underlying decisions related to staple production and telecommunication development.

Neo-Marxist scholars criticize that he used a "mercantilistic" approach, that his main concern was based on the trading or commercial society, but not on the relations of production that underpin commodity exchange. For example, David McNally concludes:

> He saw the expansion of capitalism simply in terms of the spread of trade relations...By identifying capitalism with trade and exchange, these theorists fetishize the sphere of commodity circulation and fail... to understand capitalism as a mode of production, characterized by its fundamental social relations of production.[18]

This aspect of social relations is crucial to assess political, economic, and cultural implications of economic and telecommunication developments.

Cultural Domination

Analogous to the structural relationships of economic dependency, the literature on 'cultural dominance' or 'cultural imperialism' sees mass media as important tools for profit making as well as for consciousness control to maintain the existing socio-economic status quo. The asymmetrical flow of communication technologies and information to and from the hinterland is seen not only as a commercial exchange but as a

---

[18] David McNally, "Staple Theory as Commodity Fetishism: Marx, Innis and Canadian Political Economy," Studies in Political Economy - A Socialist Review, No.6 (Autumn 1981), pp. 39-41.

mind-manager of the ideologies of external capitalist powers. The dominated societies are drawn, argues Herbert Schiller, into the market-oriented capitalist world economies by offering sugar-coated exogeneous cultures in seemingly harmless communication media products and promising new communication technologies.[19]

For Herbert Schiller, the concept of cultural imperialism "describes the sum of the processes by which a society is brought into the modern world system and how its domination stratum is attracted, pressured, forced and sometimes bribed into social institutions to correspond to, or even promote, the values and structures of the dominating center of the system."[20] Dependency theorists argue that the cultural domination is further perpetuated through the transfer of communication technologies and services that are designed by and developed for the capitalist system. The policy is to rush advanced technologies into operation, embracing computer networks and direct satellite broadcasting systems, all of which can operate transnationally. Technology thus serves as an instrument and embodiment of cultural domination. It is an expression of the capitalist structures and a social construct serving the prevailing system of social power.

---

[19] Herbert Schiller, Communication and Cultural Domination (White Plains, N.Y.: International Arts and Science Press, 1976), pp. 2-23; 46-67; Kaarle Nordenstreng and Herbert Schiller, eds. National Sovereignty and International Communication (Norwood: Ablex Publishing Corporation, 1979).

[20] Herbert Schiller, p. 9.

Smythe argues that technology "is said to offer us all kinds of 'good' things. And when 'bad' things come to pass, more 'technology' in turn will cure them, if we use it to produce more 'good' things."[21]

As Salinas and Paldan conclude, there are three major cultural implications:

1. The local population becomes susceptible to the influence of cultural models provided by the metropolis and their subculture is therefore shaken.
2. A "poverty of the culture" develops because the marginalized people are prevented from exercising minimal cultural rights.
3. Those who are functional to the model of development of the foreign elites are fostered and assimilated. Those who are unnecessary or are not susceptible to assimilation are excluded. The path is closed off to those who may play a role of resistance against the new style of domination or create new forms of cultural expression that correspond to the realities created by the domination itself.[22]

The local cultural industry becomes increasingly responsive to the conditioning of the metropolis. The degree varies according

---

[21] Dallas Smythe, Dependency Road. Communication, Capitalism, Consciousness, and Canada (Norwood: Ablex Publication Corporation, 1981), p. 217.

[22] Raquel Salinas, Leena Paldan, "Culture and the Process of Dependent Development," National Sovereignty and International Communication, eds. Kaarle Nordenstreng and Herbert Schiller, p. 91.

to the different levels of technological and financial control exercised by the core. The electronic media are especially sensitive to external influence, because of their sophisticated technology and the commercial character within which they are mostly introduced.

Dependent industrialization, accompanied by cultural features, thus results in cultural homogenization. This is associated with the strengthening of mechanisms that are designed to become nation-wide distributors of social imagery and knowledge, such as the education system and the broadcasting media.

Herbert Schiller doubts if alternative uses of the technology "saturated with the interest and specifications of monopoly capitalism"[23] are conceivable. This study will address the validity of his assumption in the northern Native context.

2.3. Communication Technologies and Cultural Change

The impacts of new modes of communication on the expansion of empires and on the social structure of societies and culture has been a major issue of Harold Innis' later work.[24] He defines communication broadly and includes not only communication technologies but organizations and products of intellectual

---

[23] Herbert Schiller, Communication and Cultural Domination, pp. 55-67.

[24] Harold Innis, Empire and Communication (Toronto: University of Toronto Press, reprint 1972); The Bias of Communication (Toronto: University of Toronto Press, 1951).

activity as well, and addresses them in their systematic social-ecological relationship to other determinants of political-economic development.

In his studies about empires and communication which covered societies from ancient time until the early 50's, he concluded that a distinctive change in modes of communication results in a shift in power relationships at the political level. The shift from oral tradition to literacy, for example, centralized authority and resulted in distant, foreign rule. In most cases, the local population has great difficulties or is unable to communicate with the new authority.

Gail Valaskakis similarly concludes in her study on communication impacts on Inuit of Southern Baffin Island that

> losing the traditional cultural orientation based on relationships solidified in time ... the Inuit lost their identification with the past ... as Euro-Canadian authority made it difficult for them to understand or accept their cultural change, Euro-Canadian control made it impossible for them to adapt to it.[25]

Harold Innis developed a model of space and time bound cultures and suggested that modes of communication, which make it easy and inexpensive to transmit information over space, lead to the development of central monopolies of knowledge. Authority is hierarchically organized and extends to marginal locations

---

[25] Gail Valaskakis, "The Other Side of Empire: Contact and Communication in Southern Baffin Island," Culture, Communication, and Dependency, eds. Melody, Salter, Heyer (Norwood, N.J.: Ablex Publishing Corporation), p. 22.

where new structures of control are set up.[26] That means, those who have expertise in, and control access to, the technology of production and communication, increasingly control the legitimacy of explanation as well.[27]

In contrast to Innis' approach, Marshall McLuhan and Edmund Carpenter stress the unique qualities of media culture itself and its particular impacts on tastes, preferences and perceptions on the individual level.[28] They argue that the electronic media flow has a homogenizing effect on diverse cultures. In the introduction to "The Mechanical Bride" McLuhan gives an example where

> A North American film expert, speaking of the value of the movie medium for selling North America to South America, notes that:
>
> 'The propaganda value of this simultaneous audio-visual impression is very high, for it standardizes thought by supplying the spectator with a ready-made visual image before he has time to conjure up an interpretation of his own.[29]

Carpenter, studying the impacts of radio on a New Guinean tribe, emphasized the human problems that occur when electronic media are introduced to indigenous cultures. He criticizes

---

[26] Harold Innis, The Bias of Communication, pp. 29ff.

[27] Liora Salter, "'Public' and Mass Media in Canada: Dialectics in Innis' Communication Analysis," Culture, Communication and Dependency, eds. W. Melody, L. Salter, Paul Heyer (Norwood, N.J.: Ablex Publishing Corporation, 1981), p. 194.

[28] Marshall McLuhan, Understanding Media (New York: Signet, 1966); Edmund Carpenter, Oh What a Blow That Phantom Gave Me (New York: Bantam, 1972).

[29] Marshal McLuhan, The Mechanical Bride (New York: Vanguard Press, 1961), p. VI.

researchers and administrators who concentrate only on the content and ignore the cultural effects, as for example radio has had on this Asian tribe.

> The tape recorder startled them. When I first turned it on, playing back their own voices, they leaped away.. they didn't recognize their own voices & shouted back, puzzled & frightened.
>
> But in an astonishingly short time, these villagers, including children & even a few women, were making movies themselves, and endlessly playing with tape recorders.[30]

However, several years later he observed that the tribe could not handle the rapid change, that they "were wandering between two worlds/One dead, the other powerless to be born... For a decade they had been moving imperceptibly toward Western culture. Our demonstration of media tipped the scales. Hidden changes suddenly coalesced & surfaced."[31]

Gail Valaskakis has developed a model of acculturation that addresses the reactions of individuals and groups to new ideas and tools, and their coping strategies to maintain an Inuit identity during this process. She argues that Inuit react through a shifting of emphasis within a synthesized role or image of both cultures.[32] The integration of two divergent cultures is enforced by the dominant upon the marginal one. Cultural identity is sought to be maintained through a new form of native self-esteem within the over-arching industrial model.

---

[30] Edmund Carpenter, Oh What a Blow, p. 130.

[31] Edmund Carpenter, Oh What a Blow, p. 130.

[32] Gail Valaskakis, Media and Acculturation Patterns, p. 10.

Conclusion

This review of research traditions indicates that the question of employing communication technologies necessary for economic development has to be put into the broader political-economic and cultural context. It is ultimately the context that matters and not the mere fact of individual technologies.

Dependency theorists and studies addressing the role of communication in political-economic development are useful to analyze the general implications of developments in the Western Arctic, but they fall short in the particularities of the Native cultural context, for example to explain particular patterns of acculturation.

The crucial question in addressing the change in the Western Arctic has been: Who benefits? For years, the easy and persuasive answer had been simply that everyone would. As long as there were no apparent losers, the question was not politically sensitive. The fact that the native population of the North had a negligible opportunity to participate in the political-economic process had helped to gloss over critical problems. Meanwhile this has changed and the question of who benefits dominates discussions of northern development.

III. From Snowshoes to Satellites: History of Economic and Communication Development until 1970

> From the writer's point of view, the Arctic has no favourable qualities unless its severity is counted as such. It's a barren, empty land, largely comfortless and desolate....To the Eskimo, however, it is home, the earth's most favored place. They have no desire to go elsewhere; they are content with this country which contains enough walrus and seal to satisfy most of their needs.[1]

Edmund Carpenter's assessment of the Inuit of the 1950's no longer holds true. Needs and requirements of the indigenous population have changed drastically. At the core of this chapter are the implications of the contact between Inuit and southern non-Natives, and the southerners' introduction of new economic structures and communication facilities. The aim is to analyze the historical patterns of socio-economic and communication development, to discuss early government policies and specify the interrelation of the two sectors. The review helps to clarify whether the newly introduced communication infrastructure and services have extended and deepened the patterns of economic development, as dependency theorists suggest, or whether they have helped the Inuit to develop in a desirable fashion and direction.

---

[1]Edmund Carpenter, Eskimo Realities (New York: Holt, Rinehart and Winston, 1973), pp. 6-10.

The term "traditional" is of crucial importance in this study. Yet, different people have different perceptions of what this actually means. Nelson Graburn and Irma and John Honigmann refer the term "traditional" to the pre-contact with Europeans, "neo-traditional" to the period between the first contact and the large-scale settling of Inuit into relatively stationary communities, and "transitional" as the adjustment of their lifestyle to permanent community living. Hugh Brody, however, emphasizes the fallacy of defining traditional in the term of classical anthropology as the customs of pre-contact culture. His study suggests, and personal interviews support this view, that post-contact phenomena (such as Christianity, writing, and items such as bannock and tea) are included within Native perceptions of the traditional way of life.[2] Therefore, this latter approach will be applied. However, recent pursuits and tools, such as permanent wage work, Native development corporations, television, stereos, and washing machines, are defined as contemporary. The border between "traditional" and "contemporary" can thus be roughly set with the accelerated change through oil and gas development since the late 60's, although temporary wage work opportunities on a large scale were already available in the 1950's, marking a transitional period.

---

[2] John Honigmann, Irma Honigmann, Eskimo Townsmen (Ottawa: Canadian Research Center for Anthropology, 1965); Hugh Brody, The People's Land. Eskimos and Whites in the Eastern Arctic (Harmondsworth: Penguin Books, 1975), pp. 141/42.

To comprehend Inuit culture, it is necessary to have an understanding about the environment to which they adapted. The harsh climate is a distinct element of the Arctic. The average temperature in Tuktoyaktuk in January is -27o Celsius, and -29o in the Mackenzie Basin. The last days of freezing are usually in early June, and first days of fall occur in mid-August. The Mackenzie Delta is one of the most productive areas for wildlife in the Canadian Arctic, supporting innumerable muskrats and substantial populations of many other furbearers such as fox, bear, and caribou. The channels and lakes of the Delta contain plenty of fish, and in summer thousands of water fowl and other birds pass through or nest there.[3] The Delta thus supports intensive hunting, fishing and trapping activities, as they have developed over thousands of years.

3.1. The Inuk as Hunter: History of a Way of Life

Fragments of the Aboriginal Time

There has been much nostalgic writing - mostly by Anglo-Saxons - about the bygone days of the Inuit and of their remarkable ways of coping with the Arctic environment before the

---

[3] Dome Petroleum Ltd., Esso Resources Canada Ltd., Gulf Canada Resources Inc., Beaufort Sea - Mackenzie Delta Region Environmental Impact Statement (Calgary, 1982), (appreviated as EIS). It provides extensive baseline data on the environment of the Beaufort region.

arrival of the white men.[4]

The Inuit of Arctic Canada were generally nomadic people, living in small groups and, depending on the particular season and circumstances, in medium (6 to 8 families) or large (up to several hundred as in the case of Kittegaruimiut) settlements.[5] This large grouping occurred mainly during the whaling season, whereas seal- and caribou hunting were small group activities.[6] Settlement patterns were thus determined by the migration and location of the animals.

Tied to the central pursuits of hunting and fishing has been the significant and repeatedly emphasized value of identity with the land,[7]

---

[4] Anthropologists mostly speak of "prehistoric time", which is ethnocentric and incorrect. It was history for the Inuit. Therefore the term 'aboriginal' is chosen. As well the term "Eskimo", which translates as "eater of raw meat" (which they only did if absolutely necessary), is replaced by "Inuk" (singular) and "Inuit" (plural). The latter simply means "people", as the indigenous people refer to themselves. The people of the Western Arctic speak of themselves as Inuvialuit emphasizing their slight difference to the Inuit of the Eastern Arctic.

[5] Brian Yorga, Washput: A Western Thule Site on Herschel Island, Yukon Territory (Ottawa: National Museum of Man, 1980), Mercury Series No. 98; Robert McGhee, Beluga Hunters. An Archealogical Reconstruction of the History and Culture of the Mackenzie Delta Kittegaryumiut (Memorial University Newfoundland: University of Toronto Press, 1974).

[6] Keith Crowe, A History of the Original Peoples of Northern Canada (Montreal: Arctic Intitute of North America, Queens University Press, 1974), pp. 56-57; M.R.Hargrave, "Changing Settlement Patterns among the Mackenzie Eskimos of the Canadian North Western Arctic," Canada's Changing North ed. William Wonders (Toronto: McClelland and Stewart, 1971), p. 190.

[7] In the following I don't intend to present a detailed picture of Inuit non-material culture, but briefly highlight some aspects that are essential to the self-esteem of today's Inuit.

which was stressed particularly during the Berger Inquiry. People could only survive because of the extensive co-operation - beyond the family unit - within the Inuit settlement. Through intermarriage, kinship ties extended to a large network of reciprocal obligations. Resources were available to all who needed them.[8] A complex sharing system guaranteed that ideally no one would be left without, which included anything that was necessary to bring food and equipment back to the camps.

A magico-religious belief system reflected the reciprocal relationship that existed between men and animals. Superior-subordinate relations were largely absent. Humans and animals were all part of the system. The spirits of animals had to be respected if men were to continue to depend on this resource.[9]

---

[7](cont'd) Any policy of northern development that claims to act in the interest of the Natives has to recognize those basic values and has to take measures to preserve and strengthen them. The reports of explorers are the most detailed descriptions of Inuit life at the beginning of the 20th century. It was no longer the aboriginal time but reflected a way of life dependent on the land. See e.g. Vilhjalmur Steffanson, The Friendly Arctic. The Story of Five Years in Polar Regions (New York: MacMillan Company, 1921, reprint 1943).

[8] For on overview of various aspects of Inuit life see: Nelson Graburn, Eskimos without Igloos. Social and Economic Development in Sugluk (Boston:Little, Brown and Comp., 1969); Viktor Valentin, Frank Vallee, Eskimo of the Canadian Arctic (Toronto: McClelland and Stewart, 1968).

[9] For further detail, see: Arsene Turquetil, "Religious Rituals and Beliefs," Eskimo of the Canadian Arctic, ed. Victor F. Valentine, Frank G. Vallee (Toronto: McClelland & Stewart, 1968) pp. 43-48.

Oral Tradition

Inuit culture is based on oral tradition. Through story, song and dance, knowledge was transferred and commonly shared, usually told by respected elders.[10] These activities were important social occasions among Inuit families who got together during the long dark winter nights. Inuit did not distinguish between myth, legend, and real event, but regarded all traditional narratives as true accounts.

Oral tradition emphasizes collectivity rather than individualism of literate man, as David Riesman suggests: "Since we tend to remember things most deeply felt, the memorable words in a oral tradition are often those most charged with group feeling,"[11]

A society dependent on oral communications is - by southern standards - a slow-paced one. Harold Innis concluded that the medium of communication a culture uses, influences its historical and cultural development and suggests that

> Richness of the oral tradition made for a flexible civilization but not a civilization which could be disciplined to the point of effective political unity.[12]

Linked to it was the collective and communal life of a people,

---

[10] The report of the Fifth Thule expedition (1921-1925) may be regarded as the largest source of the oral tradition of Inuit culture, where Knud Rasmussen gives numerous examples of stories, song texts and dances.

[11] David Riesman, "The Oral and Written Traditions," Explorations in Communication, eds. Edmund Carpenter and Marshall McLuhan (Boston: Beacon Press, 1966), p. 110-11.

[12] Harold Innis, The Bias of Communication, p. 10.

which was built into their linguistic habits and modes of symbolic expression. Through endless repetition, it "created recognized standards and lasting moral social institutions, it built up the soul of social organizations and maintained their continuity."[13] To destroy the oral tradition meant to destroy these institutions.

3.2. Early Contact, Whalers, Missionaries, and Literacy

The first meeting between the Mackenzie Inuit and Europeans near the present settlement of Arctic Red River occured in 1799. The encounter was brief and violent, resulting in the deaths of the Northwest Company's Mr. Livingstone, his interpreter, three Canadian voyageurs, two Indians and five Inuit. Ten years later another trader reached the Delta, but

> here such a numerous party of Eskimaux occupying both banks of the river, put themselves in such a menacing attitude that it was deemed prudent to return without making any attempt either to land or to proceed further.[14]

As Nelson Graburn reports, the early social relations between Natives and non-Native traders were extremely unpredictable. They ranged from joy and companionship to extremes of slaughter and treachery. The explanation lies in the quite different perceptions of the involved groups about the character of the trade. The Inuit - Graburn resumes - "gave gifts to ensure

---

[13] James Carey, "Harold Adams Innis and Marshall McLuhan," The Antioch Review, Vol.27 (Spring 1967), p.11.

[14] Wenzel, 1923, quoted in : Robert McGhee, p.1.

friendliness rather then initiate some trade for 'profit' for they were willing to give more than they received."[15] Yet, when they got the first gifts and wanted to enter into another round of gift exchanges they found the traders often unwilling. This was quite difficult for the Inuit to understand, because they applied the same perceptions of reciprocity, of giving back and forth. For them the white man would derive as much prestige from sharing his numerous goods as Inuit would in their own camps. Those with less, asked or "begged" from those who had more. If the traders did not respond, the Inuit held them in very low respect and didn't bother stealing, as they would do to anyone on their land who continously refused to give when he had so much.

However, those patterns changed with the establishment of trading posts where the Inuit, if they wanted to benefit from exchanging goods had to obey the rules set up by the White Man. In 1888 the first whale ships reached Herschel Island in the Beaufort Sea where they overwintered, and thus drew the Inuit into the whaling and trading economy.[16] Alaskan and southern Delta Inuit flocked to Herschel Island to work for the whalers. This contact had drastic effects on the Native people of the region. They provided country food, traded with the whalers, socialized with them and even intermarried. They learned their

---

[15] Nelson Graburn, p. 94.

[16] See e.g. Charles Foote, "...of Whales and Whalers," People of Light and Dark (Ottawa: Information Canada, 1966), pp. 29-33.

language, customs, technology, value systems and economic goals.

Functional Literacy

The contact with white men, who spoke English, brought new forms of communication. Inuit communities were exposed to the media and language monopoly of a spatially-expanding empire, and became subordinate to the authority of Euro-Canadian presence.

Of the three major change agencies[17] - traders, police, and missionaries - the latter played a particularly crucial role in introducing literacy and print to the Inuit. By 1896, the Rev. I. Stringer had established a mission at Herschel Island where he proceeded to teach Inuit to read and write in Inuktituk, using the English alphabet. Some of the Alaskan Inuit who moved into the area had been taught to read and write in their own language in their own language in schools operated by the government of Alaska. In the Eastern Arctic, however, Inuit were introduced to syllabic literacy of Inuktituk, while Labrador and Greenland used the Roman alphabet. Thus a regionalization developed that made it impossible for Inuit of different regions to communicate with each other.[18]

---

[17] Everett Rogers defines them as "formal organizations, such as government ministries, or commercial companies" and a change agent as "a professional who influences innovation decisions in a direction deemed desirable by a change agency," in: Modernization among Peasants (New York: Holt, Rinehart & Winston, 1965), p. 171.

[18] Diamond Jenness, Eskimo Administration: II. Canada (Arctic Institute of North America, 1964, reprint 1972), p. 121.

Once exposed to the new medium, Inuit were anxious to learn to read. Yet the only material available in their Native language were books printed by the missionaries. Inuit became highly literate in their native tongue. However, functional literacy is defined as "..the ability to read and write written symbols at a level of competence adequate for carrying out functions of the individual's role in his customary social system."[19] It was not the missionaries' interest to create "literate savages," but rather members of a "civilised Christian community." This would include their ability to speak, read, and write in English, rather than in Inuktituk. Missionaries therefore became increasingly hesitant to make the large effort necessary to translate material into what was becoming a language of questionable value. As a result, prior to 1972, only nine secular books and four periodicals had been printed in Inuktituk.[20] While Inuit literacy became dysfunctional for local power structures, Jenness reports that the oral tradition of professional storytelling no longer functioned by 1924.[21] Only a few Inuit learned some rudimentary English. They used a language to speak, and to read and write that was only locally shared and thus deprived them from communicating with Southern agencies and

---

[19] Everett Rogers, Modernization Among Peasants, pp.73-74.

[20] Robert Mayes, "Mass Communication and Canada's Eskimos," Polar Record, Vol. 16, No.104 (1973), p.683.

[21] Diamond Jenness, Eskimo Administration: III. Labrador (Arctic Institute of North America, 1965), Technical Paper No. 16, p. 179..

Inuit in other Arctic regions.

The power of the shamans, as Paine argues, was intentionally destroyed. They became powerless, islolated and suspect, at the same time as the economy changed from aboriginal hunting to whaling and fur trading.

> The shamans of the Eskimo have been the intellectual elite in a culture in which profound respect for intelligence was one of the most important values... The Inuit also respected people whose technology showed evidence of intellectual power, though they found the white men often childlike in their helplessness in Arctic settings... Changed in their motives and impelled to question old beliefs now undervalued by the non-believing Kablunait [whites], who came provided with a store of goods for years ahead, without the practices and rituals the Eskimo had once thought vital to survival of man and perpetuation of his soul, the thinking people found a void of intellect and spirit which old resources could not fill.[22]

Communication between Inuit and Euro-Canadians could not proceed in English and did not proceed in Inuktituk. The general Inuit community was therefore effectively removed from control as Southern change agencies introduced their bureaucratic hierarchy to the North.[23] It seemed that only the technological development of the western society - the one that had disrupted the traditional way of life - was able to provide an alternative to a complete breakdown of information exchange in the Canadian Arctic. Peter Usher considers those years to be "on the verge of

---

[22] Robert Paine, "The Path to Welfare Colonialism," The White Arctic ed. Robert Paine (St. John: Memorial University Newfoundland, 1977), Newfoundland Social and Economic Paper No. 7, p. 486.

[23] Gail Valaskakis, The Other Side of Empire: Contact and Communication in Southern Baffin Island, p.217.

an explosion in commercial enterprise and prosperity and of a vastly expanded frontier."[24] Within this short time the bowhead whale resource was drastically decimated, as was the caribou and the market collapsed in 1912. The Inuit were struck by various diseases to which they had developed no immunity.

The whaling period resulted in a change of the mode of production and its subsequent social relationships,[25] as Peter Clancy describes:

> ...one part of productive activity continues to be directed through the natural or domestic economy in order to satisfy subsistence needs. But another part of the labor power is now devoted to generating products for exchange. This second phase involves a new set of social relations.[26]

A commodity relationship evolved. With the provision of bulk staples such as sugar, tea, and flour, the scope of exchange increased and relaxed the seasonal subsistence economy. Knud Rassmussen observed that "marine hunting was no longer the principal occupation. The hunt for money had set in and had

---

[24] Peter Usher, The Banks-Landers: Economy and Ecology of a Frontier Trapping Community (3 vols.; Ottawa: DIAND, 1971), Vol.I, p. 49.

[25] Morris Zaslow's study The Opening of the Canadian North (Toronto: McClelland and Stewart, 1971) describes in detail the historical events that draw Inuit into the fur trade, but he completely ignores the change in the social structure of Inuit society, the changing relationships among the people.

[26] Peter Clancy, Game Policy in the Northwest Territories: The Shaping of Economic Positions. Paper presented at the Canadian Political Science Association Conference (Vancouver: UBC, June 1983), p. 15.

gradually revolutionized everything."[27]

In 1912 the Hudson's Bay Company (HBC) established its first trading post in the Delta, close to the present site of Aklavik. Originally, as Keith Crowe reports, trading was considered not only an economic, but a personal, social, and political event. It was a time to visit, gossip, and play games... It mattered just as much whom you traded with as what you traded."[28] Yet, that changed with the tremendous profits that could be realized with whaling and fur trading.

3.3 The Trapping Period and the Introduction of Radio and Telephone

Energy was cumulatively drawn toward the expoitation of fur bearers. As Harold Innis argues, transportation, trade, finance, and government activities became subordinate to the production of the staple.[29]

Essential values of sharing and reciprocity no longer appeared most appropriate for survival. They were undermined by the dominant southern culture, which however, was not appropriate for the Arctic environment. The Delta which until the 20th century had never been occupied on a year-round basis was soon over-harvested and the fur trade eventually collapsed

---

[27] Knud Rasmussen, Report of the Fifth Thule Expedition 1921-1924. The Mackenzie Eskimos (Copenhagen: Gyldendalske Boghandel, 1921, reprint 1942), Vol. X, No.2, p. 52.

[28] Keith Crowe, p. 70.

[29] Harold Innis, Fur Trade, p. 285.

in the early 30's.

HBC closed its post at Herschel Island, and the small population of the area moved to Tuktoyaktuk where a store and a transportation center had been set up in 1937. Fur trade and transportation concentrated here as well as in the Delta community of Aklavik (which in Inuktituk means "place of the barren ground grizzly bear.") The communities got missions, schools and RCMP-posts. With the closing of the Baillie Island trading post in 1942 and Stanton Mission in 1954, still more Inuit families moved to Tuktoyaktuk.

Therefore, the location of trading stores and government facilities governed the distribution of the Inuit. By 1954 the present settlement (exclusive of the recent boom due to oil exploration) had largely emerged.[30]

The devastating situation of the Inuit put the government under pressure to act. Yet, as Kenneth Rea argues, this was only secondary to the military and economic pressures, that convinced the government to take responsibility over the vast North.[31]

---

[30] See Table 3.1. "Permanent Population NWT 1976-1985" and Table 3.2. "Population Delta Communities." See as well J. D. Ferguson, The Human Ecology and SOcial Economic Change in the Community of Tutoyaktuk, NWT (Ottawa: DNANR, 1961), p. 51.

[31] Kenneth Rea, The Political Economy of the Canadian North: An Intepretation of the Course of Development in the Northern Territories if Canada to the Early 1960's (Toronto: University of Toronto Press, 1968), and his later study The Political Economy of Northern Development (Oshawa: Maracle Press, 1976).

The Introduction of Radio and Telephone Services

Radio entered the Arctic in the late 20's, at the same time as airplanes began to provide easy access to the North, which was necessary to administer the expanding empire. Prior to radio, the only means of communication which isolated communities had with the outside had been an annual mail delivery.[32] The Royal Canadian Corps of Signals (RCCS) established a NWT and Yukon radio telephone system, which operated until 1959. It served mainly defence requirements. HBC posts, RCMP officers, bush pilots, fur traders and mining companies installed their own high frequency (HF) radio telephone equipment to form links with the RCCS system, mainly to receive directives from the South. For example, in the summer of 1935, Tuktoyaktuk got a radio link for the two-month navigation season, and was left without radio service for the rest of the year.[33]

High Frequency radio was important in providing northern communication; but it also removed the localized authority of earlier change agents - missionaries, RCMP and HBC - placing Inuit under the increasing control of southern bureaucracy.

---

[32] Edwin Stach, "Communications in the North," Canadian Communications Law Review , 1970, No. 2, p. 147.

[33] See for the early history until the 70's : Northwest Tel, Communications in the North (Whitehorse: unpublished paper); Canadian National Telegraph, CNT in the North: Utilizing the Canadian Experience (Toronto: CNT, 1970); CNT, Communications in Canada's North (Toronto: unpublished brochure, 1976).

Because radio only served southern agencies, it did not fill the growing information gap between Natives and Whites. With the support of the RCCS, a few communities set up local broadcasting facilities, but they had no outside communication links. Such stations were opened, among other places, in Whitehorse in 1946, Aklavik and Dawson both in 1948, and Yellowknife in 1950.[34] These were centres with an increasing non-Native population who demanded services similar to those they were used to in the South.

Developments through the war time had little effect on the radio communication services available to northern Native residents. Improvements in air and marine navigation facilities, such as the DEW-line, the Northwest Communications System, the Yukon and NWT Radio System and other telecommunication facilities were made in response to defence requirements of the Second World War and the following Cold War of the 1960's.[35]

3.4. The Modern Period until the Oil Boom

In 1955 Tuktoyaktuk assumed new importance as a supply and distribution center for the construction of the DEW line.[36] The

---

[34] Robert Mayes, Mass Communication and Eskimo Adaptation in the Canadian Arctic (M. A. thesis, McGill University, 1976), p. 32.

[35] See e.g. R. Sutherland, "The Strategic Significance of the Canadian Arctic," The Arctic Frontier, ed. R.St. Macdonald (Toronto: University of Toronto Press, 1966), pp. 256 - 257.

[36] For the socio-economic impacts of the DEW-line construction, see John Nicholas Harris, National Defence and Northern Development: The Establishment of the DEWline in the Canadian North (M.A. thesis, Simon Fraser University, 1980).

decline in trapping coincided with an intensification of the Cold War, an awareness of the need for hemispheric defense against possible transpolar air attack, and an increasing awareness of the desolation of the indigenous people.

Aklavik, the trading and administration center of the Delta, had expanded and by 1952 a population of about 1.556.[37] All the land suitable for building was taken up and in 1954 the Department of Northern Affairs and Natural Resources decided to remove the federal school, hospital, airport and administration services to a new site "Inuvik"("the place of man").[38]

Construction at the DEW-line and in Inuvik provided various temporary and a few permanent jobs. Inuit thus faced an intensive but brief period of wage employment, which lead to a significant decrease in fur production.[39] Only in recent years, due to new technologies such as the snowmobile and helicopter, government grants and a general re-evalution of the importance of the subsistence economy, have hunting, trapping and fishing re-emerged.

---

[37] Peter Usher, "Inuit Land Use in the Western Canadian Arctic," Inuit Land Use and Occupance Project, ed. Milton Freeman (3 vols.; Ottawa: Supply and Services, 1976), Vol.1, p. 21.

[38] In Inuvik, two distinctive centers developed - Natives on the east side, non-Natives on the west side. The latter had been provided with modern equipment and facilities; the former, by contrast, was generally under-financed and poorly- equipped with inadequate houses and sewage systems.

[39] See: Table 3.3 "White Fox Pelt Production." See: NWT. Wildlife Service, Fur Production 1957/58-1978/79, by R. Tinling (Yellowknife: NWT Wildlife Service, 1982).

The traditional life of the Inuit was no longer visible: dogteams were rare, skin-clothing non-existent, the old fur-trade posts had turned into modern general stores, and the small bush camps were mostly abandoned. On the surface Inuit lived like Whites in modern pre-fab houses, drove trucks and taxis, worked for wages, and enjoyed modern conveniences such as colour TV, refrigerators, and snowmobiles. It led industry and government officials to assume that the Inuit culture was dead. They argued, therefore, that the only solution for the Inuit was to draw them into the expanding non-renewable resource economy.

From the late 1950's onward, economic considerations gained increasing importance and eventually superseded military objectives. A satisfying communication system was considered essential to realizing political-economic goals. In 1958, CBC Northern Service was established and made use of obsolete equipment at Cold War installation facilities.

The same year, the NWT and Yukon radio system of the RCCS was phased out and continued by the Crown Corporation "Canadian National Telecommunications" (CNT). CNT was charged with the task of constructing and operating a system of telecommunication through Northwest Canada, "suitable to the needs and future development of the area."[40]

With the expansion of CNT in the 60's, two telephone systems evolved, one around Yellowknife and the Great Slave

---

[40] P.W. Bruce, The Development of CN Telecommunications in Northwest Canada (Toronto: CNT, 1977), p.2.

region, and the other around the newly-constructed community of Inuvik, connecting with Artic Red River, Fort McPherson, Aklavik and Tuktoyaktuk (=Mackenzie Delta System). The system, based on VHF radio, served the increasing communication needs of both private enterprises and government agencies. More remote Beaufort communities, such as Holman Island and Paulatuk were not linked to the system but had to depend on unreliable HF radio. This allowed only one person to speak, and then often only intermittently, because the connection was so bad that words faded.

In addition to CNT and the military system, HF radio systems were owned and operated by a variety of private government agencies, such as the Department of Transportation (DOT), DIAND, and the RCMP, while private systems included interests as diverse as mining companies, HBC and church missions.

Radio followed similar patterns of serving primarily the needs of non-Natives who had moved to the North. The pioneers of broadcasting in the North came from the RCCS. One of the members began broadcasting in Aklavik in 1932. Supplemented with civilian assistance, it continued until 1958.

> It was a volunteer effort, and our announcers were truck drivers, shoe-clerks, businessmen, housewives, members of the armed forces and anyone else who was willing to take a crack at the microphone... The equipment was primitive, and usually donated, the records were often scratchy, and the news was gleaned second-hand from an encounter on the street or picked up accidently from a shortwave broadcast from somewhere. The starting time was in the morning, whenever somebody got there and the

closing time was when volunteers got tired...[41]

Inaugurated in 1932, CRBC - the forerunner of CBC - soon extended its shortwave information system to include messages not only to government agencies, but to business and private people. Beyond this service, the Canadian North remained virtually without effective broadcast communication with the outside.

CBC, a publicly-subsidized Crown Corporation founded in 1958[42], was mandated to extend its service to all parts of Canada as public funds became available.[43] It developed a "democratic fomula" for extending its service which was based on the size of the communities and the costs of serving them. In the North, the small population and the vast distances made the cost of extending microwave systems to carry the network service so great that most northern towns "came far down on the national list."[44] The original criteria for extension of CBC coverage were based on per-capita cost, which was calculated on the basis of population and cost of providing the service, which was

---

[41] Edwin Stach, p. 148.

[42] Robert Babe, Canadian Television Broadcasting. Structure, Performance and Regulation, (Xerox Copy, 1978); Peter Anderson, CBC and its Mandate, (M.A. Thesis, Simon Fraser University, 1976).

[43] Broadcasting Act. (1968) Par. 3(e).

[44] Andrew Cowan (former Director of CBC Northern Service, quoted in: Charles Feaver, The Politics of the Introduction of Television to the Canadian North: A Study of the Conflict between National Policies and Needs of Native People in the North (Ottawa: Carleton University, Institute of Canadian Studies, 1976), p. 8.

related to the length of microwave link required to tap into the network. With the provision of satellite transmission, the issue of distance became obsolete, but CBC still lacked the funds to set up reception facilities in the last 1% of communities.

In addition, radio links were often ill-considered. Inuvik, for example, developed as the most important town in the Delta region, but for many years it could not transmit to the communities upriver from it. They took their program from the more distant Yellowknife station. People in the Delta speak Inuktituk, Loucheux, Haveskin and English; what they received was - if in native language at all - Dogrib, Slavey, Chipewyan and Cree. In the mid-seventies the line-feed arrangements were restructured so that Inuvik could deliver a basic service to the Delta and the Western Arctic.[45] Meanwhile, Inuvik has developed split feed facilities to better serve the different language groups in the Delta (see Chapter IV).

