

**CHANGING CHANNELS:
EXPLORING ALTERNATIVE SOURCES
OF REVENUES FOR KNOWLEDGE NETWORK
IN AN UNCERTAIN FUTURE**

by

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ABSTRACT

Public broadcasting is struggling to survive in an environment of government deregulation, audience fragmentation, technological change and diminishing sources of public funding. The goal of this project is to investigate the identity of public broadcasting and how various public broadcasters are adapting to these political, economic and technological challenges and then to apply acquired insights to Knowledge Network, British Columbia's public educational broadcaster. An external analysis of Knowledge Network exposes the particular side of these general systemic challenges. This process of internal review implies an evaluation of the value of Knowledge Network's regional programming to determine whether this value warrants continued public funding.

In the absence of any other regional service like Knowledge Network, this paper recommends that government should increase funding for Knowledge Network, as it is a valuable public service and avoid downsizing the organization. Furthermore, it is concluded that Knowledge Network pursue schedule underwriting and narrowcasting as alternative revenue sources to enhance its offering to British Columbians.

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DEDICATION

To my family and friends who have always shown me love and support throughout my life and continually encouraged me to persevere beyond my imagination. Most of all, this project is dedicated to my mother, whose lifelong devotion to her children has given us opportunities to succeed in every aspect of life. This accomplishment, and any other that I am fortunate enough to experience in the future will be done in honor of her strength, protection, character and inspiration.

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GLOSSARY

ABC	Australian Broadcasting Corporation
BBC	British Broadcasting Corporation
CBC	Canadian Broadcasting Corporation
CRTC	Canadian Radio-Television Telecommunications Commission
CTCPF	Canadian Television and Cable Production Fund
CTF	Canadian Television Fund
HDTV	High Definition Television
KN	Knowledge Network
LTA	Learning and Skills Television Alberta
MAVED	Ministry of Advanced Education
OLA	Open Learning Agency
P3	Public Private Partnership
PBS	Public Broadcasting System
PIK	Partners in Knowledge
PVR	Personal Video Recorder
RFEOI	Request for Expressions of Interest
SCN	Saskatchewan Communications Network
TVO	TVOntario
VOD	Video-On-Demand

1 INTRODUCTION

Broadcasting ...is the most powerful means by which modern nations and peoples share a common experience, learn about their national identity, learn about their culture, learn about themselves.

- A.W. Johnson, CBC President, 1982

The future of public broadcasting in North America and in other parts of the world is precarious. The precariousness is due to the competitive forces of the market, audience fragmentation, technological changes and pressures on traditional sources of public funding. The confluence of these challenging factors, in addition to other industry events, has driven public broadcasters to seek more efficient operating structures and practices to survive in the television marketplace. According to Jeanette Steemers (1999, p.1), however, “Attempts to tap into or increase commercial sources of funding (from advertising, sponsorship, subscription and the marketing of goods and services) were bound to bring them (public broadcasters) into conflict with commercial rivals who fear cross-subsidy from public funds and unfair competition, and who would prefer to see a more restricted form of public service provision.” With these suggested barriers in mind, public broadcasters are faced with a difficult dilemma – one that requires them to function in a media market governed by predominately free market principles versus the limitations of competing with private firms due to their publicly funded status. How far should public broadcasters go in securing alternative revenue sources to subsidize their operations without jeopardizing their public service remit, community building goals and the role they play in cultivating national unity and identity? Perhaps the funding dilemma rests on the answers to the following set of related questions: Does public broadcasting have socio-cultural goals and objectives that require its institutional structures to be owned and financed by the public? Does public broadcasting offer a unique service that is somehow non-reproducible by the private

sector? Is the service essential, if so how is it essential and how does one define what is an essential service? Is public broadcasting affordable and is it workable? These questions lie at the heart of determining what revenue and funding alternatives, if any, are available to public broadcasters to continue to survive to fulfil their social and cultural role in society.

1.1 Aim of the Project

Since the issues mentioned above are systemic throughout the entire public broadcasting industry, the overall aim of this project is to investigate how various public broadcasters are adapting to these challenges and apply these insights to Knowledge Network, British Columbia's public educational broadcaster. Specifically, the main focus of this report is to examine Knowledge Network's current situation and determine how it can evolve to generate new sources of revenue and funding, while at the same time maintain its core educational mandate all within the changing landscape of public funding. This will require a careful analysis of external and internal factors that will highlight the fundamental challenges that are impacting Knowledge Network in its attempt to offer valuable educational programming to British Columbians. The results of this analysis will lead to various alternatives and recommendations that will offer the provincial government and Knowledge Network with strategic direction to consider possible new avenues of revenue and funding opportunities. Knowledge Network, similar to other public broadcasters, faces an interesting period in its evolution to serve the viewing interests of its audience and its survival ultimately depends on its ability to adapt to changes in the political, ideological, economic, and technological realities of the public broadcasting industry.