The northern program centres (Yellowknife, Inuvik, Frobisher Bay) are all connected with the national network. They serve the surrounding communities by medium wave broadcasts, using Low Power Relay Transmitters (LPRT's).[46] In 1970 there

---

[45] CBC, CBC - A Perspective. Submission to the CRTC in Support of Applications for Renewal of Network Licences (Ottawa: CBC, 1973), p. 300.

[46] LPRTs are simply small broadcasting stations with a power of 40 watts, and consequently a small coverage area of approximately 10 miles by day and two to four at night. They are relatively inexpensive to install and operate automatically. The most significant cost factor is that of bringing the network service to the LPRT. Usually, this is achieved by means of land lines.

were at least 25 LPRTs in the North and over 5000 miles of telephone lines were used to interconnect the network and to connect the northern stations to the national network.[47]

Those settlements which did not receive medium wave, as the communities in the High Arctic and the Eastern Arctic, had to rely on shortwave radio, which is quite unreliable as a means of transmission and vulnerable to interference from foreign broadcast stations:

> Oddly enough, the signals from Radio Moscow and Voice of America are stronger than our own shortwave signals, notwithstanding our present concern over Canadian content.[48]

TV Coverage

In the mid 60's, CBC came under increasing pressure from the government, responding to mining companies and local groups to provide its service to all Canadians, as the Broadcasting Act required. CBC got additional funding for serving mining camps through a newly created "Frontier Package," yet failed to serve Native settlements of equal population. Because of the high cost of building networks to transmit live television signals, and because the government was already considering the possibility of launching a communications satellite, CBC engineers designed an interim system which made use of reliable and relatively inexpensive videotape equipment which had recently been put on

---

[47] Edwin Stach, p. 150.

[48] In: Edwin Stach, p. 151.

the market. The Frontier Coverage Package television cost, on the average, $123 000 for equipment and $ 45 000 annually for operating expenses.[49]

Television was seen as a modern base for reducing isolation, and the various federal government agencies involved in northern development, such as DIAND, became major proponents of the introduction of television in the North. Criteria by which communities would receive those packages were "the needs of the community, the population, existing broadcasting services, isolation, the remoteness, the importance of the community as an industrial centre, and the relative cost of providing live service as opposed to the FCP service."[50] CBC consulted the federal departments of Transport, Indian Affairs, and Mines and Resources in selecting communities which were to receive service, such as - Yellowknife (equipment installed in 67/68), - Whitehorse (68/69), - Dawson City(YT), - Clinton Creek(YT), - Elsa(YT), - Fort Smith(NWT), - Pine Point(NWT), - Inuvik(NWT, all in 1969/70), and Frobisher Bay(NWT, Eastern Arctic) in 71/72.[51] As the then Director of Northern Service at CRTC hearings in 1968 explained:

> If we find that the provision of broadcasting service is essential for the development of that economic project then we are prepared to change a priority to provide the

---

[49] Charles Feaver, p. 14.

[50] Edwin Stach, p. 163.

[51] Charles Feaver, p.17.

service.[52]

The Dominion government became involved to various degrees in the evolution of the economic and communication system of the Western Arctic. The next section will therefore discuss government policies as they have fluenced and shaped the direction and pace of development.

3.5. Government Objectives for Economic and Telecommunication Development

> The object in annexing these unexplored territories to Canada is, I apprehend, to prevent the United States from claiming them, and not from the likelihood of their providing any value to Canada.[53]

This sentence referred in fact to the transfer of the Arctic Islands to Canada in 1879, but it could have applied to the whole of Northern Canada. Most of the Canadian government's sporadic forays into the North from 1880 onwards were motivated by the reactions of politicians and officials as aliens in the Arctic. As David Judd argues, by 1900 Canada had virtually done nothing to make use of, or settle, the northern 50% of her country, and most northern policy was devoted to the task of fending off claims and incursions from the Americans, or Danes

---

[52] Charles Feaver, p. 15.

[53] Great Britain, Colonial Office, 1879; in: David Judd, "Canada's Northern Policy: Retrospect and Prospect," Polar Record, Vol. 14, No. 92 (1969), p. 593.

and Norwegian explorers.[54]

Ottawa's legislative program for the North was principally confined to the attempt to protect the Native fur trapper as supplier of a highly-demanded staple, and to allow the few mining projects around Yellowknife and Port Radium to proceed. Major incentives for communication developments were defense considerations, which resulted in the construction of the RCCS system.

The Second World War brought the Arctic and Subarctic regions of Canada an importance previously unparalleled. In particular, the perceived Japanese threat after 1941 triggered immense change: the Alaskan Highway, the Canol pipelines from Norman Wells, a road from the Mackenzie Valley to the Yukon watershed, an oil refinery at Whitehorse, the Northwest Staging Route of airfields, and an American military population throughout northern Canada between 1941 and 1946 that outnumbered Canadian residents about three to one.[55]

It prompted a new policy for Canada's North, designated to establish a wide-ranging Canadian presence in the region and to upgrade the telecommunication system significantly. In 1947, an Advisory Committee on Northern Development (ACND) was established to be a clearing-house for all the new or renewed Dominion government projects. ACND initially worked reasonably well, as Rees reports, but by the late 60's the activities and

---

[54] David Judd, p.p. 593/94.

[55] David Judd, p. 594.

influence of its various subcommittees had dwindled, particularly because of the concentration of power within the Department of Northern Affairs and Natural Resources,[56] which in 1953 became the Department of Indian Affairs and Northern Development. Yet, "in the absence of overall direction and any coordinating framework, northern development 'planning' was characteristically chaotic through the 1950's and 1960's."[57]

The new dimension to Canada's northern activities after World War Two was responding to the seriously poor health conditions of the Inuit. Disease in the North was not only a threat which could contaminate the South, but could become an international embarassment. "The North was a skeleton in Canada's closet."[58] The federal government saw principally two options available to bring the short term health policy into a broader context of northern development:

1. The leading idea is that Inuit are much different from the Western society in personality and culture. It would therefore be personally and socially disruptive to force them into a position where they must conform to the way of life of the dominant society. In this view, government programs should be oriented to the milieu in which the people live. Measures should be undertaken to strengthen the

---

[56] William Rees, "Planning on Our Arctic Frontier: Setting the Stage," Plan Canada, Vol. 21, No.4, p. 108.

[57] William Rees, Planning on Our Arctic Frontier, p. 108.

[58] David Judd, Canada's Northern Policy: Retrospect and Prospect, p. 598.

traditional economy and maintain the social relationships that characterize subsistence/renewable resource economy.

2. The leading idea is that the political-economic situation of the Arctic has changed so drastically that the traditional Inuit way of life is doomed. To concentrate on preserving it would be to create generations of destitute, second-class citizens. Government programs should therefore encourage and help Native people to take advantage of whatever social and economic opportunities become available. This condition would not be achieved until they receive an education equivalent to that offered in other parts of Canada, and rights equal to those of any citizen: in short, assimilate them.

Missionaries have tended to follow the former approach, guided by the Christian mission to teach the innocent, but not with the objective to draw Inuit into the mainstream of Canadian society. Government administrators have followed the second approach. They recognized that literacy, formal education, vocational training, employment, housing, rehabilitation programs and the whole range of developing welfare services were an integral and necessary part of improving Inuit and northern health, and thus northern social and economic conditions. Once committed to taking an interest in the North, the Canadian government and industry decided that there was no choice but to change the style of the Inuit life, and replace, almost entirely, the native culture with white man's education,

technology and social organization. There was debate and disagreement, but usually only over questions of degree and pace rather than the fundamental approach.

> There was dismay; there was regret. There was the opinion of the majority that Canada was doing the right thing to her northern people. There was also the solid conviction of some that Canadians were doing the North a favour. Above all, however, there was a sense of inevitability. Logic and good intentions prevailed.[59]

The short-term solution to the northern crisis was the provision of health and welfare measures, the long-term solution was to enable Inuit to enter the wage economy. Stated reference was made to allow choice, not to impose its will. However, at the same time nobody in government nor industry believed that any normal human being, given the choice, would opt for any but the western lifestyle, as a statement of the then Northern Affairs Minister Jean Lesage in 1955 reflects:

> If he has the chance to do so the Eskimo will undoubtedly climb the ladder of civilization.[60]

Yet it became a path to "Welfare Colonialism." Northern expenditures for health, education and welfare increased tremendously and still continue to grow.[61] The government assumed that through participation in the industrial sector the unequal

---

[59] David Judd, p. 599.

[60] Hon. Jean Lesage, "Enter the European. V. Among the Eskimos (Part II)," The Beaver, Spring 1955, p.5.

[61] Expenditures increased for example from $ 197.1 million in 1973/74 to $ 415.6 million in 1980/81. From 78/79 to 1981/82 the percentage of all government expenditures for Health and Welfare increased from 13.9% to 15.5%. See: Advisory Committee on Northern Development, Annual Northern Expenditure Plan 1981/82 (Ottawa: DIAND, 1982), p.15.

distribution of society's benefits would be removed. To adopt southern conventional values and modes of behaviour, particularly attitudes towards work and consumerism, would be rewarded by integration into the dominant, "superior" lifestyle and the enhancement possibility of self-determination within the political-economic system of southern Canada.

Breaking the communication barrier was considered an important aspect of social change and modernization of the Inuit.[62] Yet it was not considered to be of major importance compared to the necessity of providing services for economic development.

3.6. Conclusion

The discussion of the socio-economic history and communications development in the Western Arctic demonstrated that there are interrelations between communication technology development and service provision and the broader development process. Administration in the Canadian North began as an integral part of a strategy to maintain sovereignty in the face of foreign threats to the developmentof the fur trade. Harold Innis' approach of linking economic objectives with telecommunication development provided a helpful explanation for the characteristics of government involvement prior to the

---

[62] Gail Valaskakis, Media and Acculturation Patterns: Implications for Northern Native Communities, Prepared for the 12th Annual Conference of the Canadian Association for American Studies (Winnipeg, October 2-23, 1976), p. 3.

Second World War. Requirements of communication and transportation facilities for the fur trade, and subsequent government expenditures, remained small. The trade depended on cheap water transportation along northern rivers and in the Arctic sea.

The employment of Native people was based on traditional skills and therefore did not require further education. It was left to missionaries to "teach the innocent." Yet the church had no interest in assimilating the Inuit into the southern Canadian society. The introduction of literacy was limited to Inuktituk and foreclosed Native - non-Native communications. Because of the use of different alphabets throughout the Arctic, it even made communication among the Inuit impossible.

The shift from a time to a space bias, to use Innis' model, destroyed the oral tradition and the social institutions - such as shamanism and professional storytelling - on which it was based. The introduction and expansion of the English knowledge monopoly excluded the Inuit from decision making processes and put them in a marginal, vulnerable position. Communication with the "outside" was only possible through government agencies.

At the same time their traditional economy was drastically altered. Production for an external market made the orginally self-sufficient Native economy vulnerable to the economic forces of the southern cores. The Arctic developed into a resource hinterland. As dependecy theorists explain, this is an unavoidable process once self-sufficient economies are tied to

the international capitalist market.

Once the federal government took over responsibility, it opted for a policy of assimilation, to provide the Inuit with opportunities equal to those of southern Canadians. Their traditional culture was considered dead and a hindrance to facilitate the process of modernization. Telecommunication development was primarily intended to facilitate political-economic development. The main concern shifted to the provision of infrastructure and incentives to attract industry to move north and to initiate the industrialization process. Secondarily, communication technologies were sought to break the communication barrier of an increasingly marginal people and to provide southern values and role models.

The changes in economic and political importance of the Western Arctic were accompanied by changes in institutional arrangements to facilitate or improve telecommunication development. For example, CNT took over responsibility from the Royal Canadian Corps of Signals to provide civil telecommunication facilities. The Canadian government's interest in promoting and financially supporting a commercial telecommunication network and broadcasting system was directly linked to its re-awakened interest in the North in the 1950's and 1960's. Emphasis was placed on economic implications. The prospect of royalties that would accrue from a prospering Arctic provided sufficient incentives for federal investment in infrastructure. The establishment of a crown corporation, with

decision making authority in the south was considered the most appropriate tool for implementing government objectives. The communications infrastructure and the attendant services benefitted, in particular, northern economic centres along the Alaska Highway and the Mackenzie river, but basically neglected Arctic Native settlements further away from the trunk lines.

Policies were defined and implemented in southern centres with little effective opposition from the affected Native population. From the beginning communication policy thus focused on technical and economic aspects, i.e. that the communication tools, such as ships, were appropriate for the environment. Economic considerations were made regarding the benefits of a northern trading route, exploitation of mineral and renewable resources, as well as mapping the unknown territory.

With the discovery of oil at Prudhoe Bay in the late 1960's, the resultant accelerated activities in the Western Arctic, the launching of Canada's first geo-stationary satellite, and the introduction of live colour television, began a new phase in northern development and an accelerated change for the Inuit.

IV. The Last Frontier: Socio-Economic and Telecommunications Development since the 1970s

Today, the Canadian North is like an enormous communication laboratory. Technology is introduced and tested with a spirit of frontierism similar to that in the hydrocarbon development. The North has developed into a sort of "Finnegan's Wake" of communication developments, the majority of which are claimed to transfer technology to Native people. The hope of sponsors and non-participants is that appropriate access to communication technology can provide native people with the means to counteract problems in the communities, caused by the rapid change. The question is, however, whether the available technologies and services - through their very design and the structural arrangements within which they are provided - can realize those hopes.

The aim of this chapter is to outline government policies and actual patterns of telecommunication and broadcasting developments since the early 1970's in response to accelerated economic actvities, particularly oil and gas development. Special emphasis is given to the introduction of satellite technologies and services, which provided live colour television and voice and data transmission to potentially every settlement and camp in the Arctic.

4.1. The Northern Challenge

Government and industry had been gearing up for a decade with exploration well-advanced, when word exploded in the business press of the discovery of oil and gas in large quantities at Prudhoe Bay on the Alaskan coast in 1968. Subsequent findings were made in both the Yukon and Mackenzie Delta, to be followed by discoveries in the high Arctic Islands and in the Beaufort Sea. Fuel was added to the stampede of exploration and development through the OPEC-triggered 'oil crisis'. To develop the Arctic hydrocarbon resources became some sort of 'mission', sacred and unchallengeable, and a pipeline or pipelines were taken as given. It all happened in the total absence of public consultation. The Canadian government, as Dosman argues, was poorly prepared for the boom of exploration to come.[1] The Inuit were entirely ignored. Alarmed, in 1970 the indigenous people in the Delta and Beaufort region formed the Committee for Original Peoples' Entitlement (COPE). In 1971 they joined together with the Inuit from across the North to form the Inuit Tapirisat of Canada (ITC).

The following year the federal government issued flexible guidelines for pipeline building. The Canadian Arctic Resource Committee (CARC) was founded and public attention began to to be directed in a systematic and significant way to what was

---

[1] Edgar Dosman, The National Interest (Toronto: McClelland & Stewart, 1975); see as well: Francois Bregha, Bob Blair's Pipeline. The Business and Politics of Northern Energy Development Projects (Toronto: James Lorimer and Company, 1979).

happening in Ottawa and how it affected the North.

The minority liberal government announced in 1973 that there would be public hearings about the Mackenzie pipeline proposal, "to restore confidence, to show that Ottawa was genuinely concerned about native people."[2] In spite of the Berger hearings, the federal government granted Dome Petroleum approval to do exploratory drilling offshore in the Beaufort Sea. Drilling began in 1976 and continued through 1980 without any assessment of environmental hazards. Berger's report - published in 1977 - demonstrated rare sensitivity to the unique environmental conditions, and insightful understanding of the relationship between human beings and their natural environment. He shocked the establishment and showed that there were alternative ways to look at changes or progess, that the conventional perception of development was not necessarily the only one.

> He took the long view, not the short; the regional view, not the local; the individual view, not the institutional; the human view, not the organizational. In doing so... he broke a wide trail that many in industry and government would happily forget.[3]

However, reality of northern development soon made clear that the commission was "an accident, an anomaly, which no future

---

[2] Edgar Dosman, The National Interest (Toronto: McClelland and Stewart, 1975), p. 192.

[3] John Livingston, Arctic Oil. The Destruction of the North? (Toronto: CBC, 1981), p.26.

government will entertain again."[4]

4.2. Telecommunication Policy in the Context of Oil and Gas Development

Northern Development and the Welfare of Native People

The welfare of the Native people was the rationale claimed for the promotion of rapid industrialization through oil and gas development. In 1971, Hon. Jean Chretien, then Minister of DIAND stated:

> One of the main motivating forces behind the Canadian government's desire for the development of its northern areas is the existence of a small, widespread, but important segment of our population that lives there - the Eskimo and Indian people. These people want a higher standard of living. They want the opportunity for education, for better housing, for better health, for quality of life that we have. One of the best ways of doing this is to encourage oil and mineral exploration and development, so that these opportunities will be available to our northern people on their own ground.[5]

Court decisions supported the assumption of a dead culture, as in the case of Cree and Inuit in Northern Quebec. The Court of Appeal denied those Native people the rights to stop a major hydro project. The judge based his decision on the apparent adaptation of Inuit and Cree to southern Canadian goods and concluded that they therefore had no right to continue their

---

[4] Edgar Dosman, p. 217.

[5] Hon. Jean Chretien, Address to the Symposium on Petroleum Economics and Evaluation (Ottawa: DIAND, 1971).

traditional way of life.[6] This assumption was shared in the Western Arctic by government officials and by industry applicants for a natural gas pipeline.[7] Yet, Native people did not actually agree to these assumptions, as the Berger Inquiry made particularly clear.

A policy paper on northern development, "Canada's North: 1970-80," appeared to open a new area, officially reordering governmental objectives and priorities in northern development:

> In the course of its policy review during the past year, the government affirmed that the needs of the people in the North are more important than resource development and that the maintenance of ecological balance is essential. In the setting of objectives and priorities in the North, in line with national policy goals, the essence of choice for the Government is to maintain an appropriate degree of balance among those three elements." [8]

Social improvements of the socio-economic situation of Northern Natives ranked highest in the list of priorities, to be followed by environmental protection. Non-renewable resource development ranked way down on the list.

However, the policy statement was definitely vague about how this was to be accomplished. In fact, the drafting and

---

[6] Court d'Appel, Province de Quebec. La Societe de Developpement de La Baie James et al. vs. Chef Robert Kanatewat et.al. 21 November 1974, Oppinion Juge Turgeon, p.10.

[7] See e.g. the study of Gemini North, Social and Economic Impact of Proposed Arctic Gas Pipeline in Northern Canada. (Canadian Artic Gas Pipeline Ltd., 1974) or Charles Hobart, Socio-Economic Overview of the Mackenzie Delta Region. Evidence presented on behalf of the oil producers to the Mackenzie Valley Pipeline Inquiry (Inuvik 1976).

[8] DIAND, Canada's North 1979-1980, p.6.

release of the policy document was most revealing. It had been ready for publication since July 1971. At that time however, Cabinet had decided to withhold its publication because it felt that it "would only create more dissent among northern people."[9] The formulation of the new approach to northern development, as Bregha states, was not perceived as a high priority by government officials. He concludes that this document has not been a guide to government policy but served as an instrument to placate an increasingly alarmed public, particularly northern Natives.[10] Pipelines, drilling exploration, trade and sovereignty questions established the parameters of actual northern development.[11]

The year of the Berger Report also marked the federal government's new policy on energy, the need-to-know about its frontier resources and how to safely tap them. Out of this policy came special tax incentives to encourage hydrocarbon exploration in frontier areas. These tax incentives were so strong that J.H. Roche, a tax expert, commented "that exploration companies would be earning deductions from income equivalent to 200% of expense ..The incentives have since expanded."[12] Loken reports that between 1975 and 1981, Dome Petroleum, Esso Resources and Gulf Canada and their partners

---

[9] Edgar J. Dosman, p.99.

[10] Francois Bregha, Bob Blair's Pipeline, p. 30.

[11] See William Rees, Planning on our Arctic Frontier.

[12] In: Peter Harvison, Lancaster Sound, p. 38.

invested over $ 1.4 billion and the forecast for the next ten years is to spend another $ 40 billion.[13] Through depletion allowances, petroleum incentive programs, direct grants, and government funding of research, they were be able to recover 90% of those costs.[14] Expenditures are arbitrarily increased by including costs that are not directly related to Arctic exploration. As a result, drilling dry holes can become a profitable business.

The National Energy Program (NEP) of 1980 further encouraged increased exploration, stressed the need for developing Arctic oil for use in Canada and considered Arctic gas as a "safety net" for the future.[15] Government policy concentrated on mega-projects which were seen as a key to Canada's economic future, and as a means to revitalize Canada's manufacturing sector.

However, at present the Beaufort Sea development is suffering from exactly the same problems endemic to all huge oil ventures. Demand for oil has fallen internationally, the

---

[13] Olaf Loken, p. 12.

[14] Olaf Loken, p. 13; James Laxer mentions an even higher rate of 93%. See James Laxer, Oil and Gas. Ottawa, the Provinces and the Petroleum Industry (Toronto: James Lorimer & Co., 1983), p. 122.

[15] DEMR, The National Energy Program 1980 (Ottawa: Supply and Services, 1980).
A summary of the recent energy policy is Larry Pratt's article "Energy: The Roots of Nationals Policy," Studies in Political Economy. A Socialist Review, No.7 (Winter 1982), pp. 27-59; see as well: James Laxer, chapter four, pp. 71-85; and Peter Foster, The Sorcerer's Apprentices. Canada's Bureaucrats and the Energy Mess (Toronto: Totem Book, 1983), pp. 81-210.

temporary glut of supply makes Beaufort Sea energy unattractive because of its high costs. And even more important, there are not yet any potentially commercial discoveries in the Beaufort Sea. The mega-projects, far from being a cure to recession, became themselves a victim of it.

Regulatory Processes

In light of ill-defined or even contradictory policies - such as "Canada's North 1970-1980" and the "National Energy Program" - regulatory mandates like that of the Environmental Assessment Review Panel (EARP) are difficult to realize, and inadequate to address and implement government objectives. Rees argues that environmental review procedures, such as EARP, are inadequate for the task they have to fulfill. EARP's mandate and scope remain unclear:

> Its emphasis is on ecological impacts, but includes implications for socio-economic conditions. What does this mean in the case of a regional-scale project of national significance impinging most directly on a local and culturally distinct population?"[16]

He concludes that the existing regulatory instruments are largely reactive devices that cannot realistically be expected to assume successfully the lead role in what should be a regional development planning process.

> "Big Oil" seems still to have the loudest voice in the orchestration and control of energy and northern development policy while government remains reluctant to impose any "time-consuming administrative hindrances" on

---

[16] William Rees, Planning on Our Arctic Frontier, p. 113.

industry's plans.[17]

Government Objectives for Telecommunication Development in the Western Arctic

With the accelerating development of Arctic resources in the early 1970's, the need for improvements in northern communication became more apparent every day. In a report about northern telecommunication (including broadcasting), the newly created Department of Communication (DOC) stated that careful planning would be necessary to ensure that effective communications for the future were available:

> A scheme of communication priorities must be prepared which is feasible, economical, and responds to anticipated needs; communications must be used first as an instrument of creation, then as a medium of consolidation, and finally as a means of recreation.[18]

Before the creation of DOC in 1969, telecommunication development was the responsibility of the Telecommunication and Electronics Branch of the Department of Transportation (DOT). DOT's special responsibilities for northern telecommunication development were:

> To expand the operations in response to developing technology on increasing demand; to further development of telecommunication facilities... which involve the administration of government needs, and may include

---

[17] William Rees, "Environmental Assessment and Review: The Case of McKinley Bay," Northern Perspectives, No. 2, 1980, pp. 2-10.

[18] DOC. Telecommission Study, Study 8(c) Northern Communications (Ottawa: Information Canada, 1971), p. 2. (In the following appreviated as Telecommission Study 8(c) .)

public needs as well.[19]

The creation of DOC reflects the recognition by the federal government of the important role of communication facilities for socio-economic development and political-national objectives. Section 5 of the Act creating DOC gave the department the mandate to promote the establishment, development, and efficiency of communication systems and facilities for Canada.

DOC gave northern communication policy formulation a high priority and initiated a series of needs assessments and subsidy issues.[20]

> The aim of the department is to have communication frontiers extended northward so that the quality of service may be equivalent to that enjoyed in southern Canada. Research will be undertaken to determine optimum technical solutions. Programs involving public and private investments will be encouraged and arranged.[21]

The government's priorities for northern development began to indicate a growing concern for the need to promote a planned development strategy while simultaneously implementing policies reflecting the needs of northern residents.

The intensified interest in northern communication thus was mainly oriented to meet needs of Arctic resource exploitation. The spirit of frontierism was similar to that in the economic

---

[19] Canada. Advisory Committee on Northern Development, Government Activities in the North. Annual Report (Ottawa, Queens's Printer, 1968), p. 242.

[20] Canada. Department of Communication, Telecommission Studies (Ottawa: Information Canada, 1971).

[21] Canada. Advisory Committee on Northern Development, Government Activities in the North. Annual Report (Ottawa: Queen's Printer, 1969), p. 38.

sector to encourage petroleum development. The Telecommission Study on "Northern Communication" outlined for example:

> The indications now are that fuels will be brought from the High Arctic to southern Canada by pipeline. The Mackenzie route appears logistically favourable. Such a pipeline will need communications. Communications will be required during the construction phase and for control purposes when the pipeline is installed. High quality microwave systems will be needed to carry control circuits safely and without degradation. It will provide the means to serve all communities within interconnection distance with a full gamut of telecommunications facilities.[22]

This brought up the general question of subsidies. The unit cost of terrestrial distribution is inversely related to the population density. To provide equal services the cost per capita in the North is therefore higher:

> This raises the difficult question of the extent to which these additional costs, attributable to the general objective of social well-being and economic prosperity should be borne by the direct beneficiaries, by the subscribers to the system, or by the general taxpayer.[23]

Northern Communications Conference

In 1970, DOC held a telecommunication conference in Yellowknife where Northern residents, government organizations, telecommunication carriers and broadcasters came together to identify areas of communication needs, to review technological options for improving northern communications, and to assess the implications and impacts of communications on the social and

---

[22] Telecommission Study 8(c), p. 3.

[23] Telecommission Study 8(c), p. 3.

cultural life of the northern residents. The recommendations from this conference were based on the clearly-stated, yet unfulfilled, needs of good facilities for intra-region and inter-regional communications, local exchange connections, community radio programs for education, entertainment, information and social action. The low power broadcast stations for CBC programming retransmission should be connected intra- and inter-regionally and to the CBC network. CBC North should be given full program control, including the choice of what to take from the network. Bush radio should be provided as well as an additional satellite channel for northern television programming. Generally, it was concluded, that the northern problems had now reached the point were they required much more urgent and national attention.

1. Commercial development particularly by oil and gas industries would produce massive needs for transportation and communications.
2. The communication needs of native people had not been adequately taken into account.
3. The advent of Anik would provide the instrument for serving the North with reliable communication both for general telecommunications and broadcast services.[24]

The basic criteria for Northern social communication systems were outlined as:

1. Emphasis should be given to those systems which promote

---

[24] Telecommission Study 8(c), pp. 55-56.

intra- and inter-community communications rather than to systems which increase the already considerable flow of information from the south.

2. Emphasis must be placed on systems in which Northern people are involved and over which they have control.
3. New systems should be introduced in close co-operation with, and in a manner responsive to, the wishes and objectives of community groups and representative associations.
4. New systems should be introduced carefully, and with ample time to experiment and correct errors.
5. Care should be taken to train Northerners in the most effective use of technology, to operate and maintain it.[25]

Technical options were considered to vary from satellite communications and HF radio to terrestrial facilities, using radio relay, troposcatter, cable, and wire systems. The Arctic did not appear suited to using conventional means to provide acceptable service. Yet it was admitted that "the high cost of satellite will certainly ensure that HF systems will continue in operation at least in this decade [1970's]."[26]

The Telecommission Study recognized "a tremendous need for telecommunications to serve the general public," particularly Indians and Inuit communities who "have either no telecommunications or are connected into the network by High

---

[25] Heather Hudson, The Northern Pilot Project: An Evaluation (Ottawa: DOC, 1974), p. 22.

[26] Telecommission Study 8(c), p. 6.

Frequency (HF) radio stations that do not provide a sufficiently high degree of reliability. Therefore, every permanent settlement with a population greater than 50 should have at least one telephone channel for intra- and inter-regional communication and access to the national telephone network." Local exchange facilities for intra-community use should be provided . Service should be available on a 7-day, 24-hour basis, and communications should be sufficiently private to allow transmission of confidential information.[27]

Usually the transmitters only operated on four frequencies, two for regional and two for long distance communication outside the area. In most cases there was only one phone for the whole Native community. VHF transmission was only possible in the afternoon and at night. For the few hours where transmission was possible and where operators were at work. i.e. until 5 p.m., the network was hopelessly overcrowded. People were lining up in the radio shack to wait for their turn, which easily could create awkward situations, as L. Petrie, an Inuk in Northern Quebec describes:

> Perhaps someone has tried to phone outside through Frobisher Bay...and the operator has asked the caller to remain 'stand-by'. He may wait for ten minutes or for all of the afternoon, much to the irritation of others in the radio shack who want to call other communities. When the radio is tuned to one of the outside frequencies, no message can be sent or received on the 'in-house' system. ... Who actually gets to occupy the over-loaded system is too often determined by who is the most persistent, has the strongest lungs, and frankly, may be the rudest as well. The modest and polite don't

---

[27] Telecommission Study 8(c), pp. 23/23.

complete many calls.[28]

The language created additional problems. For long distance calls, the operator must be able to understand Inuktituk to make the necessary switching of direction of the signal to provide interactive communications and thus to make the conversation possible. As a result:

> Anyone who happens to be in any of the radio shacks is able to overhear the entire transmission. It is not a system designed for pledging endearments to one's wife, or whatever.[29]

At the same time, oil companies worked into a private HF radio system to Edmonton. But they had to queue for long periods before their calls could be completed. The Telecomission Study therefore emphasized that planning should take place immediately to meet requirements in case any major oil discovery was made, and thus to allow outposts to contact their regional centres where connections could be made to the national network. Further, the particularities of traditional hunting and trapping would require communication facilities to alert home communities in case of emergencies as well as to provide facilities to overcome feelings of isolation.[30]

---

[28] L. E. Petrie, in: The Northerners, ed. Taqramiut (Northern Quebec Association, 1974), p. 71.

[29] L.E. Petrie, p. 71.

[30] Telecommission Study 8(c), p. 23.

Government Subsidies

The study concluded that an adequate telecommunication base in the North to support social progress, industrial development and government administration would not be achieved unless a major impetus was given to expansion programs on a broader scale than had previously been attempted, and to coordinate and pool the various resources:

1. common carriers to bear losses through cross-subsidization as the price for their franchise and the extension of the capacity of their network;
2. the federal government to provide compensation for the difference between annual operating expenses and revenues where the facilities are provided at a loss to meet social and non-commercial objectives;
3. user charges above standard rates for those who obtained special advantage from the stimulated expansion of northern services, as e.g. CBC and DOT;
4. private industrial communication requirements which might be met by these concerns and not require subsidies unless the overall economic development of a region would be envisaged.[31]

The Canadian government opted for a crown corporation to provide necessary telecommunication facilities. It was thought that through its public ownership and its subsequent mandate, the corporation was more effectively responsive to national

---

[31] Telecommision Study 8(c), p. 23.

objectives than a private corporation would have been. In addition, it was unlikely that a privately owned telecommunication system could develop at the necessary pace because of the heavy initial costs and the necessity of generating a surplus between the period of heavy commitment and later returns. The advantages, as Innis outlines, lie

> in the immediate possibility of commanding tremendous capital resources at a comparatively low rate of interest and placing at the command of the community in the shortest possible time the conveniences of modern civilization which involve heavy capital investments.[32]

Emphasis was placed on construction and expansion of long distance trunk facilities along the Mackenzie River and the Alaska Highway to provide increased interconnection capacity between growing economic-political centres in the North and southern Canada.

The government guaranteed the difference in costs to CNT to a break-even situation over ten years. Northern cities such as Aklavik or Fort Simpson were only interconnected to the system after the government agreed to assist in the deficit operation.[33] The major portion was allocated to the "backbone" of the system. Limited funds were directly allocated to ensure that community residents obtained access to adequate, high quality basic services. Obsolete pole lines were used to carry

---

[32] Harold Innis, "Government Ownership in Canada," Problems of Staple Production, p. 70.

[33] Robin Mansell, Telecommunications Subsidy Policy in Northwest Canada and Alaska. A Comparison (M.A. thesis, Simon Fraser University, 1979), p. 185.

intra-regional local traffic, while traffic from Alaskan, Yukon, and NWT economic centres was routed over modern microwave facilities.[34]

It was not until late in the 1970's that DOC specifically allocated subsidies through the Northern Communication Access Program to provide or upgrade facilities between communities in the territories. In her thesis Robin Mansell argues that the way the government provides subsidies cannot be effective in reaching the objective of equal basic services. The Crown corporation "Canadian National Telecommunications" (CNT) and its wholly-owned subsidiary NorthwesTel are able to transfer revenues to their mother company, Canadian Pacific Railways (CPR) - a crown corporation as well - while claiming to make losses in the basic services. Therefore they postpone upgrading unless the government provides further public funding.[35]

Such additional subsidy money has been provided through the "Northern Communication Assistance Program" of 1978 (NCAP), which allocated $ 9 million to extend telephone service to all communities over 200 residents. Yet, the implementation has been postponed and is now expected to be finally realized in 1985. It will cost the federal government approximately $ 8 million.[36]

---

[34] Robin Mansell, Telecommunications Subsidy Policy in Northwest Canada and Alaska, p. 186.

[35] Robin Mansell, Telecommunication Subsidy Policy in Northwest Canada and Alaska, pp. 102-120.

[36] DOC, Position Paper for the Beaufort Sea Environmental Assessment Panel (Ottawa: DOC, July 1982), p. 2.

The NCAP finally will bring telephone service to all communities with 50 or more residents. However, the financial burden of remote residency is placed on the subscribers, due to the relatively low value they receive for local rates and their dependence on long distance calls. The CRTC in its Telecom Decision 81-15 ordered Bell Canada in the Eastern Arctic to recognize the particularities of the North in its rate structure. It asked Bell Canada to develop, within six months, proposals for flat-rate inter-exchange calling for the remote northern areas. However, two years passed without the carrier either proposing or implementing affordable service for the Eastern Arctic. In the Western Arctic, the Crown Corporation NWTel is not (yet) required to provide a similar scheme.

Northerners pay on the average more than three times as much in long distance toll charges as the average Bell customer. Local exchange areas are small with an average of about 148 subscribers. They use long distance service as much as southerners use local service for business, organizational, and personal reasons. The common carriers deny that the northern particularities are so unique as to require a different rate structure.[37] The high rates not only affect individuals, but are also to the disadvantage of northern enterprises in general, such as fishing, tourism, resource development, emergency communication, social services, management and coordination of

---

[37] ITC, TNC, Wa-Wa-Ta Communications Society, Response to Bell Canada's Report on Interexchange Calling Plan Proposals for the Remote Northern Areas, unpublished paper, p.4.

regional organizations. Existing structures thus are a barrier to local development in the North. In their proposal, the Native organizations argue that distance should not be a criterion within the remote north, because satellite transmission is independent of distance on the ground. They consider grouping settlements according to demonstrated communities of interest to be a more logical and appropriate means of setting rates.[38] Existing structures would increase the gap.

While government expenditures on service development have been reluctantly provided, the Canadian government did strengthen its effort in high technology development. DOC is involved in a major project of $ 400 to $450 million to develop Mobile Satellites (M-Sat). The main goal is claimed to be the extension of new services to the people of Canada and not technical development. As the commercial viability of services is proven, MSAT's capacity will be leased to users. The description of potential users, however, ranks northern residents low and omits northern Native people as a particular group, while emphasizing commercial enterprises and administrative agencies.[39] It indicates that the new technology primarily will serve government agencies and petroleum and related companies who can afford the services. DOC admits that the smaller communities will not have the wide range of services, nor will they have alternate routes for providing that

---

[38] ITC et. al., Response to Bell Canada's Report, p. 7.

[39] DOC, M-Sat Fact Sheet (Ottawa: DOC, 1982), pp. 7-8.

service. Yet in the same paper to the Beaufort Sea Environmental Assessment Panel, it states a few pages later that the telecommunication system should be upgraded in a way that would benefit all northern residents.[40]

4.3. Spacebound: The Introduction of Communication Satellites

Communication satellites were claimed to bring reliable communication services to the North and were optimistically called a "northern vision for the 1970's." Anik, with the Inuktituk name of "brother" was supposed to bring the North into the mainstream of Canadian life by high quality telecommunications, as Jean Chretien, the then Minister of Indian Affairs and Northern Development stated before the House of Commons:

> Anik has tremendous importance for Northern Canada, for its inhabitants and especially for the Eskimo and Indians. For the first time in their whole life, once the system is established, those people will really be in a position to communicate with other Canadian citizens and to take part in all aspects of Canadian life.[41]

The recognized fundamental importance of telecommunication technology resulted in a shift in research and development from scientific to communication satellite technology. It is reflected in the Canadian space program, where the focus of

---

[40] DOC, Position Paper, Beaufort Sea Hydrocarbon Production Proposal (Ottawa: DOC, July 1982), p. 8 and sheet.

[41] In Lyndsay Green, David Simailak, "Inuit Communications Needs", Communications, Computers and Human Settlements. 9th Annual Urban Studies Symposium (York: York University, March 19-21, 1980), p. 3.

earlier ionospheric studies broadened to include communication satellites. A policy paper on the space program (White Paper) further strengthened the importance of government subsidies through R&D to support industry requirements and interests.[42]

The Canadian government's decision to become involved in space communications as outlined in the White Paper was based on the hope for future economic benefits from the space industry and improved national and cultural integration. The policy emphasized especially the potential use of the Canadian communication satellite system for its northern territories, along with its applications to all developing areas of Canada. The reduced sense of isolation that would be achieved by using communication satellites would be very beneficial in attracting personnel to government and industrial projects in remote areas.[43]

With the Telesat Act of 1969, the federal government introduced a satellite system of shared ownership, where the common carriers were granted an advantageous position over other potential users. Telesat sells only complete satellite channels, which makes it impossible for small users, such as Native organizations, to rent partial channels. A Connecting Agreement between Telesat and common carriers organized in the TransCanada

---

[42] DOC, White Paper on a Domestic Satellite Communications System for Canada, (Ottawa: Queens Printer, 1969), p. 32; see as well: John Chapman, "Why Satellite Communications in Canada?" In Search, Spring 1979, pp. 10-12.

[43] DOC, White Paper on Domestic Satellites, p. 32.

Telecommunication System (TCTS) made the ties even closer. In various decisions the CRTC argued that these arrangements were not in the public interest and would prevent the most effective use of satellite facilities.[44]

In 1972 Anik 1 was launched, and Canada became the first country in the world that employed domestic satellites. With the switch to satellite reception on February 5, 1973 began a massive flow of programming, 17 hours per day, relayed by satellite and microwave from the South into the North. The Anik satellite program[45] brought, at least potentially, simultaneous radio, live television, telephone and data transmission into a region that was culturally different from the producers of both the hardware and the software.

At the same time an "Accelerated Coverage Plan" (ACP) was established to provide the reception facilities for television, but it did not include the provision of uplink facilities for telephone service. Every community with more than 500 residents was eligible to get the equipment and receive the broadcasting. The last one per cent of Canadian residents not covered by ACP - the percentage of Natives is not known - remained without service unless territorial or provincial governments provided

---

[44] CRTC. Telecom Decision 81-13, pp. 193-195.
In a recent decision the CRTC required Telesat to permit the resale of unused satellite capacity by CANCOM to other broadcasters.

[45] For the history of the space program from a DOC perspective see: Theodore Hartz and Irvine Paghis, Spacebound, (Ottawa: DOC, 1982); see Table 4.1. "Canadian Communications Satellites."

the necessary funds. CBC claimed not to have the resources to cover those settlements:

> ... given the current financial environment, new coverage funding appears to be far off indeed."[46]

They continued to depend on unreliable VHF services. As a result, "you could die watching Bugs Bunny and not being able to contact a doctor," complained an Inuk at a CRTC hearing in 1976.[47] Northerners were not involved in the selection of communities to be served.

ACP expressively excluded any programming money for any northern production that would be broadcast to the newly served Inuit communities.[48] Station sites in the settlements were chosen without consultation with community councils or local governments and were installed by a series of southern crews.[49]

Prior to the ACP, CBC had developed a Northern Broadcasting Plan. It was however not approved by Cabinet, and CBC thus lost the prospect of special funding and had not yet built an internal financial base for northern television. The result was, as the Director of Northern Service, Doug Ward, stated:

---

[46] Doug Ward, CBC Northern Service. Oral Presentation to the CRTC Hearings: CBC for Network Licenses Renewals (Ottawa, October 1978), p. 1.

[47] Atsamiik Akeshoo in: Charles Feaver, p. 40.

[48] The ACP involved more than 300 communities in rural and remote Canada, and some 600 installations. Estimated capital costs were about $ 50 million in 1974 dollars. See: CBC, A Brief History of the Canadian Broadcasting Corporation (Ottawa: CBC, 1976), p. 18.

[49] Heather Hudson, Northern Pilot Project: An Evaluation, p. 23.

> We have laid down the signal, we have laid down the transmitters, the programming money has not come, ... at half time it's technology one, northerners zero.[50]

CBC still claims to lack funding for appropriate northern programming.[51]

With the expansion of its coverage, CBC increased significantly its amount of daily programming in native languages. The result is, as CBC emphasizes, that it puts native languages

> into the theatre of politics, resource development, and all aspects of life in Canada in the Eighties. It helps ensure that native language, as a fundamental stone of native culture, will be sustained as a living language, and not simply as a language to use in talking about the old days.[52]

Anik did provide some communities with high quality service but the cost of the service was such that Bell Canada and NorthwesTel only extended Anik telephone to communities over 200 residents after the federal government provided them with a subsidy of $ 9 million under the NACP. To cover the capital cost of communication facilities between communities that were required to bring reliable long-distance telephone service to the NWT, CNT received $ 931,000 for telephone service to the communities of Sachs Harbour, Holman Island and Snowdrift. CNT was required to provide similar funding for local exchange

---

[50] Doug Ward, CBC Northern Service, p.7.

[51] CBC, Extension of Service to Northern and Remote Communities. Pay-Television and Canadian Broadcasting (Ottawa: CBC, 1980).

[52] CBC, Brief to the Members of the Federal Cultural Policy Review Commission, July 23, 1981, p. 4.

equipment, and for operating the telephone circuits.[53]

What triggered the challenge to finally improve telephone services however, were developments in the broadcasting sector. The mushrooming of illegal reception of US satellite programming forced the government to act in order to protect Canadian broadcasters. Yet, it seemed inappropriate to proceed with projects such as Direct Satellite Broadcast when simple telephone facilities were not even in place.

> It would not be rational or acceptable from a public point of view to proceed with broadcast developments prior to securing the survival of related telecommunication development of NCAP.[54]

To bring satellite telephone to all communities with more than 50 residents will take additional three years. For communities like Paulatuk it has taken a decade after the satellite launching to finally benefit from the new technology.

Experiments with Satellite Technology

Since the Canadian government became involved in space communication in 1962, it emphasized testing the technological and economic feasibility of space communication, as reflected in government research and development spending. Between 1962 and 1980, it invested a total of about $ 600 million in the space program. DOC accounted for almost half of the expenditures. From

---

[53] DOC, News Release Communique (Ottawa: DOC, April 6, 1978), p.1.

[54] DOC, News Release Communique, p. 2.

1981/82 until 1984/85 spending will accumulate to another $475.8 million.[55] This indicates that money is available but that it is a question of priorities.

From 1970 to 1980 DOC and NASA carried out joint satellite experiments on "Hermes," an experimental satellite, operating at higher powers and higher frequencies than the existing systems, using the 14/12 GHZ band. The objectives for the project were to test direct broadcasting to low cost ground terminals, and to conduct communication and technical experiments to evaluate the economic, social and political impacts of new services such as two-way tele-education and tele-health, direct broadcasting and social community services.

In 1975 the ITC began a communication project to identify Inuit needs and their means of meeting them. In Northern Quebec a communication research program was started in 1973 by the Northern Quebec Inuit Association, and two years later the communication society "Tacqramiut Nipingat Inc." established. Both ITC and Tacqramiut, after years of lobbying for Native broadcasting, finally received funding for experiments as part of the Hermes project. (See chapter six for further discussion.) The Western Arctic was not included in the project.

---

[55] Ministry of Space, Science and Technology, The Canadian Space Program. Plan for 1981/82 - 1984/85 (Ottawa: MOSST, 1981), pp. 1-8.

The experiments were generally considered to be successful.

Hermes

> provided clear evidence that we now have the potential capability to effectively link individuals and organizations throughout Canada. The communication experiments demonstrated that this versatile space communications link could provide a wide range of desirable services to meet identified social and commercial needs and could thus improve the quality of life in Canada.[56]

Inuit in the Eastern Arctic appreciated the new services, yet the flow of money was drastically reduced or stopped totally after the experiments were completed. It suggests that serving northern native communication needs had not been the primary goal.

The Hermes experiments were continued on the 14/12 GHz part of ANIK B with particular emphasis on testing the technical and commercial feasibility of DBS services.[57] The technology will facilitate the introduction of broadcast services, of quality equal to those in the South, to the most remote locations. Depending on a principal decision to provide the service, DBS will be available in 1988.[58]

---

[56] Theodore Hartz, Irvine Paghis, p.168.

[57] DOC, Fact Sheet Documentation. The Canadian Satellites (Ottawa, DOC FS 81-09); DOC, Anik B (Ottawa: DOC, April 1982).

[58] DOC, Direct-to-Home Satellite Broadcasting for Canada, (Ottawa: Minister of Supply and Services, 1983), p. 117.

The Therrien Report and the Extension of Services

While the government pioneered in the development of satellite facilities, it chose not to put a similar emphasis on the potential content. As a result, residents throughout Canada set up illegal dishes to receive multiple channel broadcast from U.S. satellites.

Although a mainly non-Native issue, the developments in response to this "pirating" had significant implications for Native people. The "Therrien Committee" was set up to investigate the expansion of services in remote areas to counteract the threat to Canadian broadcasters through the illegal reception of U.S. programs. The committee was a forum for northern Natives to make their demands public. The report of the Therrien Committee proposed as a solution, a program package with a broad range of Canadian services, including the best of U.S. programs and Native broadcasts.[59]

On April 15, 1981 the CRTC approved Canadian Satellite Communications (Cancom) to deliver its program-package of four commercial TV and 6 radio stations to remote communities. Several other regional broadcasters as well as the Inuit Broadcasting Corporation in the Eastern Arctic and the communication societies of the Council for Yukon Indians and

---

[59] Canadian Radio-television and Telecommunications Commission, 1980s: A Decade of Diversity. Broadcasting, Satellites, and Pay-TV. Report of the Committee on the Extension of Service to Northern and Remote Communities (Ottawa: CRTC, 1980) p.7. (In the following quoted as "Therrien Report" after the Chairman of the Commission).

Dene Nation were approved as broadcasters for northern native programming - both television and radio. Funds were expected to come from land claim settlements, fees and public funds. In the Western Arctic, so far only some interim funding has been provided.

Cancom charges the local distributor $4.00 per month per subscriber. The television signals are scrambled before they are sent to the satellite, which requires a descrambler at the reception point to put the signal onto the cable system, or a descrambler in every subscribing household, if the signal is rebroadcast over the air. In Aklavik the community council decided to subscribe but to rebroadcast the descrambled signal without charging the single households. Tuktoyaktuk recently applied for a linked to the Dome Petroleum base which has subscribed to the service.[60] These two locations as well as Inuvik are the only communities in the Western Arctic that have subscribed to the service. Communities with a Native majority are allowed to delete parts of the programs and to make time available for local programming.

Cancom is, among other things, required to provide one video and two audio satellite uplinks in northern locations suitable to native groups for native produced programming and to substitute up to ten hours per week of native produced television programming, to be distributed at appropriate times.

---

[60] Rolf Hougen, Director Cancom, Interview Whitehorse, October 1983.

Yet, there are no requirements for financial support of the approved native broadcasters.

Subscriptions to the new service have gone slowly, which was predictable. Satcom still broadcasts its satellite cable and pay-TV program unscrambled and thus allows Canadian "pirates" to keep their dishes (TVRO) turned to the U.S. satellites and to pay nothing. On March 31, 1982, there were only 7 communities in the NWT that held licences for the Cancom package, 6 in the Yukon, and a total of 304 for all of Canada.[61] Dawson City and Watson Lake, and probably several other communities throughout the territories, reject subscribing but continously have their dishes turned towards Satcom. It seems the illegal reception of US pay-TV programs will only change once Home Box Office and the other corporations scramble their signals.

In order to better compete with the US satellites Cancom has added the U.S. network programs (NBS, CBS and PBS from Detroit, and ABC from Seattle) to its satellite package, which have been distributed since September 1983 via Anik D, launched in August 1982. Cancom plans to eventually add pay-TV services and DBS to its package. At the moment there are thus ten TV and ten radio channels of southern origin, and no Native channels.

In March 1983 the federal government announced a northern broadcasting policy, that addressed "the needs of northern audiences in general and northern native audiences in

---

[61] DOC, Annual Report 1981/82 (Ottawa: Supply and Services, 1982), p.63.

particular." It introduced a $ 40 million Native Broadcast Access Program (NBAP) to support Native programming initiatives. The policy is claimed to be based on five principles: (1) The first refers to equal access to an increasing range of program choices; (2) the second stresses native participation in CRTC regulation regarding programming in native communities; (3) the third states that Native people should have fair access to distribution facilities; (4) the fourth encourages the production of native programming; (5) and the fifth principle requests that Native people should be consulted by government agencies to participate in broadcasting policy definition processes.[62] It seems questionable, if the first principle is in the interest of the Inuit who have continously rejected getting further southern programming before they have set up their own network. The accompanying "Access Program" of $ 40 million, as a part of the policy implementation, is highly appreciated, but for Inuit in the Western Arctic it will be 1985/86 until they will receive a Native network program.

It is unclear how the second principle is to be achieved. How can Inuit participate other than through the present, not very effective, form of briefs and presentations? Likewise, the implementation of the third principle, of fair access to the distribution system, is not explained. There is no response to

---

[62] Honorable Francis Fox, Minister of Communications, Honorable John Monroe, Minister of Indian and Northern Affairs, and Honorale Serge Joyal, Secretary of State, The Northern Broadcasting Policy, Notes for a Statement (Ottawa, March 10, 1983), pp. 1-5.

the request of IBC to have a complete satellite channel - transponder - for northern broadcasting. On the contrary, the policy paper refers to the present transmission arrangements via CBC and Cancom.

The fourth priority should have been first, if the policy was to truly reflect Native interests. The last principle of Native participation in policy definition seems already contradicted by this very paper, where for example the argument for native program distribution via Cancom and CBC clearly denies Inuit interests.

4.4. Magic in the Sky - Television in Arctic Settlements

> From television some children are thinking that the white man is smarter, so it counts more to listen to him rather than the Inuit.[63]

In a survey in the Mackenzie region[64] only 42% of those 45 and older indicated that they understand most or all English. 53% stated they had only a little or no ability to understand the foreign language.[65] In the Eastern Arctic, the ability to understand English is even lower, with only 6% of those 45 and

---

[63] Philip Qipanniq, in: Inuit Broadcasting Corporation, Position on Northern Broadcasting (Ottawa: IBC, 1982), pp.i-ii.

[64] Unfortunately none is available for the Delta/Beaufort Sea region.

[65] CBC, The Native Audience for Radio in the Mackenzie Region of Canada's Northwest Territories. An Audience Survey for CBC Radio Planning with Some Related Data on Television Viewing (Ottawa: CBC, 1980), p. 23.

older understanding most of it.[66]

Radio ownership is essentially universal (90-99%) among Native adults, as is TV ownership, and Inuit are heavy users. Gary Coldevin reports that two and a half years after TV was in place in the Keewatin, the average daily viewing time was 6.7 hours during the week and 7.4 hours on weekends. 18% reported to have the set on all the time.[67]

First Contact with Television

The reactions to the introduction of television in Native communities are quite different, varying from strong concerns over the destructive effect on their culture to high appreciation tied to the hope that television will educate, change habits and will help them to cope with community problems.

For Inuvik, 1973 was the year of its first television experience through ACP.[68]

---

[66] CBC, Radio and Television in the Keewatin District of the Northwest Territories: A Survey of Listening and Viewing Behaviour in Rankin Inlet, Baker Lake and Eskimo Point (Ottawa: CBC, 1979), p.30. See Tables 4.2. "Inuit Ability to Understand English," 4.3. "Ability to Understand English on Radio," 4.4. "Abilty to Understand English on TV" in CBC, Television in the Baffin Region of Canada's Northwest Territories, A Survey of Viewing Behaviour and Audience Preferences among the Inuit of Cape Dorset and Pond Inlet (Ottawa: CBC, 1982), p.19.

[67] Gary Coldevin, "Satellite Television and Cultural Replacement among Canadian Eskimos," Communication Research, Vol. 6 No. 2 (April 1979), p.121.

[68] There are no studies addressing the impacts of TV on Inuit in the Western Arctic,as a telephone interview with Charles Feaver, (DOC) September 1983 confirmed. Therefore, reference is made to

Reports of first TV contact in the Keewatin and the Eastern Arctic provide a general picture of how people who had been exposed rarely, or not at all, to this "magic in the sky" responded, as e.g. Linvill Watson's study of first-time exposure in Rankin Inlet:

> On Saturday October 13, 1973 Rankin Inlet as a community entered the television age by watching "Bugs Bunny." Home television sets were surrounded by obsessive watchers, drawing relatives, friends and neighbours who lacked sets of their own, so that reportedly 'everybody' in town was watching TV 'non-stop' for the first week... The streets were dead.
>
> Among the substantial minority of Inuit who had in fact never seen TV previously, it was all the more an absorbing focus for curiosity.[69]

TV sets are often turned on as long as there is anyone in the house and there are programs being broadcast. Usually the children and younger people watch most.[70]

Studies addressing the introduction of television in the North generally conclude that unless controlling measures are set up, the new entertainer seriously disrupts any other activities. School attendance, especially in the morning, fell off and there was a corresponding disruption in attendance at work among employed adults. The usual patterns of leisure time activities - such as bingo, movies at the recreation hall,

---

[68](cont'd) Central and Eastern Arctic studies to indicate general benefits and trade-offs.

[69] Linvill Watson, Television among Inuit of Keewatin: The Rankin Inlet Experience (Saskatoon: Institute of Northern Studies, University of Saskatchewan, 1977), p. 51.

[70] Nelson Graburn, "Television and the Canadian Inuit," Etudes/Inuit/Studies, Vol. 6, No. 1 (1982), p. 11.

Sunday morning church attendance and so on - wer hard hit.[71]

In addition, Inuit began to self-impose the alien time schedule of units of minutes and hours for their leisure time. "I'll go seal hunting out on the island but I'll be back in time for the Waltons on Thursday."[72] Watson recalls an incident where a young boy, after he was informed about the time, broke into a frantic run for his house to watch Bugs Bunny. In pre-television time, he states, "people would seldom have been in such a hurry for the start of anything, since not many events had a definite reliable starting time to which to gear one's expectations."[73]

4.5. Storytellers of the 20th Century - The Programs Provided

Radio

For most communities in the Western Arctic, CBC radio has been the only available service. It provides

1. southern network programs, such as "World Report," "As it Happens," "Gilmour's Album";
2. territorial programming produced by the subregional production centers;
3. program segments about events in the south that affect people in the North produced by the southern production

---

[71] See ITC film "Magic in the Sky."

[72] In Nelson Graburn, Television and the Canadian Inuit, p. 11.

[73] Linvill Watson, p. 116.

center in Montreal;

4. local programming produced by the communities, for distribution in the community only, consisting mainly of community announcements, interviews with visitors and messages.

During the last few years, in response to increasing pressure from Native groups and the expansion of radio coverage through the ACP, CBC increased the amount of native language programming significantly, as shown in Table 4.2. "Native Language Radio Programming," and Figures 4.3. "Northern Service Inuvik Radio 1983," and 4.4. "Northern Service Yellowknife Radio 1982."

The northern stations produce daily programs in magazine format that emphasize public affairs. Favored time slots are morning (6a.m.-9a.m.), noon (12p.m.-2p.m.) and late afternoon (4p.m.-6p.m.). In addition, daily local and regional newscasts are prepared, involving exchange of items between the stations. Whereas Frobisher Bay in the Eastern Arctic has to broadcast in only one Native language, Inuvik has to serve 3 Indian language groups and the Western dialect of Inuvialukton. It therefore uses split feed to more efficiently serve the different language needs.

One hour of native programming however, does not mean a solid hour of native language talk, rather an hour in which one or more of the Native languages is used, often along with English language programming and music. CBC claims that the

program balance is difficult to achieve, a) between English and Native languages and b) among the various indigenous languages themselves. Split feed, as employed in Inuvik, can significantly reduce this problem. In smaller communities where CBC has no production centre, it allows community access arrangements. In the NWT, twelve communities have local access to CBC radio transmitters, and thirteen have transmitters licensed to local groups to carry a mixture of CBC and local programming.[74]

Generally Inuit spend 4-5 hours a day listening: this peaks in the morning with listener levels of about 46% for the northern morning magazine. Around noon time there is another marked increase, for "Mom's Show," produced in Yellowknife. Then attention drops steadily and people turn to television. The surveys indicate general preferences for community productions, country and western music programs, news in their native language, phone-in programs and sports.[75]

Alternatives to CBC Northern Service have been few. In the early 70's, Radio Greenland was so well-received in the Eastern Arctic that it broadcast a program especially for Canadian Inuit listeners. "Voice of America" and "Radio Moscow" were still more clearly received in some areas than were Canadian

---

[74] Doug Ward, Access Radio in the NWT (Ottawa: CBC, June 1982), p.1.

[75] See e.g. CBC, Radio and Television in the Keewatin District, p. 17.

broadcasters.[76] Non-CBC Canadian services were provided by only some private stations, as for example in Tuktoyaktuk, Yellowknife and Pond Inlet. The license for the radio station in Tuktoyaktuk, for example, required that "a substantial amount of programming be in Eskimo language and that Eskimo personnel be utilized and encouraged in all possible ways."[77] Meanwhile the station closed due to a lack of funding.

TV Programs

> TV can keep you doing nothing all day, just watching. - I wanted to watch continuously.[78]

The programs available to Inuit in the first years were mostly scrambled. What they could see was the syndication service feed, a package of fragments of news from coast to coast for subsequent rebroadcast by the CBC network stations, a dose of miscellaneous news, most of which appeared again on the "National." Ordinary shows were repeated several times a day, interrupted by other programs, syndication feeds and so on. The confusion persisted well into 1975. It thus provided a daily reminder to the Native viewers that television service for

---

[76] Robert Mayes, Mass Communication and Eskimo Adaptation in the Canadian Arctic, p.47.

[77] CRTC, Decision CRTC 70-114, June 15, 1970.

[78] Charles W. Hill and Gail Valaskakis, Naalakvik II, Appendices to Evaluation Report, (Sugluk, Quebec: Tacqramiut Nipingat Inc., 1980), pp. 55-56.

Arctic residents was not at all the only reason for launching the Anik satellite in 1972, but rather a side-benefit secondary to other practical purposes outlined in CBC policy.

CBC blacks out most of the advertisements. In order to avoid an empty screen, it first used slides with Inuit craft and artifacts, as a kind of contribution to its Northern audience. Yet, Linvill Watson reports that Inuit did not seem overtly pleased that Inuit art made its token appearance as a time filler. More recently, they were replaced by inserts of weather forecasts, employment opportunities and other announcements.

In the first years, CBC programs did not contain any Inuit programming. The then director of CBC Northern Service, Andrew Cowan, attributed the lack of native programming and concern for programming needs of Native people in general to the lack of political clout in Ottawa:

> One could wish that the Original People of the North were as articulate in expressing their demands and as effective in having them realized as their white fellow citizens. The fact that they are neither demanding nor critical of the broadcasting service does not mean that they neither desire nor deserve it.[79]

Yet, CBC claimed to be unable to improve the admittedly "woefully inadequate" service. "Without major infusion of program funds that will be required to sustain northern regional TV production, the Northern Service has been obliged to play a

---

[79] Andrew Cowan, The Social Impact of Broadcasting in the North. Speech prepared for the Conference on Northern Communications, Yellowknife, NWT., September 9-11, 1970 (Northern Service Information Office, Ottawa), p.7.

caretaker role in television."[80]

In its license renewal in 1979, the CRTC requested CBC to produce a minimum of two hours daily of northern regional television programming by the end of the license period: "To the fullest practical extent the people of the North themselves should set their own priorities for their broadcasting services, and appropriate mechanisms should be established to facilitate this."[81]

Meanwhile CBC in the Western Arctic, fed by Channel C, provides approximately 3-4 hours of native-oriented programming per week. In the Eastern Arctic, fed by channel B, native programming adds up to about 6 hours, due to additional contributions by the Inuit Broadcasting Corporation.[82]

Three programs comprise the CBC North broadcast: "Focus North" (30'), "Look North" (30'), and "Tarqravut" (15'). Both "Focus North" and "Look North" are current affairs programs broadcast in English, but they use Inuktituk sources. The first four "Focus North" shows had about 25% program content with original Inuktituk language material.[83] "Tarqravut" is a current

---

[80] Andrew Cowan, former Director of CBC Northern Service, in: Charles Feaver, p.41.

[81] CRTC, Decision: Renewal of the Canadian Broadcasting Corporations's Television and Radio Network Licences, (Ottawa: CRTC, 1979) Decision 79-320, p.29.

[82] The recent TV program schedule of CBC Northern Service is shown in Figures 4.5. "CBC Northern TV Western Arctic" and 4.6. "CBC Northern TV Eastern Arctic."

[83] Nick Ketchum, Letter to Hon. D.G. Patterson (Whitehorse, CBC, November 3, 1982).

affairs program in Inuktituk produced by CBC Northern Service in Montreal. It has been the first broadcast produced by CBC distinctively for the North and consists mostly of in-studio interviews.[84] The rest is CBC network feed.

Since January 1982, the CANCOM service added BCTV, Vancouver; CITV, Alberta, CHCH-TV, Hamilton, and TCTV, Quebec (in French), and since September 1983 the four U.S. networks.

Program Preferences

In contrast to the strong rejection of further southern commercial television programs, Inuit actual preferences and viewing attitudes seem to support the flow of commercial programming.[85]

In a CBC survey in the Baffin region, Inuit were asked to name their favorite CBC programs. The category or type of program described as "soap opera/serial" is by far the overall topic choice with 76% mentioning such a program as one of their favorites, followed by 59% preferring programs of the category "native language oriented". Then it drops significantly to 28-29% for each of the following categories: "sports," "situation comedies" and "other drama" which CBC refers to as mystery, detective, action/adventure, western, science fiction. "News/current events" programs are mentioned by 22%. A survey of

---

[84] CBC, Television in the Baffin Region, p.73.

[85] CBC, Radio and Television in the Keewatin, p. 29; CBC, Television in the Baffin Region, pp. 29-35.

the Northern Native Broadcasting Yukon in the summer of 1983 supports the general preferences for these types of programming, recognizing the contradiction between the stated need of Native content and the actual attraction to American soap operas.[86]

As to individual programs, the CBC survey list is led by "Edge of Night" (56% mention it in their first three choices). "Hockey Night in Canada" is second, with a dramatic drop to 25% and closely followed by "Tarqravut" (22%) as well as "Dallas"(21%) and "Nunatsiakmut"(20%).[87]

In addition to the surveyed programs, there are the unexamined advertisements, which CBC has not blacked out and which are fully transmitted by the commercial channels. As Graburn reports, "amongst the younger generation, [they] often captivate the Inuit viewers' interest completely."[88]

He observed a decreasing use of Inuktituk in the Central Arctic. The ease with which infants and pre-schoolers, who hardly spoke Inuktituk picked up English with its familiar media phrases and accents, forced the parents to adapt to their children. Graburn fears that even if CBC injects additional hours of Inuktituk language programs into its service, it would be doubtful that this would make much difference. He argues that

---

[86] George Henry, NNBY, Interview, Whitehorse October 1983.

[87] CBC, CBC in the Baffin Region, p. 29. The results are shown in Table 4.7 "Favourite Types of Television Programs," and Table 4.8 "Ten Favourite Television Programs," table 4.9 lists the "Favourite Native Language/ Native Oriented Television Programs."

[88] Nelson Graburn, Television and the Canadian Inuit, p. 12.

the very fact that the few Inuktituk language programs are amongst the least popular for the children, would testify to the power of schooling and TV images.[89]

CBC surveys admit the necessity to increase programming on traditional and recent native issues.[90] Under its present arrangements and in the context of available southern commercial broadcasting through Cancom, CBC North does not intend to provide more of its limited space for native production, as the Director of CBC TV North, Nick Ketchum explains:

> We concluded that our new role should be to produce a regular, pan-northern current affairs program, of professional journalistic standards, that will provide information and analysis on the most important issues confronting northerners - from one end of the north to the other.[91]

The establishment of production centres in the North reflects a shift towards increased North-North communication flows, and some of the authority moved North. However, the general decision about how much northern programming to include is still made in the South. The creation of Native Communication Societies and Native networks, parallel to the establishment of native political and economic institutions, reflects the dissatisfaction of existing structures and services and an active approach to regaining control over their communications system, as the following chapters will discuss.

---

[89] Nelson Graburn, Television and the Canadian Inuit p. 14.

[90] CBC, Television in the Baffin region, p. 93.

[91] Nick Ketchum, CBC TV North, Letter to Hon. Dennis Patterson, M.L.A. pp.1-2.

4.6. Communication Needs in the Context of Economic and Socio-Cultural Change

The Interrelationship of Economic and Telecommunication Policies

Stated federal government policies concerning northern economic and communications development underwent a process of redefinition in the 1970's. Communications policy and the government's active participation in the telecommunication development process in the North became more significant. The welfare of Native people became the rationale claimed for both sectors of development.

Yet, Native involvement in the policy definition and regulatory process, remained very limited. In 1976, the Science Council reviewed the assessment procedures of northern development projects and concluded:

1. The core actors dominate any given decision making. This means that the largely "economic concerns" permeate the decision-making process.
2. Other concerns - environmental problems, social issues, technological concerns - which fall within the purview of science policy are relegated to an inferior supportive position despite government statements emphasizing that such concerns are as important as, if nor more important than, economic concerns.
3. The information base for decision making typically lacks scope and depth.[92]

William Rees has studied the planning and decision making in northern development and has come to similar conclusions.

---

[92] Science Council Committee on Northern Development, pp. 12/13.

> Despite the myriad interrelated ecological, socio-cultural and economic problem areas, both individual projects and regional-scale development schemes initiated by the private sector are regulated by little more than ad hoc procedures.[93]

Government agencies and communication industries have emphasized the potential of the new communication tools to respond to those problems and to fulfill general northern Native communication needs. Those were clearly articulated by Native people before the launching of the first Anik satellite in 1972. Yet, the way Anik was set up, it provided live-television throughout the North and telephone service to larger communities, but not satellite up-links for inter-community communication.

With the Telesat Act of 1969, the federal government introduced a satellite system of shared public and private ownership, where the common carrier industry was granted a monopoly position. The result is, as William Melody explains:

> ...the absorption of satellites into the inherited industrial structure in such a way that satellites will not threaten Bell Canada and the other TransCanada Telephone System (TCTS) carriers.[94]

The potential for an affordable and most effective telecommunication system was thus not realized.

Due to the lack of an overall framework for northern development, there was no plan for developing a regional communication system that would provide high quality service in

---

[93] William Rees, Planning on Our Arctic Frontier, p. 109.

[94] William Melody, "Are Satellites the Pyramids of the 20th Century?" In Search, Spring 1979, pp. 2-8.

remote locations to all northern residents.

The emphasis on industrial development of the North required a new role for telecommunication facilities and services, particularly since the discovery of oil and gas in the Arctic Sea. The RCCS system was insufficient to meet commercial requirements of telecommunication capacity. The need for communication services for industrial development and the increasing administrative presence in the north provided the justification for significant increases in government intervention and expenditures.

Government subsidies were justified with the potential benefits they would create for the political and social development of the North. The costs of constructing transportation and telecommunication systems were weighted in terms of long-term economic benefits. Those were expected once private investors could be attracted to move north to tap the mineral resources of the frontier. Direct subsidies through grants, government ownership and government-corporate contracts, subsidized the exploration and transportation of mineral staples and the expansion of telecommunication facilities, and promoted service development that met the objectives of industrialization. At the same time the federal government broadened its responsibility and included social objectives of serving northern residents.

However, the emphasis of the federal government on social policies and objectives would have required subsidies to promote

the development of basic telecommunication services in remote northern areas. Yet, until recently implementation did not reflect this stated priority and proved inadequate for the scattered settlement patterns in the Arctic. As a result, for a decade, remote native communities such as Paulatuk or Holsman Island did not benefit from the satellite technology for interactive telecommunication services.

A basic means to develop telecommunications in the North and thus to facilitate economic development is the provision of direct subsidies. In the case of oil and gas exploration it was argued that the incentive programs reached a degree where nearly all the costs of exploration could be recovered through public money. Some even argue that this can turn out to be profitable business, even if the drilling is unsuccessful.

In the telecommunication sector, the Crown Corporation CNT has continuously received financial support to construct and upgrade the backbone of the system to connect northern economic centres. Native settlements could tie into it if they were close enough. Subsidies for services in small isolated communities have been provided only in recent years, to reduce the disparities.

The rapid adjustment from dependence on the land to a wage-earning economy would have been difficult enough to accomplish in one or two generations. The patterns by which communication technologies were intoduced, further intensified this change, over which the Native people had little control,

and thus perpetuated and extended historical trends of Southern cultural domination.

At the same time, major decisions have had to be made about economic projects and the settlement of Native land claims, and these have put the indigenous people under enormous pressure. The kind of information provided, its source, its language, as well as the possibility of inter-active forms of mass communication have thus become crucially important.

However, the introduction of television became a one-way flow of information and images from the south to the north. Government expenditures concentrated on the expansion of reception facilities, but explicitly excluded program funds for the newly served Inuit communities.

The local population rapidly adopted television as a dominant feature of daily life, to a degree which has significantly displaced and modified past forms of social interaction. For example, local cinemas were forced to close and communal activities dropped significantly in favour of private home TV reception.

The occurrence of objections and misgivings about the medium's impact appear secondary compared with the overall acceptance of the medium and the extensive hours of viewing. Television was received with an eager welcome, primarily for its sheer entertainment value. Inuit responses thus closely resembled non-Native reactions to the medi, and so with the program preferences. The strong visual appeal of TV action, the

significant preference for action and adventure series, sports and highly animated comedies is similar to tastes of non-Natives.

The effects of this devotion to watching television have included not only a decline in communal social events, but also an increased reluctance among young Inuit to accompany their parents on their hunting trips and to learn the traditional way of life directly, not via the new medium.

The "widening of horizons" through television has expanded social perspectives. The question is, however, which social directions are emphasized in the expansion of the outlook. For years, it was simply a one-way flow of information and images with no native or even northern influence whatsoever. Inuit leaders fear that it is merely a question of time before native audiences get so accustomed to southern commercial programs with their broadcast standards, images and content, that a few years down the road Inuit will not accept Native programming. The discrepancy between stated program preferences about the Inuit way of life, and actual viewing habits of commercial broadcasts, already indicates the direction of development.

In recent years, CBC radio has respected the important role of radio as a communication network circulating local news, discussing current affairs, and broadcasting programs about traditional Inuit ways of life. CBC radio has developed a mix of local, regional and network programming and offers the settlements that receive its service, a local access studio

package for community programming at prearranged times. CBC's administrative structure, however, prohibits Inuit involment in essential managerial decision-making processes.

In the last few years, CBC TV North has increased its northern production to approximately four to five hours a week, yet at the same time Cancom has brought an additional eight commercial channels into the region. Inuit have continuously stated that what they want is not more access to undesirable alternatives, but the creation of a genuine Northern television service. This can only be realized if the North is given its own satellite channel for the distribution of television services. Yet, this is denied both in the "Northern Broadcasting Policy" and in the actual Cancom arrangements. The Policy Paper does not propose any changes in the existing structure, which has prevented the government from meeting its stated objectives for more than a decade. The next chapter will address recent Inuit attempts to actively participate in the political-economic and communication develoment processes and thus to overcome the present inadequate situation.

V. Native Involvement in Economic and Telecommunication Development: Socio-Economic Implications

> No blind opposition to Progress, but opposition to blind progress.

The motto of the Sierra Club summarizes the problem this chapter attempts to explain. It deals with Native involvement in economic and telecommunication development. The first part outlines the socio-economic implications for the Inuit of the Canadian government's approach to socio-economic development. This facilitates a better understanding of the rationale and implications of Inuit strategies for self-reliance and the role of communication facilities in this process.

Dependency theorists of economic and cultural development argue that the context of industrial capitalism, within which telecommunication facilities are developed and provided, affects the development of the dominated society and reinforces dependency rather than self-reliance. The question then is: what chances do the Inuit have to participate in northern development without increasing their economic dependence on decision-making agencies in the south, and as well, to successfully compete with southern broadcasting?

5.1. Implications of Euro-Canadian Approaches to Northern Development

Euro-Canadians, from the earliest attempts at exploring the Arctic to the present technology laboratory in the North, have approached the North in order to tap its resources for the benefit of the Nation. It is a reflection of the general relationship between humans and nature in mercantilistic and modern capitalist society.

William Leiss argues that in every human culture there are distinctive directions for the orientation of the social group toward the world of non-human nature. These patterns determine how nature is employed for the satisfaction of needs. Western capitalism was the first social form which tended to regard all non-human nature in exclusively utilitarian terms. In its extreme, the North is viewed as nothing but a warehouse of resources for human needs.

Modern science viewed itself as free from metaphysical assumptions. Technology is seen as the concrete link between the mastery of nature through scientific knowledge. It results in an enlarged disposition over the resources of the natural environment.

> All precapitalist societies had institutionalized prohibition of appropriation of nature for human use; there were sacred places and animals, ritual procedures, and such were cultural expressions of a sense of identity with other living things and a desire to harmonize human purposes with the course of nature as a whole.[1]

---

[1] William Leiss, "Technology and Instrumental Rationality in Capitalism and Socialism," Technology and Communist Cutuve, ed.

The bias of the government is that the most productive use of northern lands is industrialization. Together with industry it is in the powerful position of defining the tangible benefits for northern Natives on its own terms.

Its philosophy of northern land use is one of managed and multiple use, which recognizes conflicting demands, but assumes that all users may be reasonably accommodated. Peter Usher and Graham Beakhurst argue that the purpose of Land Use Regulations, as regulatory means to guarantee both pursuits, is not to provide a basis for assessing whether or not such developments should occur, but rather how such developments can take place with the least environmental damage. The goals of resource development and environmental maintenance are seen as complementary rather than conflicting.[2] Yet it has not been demonstrated that northern lands are suited to this approach. John Livingstone argues that the Arctic doesn't accommodate this option but instead should remain a wilderness area, free from industrial, particularly oil and gas development.[3]

The reference to the availability of choice of lifestyles, between the hunting and trapping economy and industrial wage employment, reflects that the traditional economy is not seen as a system of production with a completely different mode of

---

[1](cont'd) Frederic Fleron, p. 132; see as well W. Leiss, The Domination of Nature, (New York: George Braziller, 1972), p.17.

[2] Peter Usher, Graham Beakhurst, Land Regulation in the Canadian North (Ottawa: CARC, 1973), p. 10.

[3] John Livingstone, p. 137.

social and economic organization based on sharing and reciprocity, but simply as an occupation one chooses on the basis of lifestyle preferences, but still within the overarching framework of an industrially-organized society.

Implications of Industrialization and Modernization

The function of the market in industrial capitalism is much broader than in merchant capitalism. Land, labour, and capital all became exchangeable in the market, exchangeable for money. A labour market must be established and labour must become mobile. Also, a market for land use must be established and therefore traditional land tenure suspended. Peter Usher argues that

> The critical question for social impact assessment is not the so-called modernization of the traditional economy. It is, instead, the nature and consequences of the transition from a predominantly merchant set, and what elements or features of those relations are significant or incidental with respect to impact.[4]

Unlike self-employment, industrial employment separates the conception and execution of tasks, separates managerial/technical from the manual/clerical personnel. For the Inuit this means a tremendous shift from flexibility, egalitarianism and consensus among producers to rigidity, hierarchy and dominance.

---

[4] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region, p. 28.

Oil and gas development is cited as the panacea for unemployment and poverty.[5] However, a look at Native employment in oil and gas development reveals a crucial information gap that questions the realization of stated potential. In 1979 the greatest portion of northern labour was drawn from Tuktoyaktuk and Inuvik, a third coming from other Beaufort Sea communities and 8% being recruited from outside the area.[6] Yet the overview doesn't differentiate between Native and non-Native workers.

While acknowledging the good intentions of the government in forcing industry to provide job opportunities for Native people, it must be said that the opportunities available often don't meet Inuit expectations.

> I have the feeling that one way or another twenty years from now people won't be living so much off the land but will be even more dependent on jobs that are supplied by oil companies. I worked on an oil rig once, on the platform, well, the only way to describe it, it's quite brutal. It's a disembowelment of land... Are the companies going to actually provide jobs which serve the interest of protecting the land as well as taking from it, because those jobs of protecting the land are going to be the jobs that northern people are going to show the most interest in doing. I know that people of the north are not going to be interested in sitting at a desk or in working on a platform and getting into the messy side, the destructive side of it.[7]

---

[5] Beaufort Sea EIS, Vol. 1, p. 2.9.

[6] Canmar, Review of the 1979 Drilling Program in the Beaufort Sea. Final Report (Hull: DIAND, 1980), p.4.
See Table 5.1. "Beaufort Sea Drilling Program - Northern Employment 1976/78" and Table 5.2. "Annual Social Assistance Payments" in Appendix.

[7] Mr. Cassels, Draft Guidelines Meeting. Transcripts, Beaufort Sea Environmental Assessment Review Panel, Tuktoyaktuk, 18 November 1981, p.90.

Peter Usher, discussing employment development in the oil industry between 1974 and 1980, argues that those years were unprecedented in terms of oil activities in the Western Arctic and of job opportunities for local people, particularly in Inuvik and Tuktoyaktuk.[8] A comparison of total personal incomes in the two communities of Coppermine and Tuktoyaktuk (Inuvik is excluded because it has only 10% natives compared to 75% in the other communities) reveals higher per capita incomes than in other Western Arctic communities.[9] Yet, the importance of employment in the oil sector appears to be much less than one would assume, as Usher concludes:

> What is remarkable is not that wage employment now constitutes a greater portion of personal income, but that the increase since the early 60s is not rather more spectacular, especially since wage employment is now so widely available.[10]

His study supports the argument that it is not a dramatic increase in wage employment opportunities that is desired, but the provision of a stable and gradually increasing wage employment. Mega-projects however, are characterized by brief peak employment phases followed by few permanent jobs.

---

[8] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea (Ottawa: Beaufort Sea Alliance, 1982), p. 82; see Table 5.3. "Employment and Income in the Oil Industry."

[9] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea, pp. 82-84; see Table 5.4. "Total Personal Income Tuktoyaktuk and Coppermine," and Table 5.5. "Comparative Cash Income Data, Beaufort Sea Communities."

[10] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region, p.13.

Young Inuit, attracted by the present income opportunities tend to give up further education and thus foreclose future options of better paid and more rewarding job opportunities.[11] As wage employment becomes the dominant source of income, patterns of consumption and investment change. Income is now provided on a regular basis, but in smaller amounts, rather than the sporadically large amounts earned through the fur trade. The purchase of large items thus must be financed by a long and sustained basis of savings or of debt repayment, which further increases dependency. Those continuing financial obligations, as Peter Usher argues, are at odds with the patterns of seasonal activities and irregular income.[12] Inuit thus have to learn "appropriate" consumer behaviour to which commercial broadcasting media contribute a major part.

In "Eskimo Underground" Robert Williamson refers to developments in Rankin Inlet in the Central Arctic where traditional values such as sharing have undergone forms of reinterpretation and distortion to cope with the rules of industrial society. He reports that the wage-earner found himself automatically expected to support as far as possible members of the extended familiy and even people to whom he was more distantly related. This meant, he shared the food he

---

[11] Mim Dixon reports similar developments in Fairbanks, when the Aleyeskan Pipeline was constructed and the town faced an unprecedented boom: What happened to Fairbanks? (Boulder, Colorado: Westview Press, 1976).

[12] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region, p. 30.

bought, shared oil and gas, clothing and even money with others in his kin group. However, the awareness that the kin won't be able to reciprocate under the present economic circumstances "is greeted in most cases with a genuine response of distress and pain."[13] Williamson reports instances where the wage-earner has been under pressure from the White authorities not to respond to the value of sharing and to the expectations of his extended family. As a result, the individual felt intense strain and on several occasions wage earners in this position suddenly withdrew by "inexplicably" performing so inadequately on the job that they were dismissed. Yet, this released them from the pressure of the wage-earning role which had created such intense and painful internal conflicts. Although the income through government transfers is much smaller and much less reliable, the withdrawal from earning resulted in greater emotional security and happiness.

Peter Usher concludes in his study on the impact of industrialization in the Beaufort region that although individuals and whole Inuit communities choose to obtain the "goodies" which industrial civilization brings, they do not necessarily understand fully and accept the obligations, the social contract to perpetuate these material benefits, "and this is a contradiction which has by no means been resolved in the

---

[13] Robert Williamson, Eskimo Underground. Socio-Cultural Change in the Canadian Central Arctic (Uppsala: Almqvist&Viksell, 1974), p.159.

Beaufort region."[14]

5.2. Inuit Political-Economic Strategies: Native Corporations

Through the unwillingness of the federal government to implement claim settlements and to establish new political arrangements within the claim negotiations, Native people realized that any further delay would work against them. Settlements, seen as a means of opening up new possibilities, would be foreclosed by the mere fact and impact of increased hydrocarbon development, in which they as Native groups would have little say. In the 1970's, while the claim settlements were under negotiation and developing slowly, a collective form of native participation in the market economy was created through a network of community based co-operatives. They were established as a vehicle for marketing Inuit art. Particularly in the early years, this required regular infusions of federal funding, as well as extensive non-Native administrative support.

In contrast to this co-op model, a different organizational form - that of the corporation - has been chosen for more recent native ventures in other sectors of the economy. Yet it differs from corporations elsewhere in Canada through its collective ownership. The development corporations, as Abele outlines, have been formed "to meet community needs and to take advantage of

---

[14] Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region, p.39.

special federal funds for regional economic development."[15]

In 1978 the Inuvialuit Development Corporation (IDC) was established under the terms of an Agreement-in-Principle. Funded by DREE, the GNWT, and by private sector loans, IDC has become a company which provides overall management and bookkeeping services to a number of Mackenzie Delta businesses, including a taxi company, a small charter airline, a country food marketing business, and a tourist guiding service.

In 1983 IDC joined the oil business. The corporation purchased the MV Arctic Sun, a harbour tug, to be operated under contract with Dome for the next three years, and entered into a joint venture with Atco Drilling of Calgary to form Atco-Equtak Drilling, a limited company which will operate land drilling rigs in the North.[16] In both holding land rights and actually exploiting subsurface resources, Inuit leaders hope to control development which might disrupt and change the Native communities, and to gain an economic base for political self-reliance.

It is a new attempt to gain economic power in order to further the objectives which started the land claim struggle. Economic power is seen as a means for political power, self-determination and reducing the dependence on non-Native

---

[15] Frances Abele, Native Corporations in the Northwest Territories: Economic Development and the Prospects for Self-Determination. Paper presented to the Annual Meeting of the Canadian Political Science Association (Vancouver, UBC, June 6-8, 1983), p.17.

[16] COPE, Inuvialuit, Spring 1983, pp.6-7.

economic support, thus enabling Native people to work for their own people, which is not only a question of accumulation of revenues, but of social importance, strengthening Native self-esteem.

> Without giving us back our resources, you can't say 'okay chief, we'll give you your freedom!' Freedom to what? Beg some more?[17]

Dave Porter of the Council of Yukon Indians commented: "It's using a capitalist vehicle for a common benefit."[18] He admits that it is a problematic and difficult development, but argues that Native people have no other choice, that they have to experiment and learn by doing. Tagak Curley, Member of the Legislative Assembly of the NWT for Keewatin South, first president of the ITC and since 1979 president of "Nunasi," the development corporation of the ITC, gives a similar explanation:

> We were able to say to our people: 'Look, some day Inuit are gonna be faced with having to deal with big industry, big mining industry and so on. If there is ever going to be a major land claim settlement, which will involve money, quite a bit of money maybe, and managing the land and title of the land, and property acquired by Inuit, and royalty payments, we'd better start organizing and prepare our people, so that they will know how to manage and have the experience in running the business aspects to the benefit of Inuit.[19]

From an economic point of view, the development corporations are succesful. Inuit leaders emphasize the political clout they will gain through economic power. How successful they will be in

---

[17] Tom Sampson, The Globe and Mail, March 9, 1983, p. B 8.

[18] Dave Porter, Interview, Whitehorse, October 1983.

[19] Takag Curley, Interview Yellowknife, November 1982.

these non-economic spheres is difficult to predict, as it is to define what "success" means.

To compete with southern institutions means in a way to accept those terms. It does not mean that the Inuit values of sharing and equality will necessarily disappear. The land is still commonly owned, the profit of the corporations is common property. But the entire value system to which they have adapted has changed. Property, expansion and economic growth have entered Inuit economic life. And more important, their corporations are hinterland businesses, dependent and influenced by forces outside the control of the Inuit. As profit-generators, Inuit enterprises have to operate according to the rules of economic rationality, or they will fail. This might widen the gap between those who want to continue the traditional way of life. Frances Abele argues "this is more likely to occur if the economic ventures proceed unsupported by changes in northern political arrangements or by land claim settlements which provide some systematic protection for traditional pursuits."[20] The creation of a fourth level of government in the NWT through Regional and Tribal Councils - controversial and unsettled in details as they are - is an important step in political rearrangements that reflect traditional Native institutions.[21]

---

[20] Frances Abele, p.29.

[21] Native Press, September 23, 1983, p. 3.

Parallel to these attempts at participation in political-economic development, the Inuit and Northern Indians have set up communication societies and broadcasting coporations to regain control over their communication system as a basic means for political-economic and cultural development.

5.3. Inuit Involvement in Telecommunication and Broadcasting Development

Involvement in Regulatory and Policy Definition Processes

The Northern Broadcasting Policy of March 1983 repeated the federal government's commitment to have Native people participate in establishing broadcasting policies as well as in the regulatory procedures of the CRTC. DOC is responsible for the definition of telecommuniation policies and the initiation of direct subsidies and R&D funds to implement national telecommunication policies. During the policy definition process, northern residents can make their items known to the Department. In the case of the Northern Broadcating Policy, DOC asked Native groups to submit their statements. Yet, participation is restricted to consultation and the discussion of this very policy paper showed that the order of the established principles does not reflect the priorities of Native people. In the case of a Northern transponder, the policy paper is in direct opposition to what Native groups have demanded.

A closer look at the development of the NCAP program (extension of telephone service) reveals similarly the limited influence of Native people. The original idea for the program came from a submission presented by the ITC to the CRTC. When the program was finally initiated, DOC referred to the active participation of Native and non-Native northerners through the Advisory Committee on Northern Development (ACND). Yet, the subcommittee on Northern Communications of ACND consists of 23 members, 20 are representatives of government departments in Ottawa, each territorial government is represented with one member, and a further member represents the Public Service Commission in Ottawa.[22] Native organizations were thus absent. Further, the committee plays only an advisory role and meets infrequently. Its influence on decision making is therefore limited and its function as a vehicle for public input cannot be effective.

Further, the announcement of the NCAP as well as the Northern Broadcasting Policy indicates that policies or prospective programs are not announced until the decisions are made and the amount of available financial resources determined.

CRTC hearings have been open for submissions and presentations. The regulatory process thus provides a forum for groups or individuals who are able to afford the costs of participation. Native groups have used the hearings to present

---

[22] Robin Mansell, Telecommunications Subsidy Policy in Northwestern Canada and Alaska, p. 190.

their position. However, issues of telecommunication services which directly affect northern Natives are generally subsumed under broader issues involved with the carriers' applications. In the case of CNT, Robin Mansell argues that "the scarcity of public hearings has reduced the possibility of making use of the opportunity to publicize problems."[23] In addition, CRTC regulation of rate structures, as the Bell case for North-Eastern Canada indicates, is not very effective. Bell Canada could allow two years to pass before responding to the request to provide a rate structure particularly suited to the North.

Inuit involvement in the process of regulating broadcasting in the North is similarly limited by the primarily advisory character of presentations and submissions at CRTC hearings. Despite repeated complaints about the inadequacy of CBC Northern programming, particularly television, CRTC regulation had only limited effect on enforcing the expansion of northern Native programming.

Native Experiences in Programming

In 1976, COPE had set up the "Western Arctic Regional Communications Society" to be responsible for the provision of communication services to the Delta communities. However, the society never received any government funding and eventually

---

[23] Robin Mansell, Telecommunications Subsidy Policy in Northwestern Canada and Alaska, p. 189.

disappeared. In 1982 COPE's interest in communication services reemerged and it created the Inuvialuit Communications Society to take advantage of the Northern Broadcasting Access Program.

In the Mackenzie region northern Indians founded the Native Communications Society of the Western Arctic (NCS) which became independent in 1975 from the political organization of the Dene Nation. NCS produces a biweekly newspaper, "Native Press," which has set up a photography department and radio broadcasting studio, and provides training in radio programming.

Native communities have created their own radio stations to provide basic local services. Yet they are not linked to a network. In 1982, a NCS Survey mentions seven communities in the Mackenzie Valley which have incorporated a communication society, and produce or are in the process of starting local radio production. Generally, the programs contain local news, announcements, messages, stories, and social themes such as adult education, employment, and health.[24]

In April 1981 the CRTC licensed a broadcasting corporation of the Council for Yukon Indians and Dene Nation to operate a multi-channel native radio network. In response, the Native Indian organizations in the Western NWT developed plans for a corporation called "Dehcho Gondee" to function as broadcaster. Yet, developments have been slow and network programming will not be provided in the near future. However, they jointly

---

[24] Native Communications Society of the Western NWT, Community Analysis (Yellowknife: unpublished paper, 1982), pp.2-3.

produce a weekly one-hour current affairs radio program which is aired Saturday evenings on CBC Yellowknife and Inuvik, called "Datsedi" ("What the people are saying").

In terms of Native network programming in the Western North, the Northern Native Broadcasting Yukon (NNBY) is the most highly developed. It was incorporated in 1981 in response to the CRTC license. NNBY started training programs, set up radio production facilities and, with four-year funding through the Access Program, plans to finally start a radio program that will run for 5 hours and 42 minutes (7.58 a.m. - 12.40 p.m.), startin in late spring 1984. Since the NNBY received a licence from the CRTC in 1981, it has exprienced a government run-around, complains the coordinator of NNBY, George Henry.[25] The responsibility for funding the proposed service has been passed from the federal Communications Department to the Secretary of State to the Indian Affairs Department and was then shuffled back to the Secretary of State who finally referred it to DOC.

When the CRTC held hearings to approve Cancom's proposal for an additional four U.S. network channels on its program package, Native people expressed their bewilderment. This commission, which had emphasized the necessity of native programming for the cultural survival of the indigenous people now sat down and considered the idea of additional southern TV programming, while Native aspirations were denied again and

---

[25] Massey Padgham, "Native satellite radio delayed," The Whitehorse Star, September 21, 1982.

again:

> Since your decision of April '81, our organization has had to divert most of our energies to fundraising in Ottawa, as opposed to directing our attention to the all important issues of management, programming and administration.[26]

In August 1982, a final NNBY proposal was put on hold by DIAND, because the costs were still considered to be too high, the equipment too sophisticated, and cost-benefits of the program remained a concern. The $ 1 million annual budget was compared with the 21 jobs created. At the CRTC hearing of the CANCOM application, NNBY complained about the narrowness of a consultant's assessment,[27] and argued that the proposal was never promoted as being strictly labour-intensive:

> To reduce our initiative to this scale is indeed an insult to the cultural and linguistic value of our heritage.[28]

In September 1982 the whole issue was put on hold because of the soon to be published Northern Broadcasting Policy Paper, which was expected to clarify departmental responsibilities and funding details.

Generally, Native people in the Western Arctic fear that their service is falling well behind Cancom:

> If the Cancom package continues to expand into communities and the northern regions, and if the native people do not have participation in that service, then

---

[26] International Reporting Inc., Special Representation by Northern Native Broadcasting (unpublished paper), pp.8-10.

[27] DIAND had employed a consultant to appraise the proposal and to prepare the cabinet documents.

[28] International Reporting, p. 10.

> my fear is that further down the road people will not accept the native package as part and parcel of the extension of services, but as an interruption.[29]

It appears, however, that money for new applications of communication technologies is not really the problem. At the same time, as Native groups struggle for necessary grants, DOC introduced Telidon in several Native communities in the Yukon to test the equipment and its application in rural areas. The experiment requires the installation of a computer terminal in each of four band offices. Through a central computer, a broad range of information will be available. DOC planners expect that soon trappers in those small communities will come to the band office to look up the most recent fur prices, weather forecasts and the price and availability of snowmobile parts. DOC contributed $ 59.000 to the experiment, another $ 20.000 came from DIAND.[30] Yet, "if you just throw a bunch of text up on the screen, people don't get excited," warns the projct co-ordinator, Konrad Kordowski.[31] Since early 1983, he has developed pages for the Telidon service and expects that Native people will make effective use of the micro-computer technology for personal information and socio-economic development in general, if people are sufficiently trained in using the technology. On the other hand, he sees the Yukon Indians being used somewhat as guinea-pigs to test Telidon applications. Yet

---

[29] George Henry, The Whitehorse Star, 2 August, 1982.

[30] The Whitehorse Star, 28 July 1982

[31] The Whitehorse Star, 28 July, 1982.

he thinks it would be worse to ignore the existing technology. Native people could only benefit by trying to make the best use of the existing facilities, and attempting to realize the potential benefits of tapping data banks in order to access information of interest to northern Native people.[32]

DOC has not yet provided the necessary equipment to convert the project into a field trial, and the means and costs of transmission are still unclear. Given the early stage of this experiment, Yukon Indians do not yet have a clear idea of how the service will be perceived nor how they will actually benefit.

Earlier experiences with computer technology in a northern Native context suggest, that if interactive telecommunication and computer systems are to be introduced for the benefit of northern Natives, the technology will have to be backed up with a network of people who have been specifically trained to communicate northern needs to southern information-providers. Feaver refers to examples where this had not been considered at all, with the effect that the new technology created a much worse situation. Suddenly, the southern administrators' ability to control the economic lives of northerners had even outstripped the ability of the affected people to effectively communicate with the people in the south. Feaver concludes that "most northerners would probably be glad to throw every computer card they ever see into their wood stove, not because the

---

[32] Konrad Kordowski, Interview, Whitehorse, October 1983.

machines failed them, but rather because the users have been inconsiderate."[33]

The important questions which both Native groups and government agencies have to ask are: What kind of equipment would be most appropriate? What services should and could be offered? Where would specially-trained northern personnel come from? Native people in Alaska have settled their land claims a decade ago, and therefore gained experiences in participation in socio-economic development and the role of telecommunications.

5.4. Inupiat Capitalists? - Alaskan Experiences of Industrial Development

The Alaskan Native Claims Settlement Act (ANCSA) was passed in 1971,[34] after nearly yen years of lobbying by Native people.

The final argreement completely extinguished Native title and any claims to aboriginal title or special rights based upon race. Special rights of the Alaskan Inuit are only of limited duration. The Act has been intended to grant Native Alaskans the ability to fully participate in American life, but on the same basis as other citizens.

The ANCSA gave Alaskan Inuit 40 million acres with surface and subsurface rights (equal to 11% of Alaska) and cash

---

[33] Chuck Feaver, "The Computer Must Speak Chipeweyan," Communications, Computers, and Human Settlements, 9th Annual Urban Studies Symposium, (York University, March 19-21, 1980), paper #3.

[34] P.L. 92-203, 18 December 1971.

compensation totalling $ 962.5 million. It created 12 regional corporations to administer the settlement. The selection of land could be made only from land set aside by the state government, and some authors charge that these lands were, contrary to the withdrawal guidelines, worth nothing, such as swamps and glaciers.[35] Never before had the Inuit been involved in procedures of this kind. They knew virtually nothing about the non-renewable resource potential. In some cases they were forced to obtain their information from industry in return for exploration rights.[36]

The means to facilitate socio-economic development was the corporate structure of regional and community corporations. The general attitude was that "in white man's society, we need white man's tools."[37] All eligible Natives became stock-holders, part-owners of the corporations.

Yet they were not ready to meet the challenge on white man's terms and had to hire non-Native advisors who influenced the nature and the decisions of the corporations. Klausner and Foulks argue that the consultants taught the Inuit to think about their enterprises in narrow economic terms.[38] Indeed, recent reports of the activities of the corporations indicate a

---

[35] Constance Hunt, p.10.

[36] Constance Hunt, p. 10.

[37] Robert Arnold, Alaska Native Land Claims (Anchorage: Alaska Native Foundation, 1976), p. 153.

[38] Samuel Klausner, Edward Foulks, Eskimo Capitalists. Oil, Politics and Alcohol (Allanheld: Osmun Publishers, 1982), p. 3.

strong tendency towards involvement in non-renewable resource development.[39]

Many villagers, particularly older people of northern and western Alaska, could neither read nor write English and some did not speak nor understand it. To explain to them what was happening was difficult, if not impossible. "Profit-making" was explained, for example, as "a parent dollar that gives birth to many more little dollars."[40] The lawyers' definitions, the important details, however, were impossible to translate and to make fully understood.

Native Development Corporations

Suddenly having received unusually large amounts of cash, which was to compensate for economic value of the land given-up, the village corporations made various investments. They purchased existing businesses or launched new enterprises, such as a sawmill, or a log-home construction business. Many smaller community corporations purchased village stores. The Bethel Native Corporation constructed a one million dolar hotel- and apartment-building. Yet not all communities have had equal opportunities to open new businesses. If only a few travellers

---

[39] Thomas Morehouse, "Alaska"s North Slope Borough: Oil, Money and Eskimo Self-Government," Polar Record, Vol. 20, No. 12 (1980), pp. 19-29.

[40] Robert Arnold, p. 161.

pass through a village, there is little need for a hotel, and many village corporations chose to invest in bank deposits or to purchase securities to assure future dividends. In retrospect, not all communities seem happy with the money-making business, as Harold Napoleon, the president of the regional non-profit corporation in south-western Alaska, comments:

> Well, just looking back a few years, we see we could have made better decisions. Village corporations, for example - money making institutions in the villages where there are no economic potentials - any economic realist will tell you that out of every one hundred, ten corporations may succeed. In some cases, rather than have a village money making corporation, a community center or a community library would have been more practical, and might have proven more valuable in 20 years when the community corporation has gone broke.[41]

Self-determination in the Settlement Act meant that Native corporations would set their own goals for the use of their land and money. But the major goal of making a profit for stock-holders was set for them. This contributed automatically to the unequal development of the communities. The North Slope Borough[42], in particular, has developed in a distinctively different way than the other regions. Through their borough status, North Slope residents have extensive powers of taxation and regulation. Within the boundaries of the borough lies the Prudhoe Bay oil field complex which made the eight Native communities in the North Slope Borough one of the richest - on a per capita basis - of the local and regional governments in the

---

[41] Harold Napoleon, in Robert Arnold, p. 227.

[42] A borough is a form of local or regional government in Alaska, somewhat like a county elsewhere in the U.S.

US.[43]

Because of their tax rights, the borough has made somewhat a 'second claims settlement,' surpassing the ANCSA of 1971 in its economic, political and social effects. The Arctic Slope Regional Corporation will eventually receive about $ 52 million in its share of the claims settlement. Since its incorporation in 1972, the borough collected $ 150 million in property taxes, virtually all of which had been paid by oil companies and related firms. The money from the boom has been spent in a capital improvement program to buy new schools, houses, water and sewer systems, electrical and heating systems, roads, airports, health clinics and other facilities. Estimated costs are about $ 375 million. The program has significantly improved the health and social services. Yet, as Eben Hopson, the mayor of the North Slope Borough, testified before the Berger Inquiry:

> I am very concerned about the long-term economic impact of oil and gas development upon our Arctic community. We are riding at the crest of a high economic wave, and I fear about where it will deposit us, and how hard we will land.[44]

The Inuit have achieved substantial measures of political independence and economic benefit through their regional government. But in this process they have become increasingly dependent on oil development and the cash economy it represents.

---

[43] In 1979, oil and gas development property within the borough was assessed at roughly $ 5 billion. It gave the borough, with less than 1% of the population, a tax-base nearly equal to that of Anchorage with about half the state's population. See: Thomas Morehouse, p. 20.

[44] In: Thomas Morehouse, p.28.

The local and regional coporations in general have become dependent on the settlement money and related investments.

When the Yukon Indians asked for advice in their claim negotiations, Ted Mala, an Alaskan representative admitted that Alaska had only land and money, and the difficulties of the transition from the traditional Native life to the modern cash economy were still not digested.[45]

Employment is still an unresolved problem in the communities living off the oil boom. Walter Parker states that income from the ccrporations to unemployed Native stockholders had certainly not begun to approach the point where it could offer them any degree of financial security.[46]

Although certain native groups have derived economic benefits, the rapid development in itselfhas had little effect on achieving social goals of reduced unemployment and increased income in rural Alaska, and further, has caused serious social and cultural dislocations.

Telecommunication Development and its Implications for Alaskan Natives

Similar to the system in Northern Canada, the

---

[45] Ted Mala, in Kwandur, Vol.2, No.1 (December 1982), p. 3; see as well: Samuel Klausner and Edward Foulks, pp. 102f; and Mim Dixon, What Happened to Fairbanks (Bolder, Colorado: Westview Press, 1976).

[46] Walter Parker, "Land Use Planning With Alaska Natives," Ekistics, 279, November/December 1979.

telecommunication system of Alaska d was developed and operated by the U.S. military after World War II. Commercial and personal telecommunication needs were provided in piggy-back fashion. Local telephone service was developed by municipal agencies, private corporations or community cooperatives in the smaller settlements. However, most of the state had no telecommunication facilities at all.

The oil boom brought an influx of money and people, and the ANCSA gave Native groups political and economic power to become more active participants in Alakan development. Telecommunication networks for the exchange of timely information became more vital to responsive decision-making, both for the efficient provision of goods and services throughout the Alaskan economy and for the effective operation of government. However, as Melody observed:

> the costs of inefficiency in the Alaskan telecommunication system were compounded many times. The effects rippled throughout the state, limiting economic, political, and social development. Telecommunication inefficiency provided a major barrier to the integration of Alaska into the United States.[47]

Therefore, in 1970, the Department of Defense sold portions of its facilities to the newly-created RCA Alascom, which would provide long distance services within Alaska and to the lower states. At that time, the majority of Alaskan communities had neither telephone, radio, nor television broadcasting services.

---

[47] William Melody, Telecommunications in Alaska: Economics and Public Policy (Alaska Communication Research Project, April 1978), p. 3.

The plan was to provide service to the 144 "bush communities." This included the construction of thin-route micro-waves lines throughout the region, with VHF extension to the villages, thus using an obsolete radio telephone system. All of the communities were to be connected to the telephone system within three years. Yet at the end of the three year period, fewer than 50 villages were in service and the system was completely overloaded.

Over the last few years the capacity for long distance service by both satellite and land line facilities has increased dramatically. The smaller villages got radio and television broadcast reception and two voice-circuits, one for conventional messages, and a special one for medical services. All circuits are routed through a satellite to a major earth station and form there to a switching center in Anchorage for re-transmission, again via satellite, to the receiving station. Thus calls between villages must be transmitted through the satellite twice. This "double-hop" is considerably annoying, due to the increased propagation delay of about 0.6 seconds. It also utilizes twice the satellite band, which reduces the number of simulataneously available channels by a factor of two. And if a channel is not being used by the station to which it is assigned, it cannot be used by another station. As a result, a large number of the channels is generally unused.[48]

---

[48] Robert Merrit, "Alaska Telecommunications," Telecommunication in Alaska. Papers in Support of the Alaska Case Study Presentation to the 1982 Pacific Telecommunications Conference, ed. Robert M. Walp (Honolulu, Hawaii, January 17-20, 1982), p. 8.

Native communities thus have a basic, though inadequate, possibility for long distance communication. Their calling rate is significantly lower than average, although they depend more heavily on long-distance calls for service delivery and for personal calls to relatives in neighbouring communities.

> Small remote villages will generally have to call outside of their villages for virtually all social and business needs, as the parties to be contacted will be located in other areas ... In the case of the large metropolitan areas, the call will be a local call (much less expensive than a toll call), while for the villages, the communications will be a toll call, a letter, an airplane trip, or may not occur at all due to the communications costs.[49]

During the first years of operation, Dowling reports, the telephone system seemed to provide frustration as often as it did high quality service. Service reliability was poor, with extensive outages and an overall system availability of 60 percent or less, at times. The reliability has slowly improved but still remains lower than rural networks in the continental U.S.[50] Melody argues that the inadequate service is a result of the low priority given to service development in rural and remote areas, ignoring alternative ways of financing the service and the crucial role of technology plays in the region.[51]

---

[49] Douglas Goldschmidt, "The Benefits of Satellite Telecommunications in Alaska," Telecommunication in Alaska, p. 56.

[50] Richard P. Dowling, "The Alaska Small Earth Station Program: Mitigating Isolation through Technology," Telcommunication in Alaska, p. 32.

[51] William Melody, " Telecommunications Networks. Internal Subsidies and System Extension in Alaska," Telecommunication in Alaska, p. 126.

In 1975, the Alaska legislature provided funds to purchase 120 small earth stations to provide telephone service to all communities with a permanent population of 25 and more. One channel is used for public toll service. In addition, the Public Health Service leased a dedicated audio-conferencing network consisting of five simplex channels for medical communications via satellite. Major types of medial information exchange have been emergency calls, routine medical traffic and administrative calls. The cost of this service is substantial, requiring $ 875 per village per month and $ 160 per hospital. The total annual costs of this audio service amount to $ 875,100. However, the expensive costs of travelling in the north and the ability to treat the patients in the village, rather than in the hospital, make the satellite service an attractive alternative.[52]

In 1976, the Alaska legislature appropriated $ 1.5 million for a demonstration project to include live television delivery via satellite to the State's urban and rural areas. It provided television services to areas the commercial broadcasters were not willing to serve and eventually became a permanent service of live State television programming. The channel is used for "Learn/Alaska", a tele-education program serving about 200 rural communities. The Department of Education developed instructional television and computer-assisted instruction programs, which are delivered through the rural education systems. Despite

---

[52] Heather Hudson, "Medical Communication in Rural Alaska" Telecommunication in Alaska, p. 60.

substantial underfunding for the magnitude of the task, such as training staff, the program is considered to be a valuable and heavily-used service.[53] and the channel is almost overloaded.[54]

Evaluations of the tele-education project, which links computer with television and satellite technology, generally appreciate the potential. Yet they stress the need for Native involvement and control of programming and local management.[55] Bramble and Polley warn "to not let the technology become the purpose of the project. That is, educational goals should be the primary focus."[56]

Goldschmidt concludes that the introduction of satellite telecommunications, combined with other social and economic events - such as the Native Claims Settlement and the construction of the Trans-Alaska Pipeline - has promoted the development in some areas of rural Alaska. Yet, the benefits of telecommunications are not equally distributed to all communities, but vary according to the characteristics of each community. He argues:

> It is probable that the chief benefits of satellite telecommunications may be to communities that have passed beyond subsistence to more varied and developed economies. One may hypothesize that the smallest Alaskan

---

[53] Walter Parker, Learn/Alaska (Anchorage: p. 16.

[54] Walter Parker, Learn/Alaska, pp. 19-20.

[55] James Orvik, "ESCD/Alaska: An Educational Demonstration," Journal of Communication, Vol. 27 No. 4 (Autumn 1977), pp. 166-172.

[56] William Bramble, Ernest Polley, "Microcomputer Instruction in Remote Villages in Alaska," Telecommunication in Alaska, p. 64.

communities have still not reached the level of economic development where the addition of telephone service is of economic use to the habitants. (It is also probable that income levels in the smallest villages may be too small to sustain heavy telephone calling.)[57]

Similar to the situation in Northwest Canada, the conditions of unequal and inadequate local service in the remote villages of rural Alaska continue. It puts these regions in a disadvantageous position for socio-economic development. As the Canadian government, agencies in Alaska are reluctant to implement strategies that give social criteria higher priority than economic considerations.

5.5. Self-Reliance and Integration into the Industrial Economy

Inuit have become involved in political negotiations, economic enterprises, and communications projects to define a new relationship with the state and the world economy. They hope this will permit them sufficient self-determination to be able to respond to future changes in their own way. They intend to maintain the choice of alternative ways of life, not only to alternative ways of making a living. In order to be respected and taken seriously, the Inuit adopted institutions of industrial capitalism, which shaped the course of development and drew them deeper into the capitalist market. Under present conditions, Nelly Cornoyea thinks that

> people reluctantly get involved because they feel they have no other option. Because what are you gonna do about it unless you go for a massive court case. Who can

---

[57] Douglas Goldschmidt, p. 57.

afford that?[58]

It has been argued that the option for oil and gas development produces some of the same problems created by earlier boom-bust developments, rather thanproviding continuing employment. Native people approach these projects differently than enterprises with decision-making authority located in the south. They emphasize the common property of the corporations, the attempt to include its employees in decision making processes regarding policies, payments, shifts, hiring etc. However, these projects are not suspended from the hinterland position. A northern resource only becomes a staple commodity when the factors of technology and the needs of the metropolis come together so that it is possible to extract the staple from the north at a price the south is willing to pay. Only after the oil "crisis" was triggered high oil prices in 1973, did the Canadian government and the oil industry justify the increase in exploration expenditures in the Canadian Arctic. The present oil glut, falling prices, together with an eventual discovery of reserves in Southern Canada may quickly take off the heat of northern development. The decisions will thus be made outside the North in response to needs outside the North.

The Alaskan experience has shown that while Inuit have improved their local and regional political independence on their land, they have become increasingly dependent upon oil and gas development and the cash economy it represents. For the

---

[58] Nelly Cornoyea, Interview, Yellowknife, November 1982.

North Slope Borough, the greatest long term threat - as distinguishedfrom native culture and traditions - may not be offshore drilling and production, but the decline and eventual depletion of the Prudhoe oilfield in the next 20 years, and insufficient alternative sources of either local tax revenue or private income to maintain living standards now assured by borough facilities, services and employment. There is no apparent basis for local economic development outside the petroleum-based economy.

The alternative appears to be the reversion to the familiar government welfare - native subsistence economy, modified sporadically by resource development and construction projects. Once adjusted to this high level of cash income and wage employment, it will be difficult to return to subsistence economy and government welfare. At the same time as the North Slope borough has strengthened self-government in the Arctic, it has become more dependent on development activities and the external institutions that principally control it - state government, federal government and oil companies. Inuit in Canada have not had those experiences, yet.

They have tried all other strategies, through the legal system, in claim negotiations, and through political involvement in the territorial government. In each of these processes they have departed from their traditional culture, they have altered the relationship with non-Natives as well as among themselves, and they have changed their own political and social

institutions and relationships. It is therefore argued that the advent of Native development corporations and the involvement of mega-projects and related enterprises is not, as it might appear and as the author originally has thought, a major departure from earlier political goals. It is rather another attempt, a new strategy to develop and strengthen an area, Inuit have recognized to be of central importance. The process of transformation has just begun.

Yet Inuit involvement in petroleum development comprises only a part of their enterprises. The majority of their businesses relate to local development projects and enterprises, which can provide local services and to commercially develop renewable resources. These projects seem more compatible with the lifestyle of Inuit who still want to participate in the traditional economy.

To facilitate and support these economic and social development projects, the provision of efficient and inexpensive interactive communication links are crucially important.

5.6. Telecommunication and Broadcasting Development and Industrialization

The Role of Telephone/Telecommunications

Telephones have long been the priority technology of Native people for intra- and inter-regional communication. Originally,

the telecommunication network was limited to government agencies, commercial enterprises and other non-Native institutions. With the provision of satellite telephone service - or surface services of similar quality - to all settlements, the technology helps to counteract the early tendencies of expansion of the English language knowledge monopoly. Native people can communicate in their native tongue and thus circumvent southern agencies to gather and transfer information, which is essential for their political-economic involvement. Telephony combats closed information systems which have undermined Native leadership and decision making processes because of outdated, invalid, or inadequate information.

Dennis Dicks reports that after an initial phase, telephone subscription in Igloolik grew rapidly, with what he calls a "bandwagon effect."[59] Once the system was linked to the satellite facilities and quality, long distance calls increased five-fold. He observed that in virtually all surveyed communities, the increase in long distance calls was directed towards communities newly served by Anik.[60]

The introduction of telecommunication facilities helps to increase economic activities significantly. In Arctic settlements without telephone, communication with the outside was infrequnt and slow - via barges or airplanes. Such delaying

---

[59] Dennis Dicks, "From Dog Sled to Dial Phone: A Cultural Gap?" Journal of Communication, Vol. 27, No. 4 (Autumn 1977), p. 122.

[60] Dennis Dicks, From Dog Sled to Dial Phone, p. 124.

communication made businesses impossible. Telephone has enabled a reduction in the turn-around time to a few minutes. It provides two-way, instantaneous transmission and thus has allowed enterprises more timely orders of supplies, better adaptations to market demands, and the like.[61]

The development of telecommunication infrastructure can thus improve the cost-effectiveness of northern social service delivery and economic activities. To suspend information disadvantages consequently reduces economic disadvantages. Hudson refers to Alaskan experiences and studies in other regions which support the important role of telecommunications for development, particularly for business, banking, transportation and government agencies.[62] Especially the tertiary sector cannot function on a day-to-day basis without telecommunications.

Rural telecommunication development further supports a more balanced development between economic centres and remote regions, allowing business and government agencies to operate outside of larger centres.

Wellenius argues that the introduction of telecommunication services may considerably alter the patterns of communication, and refers to three types of phenomena that take place:

1. substitution for alternative means;

---

[61] Douglas Goldschmidt, p. 56.

[62] Heather Hudson, The Role of Telecommunications in Socio-Economic Development, p. 4.

2. generation of new communications (such as transportation, mail, telegraph);
3. new requirements for other communications as a consequence of the increase in intensity in interaction.

[63]

Studies in Alaska[64] and the Canadian Arctic[65] indicate that there are impacts of telecommunication developments on other forms of communication, as for exapmple replaving air travel. On the other hand, improved facilities have led to an increase in economic actvities and which resulted in growing air travel.

Telecommunication facilities are further necessary to support the new Native organizations, such as COPE and the Inuvialuit Development Corporation, which are part of the modernization and industrialization process. In addition, telecommunication developments provide jobs in installation, operation and maintenance. Heather Hudson argues that the benefits cannot be explained as a simplistic causal relation of quick and automatic growth to follow from the installation of telecommunication facilities. Rather,

> The general hypothesis is that telecommunication infrastructure plus a complementary social infrastructure (e.g. rural development programs or

---

[63] In: Heather Hudson, The Role of Telecommunications in Socio-Economic Development, p. 5.

[64] Douglas Goldschmidt, Telephone Communications, Collective Supply, and Public Goods: A Case Study of the Alaskan Telephone System, Ph.D., University of Pennsylvania, 1978.

[65] Heather Hudson, Community Communication and Development: A Canadian Case Study, Ph.D., Stanford University, 1974.

> entrepreneurial activity) will together lead to more economic growth and more effective social service delivery than when either or both of the two basic conditions are absent.[66]

Land to settlement communications or trail radio, is another important form of communication, particularly in the context of strengthening the renewable resource economy. The units in a trail communications project with portable 4-channel HF radios in the Mackenzie community Fort Franklin were heavily used for: exchanging information on the day's activities, monitoring the movement of game, monitoring the weather, and general social conversation. The project assessment concluded that trail communications "will result in better self-administration by the people and still allow them to maintain cultural habits of livelihood and language, while competing in a rapidly expanding technological society."[67]

With the end of the project, however, financial support for the project stopped. It is another example of the tendency mentioned earlier that testing communication technologies does not necessarily lead to the implementation of services, although they are considered beneficial and essential. Social benefits thus do not provide sufficient justification to permanently subsidize a service that creates no revenues, or to look for alternative ways of financing.

---

[66] Heather Hudson, The Role of Telecommunications in Socio-Economic Development (New Delhi: ITU, 1978), p. 12.

[67] Ron Robbins, The Trail Communications Project, Fort Franklin, NWT. Report of a Communications Canada Pilot Project (Winnipeg: DOC, 1974), p. 19.

In the future, the employment of Mobile Satellite technology and related products may become a viable new means for land-to-settlement communications. It depends on the design of the equipment - if appropriate for the rough conditions - and the costs involved for satellite communications. Present predictions are about $ 1 per minute, whereas terrestrial mobile communication is free. It thus represents another communication service being drawn into the commodity market. And like other services on a commercial basis, one can expect that it will not likely become available or affordable for Native people unless government subsidies are provided.

Radio

The patterns of the introduction of radio and television in the Western Arctic have been shaped by the constraints of economic costs. Although a non-profit Crown corporation, CBC has been subject to budget constraint and forced to compete with commercial corporations for audiences. At the same time it is required to fulfill the different cultural and regional needs of the Canadian population and thus is drawn into the conflict of both serving mass and minority appeals.

Northern Natives are well aware of their need for information, and increasingly recognize the role of radio in coping with the changes and decisions facing the indigenous population. Radio has been a major source of information because access to other channels are still very limited. Newspapers,

magazines and other reading material are usually out-of-date by the time they arrive. In addition, little of their content is relevant to isolated northern communities. Radio is thus essential for

1. information about the North, Canada and the world;
2. interactive information exchange;
3. entertainment, particularly music; and
4. the opportunity to hear Native languages.

Yet, evidence was presented that the realization of the potential of radio communication for political and cultural purposes is limited because of insufficient funding for Native programming. The experiences of the Inuit in Northern Quebec illustrate the crucial role of radio in a time of political changes and major decision making processes. The Naalakvik I interactive radio project helped to re-establish the information sharing of early forms of the oral tradition. However, it did not unite people during the negotiations of the James Bay and Northern Quebec Agreement, to reach consensus among themselves. In contrast, some argue that the dissident movement in several communities was forged and cemented through radio and that without access to such community building technology there would not have been an Inuit dissident movement.[68] People were able to talk to each other on an intimate and informed basis. Radio thus provided a sort of extended conversation through electronic

---

[68] Gail Valaskakis, Technology Transfer and Canadian Inuit (Montreal: Concordia University, Department of Communications, April 1983), p. 14.

media.

Television

Southern commercial television established itself as a new change agency, as a new institution which influenced motivations and decisions in a desired direction. It transferred new dimensions of political-economic orientation towards consumerism in a one-way flow of information. From a participatory perspective, television actually has increased the isolation of Native communities.

On the other hand, Native experiments using Anik B have shown that television can be applied to interactive communications. Community teleconferencing and the provision of administrative services - using voice, facsimile, or video transmission - can become an important supplement to the delivery of social services.[69] Viewer surveys in the Inukshuk project communities indicated that the Inuit in all six locations enjoyed watching those interactive meetings, which were rated even slightly higher than films.[70]

The Hermes and Anik B projects provided tele-education and tele-health services. They linked teachers in remote areas to share experiences and resources with larger institutions. They

---

[69] See Gail Valaskakis, Ron Robbins, Tom Wilson, The Inukshuk Anik B Project: An Assessment, (Ottawa: ITC, 1981).

[70] Gail Valaskakis et.al., p.387.

provided long distance X-ray and cardiogram transmission from remote health care units to southern hospitals for advice on further treatment. Hospitals were connected for teaching purposes, and audio-visual contacts were arranged between patients and relatives. DOC concluded that "the Anik B communications program has demonstrated that tele-medicine can be a revolutionary tool for isolated medical staff."[71]

Yet, with the ending of the project most of the services were terminated as well. Eventually they may be provided on a commercial basis. Given the high costs because of the sophisticated technology involved and the small population in the North, it seems likely that service delivery will be postponed - as has happened in the case of providing sufficient telecommunications. As long as social benefits are not weighed against the involved costs, there seems to be no adequate justification for service delivery - from the perspectove of the federal governemnt.

Project Evaluations: Implications for Future Development

Government-sponsored project evaluations are mainly made on a narrow basis of economic and technical feasibilities, as the evaluation of the Hermes project reflects. Government agencies and industry have appreciated the successful application of new technologies, the variety of field experiments, and the proven

---

[71] DOC, Anik B, (Ottawa: DOC, April 1982) p. 13.

technical and economic feasibility. What is lacking is a critical evaluation of long-term social and individual human aspacts.[72] The question of risks involved in implemting advances in communication technology has been neglected, while few methods exist for assessing the long-term social, cultural and human consequences.

It seems that projects such as Inukshuk or Telidon are supported by the government because they contribute to the general task of the research process which is directed toward providing information for technology policy, and the transfer of the production, diffusion, and utilization of the technology to private industry.[73]

Projects which do not contribute to this technology policy, such as the creation of native networks, are given little priority, and consequently, insufficient funding. It seems that serving northern Native needs is only a by-product and not the primary objective. Melody et al conclude that the present practices of government-sponsored research mainly serve to introduce "inevitable" new information technologies and products without considering the structural constraints or the social

---

[72] See: Royal Society of Canada, Hermes (The Communications Technology Satellite). Its Performance and Applications (3 vols., Ottawa: Royal Society of Canada in Cooperation with DOC and NASA, 1977).

[73] William Melody, Robin Mansell, Rohan Samarajiwa, Technology and Markets in the Information Sector: Policy, Issues, and Implications (Burnaby: SFU, Department of Communication, n.d.), p.10.

context.[74]

To test technical and economic feasibilities and practical applications, the North provided a unique laboratory. The objective of government-financed research has been to pioneer in communications technology which allows frontier development, as well as to support the Canadian communication industry in effectively competing in the international market. This could well be linked with the issue of unfulfilled northern communication needs.

However, the centralization and complexity of the technology and its current use suggest, that only to a limited extent can television and other new communication technologies, such as computers, break the pattern of non-Native authoritative leadership established through earlier technologies. How people encounter and respond to communication facilities is not determined by technology alone, but rather by the social institutions of those who develop and those who employ the facilities, as well as those whoe receive and have integrated the technology into their communication tradition and social system.

New communication technologies, particularly satellite technologies, can provide cost-effective means for a broad range of communication services to widely separated communities. While telecommunications cannot move goods to markets, they do expedite the flow of information which can support development

---

[74] William Melody et al, p.17.

and which n their absence impede development. The facilities per se do not lead to development but must be accompanied by other socio-economic factors.

Satellite telecommunications can provide significant benefits to all communities. On the other hand, the speed and commercial context within which new technologies have been introduced, have resulted in widening gaps between northern centres such as Inuvik and traditional native settlements. It was shown that radio and telephone serve Native political-economic aspirations better than television, given the existing structure and the costs involved. Yet, television is used basically as an entertainment medium not because of its inherent technical character, but because of political-economic and evolving cultural milieus, as the next chapter will discuss in more detail.

VI. Tradition and Change: Socio-Cultural Implications of Communication Technologies

> They are equally uninformed about lands to the south. When told of the heat of the summers, of the great forests and factories - blow a whistle: five hundred men walk in; blow another: out they march - Tutinar was fascinated. "Are there many caribou?" she asked. - "None." - "Seal? Walrus? Bear?" - "None at all." "Oh." she replied in astonishment and pity.[1]

It was only thirty years ago, in the 1950's, that Edmund Carpenter observed the Inuit's limited knowledge of the outside non-Inuit world. Twenty years later, the battlegrounds of the world, crimes in the streets of San Francisco, and family dramas in Dallas are broadcast directly into their homes. Now in nearly every Inuit house, for most of the day until late at night, someone in the main room speaks in the English language and shows the picture of another reality or another illusion. It's not Inuit reality, not Inuit fantasy, not Inuit language.

The first part of this chapter outlines the impact which the media, presenting a Western world view, has had on Native people as evidenced by actual behaviour. There is no clear stimulus-response, cause-effect relationship that can be presented and proven but rather there are general trends of the total reality within which the media system plays an important role. The process of modernization within industrial capitalism

---

[1] Edmund Carpenter, Eskimo Realities, p. 19.

is one aspect of the the total reality, as the previous chapters have shown. Dependency theorists introduced the term "cultural imperialism" to refer to the close link between economic and communication structures of dependency within the over-arching frame of industrial capitalism. Yet, the term has to be understood more broadly by referring to the totality of relationships by which dominant and marginal societies relate to each other.

6.1. Socio-Cultural Impacts of Communication Facilities

Innis, McLuhan and Carpenter argue that particular roles can be assigned to the telecommunication media by virtue of the fact that they exist. Long distance dialing, AM and FM radio, and television, each has its particular impact on Inuit society and its potentials through the characteristics of its technology. One has to distinguish between television as a technology - a receiver that is turned on or off but with which one is unable to interact and as a cultural form - which refers to the content that is transmitted over the technology. This involves separating the mere material existence from the cognitive perceptions.[2]

Research has been undertaken to study pre- and post-TV Inuit communities. However, often little consideration is given to the social complexes into which the media have been

---

[2] Raymond Williams, Television. Technology and Cultural Form (New York: Schocken Books, 1975).

introduced and the underlying causes of change.

Innis studied how communication technology principally affects social organization, for example the transition from shamanistic power and the role of traditional storytellers to authority based on income or access to white man's goods and information. McLuhan and Carpenter, on the other hand, emphasize the principal effect on sensory organization and thought. They address the impact of the change from an oral tradition, where the audience is totally involved, in a simultaneous interplay of sight, sound and touch, to the modern "magic in the sky" through electronic means of mass communication. The fascination for technology-assisted communication makes the student listen to tapes of oral tradition of storytelling and songs, but he rejects listening to the elders directly. In New Guinea Edmund Carpenter observed an instant alienation of the people when tape-recorders and radios were introduced. "For the first time, each man saw himself and his environment clearly and he saw them as separable."[3]

What is usually asked about television is what influence it has, by comparison with other influences. All these factors, television, home, school, and the like, are assumed to be discrete, though it is then conceded that they interact. But in an important sense, as Williams argues,

> there can be no inquiry about cause because the total social practice has been either disintegrated into these separable factors, or has been assumed as normal: the

---

[3] Edmund Carpenter, Oh What a Blow That Phantom Gave Me, p. 130.

> real process of socialization... of given social, cultural and political norms. Yet just these factors and norms are themselves effects; they are the established institutions, relationships and values of a given order of society.[4]

Studies, using this research approach, examine the symptoms of the operation of an otherwise unexamined agency.

Generally, Native people were quite enthusiastic and optimistic about the educational and informtional role of television when they were first exposed to the new medium. Yet, at the same time, television, the "magic in the sky," was accused as an instrument of cultural genocide, inviting both violence and passivity:

> Northern Service TV is an insensitive exercise in cultural imperialism. It is a real threat (on top of English language schools) to the survival of the Eskimo language among young Inuit who are increasingly more at home in English rather than Inuktituk. [5]

Over night Inuit were exposed to a one-way flow of information and images from all over the world. As John Amaqoalik reports: "People were in a shock. They didn't realize that all of a sudden the whole world shrunk to them. And instead of hearing about wars on radio, they actually saw it right in their living room."[6]

---

[4] Raymond Williams, p. 125/26.

[5] In: Heather Hudson, Northern Airwaves: A Study of CBC Northern Service, (Ottawa: Keewatin Communications Studies Institute, 1977), pp. 110-11.

[6] John Amaqoalik, Magic in The Sky.

6.2. Media Defined Reality

> Programs can help develop growth and development of listeners, open new horizons but also can do the opposite by viewing questionable behavior and promoting too much ills of society.[7]

In the following, emphasis is not given to particular programs but to the overall images and models that are presented. The broadcast, although it consists of a sequence of programs, is perceived as one flow. We watch television, we listen to the radio, pitching on the general rather than specific experience. North American television is characterized by a continuous flow of images and sounds, whereby the program is interspersed with frequent commercial breaks.

The insertion of advertising has created visual rhythms where programs and ads are integral rather than breaks. They present rapidly dramatizsed situations in which the response to pain, anxiety, or the need to enhance attractiveness or pleasure, is sharply specialised to a brand name product. In many cases, this product is not available, affordable, or useful for Inuit households anyway. Carpenter argues that television and its messages become an encompassing environment:

> We live inside our media. We are their content. TV images come to us so fast, in such profusion, they engulf us, tatoo us. We are immersed... TV doesn't just wash over us & then "go out of mind." It goes into mind, deep into mind. The subconscious is a world in which we store everything, not something, and TV extends the subconscious. Such experiences are difficult to describe

---

[7] In Heather Hudson, Northern Airwaves: A Study of the CBC Northern Service, p. 110.

> in words. Like dreams or sports, they evade verbal classification.[8]

What Inuit leaders criticize is not only the fact that significant parts of the program present an alien cultural context of mainly U.S. American origin, but also the commercial character of television as a whole. Programs are made to sell products, and the role of the "pieces" between the advertisements is primarily to capture audience attraction. Broadcasters, like other entrepreneurs, have as their principal goal, to make a profit in a market. Therefore, they have to respond to audience preferences in order to attract as many potential buyers of the advertised goods as possibile. Television is thus a cultural and political form which is directly shaped by, and dependent upon, the norms of industrial capitalist society. There are differences between the US and the Canadian society, particularly regarding the branch plant character of many Canadian corporations. But both societies represent a way of life that is based upon the market system, where social goals - such as recreation - and public goods - such as information - are increasingly drawn into the market system. The president of ITC, John Amagoalik, considers sharing as the value most endangered by the impact of television. Commercial programs would suggest that

> sharing really doesn't have any place in the lives of the people. Television creates a wrong image in their minds...[It] projects an unreal world to them. I suspect

---

[8] Edmund Carpenter, Oh what a blow that phantom gave me, p. 63.

if they come done here, they would be very disappointed.[9]

The "Flintstones" series, for example, which is set in a "primitive" society, presents a "stone age" that has all the characteristics of modern consumerism. Development is shown as moving in one direction - toward modern capitalism. Success, competition, and status are constant themes, all measured in buying power. To see international news and feature films brought to you by the courtesy of a pop firm or a toothpaste is not to see separable elements but the shape of a dominant cultural form.

The reference to western/southern society and its products needs some clarification that reflects the unique Canadian situation. In its dependence on the U.S., the Canadian communication system is similar to that of Third World countries. Foreign media content is overwhelming. Canada has ~~no~~ little actual control over its own communication system.[10] The geographical and physical environment (90% of the population live in the range of U.S. broadcasting transmission and speak the same language as their southern neighbour) and the Canadian government's emphasis on physical plant and organization development over artistic creativity and program production,

---

[9] John Amagoalik, Magic in the Sky.

[10] For example, 73% of the book market and 90-94% of the recordand tape market is foreign owned, and television viewers spend 80% of their time watching U.S. programs. See: DOC, Federal Cultural Policy Review Committee, Report of the Federal Cultural Policy Review Committee (Ottawa: Information Services, 1982).

leads toward regulation of media technology, licensing, program quotas, and economics, rather than quality and content. Much of the Canadian identity is what is "non-American."[11] Canada thus reflects typical patterns of cultural domination that accompany economic dependencies. These patterns are repeated on a national level in the North, which has become the satellite of a satellite. Referring to southern Canadian cultural dominance thus stands for basically U.S. American ideology with some modification of indigeneous Canadian appeal, as expressed particularly in news and documentaries.

As was previously mentioned, it is impossible to isolate television impact in the North from other cultural influences on Native people. But commercial television clearly reflects a broad range of southern U.S. values. The tempo of programming reinforces the identification of time as a commodity, the measurement and segmentation of which are reflected in southern economic relationships. The structure emphasizes change, mechanistic order, perceptual discontinuity. It presents stereotypical non-Native models such as individualism, self-awareness, emphasis on youth, flexible role behaviour, high mobility, private ownership, man dominating nature, informality, acquisition and the like.[12]

---

[11] See for the discussion of Canadian identity Herschel Hardin, A Nation Unaware. The Canadian Economic Culture (Vancouver: J.J. Douglas, 1974), pp. 2-10.

[12] Gail Valaskakis, Visible Minorities and Television: Implications for Native Identity and Cultural Integration. Paper presented at the Canadian Communication Association June 1983 (Montreal: Concordia University, Department of Communication

This brief characterization is, admittedly, a coarse generalization, but it becomes clear that the values associated with major television programs and traditional Inuit values are uncomplementary. Studies, undertaken shortly after the introduction of television in the Arctic, emphasized the broader understanding among Inuit children about outside cultures while basic attitudes persisted.[13] Inuit parents appreciated the role of television in teaching the English language and generally broadening their children's horizons. However, a Venezuelan study about the formation of stereotypes induced in children found that 86.3% of the children serveyed believed that the hero was North American, that Chinese people were more often bad than good, whereas the opposite held true for white people, that 72% believed rich people to be good whereas 41% of the cases believed the poor folks to be bad.[14] The results might not be directly transferrable, yet they indicate the direction of influence. Gail Valaskakis argues that western society , as reflected in the programs, stresses the subject, achievement and success, whereas Inuit society emphasizes the more humanistic

---

[12](cont'd) Studies, 1983), p. 9.

[13] Sheldon O'Cornell, "Television and the Canadian Eskimo: The Human Perspective," Journal of Communication, Vol. 27, No.4, Autumn 1977, p. 143.

[14] Luis Ramiro Beltran, Elizabeth Fox de Cardona, "Latin America and the United States: Flaws in the the Free Flow of Information," National Sovereignty and International Communication, ed. Kaarle Nordenstreng and Herbert Schiller (Norwood, N.J.: Ablex Publishing Corporation, 1979), p. 55.

values of oneself within the environment.[15]

It is not suggested that all cultural products of southern origin are single-mindedly fashioned to impose the ideology of the industrial commodity market. The programs take into account the social realities of present day life. But the contradictions are not made explicit nor are they presented in a manner that really clarifies the social conditions. Some individual critical views are a windfall, but there is no reason to believe that the media are acting as their own and the system's "grave-diggers."

Of course, television is not the only exposure to the cultural rules and content of "life down South." Schooling, particularly for the past two decades, has played a crucial part in the massive and significant exposure.[16] As housing and other southern institutions have moved North, television provides images to feel familiar with the southern way of life and its family models and advertisements. It thus reinforces the demand for all the appurtenances and expectations of the presented life-style. During a field-trip to Inuvik and Tuktoyaktuk Rees experienced that the more affluent Inuit book holiday flights to Hawaii and Japan.[17]

---

[15] Gail Valaskakis, Visible Minorities and Television, p. 9.

[16] Thomas Wilson, The Role of Television in the Eastern Arctic: An Educational Perspective (M.A. thesis, Concordia University, 1981).

[17] William Rees, Personal information.

6.3. Industrialization and Television: Implications for Native Identity and Cultural Integration

Native leaders argue that the new medium hit most communities unprepared for what television represents. Gary Granzberg reports that Indians in Northern Central Canada perceive television as a "modern conjuring device." They are "more susceptible to the messages of television and see it as a teller of truth."[18] The children showed a sudden and sharp increase in aggression after they had been exposed to television. 29% of the surveyed Native children took television fantasy for literal truth compared to only 5% of the Euro-Canadian children.[19]

By comparison, traditional storytelling has been an entertaining as well as teaching, culture preserving mechanism. Characters and plots were carefully engineered to act as metaphors for concepts of morality, principle, and prediction. Stories had not been separated into fantasy stories and contrasting educational, practical stories. Inuit children and adults, used to this form of knowledge transfer, therefore were not prepared for the concept of sheer entertainment, phantasy and fiction. "As a result," Gary Granzberg reports, "dramas on television are often studied for deep metaphorical, personal

---

[18] Gary Granzberg, "New Magic for Old: TV in Cree Culture," Journal of Communication, Vol. 27, No.4 (Autumn 1977), pp. 154-158.

[19] The London Free Press, February 25, 1978.

revelations and for practical relevance."[20]

Learned Helplessness

Historically, policies of northern development followed an actual strategy of cultural replacement. Only recently have the distinctive Native way of life and their traditional values been officially recognized. Communication facilities have been instrumental in supporting the acculturation of northern Natives who experienced re-settlement from bush-camps, went to permanent schools which meant that more and younger Inuit learned English, and were exposed to an educational system, that intended to devalue the Inuit culture or even eliminate it as such. The negative implications are well documented.[21] The studies all outline a coherent pattern of problem behaviour of unhappy, dissatisfied, maladjusted, "cranky" children. In the two worlds of boarding school and home, they spoke two different languages, ate different food and wore different clothes. Inuit children were told that they couldn't express themselves as Inuit. Many of them couldn't cope with this southern image of second class citizen, and then go home in the summertime to their parents and

---

[20] Gary Granzberg, "Television as Storyteller: The Algonkian Indians of Central Canada," Journal of Communication, Vol.32, No.1 (Winter 1982), p.50.

[21] Berger Report, Vol. 1, pp. 90-93; Charles Brant, Charles Hobart, "The Educational System in the Western Arctic," Eskimo of the Canadian Arctic, pp. 186-196; NWT Special Committee on Education, Learning, Tradition and Change in the Northwest Territories (Yellowknife: NWT, Legislative Assembly, 1982).

villages and try to live as Inuit. They couldn't speak the language anymore, they couldn't relate to their parents "and when they got back to the larger town, say Inuvik, they couldn't fare any better there. They couldn't cope just being half people."[22]

School has formalized the process of cultural replacement, and television has extended it to the home.[23] Coldevin and Wilson suggest that both have been instrumental in reinforcing a sense of helplessness, a tendency "to give up." It emerges from the perceived lack of control over one's life which is closely related to low self-esteem.[24] They argue that the feeling of helplessness extends to the assumption that white people are intrinsically superior to Inuit. Southern society brought a materially superior lifestyle, more of everything, accompanied by a more sophisticated technology. Carpenter observed that "the first thing that impresses them about Western culture is machinery."[25]

But access to the technologies and material goods brought at the same time less de facto control by Native people over their lives. Seligman observed similar tendencies in Native

---

[22] Berger Report, Vol. 1, p. 92.

[23] Thomas Wilson, pp. 92-95.

[24] Gary Coldevin, Thomas Wilson, Education, Satellite Television and Learned Helplessness among Canadian Inuit Adolescents (Montreal: Concordia University, Dept. of Educational Technology, 1982), p. 5.

[25] Edmund Carpenter, Eskimo Realities, p. 31.

people of the Southern United States. The Indians simply did not react anymore on their own behalf because they had learned that it was futile to do so.[26]

A CBC survey, undertaken shortly after the introduction of television in the Eastern Arctic in 1973, concluded that "television has captured a large portion of the lives of both Inuit parents and children, but is for the most part irrelevant to their deep-routed social customs and environment."[27] Many respondents expressed the feeling that despite better information through television, their opinions were valueless. They felt they were not part of changes in the modern world that affected their lives.

In 1979, Forbes and Lonner studied socio-cultural and cognitive effects of commercial television on rural Alaskan children, contrasting non-TV with TV exposed communities in different regions. Generally, Native children perceived themselves as having less control over the world and its effects upon their lives than did white children. Using measures of high and low sense of control, the researchers showed that after two years of exposure to television, the scores of perceived control had dropped even more, whereas those of non-television children

---

[26] M. Seligmann, Helplessness: On Depression, Development, and Death (San Francisco: Freeman, 1975).

[27] Gary Coldevin, "Anik I and Isolation: Television in the Lives of Canadian Eskimos," Journal of Communication, Vol. 27, No.4 (Autumn 1977), p. 145.

remained the same.[28] They concluded that, overall, television seems inextricably involved in the general trend of socio-cultural changes, but cannot be singled out as a causative agent - except for the perceived decreasing control over one's life: "The large number of interactions and effects of the independent variables other than television serves to emphasize the complexity of examining the effects of television."[29]

Coldevin and Wilson's study of Frobisher Bay children confirms the Alaskan results of feeling a decrease in control over one's life. They argue that television represents the extension of an education system that originally intended to marginalize the indigenous people.[30] Yet they do not argue that the advent of television is an attempt at cultural assimilation analogous to that of the education system. As Wilson emphasizes, "the point of distinction is that in its assimilative character, the educational system appears to have been purposive, the introduction of network television does not seem to have been similarly intended.[31] Yet, whether the introduction was purposive or not, it reinforced tendencies of acculturation."

---

[28] Norma Forbes, Walter Lonner, Socio-Cultural and Cognitive Effects of Commercial Television on Previously Television-Naive Rural Alaskan Children (Bellingham: Western Washington University, August 1980), p. 22.

[29] Norma Forbes, Walter Lonner, p. 56.

[30] Gary Coldevin, Thomas Wilson, pp. 91-92.

[31] Thomas Wilson, p. 92.

Seligman argues that breaking out of helplessness can be effected. It requires that one is shown or taught a response in a situation that works. The intended result is to restore reception of control over events and the ability to keep control over the vital aspects in one's life.

Synthesized Behaviour

Gail Valaskakis introduced a model of synthesized behaviour that can be interpreted as one form of restoring Inuit control and identity. Inuit cannot integrate new input directly into traditional sets but rather synthesize new and old information within cognitive sets that combine both traditional and southern Euro-Canadian concepts. There is no individual or situational boundary that clearly separates the different information and action. She argues that certain situations draw upon one form or source of information more than another, but that both are active.

> The super-imposition of southern Canadian values and concepts carries an assumption of linear, uni-directional change and discounts important aspects of actual change, including the shift in the native perception of what is traditional and the varied experiences of individuals internalizing and using two different information systems.[32]

The different knowledge, exposure to, and use of English, as well as the different levels of acculturation patterns mean less shared experience. This reinforces differences in the synthesis

---

[32] Gail Valaskakis, Visible Minorities and Television, p. 10.

of old and new information among generations, sexes, individuals and communities. The groups differ in what they perceive as traditional and the ways in which they synthesize this information with media images and concepts.

Gail Valaskakis observed for example strong "macho-type" behaviour among young males while at the same time the "real Inuk," the perceived traditional male role of the hunter who demonstrates skill and control on the land, remains a respected and highly functional image.[33] When out on the land, the southern "macho" image is far less evident than when in the community. To travel on the land is associated more closely with traditional skills and concepts then settlement life.

The way in which Native people regain control in actual behaviour, as determined by traditional or media presented images, lies thus in the variation of how much each image shapes behaviour in a particular situation. It is not a shift between clearly defined and separated roles, but the dominance of one image within a synthesized image. Yet this synthesis integrates two cultural adaptations which are as divergent as the concepts. The modern, super-masculine image is chosen not only because it is gleaned from southern media, but because it,

> like the conception of the 'real Inuk,' helps to counteract the sense of lost powers, a decreased value and frustration felt by young men caught in the middle of rapid social change. The synthesis is an effort towards mutual identity, a strategy to stabilize self-esteem, compete with southern males and integrate into the community. But because of different cognitive

---

[33] Gail Valaskakis, Visible Minorities and Television, p. 11.

orientations, it is not shared or fully understood by older Inuit or young women.[34]

Wilson reports that particularly younger Inuit are being drawn into the metropolitan Canadian culture, whereas their elders, as well as those Inuit in the middle age group, who went to school ten years ago and often dropped out, appear to be returning to the traditional values of family, heritage and community. Rogers termed this phenomenon "neo-traditionalization." Yet, the kind of cultural synthesis Gail Valaskakis describes, seems more adequately to reflect the pattern of this group. These people are most actively involved in Native broadcasting, an endeavour directed at the re-enforcement of those traditional cultural values using modern technology and forms of presentation.[35] In many cases the adaptive behaviour can neither integrate the Inuit into the dominant Euro-Canadian society nor stabilize their identity within their own culture. It is a problem faced by all cultures in transition, adapting to a dominant society.

Diffusion theories as developed within the "Dominant" and "New Paradigm" (see chapter two) fail to reflect these actual effects of synthesis. Studies within this paradigm are insensitive to the possibility of a creative synthesis between the new and the old, and thus fail to recognize how new communication technologies can utilize traditional themes and images to promote desirable attitudes and images from the

---

[34] Gail Valaskakis, Visible Minorities and Television, p. 13.

[35] Thomas Wilson, p. 93.

perspective of Native people. Traditionalism and modernity are not exclusive.

6.4. The Role of Telecommunication for Cultural Sovereignty - Promises and Prospects

The communication technology of a society determines who can speak to whom, over what distances, with what time delays and with what possibilities for feedback or return communications. The messages of the society, as Parker argues, are shaped by the media they are transmitted through, as well as being creations of, the institutional structures of society. Yet this social organization is shaped as well by the patterns of communication interaction which depend upon communication technologies. Therefore, careful attention should be paid to the communication technologies that are installed in support of development.[36]

This coincides with the arguments of the theorists of economic and cultural dependency, who state that the transfer of western communication technology and services deepen the social structures and relations of industrial capitalism. Applied to the Inuit, an unquestioned adaptation of southern technology supports and facilitates development processes with an inherent bias towards North-American capitalist structures. As was shown, the new communication technologies help the Inuit to

---

[36] Parker, in: Heather Hudson, The Role of Telecommunications in Socio-Economic Development, p. 6.

economically develop, but this does not necessarily lead to self-reliance, because the Inuit increasingly have to rely on the sophisticated technology, designed and produced in the south.

Telecommunication Facilities

Telecommunication facilities, as was previously argued, are of vital importance to deliver social services to remote regions. A viable, fully developed telecommunication infrastructure allows the extension of a range of available institutions and the provision of training and consultative support to local minimally-trained field personnel, such as health workers and teachers' aides. More importantly, they can provide essential communications between Native people in their own languages.

In a study of telephone use in Lake Harbour in 1972/73, after connection to the satellite, Valaskakis recognized a significant increase in the telephone use by the Inuit. They mainly phoned northern settlements where they had relatives or where they could obtain services. The length of the calls increased significantly. Valaskakis suggests that Euro-Canadians continue to use the telephone primarily as a functional and necessary tool of institutional communication, whereas Inuit use

the phone for personal calls.[37]

She concludes that this form of immediate verbal interaction is a stabilizing factor in Native communities and has likely integrative effects through communication in Inuktituk (or English) to relatives, friends, leaders, and services in other communities. Thus the telephone can help to counteract individual crisis, isolation and frustration associated with the rapid change, and it does not transfer the full range of southern values to the Native communities.

> While telephone cannot repair generational or sexual variance, it can partially counteract disintegrative effects. Given relevant, timely information and the means to discuss it among stabilized reference groups, native people have at least greater potential control over themselves and their communities. Social and cultural change then moves closer to the only viable model: people changing themselves.[38]

The telephone is a vital tool for the Inuit to participate in their own development. Hudson argues that two conditions must exist: (1) there must be some level of local organizational structure and (2) some perceived common interest with other parts of the region, as for example about the development in a wilderness area and the like. Inuit leaders can use the facilities to share their concerns independently of their education and their ability to speak English.

But unstructured village groups who have little awareness of common concerns with other communities - which is no longer

---

[37] Gail Valaskakis, A Profile: Telephone Availability, Use and Need, Lake Harbour, NWT (Lake Habour: Settlement Council, 1975).

[38] Gail Valaskakis, Media and Acculturation Patterns, p. 13.

the case in the Western Arctic, are likely to use the telephone purely for social communication between family members and friends.[39]

In any case, reliable and affordable telephone service improves the quality of life, particularly in a region where communication is a life-and-death matter. Evidence was presented that despite the low income level of many Inuit families and the coparatively high rates, the telephone is heavily used.

Radio

Radio has proven to be easily adaptable to societies with an oral tradition. This is partially due to the simplicity of the technology - as compared to television. But more important, as Carpenter argues, it is the interrelationship between language and culture that makes radio so accessible, for it is language, the spoken word, that is at the heart of radio programming.

At present, network service is only provided through the CBC. One of the concerns initially expressed about satellite use for broadcasting was the centrallly controlled prodution and distribution. It was feared that as a result, the programming would not be relevant to various regional and ethnic audiences. The CBC Northern Radio Network with its five regional production

---

[39] Heather Hudson, The Role of Telecommunications in Socio-Economic Development, pp. 7-8.

centres may be seen as a model for a system that tried to avoid the trap of centralization. National programming is fed to a regional station where is is blended with regional programming to form a feed which is retransmitted by satellite to remote communities. The settlements substitute about two to three hours with their own production, accessing the local rebroadcast transmitter with their own simple studio equipment. It is therefore of crucial importance how much of the broadcast is network feed, and how much is regionally and locally produced.

With the expansion of its coverage, CBC significantly increased its volume of daily radio programming in native languages. The result is, as CBC emphasizes, that it puts native languages

> into the theatre of politics, resource development, and all aspects of life in Canada in the Eighties. It helps ensure that native language, as a fundamental stone of native culture, will be sustained as a living language, and not simply as a language to use in talking about the old days.[40]

In the Yukon, Native network programming is planned to start in late spring 1984. COPE has recently created the Inuvialuit Communications Society to take advantage of the Nothern Native Broadcasting Access Program for funding and eventual network programming. Yet that might take several years to realize.

On the local level, northern Natives have adopted HF and community radio to meet their needs for local communication. On

---

[40] CBC, Brief to the Members of the Federal Cultural Policy Review Commission, July 23, 1981, p. 4.

the regional level, the potential is not yet realized "to build on the oral information bias of Inuit, using Inuktituk to maintain certain privacy on public airwaves."[41] In the Western Arctic, due to the more widespread use of English and the various native languages, any native network will have to employ English to enable the various language groups to access the information. Yet, to preserve their indigenous languages as an embodiment of their cultures, it is necessary to produce substantial parts in their native tongues. The technique of split feed, as actually employed by CBC Inuvik is a helpful tool to serve the various language groups efficiently.

Native radio programming has facilitated new interactive patterns. The experiences of Northern Quebec Inuit during the claim settlement negotiations indicate that radio can efficiently promote and facilitate broad-based actions, built on interactive relations between communties and central representatives, as well as among the dispersed communities.

Television

In contrast to radio, the technology and production process of television is more costly and sophisticated. The barriers to access and speak over the medium are therefore much higher. On the other hand, the influence over other communication processes is far more dominant and pervasive.

---

[41] Gail Valaskakis, Technology Transfer and Canadian Inuit, p. 15.

While communication societies in the Western Arctic have difficulties getting off the ground, Inuit in the Eastern Arctic - through "Naalakvik" and "Inukshuk" - have participated in interactive satellite experiments of both radio and television.

Both projects focused on interactive forms of communication, cultural activities and news events. Teleconferencing, using audio channels for feed-back, was a highly appreciated and intensively watched broadcast. However, the participatory level among the communities differed significantly. Gail Valaskakis therefore concluded that

> Interactive technology does not assure wide spread participation. To counteract the tendency to establish information monopolies on a regional level, the design of program reception, participation and production must reinforce two-way communication among network communities. The amount of interactive participation depends to an important degree on the presence and work of community-level staff.[42]

A next and important step in Native broadcasting was the creation of the Inuit Broadcasting Corporation in 1981 and the provision of network television since January 1982 via CBC to serve the Central and Eastern Arctic. Frobisher Bay is the broadcast centre where programs are beamed to the satellite. The uplink became operational on May 24, 1982.[43] IBC's first priority is to provide Inuit with news and information about issues which would otherwise be unavailable to Native audiences.

---

[42] Gail Valaskakis, Communication and Control in the Canadian North: The Potential of Interactive Satellites (Montreal: Concordia University, Department of Communication Studies, 1981), p.9.

[43] Inuit Broadcasting Coroporation (pamphlet, n.d.).

Second priority is to document traditional Inuit culture. Other programming components are drama, documentary, sports, contemporary and traditional music.

Yet, since the completion of Inukshuk, teleconferencing has not been a component of Inuit programming. Native groups conclude that they cannot expect much real assistance from Cancom or any other profit-based southern institution that must win a license from the CRTC with a glowing promise of performance. Even if Cancom provided ten hours per week of native programming, the effort would amount to very little in offsetting the impact of American television on Native culture.

IBC's very existence is already a major success. On the other hand, it is forced to compete with southern commercial programming.

> We believe that if Inuktituk television is to offset the cultural effects of southern, English television, I.B.C.'s programming must continue to improve in quality, to widen the scope, and to increase its hours. Our goal is a television system that will provide the North with 25 hours per week in Inuktituk programming designed and produced by Inuit.[44]

Similar to the economic success of Native development corporations, IBC has been successful in producing professional programs. If it will be successful in reaching its cultural, educational, and participatory goals, only the future will show.

The challenge for Native initiatives in programming and network broadcasting is to increase the spread of Native images and information. This is thought to enable Native people to

---

[44] I.B.C. Position on Northern Broadcasting , p.1.

integrate old and new in a meaningful cultural synthesis that stabilizes their identity and self-esteem. The potential lies in the provision of realistic images and courses of action, applicable to particularities of northern Natives.

The work of IBC in the Eastern Arctic is an important development in northern native broadcasting which began with the Inukshuk project. Yet at present its broadcasting is limited to a few hours around midnight and a few other timeslots within CBC northern programming. The high satellite rates and the continuous refusal of the federal government to provide a truly northern channel hinder existing potentials from being effectively realized.

At the same time, IBC is forced to compete with an increasing number of commercial programs. As a result, in a few years from now, Inuit might have become so accustomed to the commercial programming forms that they will reject different designs and objectives of native broadcasting. In competing with commercial broadcasting, the role of information to promote political participation and broad-based action necessarily becomes less important. It thus seeks cultural identity without dismantling the structures of southern cultural domination. In my view, it is questionable whether this is possible, as a more closer look at the role of information in communication processes indicate.

The Role of Information and Cultural Sovereignty

Information can be seen not only as a form of entertainment, but as well as a tool intended to ensure that the audience completely and fully understands actual processes and their inherent conflicts. This requiresthat information be treated differently, that it be handled as an instrument of liberation. The goal is to foster the audience's ability to participate in decision making affecting their lives. In this unfamiliar - to the West, at least - perspective, the process of gathering, processing and distributing information depends upon the openness and democratic structure of the whole system. It includes, for example, the de-professionalization of news structures and the reflection of traditional native values, such as collectivity, sharing, and seniority. The western professionals may emphasize their competence and efficiency, but their end product, the packaged news, is fragmented and mostly meaningless in a broader context. This kind of information is unable to lead to cultural sovereignty, which is not intended to be achieved in the first place.

The term "cultural imperialism" has been used to characterize the relations existing within the western industrial system. Media are both an economic branch of their own and a link between production and consumption. Given the small northern market, the economic role is mainly a "spill-over" of profitable southern markets. However, in the cultural sphere, media are crucial to the reproduction of the

southern culture amd ideology. The major goal of television is to mass market commodities as promoted in advertisements and sponsorships. They are surrounded by programs which together constitute the continous flow of images, roles, and values of mainly U.S. origin. This system of centralized cultural packaging, local distribution, and privatized reception most effectively serves the goal of influencing audience consciousness to function "appropriately" as consumers of advertised commodities.

The program packages provide, correspondingly, the social knowledge through which the reality of others is perceived, "so that an imaginary coherence is built, in which the contradictory elements are held within the frames of the dominant cultures and ideologies."[45]

Industrialization and modernization have been questioned as being real progress. Broadcasting media, although they have had a decisive importance for the cultural homogenization and ideological control of Natives, did not have all-powerful and homogeneous effects. The traditional value of sharing has remained highly significant, despite the media presented values of individualism and possesiveness. Above all, as Salinas outlines:

Cultures and subcultures are the expression of men's and

---

[45] Raquel Salinas, Leena Paldan, "Culture in the Process of Dependent Development: Theoretical Perspectives," National Sovereignty and International Communication, ed. Kaarle Nordenstreng and Herbert Schiller (Norwood, N.J.: Ablex Publishing Corporation, 1979), p. 85.

> women's lived experience of their condition of existence. Accordingly, the constant invasion of meanings that do not express this reality will often generate some limits to its assimilation. It is important, therefore, to study the conditions affecting the reception of the messages, as well as to examine the possible distance between the models of interpretation provided by the media and the real level of assimilation by the audience to them. Thus, the audience carries not only multiple realities, but also multiple histories of accumulated significance, whose importance to the interpretation of the media messages cannot be neglected. The possibility of overcoming the order of domination exists, and no cultural-ideological system has thus far succeeded in hiding this reality completely.[46]

To conclude, the synthesis of old and new roles and images, the shifting of roles depending on the particular circumstances, as described by Valaskakis, can be interpreted as cultural expression of dependent development while seeking to find new forms of identification and control over one's life.

Harold Innis' model of knowledge monopoly provides an understanding in the shift of power that underlies present developments, such as the creation of native broadcasting societies and corporations. In using telecommunication and broadcasting facilities to Communicate among themselves, the Inuit have begun to break down the traditional power structure of southernagencies which have dominated northern communication.

The Anik B projects of interactive community communications have shown that the technology can be used to promote north-north two-way communications. Yet, the attempt to compete with the surrounding commercial broadcasting environment undermines the interactive potential of the technology. To the

---

[46] Raquel Salinas, Leena Paldan, p. 33.

degree that native programming is determined by competition with commercial broadcasting, it will more likely become a reinforcing agent of "consumerism" rather than "producerism." The latter refers to educational programming for productive or developmental purposes, such as literacy, skill training, public health projects, information dissemination and the like. IBC has made educational television and information dissemination essential parts of its network. The problem remains, however, that the more Native people get used to the characteristics of commercial programming and structures, the more difficult it will be to offset these structures by communication forms that emphasize Native aspirations and social values.

VII. The Troubled Northern Dreams: Summary and Conclusions

The process of industrialization and telecommunication development in the Western Arctic and its implications for the Inuit have been examined in the preceding chapters. Some of the key factors that have either restricted or promoted the implementation of stated policies and the broader political-economic and socio-cultural implications for the Native population of the region are analyzed in the remaining section.

7.1. Economic and Telecommunication Development in the Broader Context of Global Dependencies

HF radio provided the first unidirectional audio path between communities, supplementing physical travel. Meanwhile satellites provide a network of telephone, radio, television and data-transmission. The domination of the market by a few common carriers and information-based services has resulted in a widening gap rather than a more equal access to communication services to facilitate efficient Native involvement in economic and political issues. Telecommunications serve, so has been argued, primarily to facilitate northern development as defined in the South.

The South stands not only for the decision-making elite in Ottawa, and in Canadian headquarters of national corporations, but the greater and complex machinery of global dependency

relations with the U.S. at its centre. The model of dependency theorists - of core-satellite relationships between nations and resulting internal centre-periphery dependencies within the satellites - was used to better understand the complex interrelations at work in the development of the Western Arctic.

Canadian economic dependency on the U.S. has not produced to the same degree the conditions of underdevelopment that characterizes the dependent relationships of South American countries. Until recently, Canada has evolved along the line of advanced capitalism, yet often under conditions of branch-plant industrialization. It resulted in low domestic technology development and research expenditures by the branch plants of transnational corporations, and relatively low exports of finished products. The implications have been that conflicts of political-economic policies remain cast within a frame of U.S. hegemony in Canada. For example in the broadcasting sector, Canada has taken a defensive position through import quotas, content regulation etc. Whether they have strengthened Canadian cultural expression is controversial. A considerable number of indigenous Canadian programming turns out to mimic American broadcasts, as a result of homogenized tastes as well as economic necessities. In any event, an overwhelming majority of Canadians express their preference for American programs. It is exactly this tendency that northern Natives fear will happen in their region, if they are not immediately given a chance to develop and distribute their own forms and norms in a

political-economic environment that supports their social goals. From the perspective of Native groups, this implies that strategies to overcome patterns of dependent development cannot be solved on a regional level alone, but have to be addressed in a national context and reflected in national and northern development policies.

Policies of Northern Development

The evidence presented in this study indicated that shifts in policy objectives of political-economic development of the Western Arctic have been associated with changes in policies of communication development. The implementation processes involved institutional changes through government ownership and direct subsidies.

The principal role of government intervention in the first phase of northern development between 1850 and the 1950's was to extend and protect the political sphere of control. Government intervention was originally very limited, and expanded since the First World War. Government ownership was the dominant form of intervention, as e.g. reflected in the RCCS radio telephone system. Traditional economic criteria were subservient to the importance of national defence policies.

The fur trade required cheap water transportation systems, but only rarely fast information exchange employing the new telecommunication facilities of telegraph and radio, and tapping northern resources was not a major objective in government

policy definition. Military priorites later shaped the telecommunication system as it developed in the Western Arctic. Traders and administrators tied into the system. To extend the service to northern Native, was not considered at all, as it was considered beyond the scope of the Dominion government to provide any other goods and services. This was left to missionaries and traders.

In the 1950's through the 1970's, priorities in national objectives shifted towards economic development - as strategies of east-west relations changed. This new phase was geared to transforming the structure of the territorial economy through industrialization, based on exploiting the non-renewable resources. It required a significant shift in government involvement in both economic and telecommunication development. Defence installations, such as the DEWline, continued to influence northern economic and telecommunication developments, but economic priorities eventually superseded military objectives. The discovery of oil reserves in 1969 and after caused a new stage in government involvement to facilitate and participate in the exploitation of the staple. The obsolete telecommunication system had become a hindrance to the industrialization process.

Implementation Procedures: Subsidies and Government Ownership

The necessity of communication services for industrial development and the increasing administrative presence in the

north provided the justification for significant increases in government intervention and expenditures. Direct subsidies through grants, government ownership and government-corporate contracts, subsidizing the exploration and transportation of mineral staples and the expansion of telecommunication facilities, promoted service development that met the objectives of industrialization. At the same time the federal government officially broadened its responsibility and included social objectives of serving northern residents.

Public ownership as a means to counteract the disadvantages of development in frontier areas has often been used in the history of Canada. It reflects what Herschel Hardin calls the "public enterprise culture."[1] Yet, Crown corporations such as CNT and NWTel are operating according to similar guidelines that private investor-owned companies would follow in order to reduce the dependence of the corporations on public financial assistance. They are not legally required to subsidize implementation of national economic and telecommunication objectives. This means they do not base their decisions on "social obligations." As a result, little consideration is given to the special northern conditions of small markets of dispersed settlements and their reliance on telecommunication facilities because of the lack of alternatives.

---

[1] Herschel Hardin, A Nation Unaware. The Canadian Economic Culture (Vancouver: J.J.Douglas, 1974).

The special demographic situation of low population density and vast distances is used by the Crown corporations CNT and NWTel to require extensions of subsidies. If they provide only inferior service in remote locations and claim that service development would be uneconomic, they are more likely to receive further public funding.[2]

In contrast to CNT, CBC's mandate is not to generate a surplus but to manage within a given budget. CBC's general priority of expansion of service along a per-capita basis proved inadequate for the scattered northern communities. But CBC was willing to override economic aspects and to emphasize social criteria if it was necessary to support industrial development. To provide radio and television service to remote mining camps or settlements would help to overcome feelings of isolation, and thus support the attraction of jobs for people to move north. However, CBC's mandate to serve the communication needs of minorities, such as the Inuit, and to provide funds for Native programming had only little practical importance. The issue of cultural dependence and improvement of Canadian content ranked thus well below the objective of introducing television in the North.

---

[2] Robin Mansell, Telecommunication Subsidy Policy in Northwest Canada and Alaska, p. 193.

Regulatory Processes

The study showed that regulatory agencies, whether in non-renewable resource development or in communication service delivery do not have the power and control to enforce the implementation of stated policies if not necessary for economic reasons.

CRTC, the regulatory agency for telecommunication development, is not in the position to define what the improvements in communication service provision should be, who should pay for them, or even that increased revenues will actually find their way into construction, expansion, and improvement programs to upgrade services in small northern communities. Its own decisions are vague regarding how stated goals and recommendations can be realized, as the Cancom licence reflects.

It was shown that when the need for expanding telecommunication services is linked to the implementation of social policy, government subsidies have been more restricted and less effective as a means of policy implementation than in the case of economic development.[3] Northern communication needs were clearly stated and solutions through satellite communications outlined, prior to the launching of the first Anik in 1972. Yet, a decade after Anik is in operation, few of the many potential advantages have been implemented for publicservice. Anik served the pressing needs of business and

---

[3] Robin Mansell, p. 193.

government agencies. The northern population, who was the claimed target to primarily benefit from the new technology, is still not adequately served. Melody concluded that

> The history of satellites is one of wasted technological potential and outrageous economic inefficiency in order to preserve the near monopoly market dominance of the established telecommunications carriers. Thus, the further development of satellite communications, technically, economically and for social applications, will produce a wider gap between the potential and realized benefits of satellites.[4]

Because Telesat is owned to a substantial degree by the telephone carriers, it cannot act independently to provide satellite services more economically efficient, such as leasing partial channels. The results are idle capacity and comparatively high costs per leased channel.

Some benefits from satellites have been realized in the expansion of telecommunication and broadcasting services to locations that could not be served. Yet, the study showed that these achievements have been modest in comparison to the high expenditures of the federal government to explore and utilize the potentials of satellite technology. Canada has undertaken a series of satellite projects and continues experimentation. Yet, despite beneficial results, permanent provision of these services has not been forthcoming. It appears that this is not a most crucial element compared to economic considerations which underly the implementation of technologically feasible services: guaranteed revenues first, services follow.

---

[4] William Melody, Are Satellites the Pyramids of the 20th Century?, p. 4.

It was argued that for the established common carriers beneficial results are not the first priority but rather profitability, which is understandable. However, given the large amount of government expenditures for satellite development and applications and the stated objective to improve social service delivery in the North, the continuous subsidization of such successful and essential services could be justified.

Evidence was presented that interventions to actually implement services in response to Native interests have been made when the provision of these services fit the policy objective of high technology development, as the Telidon and Hermes experiments reflect. Native groups benefitted in that they gained practical experience and skills which they could use to demand and establish permanent services. Yet, experiments were terminated because of cutting off funding, despite their stated success. Native people thus felt as being treated like guinea-pigs. They have developed a need for new services, such as tele-health and tele-education. But once they became familiar with the service, it was stopped and they felt worse off than before.

Melody argues that in case the technology and the services undermine present structural arrangements of landline and microwave technologies, they are not implemented in order to preserve the near-monopoly market dominance of the established telecommunications carriers. He concludes that the further development of satellite communications, technically,

economically and for social applications will produce a wider gap between the potential and actual benefits of satellites.[5] Structures of dominance thus continue to shape the evolution of the electronic media system in the North. I concluded that this pattern of development will in addition widen the gap between northern economic centres and remote settlements. This impact is crucially important for the Inuit's involvement in industrial development.

7.2. Native Industrial Involvement and the Role of Telecommunications

Present developments do not occur in isolation but are a result of historical processes. It was shown that the political-economic development of the Western Arctic drew the originally self-sufficient Inuit into the commodity market to a point where they meanwhile acknowledge the inevitablility of non-renewable resource development. Now they emphasize the need to pace and manage that development rather than block it. Through development corporations, they started various enterprises, inclusive joint ventures in oil and gas development, and now are even anxious that development continues because they have become dependent on it.

The Alaskan experience of oil boom development is an example of the benefits and costs of large scale development.

---

[5] William Melody, Are Satellites the Pyramids of the 20th Century? p. 4.

Alaskan Natives have gained a degree of political and economic autonomy and have become a leading force in Alaska, but the trade-off is an increasing dependence on the industrial economy and federal state policies and strategies.

As the discussion of dependent development evidenced, the claim of effective Native control in decision making processes - if they adapt the "right," "appropriate" attitude - falls short under present market conditions. Whether a northern resource becomes a staple commodity is not determined in the North but depends on factors outside the dependent economy.

The description of the recent policies in northern economic development has demonstrated Canada's efforts to develop energy resources in the North. Yet, the study has shown as well, that at present the benefits from northern mega-projects are more potential than real. The disruptions in the oil market in the 70's and the shift in government policy towards high domestic prices accelerated exploration in the North. However, oil gluts and discoveries in more accessible areas (with reduced costs of extraction and transportation), have significantly reduced the pace of development. This happens right now with the Beaufort Sea development. A joint-venture only provides control as long as there is development. Yet this principal issue is decided outside the North, in response to needs outside the North, even though it most seriously affects the North. This is the essence of staple production and economic imperialism.

The new form of Inuit involvement should not be interpreted as a major departure from earlier political goals. It is rather another strategy after they tried the legal system, political institutions, and claim negotiations. They have come to the conclusion that political self-reliance has to be based upon economic strength. Yet it seems arguable if this strength will last if they adapt strategies of industrial capitalism.

The native economy is presently benefitting from the infusion of cash derived from employment in the oil industry and purchases and contracts of these industries. Yet, the implications of an eventual "bust" and the inability of the Native community to deal with this phase of the economic cycle cannot be neglected. One has further to keep in mind that the trend towards industrialization in a capitalist context is a trend towards mechanization and monopolization which requires high capital investments. The more native development corporations focus on large scale projects, the more they might have to concentrate all their financial resources in this sector in order to stay in business.

The problem that might easily evolve is that the use of the "capitalist vehicle" to satisfy the Inuit's social goals of primarily servicing the people will prove to be incompatible with the realities of competition with multinational companies. I argue that the Inuit are forced to submit to the rules of the capitalist economy or they will fail economically. However, as capitalist enterprises they are vulnerable to the eventual bust

but without the ability of the multinational corporations to pull out and move to another region or country. What seems more economically and socially beneficial for the Inuit in the long term is a steady development at a slower pace, emphasing the linkage to locally available natural and human resources.

The Role of Telecommunications in Local Development

To develop local businesses, telecommunication services are of crucial importance. The availability of communication infrastructure allows more economic efficiency, more timely and increased use of services, and increased access to market information. Secondary and tertiary sector activities are impossible without telecommunications. The limited access of remote communities to modern technologies of voice and data transmission thus restricts the development of local native enterprises. Yet, these small scale businesses are crucial for a diversified northern economy.

Statistics of the improvement of telephone systems should be read carefully, they can often be misleading. A telephone system is only reliable as its weakest link. For example, there is little point to build an expensive micro-wave system of towers or satellite dishes to bring telephone service to an isolated community and then fail to maintain the single pay-phone. The result is that the people effectively have no access because the telephone does not work. Evidence was provided that this is quite often the case in remote northern

settlements.

The inferior quality of services, the lack of sufficient telecommunication capacity and variety of services thus continue to be major barriers to economic development in remote Arctic settlements. The result has been that the gap between northern economic centres and hinterland communities has increased and that people have to move to jobs provided in those centres rather than finding income opportunities in their home communities. Developmental support factors, such as government programs, are less effective in improving economic performance without a sufficient level of telecommunication use and availability.

Dependency theorists suggest that the structure of the communication system reflects the interests of the dominant institutions and that the potentials of telecommunications for self-reliant development can therefore only partially be realized. They argue that only through long-term dialectical processes changes in the structure seem possible. However, the improvement of north-north communication links through telephone and radio has served to strengthen knowledge and information exchange to some degree, and thus has reinforced values and cultural structures of the Inuit.

7.3. Implications of Cultural Dominance

Innis introduced the model of a shift from time biased communications, such as the oral tradition, to spaced biased communications, and used it to explain the expansion of central authorities and the shift in power among social groups depending on their access to the new communication technologies.

His model can be applied to the North where economic benefits of improvements in long distance communication have had their social cost of progressive difficulties in maintaining effective communications in proximate relations. Long distance communication codes and forms changed the social organization and altered the physical and social relations among people in the North and affected the culture as a whole. The introduction of telecommunication facilities created new relations of power and control, which shifted to the South, the result of which was the destruction of shamanism and the decreasing role of traditional leadership. It has led to increased social control and purely technical processes dictating social relations.

The introduction of broadcasting media, particularly television, has affected the structure of consciousness, thought, values, and social goals. With commercial radio and television, Native people became consumers in a market context. They have become consumers of communication as they have become consumers of everything else. In this role they continue to be dependent on centralized sources of supply. The broadcasting media thus supplement and extend the message that the southern

political economic system wants conveyed. The extension of communication links increased the amount of information, increased the freedom to be informed, but at the same time it decreased the freedom to move and think under one's own power, at one's own control.

However, the local population rapidly adopted television as a dominant feature of daily routine living to a degree which considerably displaces and modifies other uses of media and forms of sociability. Children stay at home for the sake of TV and have become more reluctant to accompany their parents on excursions on the land.

The function of television as a sugar-coating for adaptation to southern roles and images, as was argued, is not a direct cause-effect relationship. It rather accompanies the general attempts of Northern Natives to cope with the large range of alien cultural features and realities. Yet, the characteristics of television are not understood by the Inuit which has resulted in serious misunderstandings, e.g. that fiction is taken as reality and as a model for actual behaviour. Many Inuit did not fully realize the implications of the new medium until it had become a central element in their lives. The hope of the educational function of TV has been superceeded by the fear of its cultural threat, reinforcing alien cultural values.

The model of synthesized behaviour presented evidence that both modern and traditional roles are simultaneously existent

and that actual perceptions and roles shift within a synthesized model, depending on the particular circumstances. Both Native commercial and broadcasting undertakings thus reflect a mix of traditional and new values and organizational forms.

Another aspect that requires future research, is the role of commercial television in selling commodities, i.e. the role of advertisements and the surrounding programs. This is of particular interest in light of the introduction of an additional eight southern commercial stations. The periodical affluence through oil and gas development makes Inuit at the same time more vulnerable to the advertised goods. Yet for many families there are severe limits to their income. They might likely feel increasingly marginal in an environment where commodities are so highly ranked.[6]

Television has contributed to an expanded social horizon: first, in the direction of the whole modern Canadian society and thus basically in the direction of an ever deeper involvement in the "white man's world"; and second, in the expansion to embrace fellow Inuit more closely in Pan-Native and Trans-Arctic terms. The first has been aggressively pushed on the Inuit by the various agencies of modern change, to which television was

---

[6] There are no studies available on the impact of television ads on Native/Inuit consumer tastes and buying habits. Any obvious pronounced build up of overt consumer demands are only speculative at the moment. A long range study would show a great deal more of the subtle influence toward expanded awareness and demands as potential consumers, along with other parallel influences, such as level of income, experiences in southern lifestyle, availability of goods, etc.

added, while the second is a more self-chosen priority as a necessary counterpoint to actual developments. Whereas accelerated South-North communication poses a threat, lateral communication within the Arctic helps Native people to protect their cultural heritage and to strengthen their cultural sovereignty. Telephony serves this purpose on an individual basis, native broadcasting on a societal level.

Native Broadcasting

The creation of communication societies and the beginning of Native programming mark a major success. Inuit produce programs that reflect their concerns, present themselves in active roles and images with which the audience can identify and which counteract feelings of being a marginal people. Yet, the programs develop within the frame of the commodity market, imposed through the competing southern commercial programs and the general process of industrialization.

The question is whether Native people necessarily have to adapt to the conceptual system that shapes the conditions of southern Canadian society, such as emphasis on economic efficiency, professionalism, hierarchy, and one-way flows of information. To the extent that Native projects, in their attempt to compete with the commercial channels, incorporate and reflect capitalist market criteria, they too have to treat news

and information as merchandise.[7] The adoption of Western standards in organization, operation and financial support reinforces significant capitalist-based institutional structures. IBC emphasizes the need for regional production centres to offset the tendency toward centralization. Interactive television programs, however, play only a minor role, although the Inukshuk project had evidenced the importance and general acceptance of this program form. In competing with southern commercial programs, community interactive television might lose its attractiveness. Further, the programming of IBC is directed to private home reception, rather than the community as during the original project. This might likely reinforce consumerism rather than active involvement.

The Inuit have stated their need for increased Native programming. However, surveys of actual viewing behaviour reveal a significant preference for programs that are very much liked by southern non-Natives as well, such as "The Edge of Night," and "Dallas." This can be intepreted as an indication of how deep actual tastes have already been shaped, independently from rational considerations.

Radio, because of its simpler and less costly technology (compared to TV), is more easily adaptable to local needs and more successful in terms of viewing preferences and audience share. Regional and local radio, employing interactive forms,

---

[7] See William Melody, Mass Media: The Economics of Access to the Marketplace of Ideas. Address to Business and Media. A National Symposium (Atlanta, Georgia, September 7, 1977), p. 4.

can counteract the tendencies toward disappearing community relations, by emphasizing traditional types of communication, decentralization, local control and broad-based actions build on interactive relations between communities and regional decision making authorities.

Television, in contrast, is more costly and sophisticated in its technology and production processes. Therefore, the barriers to access the medium are much higher, as is the tendency toward centralization. In addition, the approach to compete with commercial programming, supports a tendency toward employing unnecessarily sophisticated equipment and thus may prolong the dependency on outside technology, services and adequate funding.

The Anik satellites and the accompanying earth stations have cost millions of dollars. It shows that funds for hardware development have been available, but no parallel funds for a northern programming. The problem of the marginal role of Native programming will increase once Direct Broadcast Satellite services are available. No matter how effective Native programming is, it is still but a few hours in a week that brings hundreds of hours of imported programming. What Native people, IBC in particular, are asking for is a truly northern service, a transponder dedicated to northern programming, into which CBC programming would be integrated. They fear that a few years from now, Native people will be so accustomed to commercial programming that they won't accept any other form.

Communication services thus continue to threaten Inuit attempts of cultural identity. On the other hand, the study provided evidence of applications and projects that served Native goals of self-reliance and cultural identity, such as Inukshuk, the Native Access Program to programming funds, and the Northern Communication Access Program to improving the telephone system. These initiatives have been provided on an ad-hoc basis to serve the most urgent needs of the Inuit or to contribute to overall telecommunication policies. Throughout the study I criticized the lack of a comprehensive development plan that integrates economic and telecommunication developments. This seems necessary to fully realize the potentials of the technologies.

7.4. "We Must Have Dreams" - Ideas and Proposals

> When I talk about the future and try to describe what I would like for my children, some people sometimes say to me that I am only dreaming. What is wrong with dreaming. Sometime dreams come true, if only one is determined enough. But there are also realities one must face...[8]

It was argued that for Inuit the political-economic goal is to define a new relationship with the state and the world economy based on self-reliance that will permit the Inuit to respond to future changes in their own way of life. This includes maintaining the choice of ways of life, not simply of ways to make a living. It means stabilizing the link between

---

[8]John Amagoalik, "We Must Have Dreams," Paper stays Put. A Collection of Inuit Writing, ed. Robin Gedalof (Edmonton: Hurtig Publishers, n.d.), p. 165.

Native producers and the commodity market, sustaining an attitude towards traditional pursuits that recognizes the cultural values of this economic sector, and developing a stable local industrial base, serving primarily the needs of the people in the settlements. This requires to provide the communities with the necessary telecommunications to facilitate the development of local enterprises, and with broadcasting media and programs that respond to their information needs. Inuit therefore must have control over their communication system. This does not necessarily imply that the own the system, but that they participate in the selection of technologies, the rate structure of services, and the like.

Economic Self-Reliance and Electronic Media

As a result of the increased rate and quantity of socio-economic change, acculturation levels vary within communities and between communities across the Western Arctic. Individuals as well as communities differ in the depth of their contact with the non-Native culture, and thus vary in their assessment of role models and behaviour to be traditional and of strategies to be most appropriate for their cultural survival. The different acculturation patterns mean less shared experince. As a result, the attitudes towards Native involvement in industrialization processes vary, as do the benefits for individuals and communities. The perception of "the Inuit" as a

homogeneous people - if this ever existed - does not reflect Northern realities. Strategies of the federal government and the Inuit thus have to recognize these differences and attempts should be made to not further deepen this diversification, as it contributes to conflicts in the communities.

Mega-resource development has become a fact. The challenge for the 1980's is to manage these projects in the public interest. It requires, as William Rees concludes, changing the centralized and often uninformed decision-making in Ottawa, which "perpetuates the north/south colonial axis within Canada." [9] First it is necessary to inform the public about the issues involved and to design instruments of participation, "institutions specifically adapted to the region's unique environmental, socio-political and geographic realities."[10]

It requires a reorientation in the importance of these megaprojects for the economic development of the North. Evidence was presented that in order to achieve self-reliance, Native people have to build upon their locally available resources, emphasizing small-scale projects. The shape of this development is closely associated with a society's perception of time and with its image of man's place in nature. For the Native people the solution is thus to develop patterns of industrial development that provide a better balance between man and nature than the history of northern staples has evidenced. It further

---

[9] William Rees, Planning on Our Arctic Frontier, p. 115.

[10] Willam Rees, Planning on Our Arctic Frontier, p. 115.

requires a greater responsiveness of technology to the real needs of the people. It does not mean to turn back the clock but to develop alternative political-economic and social solutions which for the time being, given the nature of local conditions, cannot be met successfully through large-scale projects.

When referring to the concept of small-sclae, I do not narrowly define it in economic dimensions but include the social and cultural sphere as well. The idea here is that the value of a new technology lies not only in its economic viability and its technical soundness, but its adaptation to the local social and cultural environment.

To allow local enterprises to develop, it is necessary to provide a telecommunication infrastructure, prior or complementary to other activities for northern development. Facilitating and supporting local activities, telecommunications thus become a means of closing the gap between northern economic centres and the hinterland.

However, communication facilities in the North are expensive, and the question is: who should pay for the service, where does the necessary money come from? Canada, as Herschel Hardin argues, has a "public enterprise culture" that was crucial in developing its frontiers and in building a nation immediately next to the Americans. More than once, as Innis outlined in detail, did the federal government provide communication infrastructure, such as railways, prior to economic activities, in order to facilitate the development of

the new frontier. Northern development however, reflects a pattern where communitions developed in response to economic activities. Service provision was oriented to serve the most urgent commercial and administrative needs. The vehicle has been the creation of crown corporations, which are considered most efficient to quickly provide the necessary funds to develop the facilities. The mandate of crown corporations emphasizes the service of public needs. This necessarily includes cost-effective operations. The implementation of the mandate of serving the various communication needs requires emphasizing equal opportunity to access the available technologies. It is necessary to integrate all communities and settlements into the system at a price the local enterprises and community members are able to afford for the variety of newly developed voice, data and audio-visual telecommunication services. Native people argue that first priority should be given to basic services such as telephone. The rates should be set similar to those in the south, as satellite transmission has drastically reduced the role of distance as a cost factor. Inuit groups demand that rates should reflect northern particularities which means a regrouping of local exchanges to allow toll-free service for necessary business and private communication within established groupings of settlements. This would provide equal opportunities as available in northern and southern economic centres, where those calls are local calls.

Yet who would pay the costs? The common carriers argue that this is well beyond their financial abilities. On the other hand, self-reliance and cultural identity are accepted values by the government and the Native people. In light of the high government expenditures for large-scale development and the increasing necessity to provide social assistance to deal with the serious social problems in the Native communities, it seems worth consideration to allocate public financial resources for communication developments.

The study provided evidence that electronic media support the development of local enterprises and facilitate social service delivery. Strengthening local employment opportunities and providing more effectively social services could be a sufficient justification for the necessary expenditures, justification not only in terms of cultural protection, but in economic terms as well.

A similar case can be made for the support of Native programming. Emphasis in subsidies should not be limited to hardware development, to pioneer technology in order to better compete on the international market. Rather, given the classical Canadian dilemma, the development of programming content for domestic consumption should come first, based on Canada's cultural diversity. Native programming should thus become an integrated part of national cultural and broadcasting policy. How successful this cultural policy can be is in dispute. The government expresses in its policy papers a highly optmistic

view of improving the Canadian program content. Experiences in the third world however, suggest that a rigorous cut-off from U.S. program sources is necessary to successfully develop national programming. In difference to Canadians in the south, the Inuit still have the option to reject further southern channels and, for example, to not subscribe to the Cancom service but to only rebroadcast parts of the CBC network feed.

On the other hand, with the introduction of highly sophisticated communication technologies, the Native people have adopted the basically one-way flow of information and the structural arrangements of information generating, processing and distribution. An alternative strategy is possible. Rather than adopting all the new, most sophisticated and expensive technologies, the Inuit could be selective, emphasizing the appropriateness to their local and regional needs. The benefits of "small-scale," less sophisticated systems, such as video, tape recorders, and community reception, are to back up the one-way transmission from communication centres with local interactive forms of communication. In addition, the Inuit would be able to afford the service with much less reliance on outside financial support and southern know-how.

The necessity of emphasing the programming aspect becomes further evident when looking at the wide range of hardware available. It is increasing so rapidly that the technology can meet a large part of the Inuit's needs. What is lacking however, is the software, which is more culture specific and hence more

difficult to transpose. The ineffectiveness of the expensive Western style education system in the North is an illustration of the difficulties involved. Alaskan experiences with teachers' aids and tele-education programs provide a vivid example of the ways in which appropriate program content can be created and modified to promote development within remote settlements.

To conclude, there is a need to reflect on the bias of communication technologies and their role in development of societies and thus to tackle the causes of current northern problems, rather than their results. It is a process northern Natives have just begun to take into their own hands.

Alternative Role of Information

The emphasis of interactive forms of communication as a crucial element in achieving cultural identity leads to a general reconsideration of the role of information. A strategy that is primarily based on community control and input, and thus on interactive forms of communication, has to reassess the role of information and reconsider how information processes have been institutionalized, and what the consequences have been.

Exchange has shifted from oral discourse into market arrangements with institutionalized information-generating and distributing organizations. Information exchange has become commoditized. Native people, in order to change the role and flow of information, not only have to change the content put into the system, but the structural arrangements as well, based

on a rethinking of what are the communication facilities and the transmitted content.

This involves seeing them not as commodities but as public goods, and treating communication technology investments not as a private, commercial issue, but as a public service. Such is to emphasize the social benefits in terms of improved access to information, health, products, education, and the like.

Regarding telecommunications, the findings of the study suggest that the effects of communication investments do not accrue to individual users but to society in general. The "good" which is sold may be defined as a phone call, or access to the telephone network, but the social benefits in terms of improved means for emergency calls and social service delivery, benefit as well those people who do not directly use the telephone. The benefits go thus beyond the private sphere. This inability to privitize fully the benefits of telecommunications indicates the existence of public good properties.

Historically, investment and pricing issues have been treated the service as a private good by charging users for individual calls and by renting the equipment which provides access to the network. Yet, the pricing policy has reflected a development policy of cross-subsidization of high-cost with low-cost areas to promote service expansion. It was done to reach economies of scale in telephone production and to make efficient use of large, fixed investments, but not to promote certain public qualities. This has led to commercial investment

policies based on direct returns on invested capital. The treatment of telecommunications as a private, commercial good led to the underservice of remote regions while favoring centres of economic activities.

However, the older communication medium of the postal service uses a pricing scheme based largely on the post's public good qualities. It has expanded service to the most remote settlements in the North with little regard for the costs, on the grounds that the post was necessary for national economic, policitical and social development and that the deficits could be covered through taxation. The public goods are provided by the government because they offer to promote some economic or social value which would not be offered if it was left to the market. It may therefore be important to reevaluate the approach to pricing and investment policies of telecommunications. Reflecting the public good character, these policies would emphasize the benefits expected from the improvement of service. As Hudson argues, "economic returns would be measured in terms of the range of social benefits similar to the ways that the benefits of other public utilities (roads etc.) are measured."[11] With treatment from the perspective of a public good, benefits in terms of social and economic development arising from the provided services, may be sufficient to justify the investment, even if direct returns on capital are zero or negative.

---

[11] Heather Hudson, Telecommunication and Rural Development, p. 10.

The approach of public good properties of information applies as well to broadcasting. In this context, the public goods character emphasizes the access to information as an important prerequisite for awareness-action processes. It enables people to understand problems, evaluate alternatives, plan and act. These goals cannot be achieved if information generating, processing, and distribution are of primarily commercial character. Rather, to serve the needs of the population has to be first criteria.

The government has been reluctant in funding Native programming as a means to strengthen cultural identity. Yet, as the previous section outlined, expenditures for self-reliant development and cultural may well pay off in the long term through reduced soccial problems in the communities.

Presently, there is emerging a new reaffimation of self, not in the old image but one no longer content to simply follow the southern Canadian path. It is impossible to predict the direction the cultural adaptation will take in the long term. Maybe, the only valid way to answer the question, "what does it mean to be an Inuit?" is to be an Inuit, and that will be definition enough. Maybe, after all other strategies have failed, radical change will become the necessity for the future.

APPENDIX

Table 3.1.

Permanent Population, N.W.T., 1976-1985

Year	Dene	Inuit	1 + 2	Others	%Native
1976	8,310	13,922	22,232	20,922	51.5
1977	8,464	14,350	22,814	21,656	51.3
1978	8,621	14,797	23,418	22,438	51.1
1979	8,784	15,269	24,053	23,251	50.9
1980	8,959	15,766	24,725	24,093	50.7
1981	9,140	16,284	25,424	24,967	50.5
1982	9,330	16,827	26,157	25,880	50.3
1983	9,527	17,395	26,921	26,825	50.1
1984	9,727	17,981	27,708	27,808	49.9
1985	9,937	18,592	28,826	28,826	49.7

Source: Science Advisory Board of the N.W.T., Contribution to the NWT Population Studies 1961-1985, by Louis Hamelin (Yellowknife, Department of Information, 1979), p. 28.

Table 3.2.

Population Beaufort/Mackenzie Delta Communities, 1980

	Total Pop.	Native Pop.	Native as % of Total
1. Administrative Centres, predominantly non-Native			
Inuvik	2,929	726*	25
2. Larger predominantly Native communities			
Aklavik	818	730	
Fort McPherson	793	720	
Coppermine	761	700	
Tuktoyaktuk	760	680	
Total:	3,132	2,830	90
3. Smaller predominantly Native communities			
Holman	310	280	
Old Crow	219	150*	
Sachs Harbour	172	155	
Paulatuk	169	165	
Arctic Red River	98	95	
Total:	968	845	87
Total all communities	7,029	4,401	63

* Probable underestimates

Source: Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region (Ottawa: Beaufort Sea Alliance, 1982), p. 80.

Table 3.3.

White Fox Pelt Production, 1928-67

Year	Canada	N.W.T.	Western Arctic
1928-29	18,572	15,252	---
1929-30	37,617	35,576	26,100
1930-31	71,877	58,768	9,900
1931-32	67,416	41,554	21,200
1932-33	33,385	25,687	10,200
1933-34	61,400	52,467	28,900
1934-35	68,366	52,615	14,100
1935-36	45,743	25,897	18,900
1936-37	22,191	19,854	5,000
1937-38	55,907	49,255	14,000
1938-39	56,396	42,884	26,600
1939-40	32,535	30,461	9,500
1940-41	48,497	46,497	21,000
1941-42	62,534	50,970	18,600
1942-43	74,190	60,521	36,300
1943-44	30,332	28,310	11,300
1944-45	17,969	16,765	6,600
1945-46	27,169	20,854	---
1946-47	67,314	57,750	26,900
1947-48	55,423	53,227	15,300
1948-49	34,775	31,317	3,900
1949-50	19,775	9,989	8,100
1950-51	52,566	39,739	32,400
1951-52	53,654	49,787	14,600
1952-53	40,710	36,474	6,700
1953-54	36,370	27,178	6,100
1954-55	81,783	60,483	36,100
1955-56	31,728	27,720	15,900
1956-57	28,338	24,049	10.800
1957-58	31,890	28,939	13,842
1958-59	26,539	23,026	10,363
1959-60	14,457	10,443	3,607
1960-61	51,995	38,462	23,743
1961-62	45,358	32,522	13,848
1962-63	09,880	09,162	06,742
1963-64	32,447	29,920	14,207
1964-65	40,831	27,041	07,246
1965-66	11,656	10,444	06,313
1966-67	34,126	33,185	22,846

Source: Peter Usher, The Bankslanders (Ottawa: 1972), Vol.1, p. 97.

Table 4.1.

Canadian Communications Satellites

Satellites	Launching Date	Characteristics
Anik 1	November 1972	6/4 GHz; 12 channels
Anik 2	April 1973	6/4 GHz; 12 channels
Anik 3	May 1975	6/4 GHz: 12 channels
Hermes	January 1976	14/12 GHz;
Anik B	December 1978	6/4 GHz; 12 channels 14/12 Ghz; 6 channels
Anik C1	1984	14/12 GHz; 16 channels
Anik C2	August 1983	14/12 GHz; 16 channels
Anik C3	November 1982	14/12 GHz; 16 channels
Anik D1	August 1982	6/4 GHz; 24 channels
Anik D2	1984	6/4 GHz; 24 channels

Table 4.2.

Native Language Radio Programming

Region	Hours/Week 1972	Hours/Week 1978
Delta	23	31
Mackenzie	3	11
East Arctic	25	59
Shortwave	10	28

Source: CBC, CBC - A Perspective. Submission to CRTC in Support of Applications for Renewal of Network Licences (Ottawa: CBC, 1978), p. 314.

Figure 4.3.

CBC Northern Service Radio Inuvik Fall 1983

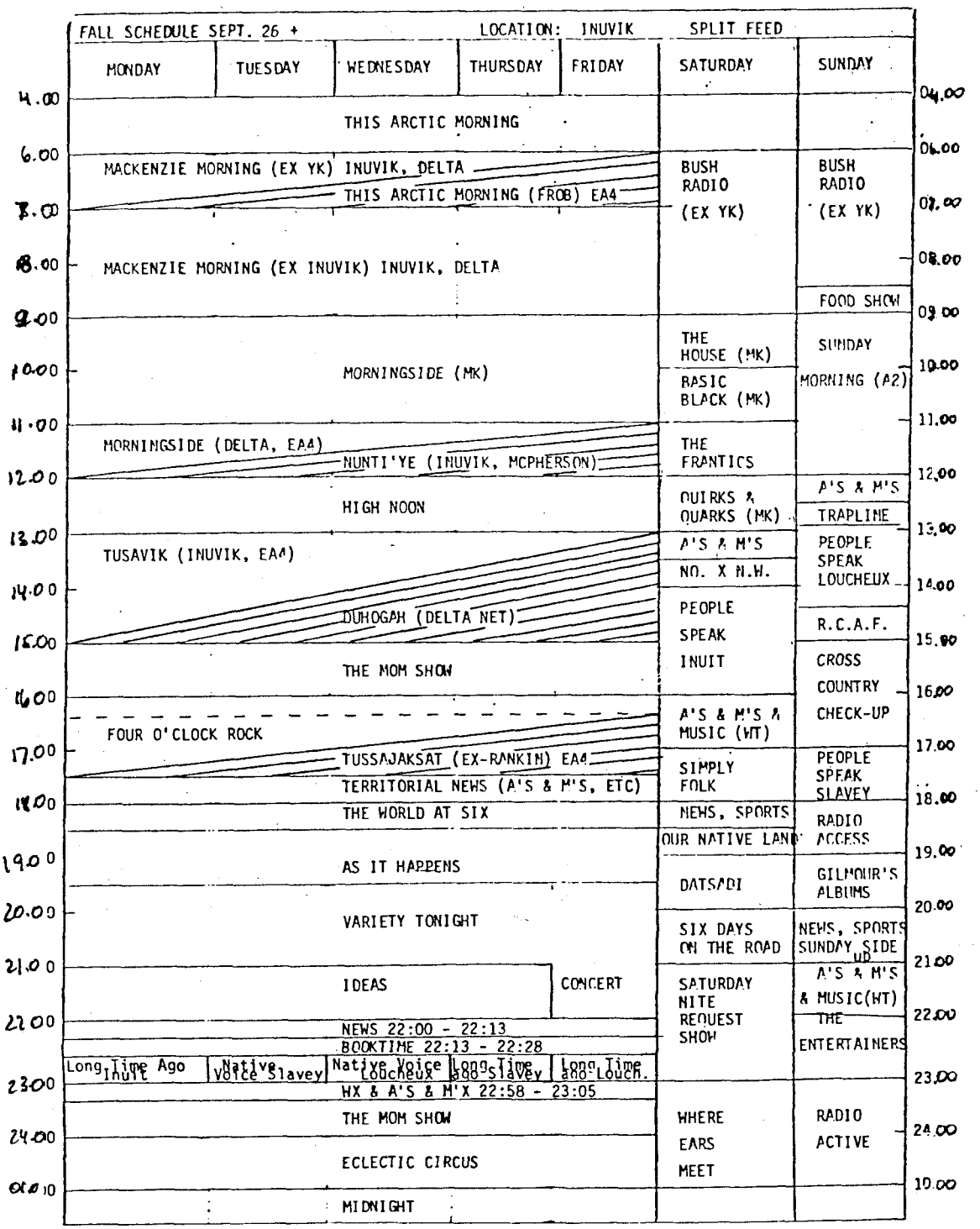


Figure 4.4.

CBC Northern Service Radio Yellowknife 1983/84

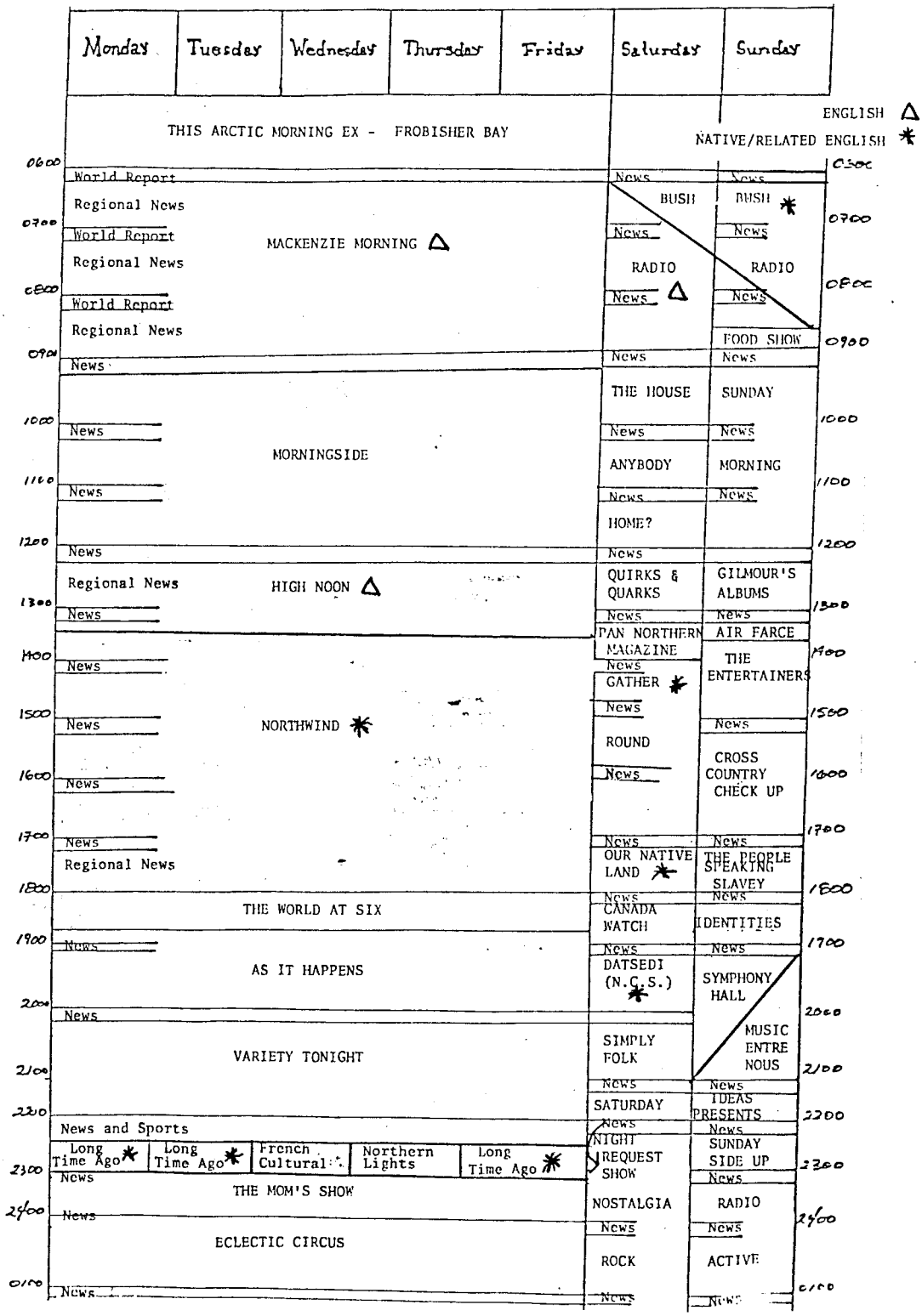
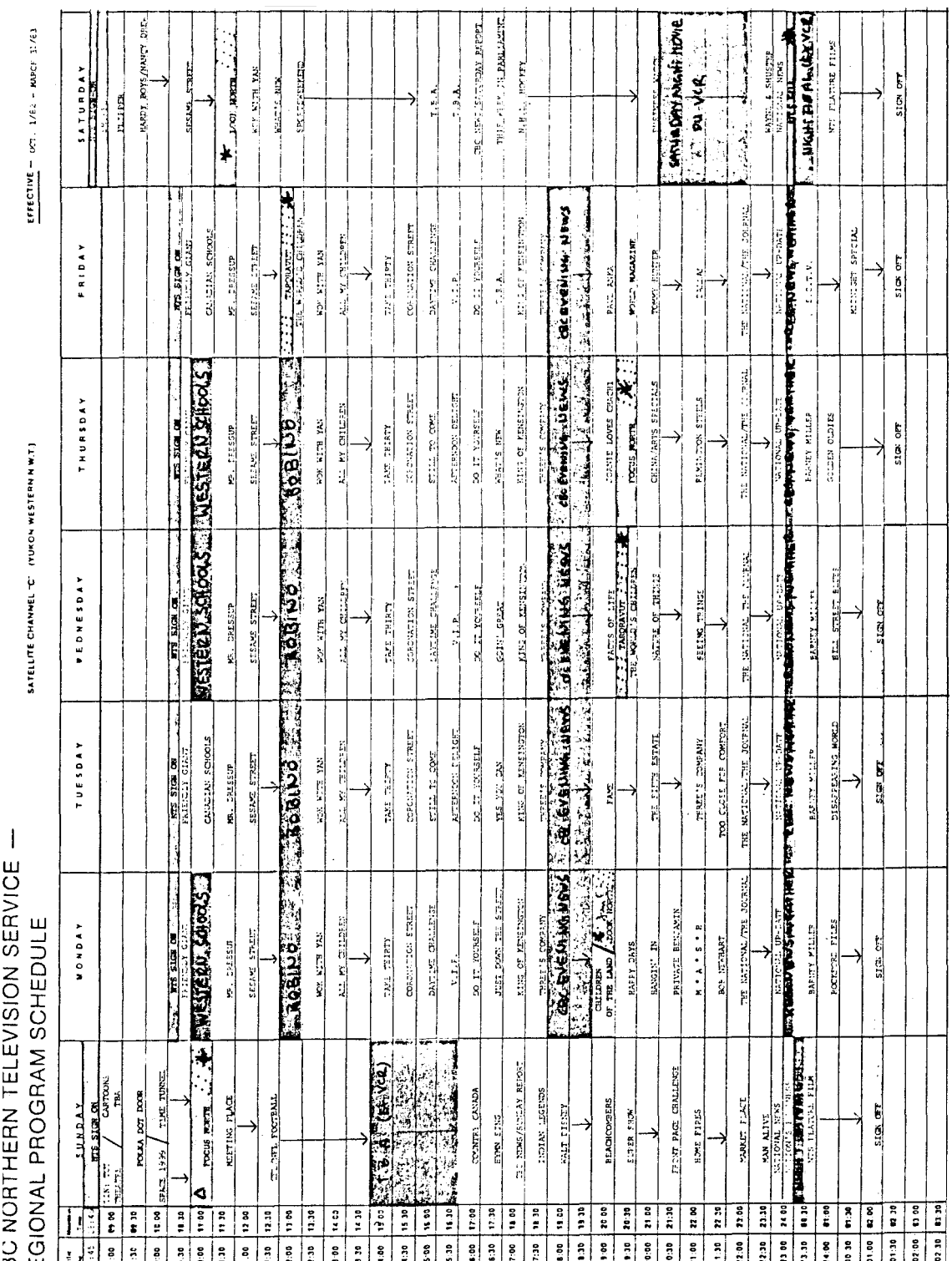


Figure 4.5.

CBC Northern Television Service Western Arctic



CBC NORTHERN TELEVISION SERVICE —
REGIONAL PROGRAM SCHEDULE

SATELLITE CHANNEL "B" (BAFFIN EAST CENTRAL ARCTIC)

EFFECTIVE — OCT. 1/82 - MARCH 31/83

Eastern Time	Central Time	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
07:45	06:45							
08:00	07:00	TINY TOT THEATRE / CARTOONS TBA						SHORPS
08:30	07:30	POLKA DOT DOOR		FRIENDLY GIANT			FRIENDLY GIANT	FLIPPER
09:00	08:00			CANADIAN SCHOOLS			CANADIAN SCHOOLS	HARDY BOYS/NANCY DREW
09:30	08:30	SPACE 1999 / TIME TUNNEL	MR. DRESSUP	MR. DRESSUP	MR. DRESSUP	MR. DRESSUP	MR. DRESSUP	
10:00	09:00		SESAME STREET	SESAME STREET	SESAME STREET	SESAME STREET	SESAME STREET	SESAME STREET
10:30	09:30						THE WORLD'S CHILDREN	
11:00	10:00	MEETING PLACE						
11:30	10:30		MOK WITH YAN	MOK WITH YAN	MOK WITH YAN	MOK WITH YAN	MOK WITH YAN	
12:00	11:00	COUNTRY CANADA	DAYTIME CHALLENGE	STILL TO COME	DAYTIME CHALLENGE	STILL TO COME	DAYTIME CHALLENGE	WHAT'S NEW
12:30	11:30	RYMN SING	V.I.P.	AFTERNOON DELIGHT	V.I.P.	AFTERNOON DELIGHT	V.I.P.	
13:00	12:00	WALT DISNEY	ALL MY CHILDREN	ALL MY CHILDREN	ALL MY CHILDREN	ALL MY CHILDREN	ALL MY CHILDREN	BOBBIE DE BOT
13:30	13:00							QUIE FIDO / COK NORTH
14:00	13:00	CFL/NFL FOOTBALL	TAKE THIRTY	TAKE THIRTY	TAKE THIRTY	TAKE THIRTY	TAKE THIRTY	THIS IS HOLLYWOOD
14:30	13:30		CORONATION STREET	CORONATION STREET	CORONATION STREET	CORONATION STREET	CORONATION STREET	MOK WITH YAN
15:00	14:00		DO IT YOURSELF	DO IT YOURSELF	DO IT YOURSELF	DO IT YOURSELF	DO IT YOURSELF	SPORTSWEEKEND
15:30	14:30		JUST DOWN THE STREET	YES YOU CAN	GOIN' GREAT	WHAT'S NEW	T.B.A.	
16:00	15:00		KING OF KENSINGTON	KING OF KENSINGTON	KING OF KENSINGTON	KING OF KENSINGTON	KING OF KENSINGTON	
16:30	15:30		THREE'S COMPANY	THREE'S COMPANY	THREE'S COMPANY	THREE'S COMPANY	THREE'S COMPANY	
17:00	16:00	CBC NEWS/SUNDAY REPORT						
17:30	16:30	INDIAN LEGENDS						
18:00	17:00	BEACHCOMBERS	CHILDREN OF THE LAND	FAME	FACTS OF LIFE	JOHNNIE COMES CHACHI	PAUL ANKA	CBC NEWS/SATURDAY REPORT
18:30	17:30	SUPER SHOW	HAPPY DAYS		THE WORLD'S CHILDREN			THIS WEEK IN PARLIAMENT
19:00	18:00		HANGIN' IN	THE FIFTH ESTATE	NATURE OF THINGS	CHINA/ARTS SPECIALS	TOMMY HUNTER	
19:30	18:30	FRONT PAGE CHALLENGE	PRIVATE BENJAMIN					WAYNE & SHUSTER
20:00	19:00	HOME FIRES	M*A*S*H	TERRI'S COMPANY	SEEING THINGS	REMINGTON STEELE	DALLAS	N.H.L. HOCKEY
20:30	19:30		BOB NEWHART	TOO CLOSE FOR COMFORT				
21:00	20:00	MARKET PLACE	THE NATIONAL/THE JOURNAL	THE NATIONAL/THE JOURNAL	THE NATIONAL/THE JOURNAL	THE NATIONAL/THE JOURNAL	THE NATIONAL/THE JOURNAL	
21:30	20:30	MAN ALIVE						
22:00	21:00	NATIONAL NEWS / NATIONAL BUSINESS	NATIONAL UP-DATE	NATIONAL UP-DATE	NATIONAL UP-DATE	NATIONAL UP-DATE	NATIONAL UP-DATE	
22:30	21:30	NTS FEATURE FILM	BARNEY MILLER	BARNEY MILLER	BARNEY MILLER	BARNEY MILLER	S.C.T.V.	NATIONAL NEWS
23:00	22:00		I.B.C. (TO FROBISHER BAY)	I.B.C. (TO FROBISHER BAY)	I.B.C. (TO FROBISHER BAY)	GOLDEN OLDIES		
23:30	22:30						MIDNIGHT SPECIAL	
24:00	23:00	SIGN OFF	ROCKFORD FILES	DISAPPEARING WORLD	HILL STREET BLUES	SIGN OFF		NTS FEATURE FILMS
00:30	23:30		SIGN OFF	SIGN OFF	SIGN OFF		SIGN OFF	SIGN OFF
01:00	24:00							
01:30	00:30							
02:00	01:00							

LEGEND

WHITE	– Network
YELLOW	– Regional (Production and Northern Procurement)
BROKEN YELLOW	– Native Language
GREEN	– Canadian Production and Regional Exchange
BLUE	– Foreign Production
RED	– Pick-ups Other CBC Stations

NOTE: SUNDAY AND SATURDAY LOCAL TIME PERIODS WILL BE ADJUSTED WHEN LIVE NETWORK SPORTS SCHEDULED.

CBC Northern Television Service Eastern Arctic

Figure 4.6.

Table 4.7.

Favourite Types of Television Programs

Program	Per Cent
Soap Operas/Serials	76
Native Language/oriented	59
Situation Comedies	29
Other Drama	29
Sports	28
News/Current Events	22
Science/Wildlife	11
Variety/Music	6
Religious	4
Other	21
(Base)	(228)

Source: CBC, Television in the Baffin Region of Canada's Northwest Territories. A Survey of Viewing Behaviour and Audience Preferences among the Inuit of Cape Dorset and Pond Inlet (Ottawa: CBC, 1982), p. 28.

Table 4.8.

The Ten Favourite Television Programs

Program	Per Cent
Edge of Night	56
Hockey Night in Canada	25
Tarqravut	22
Dallas	21
Nunatsiakmut	20
Three's Company	18
The National	14
Disney's Wonderful World	9
Nature of Things	8
Battlestar Galactia	8
(Base)	(228)

Source: CBC, Television in the Baffin Region of Canada's Northwest Territories. A Survey of Viewing Behaviour and Audience Preferences among the Inuit of Cape Dorset and Pond Inlet (Ottawa: CBC, 1982), p.30.

Table 4.9.

The Favourite Native Lanugage/Oriented Television Programs

Program	Per Cent
Targravut	22
Nunatsiakmiut	20
We Inuit	7
Our Ways	5
Inukshuk(+)	5
(Base)	(228)

Source: CBC, Television in the Baffin Region of Canda's Northwest Territories. A Survey of Viweing Behaviour and Audience Preferences among the Inuit of Cape Dorset and Pond Inlet (Ottawa: CBC, 1982), p. 32.

Note:
Inukshuk television service is not available in Cape Dorset. The percentage for Inukshuk is for Pond Inlet only.

Table 5.1.

Beaufort Drilling Program - Employment Levels 1976 - 1978

Number of Employees and Changes

Community	1976	1977	%Change	1978	%Change	1979	%Change
Aklavik	7	22	+214	18	-18	27	+50
Coppermine	3	15	+400	18	+20	19	+6
Holsman Island	0	4	-	8	+100	6	-25
Inuvuk	15	28	+87	35	+25	54	+54
Paulatuk		8	+167	11	+38	11	NC
Sachs Harbour	1	5	+400	5	NC	8	+60
Tuktoyaktuk	87	103	+18	76	-26	80	+5
Other Centres	11	9	-19	14	+56	19	+36
TOTAL	127	194	+53	185	-5	224	+21
	67	97	+53	98		130	+21

Note: Under Total: Hires/Positions

Source: Dome/Canmar Review of the 1978 Drilling Program in the Beaufort Sea. Final Report (Hull: DIAND, 1979), p.

Table 5.2

Annual Social Assistance Payments ($000's)

Community	1960s	1972-73	1979-80
Aklavik	44	51	86
Fort McPherson	9	28	84
Coppermine	23	n.d.	199
Tuktoyaktuk	13	46	88
Sachs Harbour	3	n.d.	18
Paulatuk	2	n.d.	13
Total	94		488

n.d. = no data

Source: Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region (Ottawa: Beaufort Sea Alliance, 1982), p. 85.

Table 5.3.

Some Indicators of Northern Resident Employment and Income in the Oil Industry

Community	Avg.annual no. person-months 1974-78	Avg. person-months per capita(1)	Employment income, Canmar 1980 $ 000	Per Capita Canmar $ 000
Inuvik	802	.274	900	335
Aklavik	125	.153	384	469
Fort McPhon	99	.125	272	343
Coppermine	181	.238	225	296
Tuktoyaktu	350	.461	1,100	1,447
Holman	17	.055	68	219
Old Crow	22	.100	n.d.	n.d.
Sachs Harb	7	.041	94	547
Paulatuk	10	.059	49	290
Arctic Red River	8	.082	37	378

(1) Based on 1980 population.

Note: Because of the high percentage on non-Native resident northerners in Inuvik, the figures for that community cannot be directly compared with the others as an indicator of Native involvement in the oil industry.
Source: Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region (Ottawa: Beaufort Sea Alliance, 1982), p. 82.

Table 5.4.

Total Personal Income by Source in Tuktoyaktuk and Coppermine, 1980

	Tuktoyaktuk	Coppermine
Wages and Saleries	69%(1)	45%
Domestic Production (2)	17%	30%
Transfer Payments (3)	12%	14%
Commodity Sales	2%	11%
Total Community Income ('000)	$6,500	$3,307

(1) Includes small business income.

(2) Estimated imputed gross income, based on recorded and estimated unrecorded harvest volumes, and cash equivalent values of $3.00 to $4.00 per pund.

(3) Based on EIS tables 4.2-7 and 4.5-3. The following estimates were added by Peter Usher: family allowances, child tax credits, old age pensions for Tuktoyaktuk, and unemployment insurance benefits for Coppermine.

Source: Peter Usher, Assessing the Impact of Industry in the Beaufort Sea Region (Ottawa: Beaufort Sea Alliance, 1982), p. 83.

SELECTED BIBLIOGRAPHY

1. Books

Anderson, Peter Stephan. CEC and its Mandate. M.A. Thesis, Simon Fraser University, 1976.

Arnold, Robert. Alaska Native Land Claims. Anchorage: Alaska Native Foundation, 1976.

Babe, Robert E. Canadian Television Broadcasting. Structure, Performance, and Regulation. Ottawa: Economic Council of Canada, 1979.

Berger, Thomas. Northern Frontier - Northern Homeland. The Report of the Mackenzie Valley Pipeline Inquiry. 2 Vols. Ottawa: Supply and Services, 1977.

Bregha, Francois. Bob Blair's Pipeline. The Business and Politics of Northern Energy Development Projects. Toronto: James Lorimer and Company, 1979.

Briggs, Jean L. Never in Anger. Portrait of an Eskimo Family. Cambridge: Harvard University Press, 1970.

Brody, Hugh. The People's Land. Eskimos and White in the Eastern Arctic. Hammondsworth: Penguin Books, 1975.

Brookfield, Harold. Interdependent Development. Perspectives on Development. London: Methuen and Co, Ltd., 1975.

Canadian Arctic Resource Committee. Northern Transitions. Second National Workshop on People, Resources and the Environment North of 60th. Eds. Robert F. Keith and James B. Wright. Ottawa: Canadian Arctic Resource Committee, 1978.

Canadian Broadcasting Corporation. A Brief History of the Canadian Broadcasting Corporation. Ottawa: Canadian Broadcasting Corporation, 1976.

_____. The CBC - A Perspective. Submission to the CRTC in Support of Applications for Renewal of Network Licences. 3 Vols. Ottawa: Canadian Broadcasting Corporation, May 1978.

_____. Radio and Television in the Keewatin District of the Northwest Territories. A Survey of Listening and Viewing Behaviour in Rankin Inlet, Baker Lake and Eskimo Point. Ottawa: Canadian Broadcasting Corporation, 1979.

_____. The Native Audience for Radio in the Mackenzie Region of Canada's Northwest Territories. An Audience Survey for CBC Radio Planning with some related Data on

Television Viewing. Ottawa: Canadian Broadcasting Corporation, September 1980.

_____. Television in the Baffin Region of Canda's Northwest Territories. A Survey of Viewing Behaviour and Audience Preferences among the Inuit of Cape Dorset and Pond Inlet. Ottawa: Canadian Broadcasting Corporation, 1982.

Carpenter, Edmund. Oh, What a Blow that Phantom Gave Me. New York: Bantam, 1972.

_____. Eskimo Realities. New York: Holte, Rinehart and Winston, 1973.

Committee for Original Peoples' Entitlement and Government of Canada. Inuvialuit Land Rights Settlement. Agreement in Principle. Inuvik: COPE, 1978.

Crow, Keith. A History of the Original Peoples of Northern Canada. Montreal: Arctic Institute of North America, 1974.

Cumming, Peter and Neil Mickenburg. Native Rights in Canada. 2nd ed., Toronto: General Publishing Company Ltd., 1972.

Dachs, Gurston. A Choice of Future: Politics in the Canadian North. Agincourt,Ont.: Methuen, 1981.

Dixon, Mim. What Happened to Fairbanks. Boulder, Col.: Westview Press, 1976.

Dosman, Edgar J. The National Interest. The Politics of Northern Development 1968-75 . Toronto: McClelland and Stewart, 1975.

Feaver, Charles. The Politics of the Introduction of Television to the Canadian North: A Study of the Conflict between National Policies and Needs of Native People in the North. Ottawa: Carleton University, Institut of Canadian Studies, October 1976.

Ferguson, J.D. The Human Ecology and Social Economic Change in the Community of Tuktoyaktuk. Ottawa: Department of Northern Affairs and National Resources, 1961.

Forbes, Norma and Walter Jonner. Socio-Cultural and Cognitive Effects of Commercial Television on Previously Television-Naive Rural Alaskan Children. Bellingham: Western Washington University, August 1980.

Foster, Peter. The Sorcerer's Apprentices. Canada's Bureaucrats and the Energy Mess. Toronto: Totem Book, 1983.

Frank, Andre Gunder. Capitalism and Underdevelopment in Latin

America. New York: Monthly Review Press, 1967.

_____. On Capitalist Underdevelopment. Bombay: Oxford University Press, 1975.

Gedalof, Robin. Ed. Paper Stays Put. A Collection of Inuit Writing. Edmonton: Hurtig Publishers, n.d.

Gemini North. Social and Economic Impact of Proposed Arctic Pipeline in Northern Canada. 7 Vols. Canadian Arctic Gas Pipeline Ltd., 1974.

Graburn, Nelson. Eskimos without Igloos. Social and Economic Development in Sugluk. Boston: Little, Brown and Company, 1969.

Hardin, Herschel. A Nation Unaware. The Canadian Economic Culture. Vancouver: J.J. Douglas, 1974.

Harris, John Nicholas. National Defence and Northern Development: The Establishment of the DEWline in the Canadian North. M.A. Thesis, Simon Fraser University, Burnaby, April 1980.

Hartz, Theodore and Irvine Paghis. Spacebound. Ottawa: Department of Communications, 1982.

Hedebro, Goeran. Communication and Social Change in Developing Nations. A Critical Review. Ames: Iowa State University Press, 1981.

Hill, Charles and Gail Valaskakis. An Assessment of Project Naalakvik I. Sugluk, Que.: Taqramiut Nipingat Inc., n.d.

_____. Naalakvik II Project. Appendices to Evaluation Report. Sugluk, Que.: Taqramiut Nipingat Corp, 1980.

Honigman John R. and Irma Honigman. Eskimo Townsmen. Ottawa: Canadian Research Center for Anthropology, 1965.

Hudson, Heather. Community Communication and Development: A Canadian Case Study. Ph.D. Thesis, Stanford University, 1974.

_____. The Northern Pilot Project: An Evaluation. Ottawa: Department of Communications, July 1974.

_____. Northern Airwaves: A Study of the CBC Northern Service. Ottawa: Keewatin Communications Studies, 1977.

Innis, Harold. The Fur Trade in Canada. Rev. ed. Toronto: University of Toronto Press, 1970.

_____. Problems of Staple Production in Canada. Toronto: The Ryerson Press, 1933.

_____. Empire and Communication. Rev. Ed. Toronto: University of Toronto Press, 1972.

_____. The Bias of Communication Rev. ed. Toronto: Univesity of Tronto Press, 1971.

Inuit Broadcasting Corporation. Position on Northern Broadcasting. Ottawa: Inuit Broadcasting Corporation, 1982.

Inuit Tapirisat of Canada. Renewable Resources Project. 11 vols. Ottawa: Inuit Tapirisat of Canada, 1975.

Jeness, Diamond. Eskimo Administration: II. Canada Technical Paper No. 14, Montreal: Arctic Institut of North America, 1964.

_____. Eskimo Administration: III. Labrador. Technical Paper Nr. 16. Montreal: Arctic Institut of North America, 1965.

Keith, Robert and Janet Wright. Eds. Northern Transitions II. Second National Workshop on People, Resources and the Environment North of 60th. Ottawa: Canadian Arctic Resource Committee, 1978.

Kemp, W.B., G. Wenzel, N. Jensen, and E. Val. The Communities of Resolute and Kurinaluk: A Social and Economic Baseline Study. Montreal: McGill University, 1977.

Klausner, Samuel and Edward Foulks. Eskimo Capialists. Oil, Politics, and Alcohol. Allanheld: Osmun Publishers, 1982.

Laxer, James. Oil and Gas. Ottawa, the Provinces and the Petroleum Industry. Toronto: James Lorimer and Company, 1983.

Lee, Chin-Chuan. Media Imperialism Reconsidered. The Homogenizing of Television Culture. Beverly Hills, London: Sage Publications, 1982.

Leiss, William. The Domination of Nature. New York: George Braziller, 1972.

Lerner, D. The Passing of the Traditional Society: Modernization in the Middle East. New York: Free Press, 1958.

Livingstone, John. Arctic Oil. The Destruction of the North? Toronto: Canadian Broadcasting Corporation, 1981.

Mann, Donald. "The Socio-Economic Impact of Non-Renewable Resource Development on the Inuit of Northern Canada."

Renewable Resources Project. Vol. 8., Ottawa: Inuit Tapirisat of Canada, July 1975.

Mansell, Robin. Telecommunications Subsidy Policy in Northwest Canada and Alaska. A Comparison. M.A. Thesis, Simon Fraser University, Burnaby, 1979.

Mayes, Robert G. Mass Communication and Eskimo Adaptation in the Canadian Arctic. M.A. Thesis, McGill University, Montreal, 1972.

_____. The Inuit of Cumberland Sound, NWT: The Creation of a Dependent People Doctoral Dissertation, McGill University, Montreal, 1978.

McGhee, Robert. Beluga Hunters. An Archeological Reconstruction of the History and Culture of the Mackenzie Delta Kittegaryumiut. St.John: Memorial University of Newfoundland, 1974.

McLuhan, Marshall. The Mechanical Bride. New York: Vanguard Press, 1961.

_____. Understanding Media. New York: Signet, 1966.

McNulty, Jean. Other Voices in Broadcasting. The Evolution of New Forms of Local Programming in Canada. Burnaby: Telecommunications Research Group, 1979.

Melody, William H. Telecommunications in Alaska: Economics and Public Policy. Alaska Communications Research Project, April 1978.

Nordenstreng, Kaarle and Herbert Schiller. Eds. National Sovereignty and International Communication. Norwood, N.J.: Ablex Publishing Corp., 1979.

O'Malley, Martin. The Past and Future Land. An Account of the Inquiry into the Mackenzie Valley Pipeline. Toronto: Peter Martin Associates Ltd., 1978.

Paine, Robert. Ed. The White Arctic. Anthropological Essays on Tutelage and Ethnicity. Newfoundland Social and Economic Papers No. 7, University of Newfoundland, 1977.

Pimlott, Douglas, Dougald Brown, and Kenneth Sam. Oil under the Ice. Offshore Drilling in the Canadian Arctic. Ottawa: Canadian Arctic Resource Committee, 1976.

Pye, L. Ed. Communications and Political Development. Princeton: Princeton University Press, 1963.

Rasmussen, Knud. Report of the Fifth Thule Expedition 1921-1924.

The Mackenzie Eskimos Vol. X, No. 2, Copenhagen: Gyldendalske Boghandel, 1942.

Rea, Kenneth J. The Political Economy of the Canadian North: An Interpretation of the Course of Development in the Northern Territories of Canada to the Early 1960's. Toronto: University of Toronto Press, 1968.

_____. The Political Economy of Northern Development. Background Study No. 36. Ottawa: Science Council of Canada, 1976.

Robbins, B.S. The Trail Communications Project Fort Franklin, N.W.T. Report of a Communications Canada Pilot Project. Winnipeg: Department of Communications, April 1974.

Rogers, Everett. Modernization Among Peasants. New York: Holt, Rinehart & Winston, 1965.

_____. Ed. Communication and Development. Critical Issues. Beverly Hills, Ca.: Sage Publications, 1976.

Royal Society of Canada. Hermes (The Communications Technology Satellite). Its Performance and Applications. 3 Vols. Ottawa: Royal Society of Canada in cooperation with DOC and NASA, 1977.

Schiller, Herbert. Communication and Cultural Domination. White Plains, N.Y. : International Arts and Science Press, 1976.

_____. Who Knows: Information in the Age of the Fortune 500. Norwood, N.J.: Ablex Publishing Corporation, 1981.

Schramm, Wilbur. Mass Media and National Development. Stanford: Stanford University Press, 1964.

Seligman, M. Helplessness: On Depression, Development, and Death. San Francisco: Freeman, 1975.

Senghaas, Dieter. Ed. Peripherer Kapitalismus. Analysen ueber Abhaengigkeit und Unterentwicklung Frankfurt: Suhrkamp Verlag, 1974.

Smythe, Dallas. Dependency Road: Communication, Capitalism, Consciousness and Canada Norwood, N.J.: Ablex Publishing Corporation, 1981.

Spindler, Louise. Culture Change and Modernization. Mini-Models and Case Studies. New York: Holte, Rinehardt & Winston, 1977.

Stefansson, Vilhjalmur. The Friendly Arctic. The Story of Five Years in Polar Regions. 1929. Reprinted, New York:

Macmillan Company, 1943.

Steinbrinck, Jack and Gary Granzberg. Handbook: General Guidelines in the Development of Native Television Programming. Winnipeg: Department of Communications, 1981.

Tagramiut. The Northerners. Sugluk: Northern Quebec Inuit Association, 1974.

Walp, Robert. Ed. Telecommunications in Alaska. Papers in Support of the Alaska Case Study Presentation to the 1982 Pacific Telecommunications Conference. Honolulu, Hawaii, January 17-20, 1982.

Usher, Peter. Assessing the Impact of Industry in the Beaufort Sea Region. Ottawa: Beaufort Sea Alliance Report, December 1982.

_____. The Bank-Slanders: Economy and Ecology of a Frontier Trapping Community. 3 Vols. Ottawa: Department of Indian Affairs and Northern Development, 1971.

Usher, Peter and Graham Beakhurst. Land Regulation in the Canadian North. Ottawa: Canadian Arctic Resource Committee, 1973.

Valaskakis, Gail Guthrie. A Profile: Telephone Availability, Use and Need, Lake Harbour, N.W.T. Lake Harbour: Settlement Council, 1975.

Valaskakis, Gail Guthrie, Ron Robbins, and Tom Wilson. "The Inukshuk Anik B Project. An Assessment." Ottawa: Inuit Tapirisat of Canada, 1981.

Valentin, Victor and Frank Vallee. Eds. Eskimo of the Canadian Arctic. Toronto: McClelland and Stewart, 1968.

Watkins, Mel. Ed. Dene Nation - The Colony Within. Toronto: University of Toronto Press, 1977.

Watson, Linvill. Television Among Inuit of the Keewatin: The Rankin Inlet Experience. Saskatoon: University of Saskatoon, 1977.

Wells, A.T. Picture-Tube Imperialism? The Impact of U.S. Television on Latin America. Maryknoll, N.Y.: Orbis, 1972.

White, Pamela. The Essential Elements of Social Impact Assessment. Ottawa: Beaufort Sea Alliance Report, November 1982.

Williams, Raymond. Television, Technology and Cultural Form. New York: Schocken Books, 1975.

Williamson, Robert G. Eskimo Underground. Socio-Cultural Change in the Canadian Central Arctic. Uppsala: Almqvist & Wiksell, 1974.

Wilson, Thomas. The Role of Television in the Eastern Arctic: An Education Perspective. M.A. Thesis Concordia University, Montreal, 1981.

Yorga, Brian. Washort: A Western Thule Site on Herschel Island, Yukon Territory. Mercury Series No. 98. Ottawa: National Museum of Man, 1980.

Zaslow, Morris. The Opening of the Canadian North 1870-1914. Toronto: McClelland & Stewart Ltd, 1971.

2. Articles

Beltran, Luis Ramiro and Elizabeth Fox de Cardona. "Latin America nd the United States: Flaws in the Free Flow of Information." National Sovereignty and International Communication. Ed. Kaarle Nordenstreng and Herbert Schiller. Norwood, N.J.: Ablex Publishing Corporation, 1979, 33-64.

Bramble, William and Ernest Polley. "Microcomputer Instruction in Remote Villages in Alaska." Telecommunication in Alaska. Ed. Robert Walp. Honolulu, Hawaii, January 17-20, 1982, 64-68.

Brant, Charles and Charles Hobart. "The Educational System in the Western Arctic." Eskimo of the Canadian Arctic. Ed. Victor Valentin and Frank Vallee. Toronto: McClelland & Stewart, 1968, 186-96.

Brody, Hugh. "Land Occupancy: Inuit Perceptions." Inuit Land Use and Occupancy Project. Ed. Milton Freeman. Ottawa: Minister of Supply and Services, 1976. Vol. 1, 185-242.

Brooks, David B. "Beaufort Sea Oil. The Costs of Production." Northern Perspectives, Vol.8, No. 6 (1980), 2-7.

Canadian Broadcasting Corporation. "Extension of Service to Northern and Remote Communities: Pay Television and Canadian Broadcasting." A Submission to the CRTC. Ottawa: CBC, March 1980.

Carey, James. "Harold Adams Innis and Marshall McLuhan." The Antioch Review, Vol. 27 (Spring 1967), 5-39.

_____. "Canadian Communications Theory: Extensions and Interpretations of Harold Innis." Studies in Canadian Communications. Eds. Gertrude Joch Robinson, and Donald F. Theall. Montreal: McGill University, 1975, 27-60.

Caron, Andre. "First-Time Exposure to Television. Effects on Inuit Children's Cultural Images." Communication Research, Vol. 6, No. 2 (April 1979), 135-54.

Chapman, John. "...Why is Canada so Interested." In Search, Vol. 1, No. 2 (Spring 1974), 4-7.

_____. "Why Satellite Communications in Canada." In Search, Vol. 6, No. 2 (Spring 1979), 10-12.

Chretien, Hon. Jean. "Address to the Symposium Petroleum Economics and Evaluation." Ottawa: DIAND, 1971.

Coldevin, Gary. "Satellite Television and Cultural Replacement among Canadian Eskimos." Communication Research, Vol. 6, No. 2 (April 1979), 115-34.

_____. "Anik I and Isolation: Television in the Lives of Canadian Eskimos." Journal of Communication, Vol. 27, No. 4 (Autumn 1977), 145-51.

Cornoyea, Nellie. "The Cope Agreement." The Inuit North, January 1980, 12-13.

Dicks, Dennis. "From Dog Sled to Dial Phone: A Cultural Gap?" Journal of Communication, Vol. 27, No. 4 (Autumn 1977), 120-29.

Dowling, Richard P. "The Alaska Small Earth Station Program: Mitigating Isolation the Technology." Telecommunication in Alaska. Ed. Robert Walp, Honolulu, Hawaii, January 17-20, 1982, 31-35.

Feaver, Charles. "The Computer Must Speak Chipewyan." Communications, Computersm and Human Settlements. Ninth Annual Urban Studies Symposium, York University, March 19-21, 1980, Paper No. 3. (n.p.).

Foote, Charles. "...of Whales and Whalers." People of Light and Dark. Ed. Maja van Steensel. Ottawa: DIAND, 1966, 29-33.
bibentry> Golden, David. "Where Do We Go from Anik." In Search, Vol. 11, No. 2 (Spring 1975), 10-18.

Golding, Peter. "Media Role in National Development." Journal of Communication, Vol. 24, No. 4, 39-53.

Goldschmidt, Douglas. "The Benefits of Satellite Telecommunications in Alaska." Telecommunication in Alaska.

Ed. Robert Walp, Honolulu, Hawaii, January 18-20, 1982, 54-57.

Graburn, Nelson. "Television and the Canadian Inuit." Etudes/ Inuit/ Studies, Vol. 6, No. 1 (1982), 7-18.

Granzberg, Gary, Jack Steinbrinck and John Hamer. "New Magic for Old: TV in Cree Culture." Journal of Communication, Vol. 27, No. 4 (Autumn 1977), 154-58.

Granzberg, Gary. "Television as Storyteller: The Algonkian Indians of Central Canada." Journal of Communication, Vol. 32, No. 1 (Winter 1982), 43-52.

Green, Lyndsay and David Simailak. "Inuit Communication Needs." Communications, Computers and Human Settlements. Ninth Annual Urban Studies Symposium, York University, March 19-21, 1980. (n.p.).

Hargrave, M.B. "Changing Settlement Patterns amongst the Mackenzie Eskimos of the Canadian North Western Arctic." Canada's Changing North. Ed. William Wonders. Toronto: McClelland & Stewart, 1971, 187-98.

Hobart, Charles. "Impacts of Industrial Employment on Hunting and Trapping among Canadian Inuit." Proceedings. Renewable Resources. First International Symposium on Renewable Resources and the Economy of the North. Ed. Milton Freeman. Ottawa: Association of Canadian Universities for Northern Studies, 1981, 202-18.

_____. "Socio-Economic Overview of the Mackenzie Delta Region." Evidence Presented on Behalf of the Oil Producers to the Mackenzie Valley Pipeline Inquiry. Inuvik, 1976.

Hobart, Charles and George Kupfer. "Work Adjustment of Inuit Workers to Oil Exploration Employment." Western Canadian Journal of Anthropology, Vol. 4, No. 3 (1974), 73-86.

Hudson, Heather. "The Role of Radio in the Canadian North." Journal of Communication, Vol. 27, No. 4 (Autumn 1977), 130-39.

_____. "The Role of Telecommunications in Socio-Economic Development." Seminar on Rural Telecommunications. New Dehli: International Telecommunications Union.

_____. "Medical Communication in Rural Alaska." Telecommunicationation in Alaska. Ed. Robert Walp, Honolulu, Hawaii, January 17-10, 1982, 58-63.

Hunt, Constance. "Approaches to Native Land Settlements and Implications for Northern Land Use and Resource Management

Policies." Northern Transitions. Eds. Robert Keith and Janet Wright. Ottawa: CARC, 1978, 63-93.

Inuit Broadcasting Corporation. I B C (Pamphlet, n.d.).

Janssen, C.T.L. and Donald J. Gamble. "On the Estimation of Blowout Probability." Northern Perspectives, Vol. 9, No. 4+5 (1981), 8-10.

Judd, David. "Canada's Northern Policy: Retrospect and Prospect." Polar Record, Vol. 14, No. 92 (1969), 593-602.

Killen. Stewart. "What Aboriginal Rights are Not." Bulletin. An Independent Journal on Native Affairs, Vol. 17, No. 3 (December 1976), 5.

Kupfer, George and Charles Hobart. "Impact of Oil Exploration Work on Inuit Community." Arctic Anthropology, Vol. XV, No. 1, 58-67.

Laing, Richard, Peter Puxley, Gerald Sutton, and Wilf Bean. "Political Development on the Northwest Territories." Northern Transitions. Eds. Robert Keith and Janet Wright. Ottawa: CARC, 1978, 314-21.

Leiss, William. "Technology and Instrumental Rationality in Capitalism and Socialism." Technology and Communist Culture. The Socio-Cultural Impact of Technology under Socialism. Ed. Frederic Fleron Jr. New York: Praeger, 1977, 115-37.

Lesage, Jean, Hon. Minister of Northern Affairs and National Resources. "Enter the European. V. Among the Eskimos (Part II)." The Beaver, Spring 1955, 3-9.

Mayes, Robert. "Mass Communication and Canada's Eskimos." Polar Record Vol. 16, No. 104 (1973), 683-90.

McNally, David. "Staple Theory as Commodity Fetishism: Marx, Innis and Canadian Political Economy." Studies in Political Economy. A Socialist Review, No. 6 (Autumn 1981), 35-64.

Melody, William H. "Are Satellites the Pyramids of the 20th Century?" In Search, Spring 1979, 2-8.

_____. "Satellites: On a Runaway Course of Technological Development." Ninth Conference of the Canada Council for Southest Asian Studies, University of Bristish Columbia, UBC, November 9-11, 1979.

_____. "Telecommunications Networks: Internal Subsidies and System Extension in Alaska." Telecommunications in Alaska. Ed. Robert M. Walp. Honolulu, Hawaii, January 17-20, 1982,

122-27.

Merrit, Robert. "Alaska Telecommunications." Telecommunication in Alaska. Ed/ Robert M. Wlap. Honolulu, Hawaii, January 7-20, 5-10.

Morehouse, Thomas. "Alaska's North Slope Borough: Oil, Money and Eskimo Self-Government." Polar Record, Vol, 20, No. 12 (1980), 19-29.

O'Connell, Sheldon. "Television and the Canadian Eskimo: The Human Perspective." Journal of Communication, Vol. 27, No. 4, (Autumn 1977), 140-44.

O'Malley, Peter. "Native Claims in Canada: A Brief Overview." Bulletin. An Independent Journal on Native Affairs, Vol. 17, No. 3 (December 1976), 21-25.

Orvik, James. "ESCD/Alaska: An Educational Demonstration." Journal of Communication, Vol. 27, No. 4 (Autumn 1977), 166-72.

Parker, Walter. "The Planning of Learn Alaska: A Return to Original Assumptions and an Examination of their Current Relevance." Anchorage: Parker Associates, September 1982.

_____. "Land Use Planning with Alaks Natives." Ekistics, No. 279 (Novemer/December 1979), 370-75.

Porter, David. "Give Us a Chance to be Equals." MacLean's, March 23, 1981, 8.

Pratt, Larry. "Energy: The Roots of National Policy." Studies in Political Economy. A Socialist Review, No. 7 (Winter 1982), 27-59.

Preiswerk, Roy. "Cultural Identity, Self-Reliance, and Basic Needs." Development: Seeds of Change, No. 3/4, 1981, 83-91.

Rees, William. "Development and Planning North of 60th: Past and Future." Northern Transitions. Eds. Robert Keith and Janet Wright. Ottawa: CARC, 1978, 42-62.

_____. "Reflections on the Environmental Assessment Process (EARE). A Discussion Paper." Working Paper No. 1. Ottawa: CARC, 1979.

_____. "Environmental Assessment and Review: The Case of McKinley Bay." Northern Perspectives, Vol. 8, No. 2 (1980), 2-12.

_____. "Planning on Our Arctic Frontier: Setting the Stage." Plan Canada, Vol. 21, No. 4 (1981), 107-125.

Riesman, David. "The Oral and Written Traditions." Explorations in Communication. Eds. Edmund Carpenter and Marshall McLuhan. Boston: Beacon Press, 1966, 109-16.

Rogers, Everett. "Where are We in Understanding the Diffusion of Innovations?" Communication and Change, the Last Ten Years...and the Next. . Eds. Wilbur Schramm and Daniel Lerner. Honolulu: University Press of Hawaii, 1976, 204-22.

Sahlins, Marshall. "Culture and Environment." Horizons of Anthropology. Ed. S. Tax. Ann Harbour: University of Michigan Press, 1960, 215-31.

Salinas, Raquel and Leena Paldan. "Culture in the Process of Dependent Development." National Sovereignty and International Communication. Eds. Kaarle Nordenstreng and Herbert Schiller. Norwood,N.J.: Ablex Publishing Corporation, 1979, 82-98.

Salter, Liora. "'Public' and Mass Media in Canada: Dialectics in Innis' Communication Analysis." Communication, Culture and Dependency. Eds. W. Melody, L. Salter, and P. Heyer. Norwood,N.J.: Ablex Publishing Corporation, 1981, 193-207.

Sparham, B.D. "Political Development in the Northwest Territories." Northern Transitions. Eds. Robert Keith and Janet Wright. Ottawa: CARC, 1978, 335-38.

Stach, Edwin. "Communications in the North." Canadian Communications Law Review, No. 2 (December 1970), 145-75.

Sutherland, B. "The Strategic Significance of the Canadian Arctic." The Arctic Frontier. Ed. R.St. John Macdonald. Toronto: University of Toronto Press, 1966, 256-78.

Turqyetil, Arsene. "Religious Rituals and Reliefs." Eskimos of the Canadian Arctic. Eds. Victor Valentine and Frank Vallee. Toronto: McClelland & Stewart, 1968, 43-48.

Usher, Peter. "Inuit Land Use in the Western Canadian Arctic." Inuit Land Use and Occupancy Project. 3 Vols. Ed. Milton Freeman. Ottawa: Supply and Services, 1976, Vol. 1, 21-32.

_____. "Staple Production and Ideology in Northern Canada." Communication, Culture, and Dependency. Eds. W. Melody, L. Salter, P. Heyer. Norwood,N.J.: Ablex Publishing Corporation, 1981, 177-86.

Valaskakis, Gail Guthrie. "The Other Side of Empire: Contact and Communication in Southern Baffin Island." Culture, Communication, and Dependency. Eds. W. Melody, L. Salter, and P. Heyer. Norwood,N.J.: Ablex Publishing Corporation, 1981, 209-223.

Vogt, Evon. "The Acculturation of American Indians." Perspectives on the North American Indians. Ed. Mark Nagler. Toronto: McClelland & Stewart, 1972, 2-13.

Ward, Doug. "Access Radio in the NWT." Ottawa: CBC, June 1982.

Watkins, Mel. "Implications of the Report of the Mackenzie Valley Pipeline Inquiry Vol II for Political Development in the Northwest Territories. Northern Transitions. Eds. Robert Keith and Janet Wright. Ottawa: CARC, 1978, 329-32.

Government Documents, Publications, and Legislations.

Alaska. Alaskan Native Claims Settlement Act. P.L. 92-203, 18 December 1971.

B.C. Supreme Court. Calder et al. vs. Att. Gen. B.C. 1973 Supreme Court Reports, p. 313ff.

Advisory Committee on Northern Development. Government Activities in the North. Annual Reports. Ottawa: Queen's Printer, 1968/ 69.

_____. Annual Northern Expenditure Plan 1981/82. Ottawa: DIANI, 1981.

Beaufort Sea Environmental Impact Assessment Review Panel (EARP). Transcripts. Draft Guidelines Meeting. Tutoyaktuk, 18 November 1981.

Canadian Radio-Television and Telecommunications Commission (CRTC). Decision 79-320. Renewal of the Canadian Broadcasting Corporation's Television and Radio Network Licences. Ottawa: CRTC, 30 April 1979.

_____. The 1980s: A Decade of Diversity. Broadcating, Satellite, and Pay-TV Report of the Committee in Extension of Service to Northern and Remote Communities. Hull: Minister of Supply and Services, 1980.

_____. Telecom Decision 81-13. Bell Canada, British Columbia Telephone Company and Telesat Canada: Increases and Decreases in Rates for Services and Facilities furnished on a Canada-Wide Basis by Members of the TransCanada Telephone System, and Related Matters. Ottawa: CRTC, July 7, 1981.

Department of Energy Mines, and Resources. The National Energy Program 1980. Ottowa: Minister of Supply and Services,

1980.

Department of Environment. Environment Canada's Proposed Response to Beaufort Sea Hydrocarbon Production By J. Gerin. Ottawa: DOE, June 1982.

Department of Indian Affairs and Northern Development (DIAND). Statement of the Government of Canada on Indian Policy. Ottawa: DIAND, 1969.

_____. Canada's North: 1970-1980. Ottawa: Queen's Printer, 1970.

_____. Statement on Claims of Indian and Inuit People. Ottawa: Queen's Printer, 1973.

_____. Communique, October 31, 1978.

_____. In All Fairness. A Native Claims Policy. Ottawa: DIAND, 1981.

_____. Annual Reports. Ottawa: DIAND, 1980-82.

_____. Departmental Statement to the Beaufort Sea Environmental Assessment Panel. Hull: DIAND, October 29, 1982.

_____. Comments on the Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea - Mackenzie Delata Region. Brief to Beaufort Sea Environmental Assessment Panel. Ottawa: DIAND, Vol. I, February 7, 1983.

Department of Communications (DOC). White Paper on a Domestic Satellite Communications System for Canada. Ottawa: Queen's Printer, 1969.

_____. Report on Northern Communications. Telecommission Study 8(c). Ottawa: Queen's Printer, 1971

_____. News Release Communique. Ottawa: DOC, April 6, 1978.

_____. "The Canadian Satellites. Fact Sheet Documentation Ottawa: DOC, FS 81-09.

_____. Anik B Program Phase II. Ottawa: DOC, 1981.

_____. Position Paper for the Beaufort Sea Environmental Assessment Review Panel. Ottawa: DOC, July 1982.

_____. Annual Report 1981/82. Ottawa: Supply and Services 1982.

_____. M-Sat Fact Sheet Documentation. Ottawa: DOC, FS

82-17.

_____. Direct-to-Home Satellite Broadcasting for Canada. Ottawa: Ministe of Supply and Services, 1983.

_____. Towards a New National Broadcasting Policy. Ottawa: Minister of Supply and Services, 1983.

_____. The Northern Broadcasting Policy. Statement Hon. Francis Fox, Hon. John Monroe, Hon. Serge Joyal. Ottawa, March 10, 1983.

Department of National Health and Welfare. Position Paper of Beaufort Sea Hydrocarbon Production Proposal. Ottawa: Health and Welfare Canada, October 1982.

Federal Environmental Assessment Review Office. Lancaster Sound Drilling. Hull: FEARO, 1979.

Federal Cultural Policy Review Committee. Report. Ottawa: Information Services, 1982 (Appelbaum-Herbert Report).

Government of Northwest Territories. Constitutional Development in the Northwest Territories. Report of the Special Representatives. (Drury Report). Yellowknife, January 1980.

_____. Legislative Assembly. Learning. Tradition and Change in the Northwest Territories. Yellowknife, Special Committee on Education, 1982.

House of Commons, Special Committee on Visible Minorities in Canadian Society. Equality Now! Ottawa: House of Commons, March 1984.

Ministry of State for Science and Technology (MOSST). Research and Development in Canada Report of the Ad Hoc Advisory Committee to the Ministe of State for Science and Technology. Ottawa: Minister of Supply and Services, 1979.

_____. The Canadian Space Program. Plan for 1982/83-1984/85. Background Paper. Ottawa: MOSST, December 1981.

Science Council of Canada. Northern Development. A Paper for Discussion Issues in Canadian Science Policy No. 3. Ottawa: Information Canada, 1976.

_____. Northern Development and Technology Assessment Systems. Background Study No. 34. Ottawa: Information Canada, 1976.

Task Force on Beaufort Sea Development. Report. Submitted to Seminar Policy Committee, Northern Development Projects. By

Olaf Loken. Ottawa, April 1981.

Quebec. Superior Court. Kanatewat et.al. vs. James Bay Development Corporation. Quebec Superior Court 38.1974.

Quebec. Court d'Appel. La Societe de Develcprement de la Baie James et. al. vs. Chef Robert Kanatewat et.al.. November 21, 1974, Dominion Law Reports (3d) I.SSC(1974)41.

Corporate Publications

Cancom. Application to CRTC by Orbitel Communications Company of Canada, Carrying on Business "Cancom" for a Licence to Produce Television and Radio Broadcasting Signals by Satellite. CRTC, December I, 1980.

CANMAR. Review of the 1978 Drilling Program in the Beaufort Sea. Hull: DIAND, 1979.

_____. Review of the 1979 Drilling Program in the Beaufort Sea. Final Report. Hull: DIAND, 1980.

Canadian National Telecommunications (CNT). CNT in the North: Utilizing the Canadian Experience. Toronto: CNT, 1970.

_____. Communication in Canada's North. Toronto: CNT, 1976.

_____. CNT in the Northwest Territories: A Decade of Growth. Toronto: CNT, 1977.

_____. The Develcpment of CN Telecommunications in Northwest Canada. Toronto: CNT, 1977.

DIALOG. Pocket Guide to DIALOG. Information Retrieval Service Pala Alto, Ca.: DIALOG Information Services Inc., 1983.

Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc. (on behalf of all land-holders in the Beaufort Sea - Mackenzie Delta Region. Beaufort Sea - Mackenzie Delta Environmental Impact Statement. 7 Vols., Calgary 1982.

NorthwesTel. Communications in the North. Whitehorse: NWTel, 1980.

Unpublished Papers

Abele, Frances. "Native Corporations in the Northwest Territories: Economic Development and the Prospects for Self-Determination." Paper presented at the Annual Meeting of the Canadian Science Association, University of British Columbia, Vancouver, June 6-8, 1983.

Berger, Thomas. "Economic Growth, Social Impact and Human Values." An Address to the Canadian Association of Social Workers 1980 Conference and General Meeting. St.John's, Newfoundland, 20 June 1980.

CBC. "Brief to the Members of the Federal Cultural Policy Review Commission. Ottawa: CBC, July 23, 1981.

Clancy, Peter. "Game Policy in the Northwest Territories: The Shaping of Economic Position." Paper presented at the Annual Meeting of Canadian Political Science Association, University of British Columbia, Vancouver, June 6-8, 1983.

Coldevin, Gary and Thomas Wilson. Education, Satellite Television, and Learned Helplessness among Canadian Inuit Adolescents. Montreal: Concordia University, Department of Educational Technology, 1982.

Cowan, Andrew. "The Social Impact of Broadcasting in the North." Speech Prepared for the Conference on Northern Communications. Yellowknife, NWT, September 9-11, 1970.

International Reporting Corporation. Special Representation by Northern Native Broadcasting. CRTC Hearing Cancom 1983.

ITC, INC, Wa-Wa-Ta Communications Society. Response to Bell Canada's Report on Interexchange Calling Plan. Proposals for the Remote Northern Areas. (n.d.)

Mansell, Robin. "Adaptation versus Transformation: The Impact of the New Paradigm in the Communication and Development Field." Paper presented at Canadian Communication Association, Halifax, 1981.

Melody, William H. The Economics of Information as Resource and Product. (Xerox-Copy).

_____. "Mass Media: The Economics of Access to the Marketplace of Ideas." Address to "Business and the Media." A National Symposium, Atanta, September 7, 1977.

_____. "Direct Broadcast Satellites: The Canadian Experience." Simon Fraser University, Department of Communication, Burnaby, December 1983.

Melody, William H., Robin Mansell, Rohan Samarajiwa. "Technology and Markets in the Information Sector: Policy Issues and Implications." Simon Fraser University, Department of Communication, n.d.

Native Communication Society of the Western Arctic. Community Analysis. Yellowknife, 1982.

Ketchum, Nick. Letter to Dennis G. Patterson, M.L.A. Frobisher Bay. CBC TV North, Yellowknife, November 2, 1983.

Valaskakis, Gail Guthrie. "Media and Acculturation Patterns: Implications for Northern Native Communities." Prepared for the 12th Annual Conference of the Canadian Association for American Studies. Winnipeg, October 2-23, 1976.

_____. "Communication and Control in the Canadian North: The Potential of Interactive Satellites." Concordia University, Department of Communication Studies, Montreal, November 1981.

_____. "Technology Transfer and Canadian Inuit." Montreal, April 1983.

_____. "Visible Minorities and Television: Implications for Native Identity and Cultural Integration." Paper presented at the Annual Conference of Canadian Communications Association, University of British Columbia, Vancouver, June 1983.

Ward, Doug. "CBC Northern Services." Oral presentation to CRTC Hearing CBC for Network Lincences Renewals. Ottawa, October 1978.

Newspapers, Newsletters

Inuviakuit. Newsletter of Committee for Original Peoples' Entitlement.

Kwanduer. Newsletter of the Council for Yukon Indians.

The Globe and Mail.

The Inuit North

The London Free Press

The Vancouver Sun.

The Whitehorse Star.

Interviews, Films

Nellie Cornoyea (MLA NWT), Yellowknife, November 1982.

Tagak Curley (GNWT), Yellowknife, November 1982.

Charles Feaver (DOC), Telephone Interview, September 1983.

George Henry (Northern Native Broadcasting Yukon, NNBY), Whitehorse, October 1983.

Rolf Hougen (Cancom), Whitehorse, October 1983.

Dave Porter (NNBY), Whitehorse, October 1983.

ITC-Film. Magic in the Sky. 1981.