1.2 Structure of the Project

The main objective of Section 2 is to provide a comprehensive analysis of the public broadcasting industry. It is broken down into three interconnected parts: The first part lays the foundation for understanding the socio-cultural and economic purpose for maintaining public

broadcasting amongst a plethora of channels and services available to the average television consumer. Public broadcasting's role in the social and cultural development of society is explored by defining its central principles. These principles provide a context for distinguishing public sector from private sector media. The theory of public goods and market failures is used to assess how and why public broadcasting has survived amidst changes in public funding. The next part considers the current status of various public broadcasters worldwide and focuses on and analyzes the different funding and revenue models that have been used by these broadcasters to adapt to changes in the industry over time. In addition, a discussion of the specific external factors that have impacted Knowledge Network is presented. Taken together, this discussion leads into Section 3, which considers the value of Knowledge Network's programming to British Columbians. Based on the findings of this analysis, Section 4 provides both the provincial government and Knowledge Network with a variety of alternatives to explore in the hope of providing direction to reduce the ongoing uncertainty related to Knowledge Network's future. Section 5 offers the provincial government and Knowledge Network with recommendations on which alternatives they should pursue with the intent of providing greater revenue opportunities to enhance KN's offering as a public educational service. The final section summarizes the key points in the document.

2 PUBLIC BROADCASTING: AN OVERVIEW

This primary goal of this section is to provide an overview of public broadcasting as a context for understanding the current issues facing Knowledge Network, British Columbia's public educational broadcaster. It outlines the concept of public broadcasting from a socio-cultural and economic perspective, explores the systemic challenges facing public broadcasters worldwide and provides an external analysis of Knowledge Network.

2.1 The Concept of Public Broadcasting

According to Lanara (2002, p.17), the concept of public broadcasting was first developed in the 1920s, and is generally agreed to have arisen from the vision of Sir John Reith, the first Director General of the British Broadcasting Corporation (BBC). Public broadcasting is based on the principles of universality of service, diversity of programming, provision for minority audiences including the disadvantaged, sustaining an informed electorate, and cultural and educational enrichment (Avery, 2005). It is a system that is directly related to the democratic, social and cultural needs of different societies and it exists fundamentally to preserve media pluralism in an ever-increasing age of media conglomeration. In his book titled *The Media Monopoly*, Ben H. Bagdikian (2000, p. 5) points out that:

“In 1983, fifty corporations dominated most of every mass medium and the biggest media merger in history was a \$340 million deal. ... In 1987, the fifty companies had shrunk to twenty-nine. ... In 1990, the twenty-nine had shrunk to twenty-three. ... In 1997, the biggest firms numbered ten and involved the \$19 billion Disney-ABC deal, at the time the biggest media merger ever. ... In 2000 AOL Time Warner's \$350 billion merged corporation was more than 1,000 times larger than the biggest deal of 1983.”

Although it is difficult to establish a direct connection between media conglomeration and ideological bias in television programming, theories of political economy suggest that corporate

ownership of the mass media biases the programming so as to further the corporation's interests in particular and capitalist hegemony in general (Herman, Edward S. & Noam Chomsky, 1994). In contrast, public broadcasting functions to fill a hole in the television marketplace by supplying viewers with a distinct set of alternative choices rooted in the philosophy of public interest programming. What derives from this philosophy are two alternative perspectives on public broadcasting; a socio-cultural perspective and an economic perspective.

2.1.1 Public Broadcasting: A Socio-cultural Perspective

As Jurgen Habermas (1989) suggests, public broadcasting rests on an enlightened notion of the public and public space in which political life democratically unfolds. From this standpoint, public broadcasters exist to provide accessible programming that enlightens, educates and entertains citizens so that they can make informed choices within society and facilitate democratic, social and cultural development. According to Article 19, an international civil society organization with expertise in international public service broadcasting standards, six general characteristics or standards emerge to provide a cultural framework for public broadcasting (United Nations Development Programme, 2004). These include the concepts of: universality, diversity of programs, independence from state and commercial interests, impartiality of programs, concern for national identity and culture, and financed directly by the public. These concepts are summarized in Table 2.1 below:

Table 2.1 General Concepts of Public Broadcasting

Concept	Explanation
Universality:	Public broadcasting seeks to ensure that television programming is available to the widest possible audience covering the most extensive geographical spread. The concept of universality, despite its democratic foundations, is contingent upon whether or not a country has the physical infrastructure in place to enable television broadcasting, including access to technology (i.e. television sets) and services (i.e. reception of signal) to facilitate a broadcast feed.
Diversity of Programs:	The goal of public broadcasting is to provide the public with a variety of programs which covers a full range of genres, from education to entertainment, and to enhance awareness of selected issues and concerns so that citizens are better equipped to make informed choices. With that said, public broadcasting does not expect that it can cater to the tastes and preferences of all viewers all of the time, however, it is driven by the desire to both acquire and produce compelling programs that will benefit as many viewers as possible. These programs usually are perceived as “critical in advancing the goals for national unity and identity by way of national symbols and cultural markers” (Fleras, 2003, p.343).
Independence from State and Commercial Interests:	This principle is central to public broadcasting and it purports that all television programming decisions should be made by public broadcasters on the basis of professional criteria and the public’s right to know, rather than by pressure from political or commercial interests. From this perspective, public broadcasting should always remain independent from government influence despite receiving much of its funding through the public system.
Impartiality of Programs:	Connected to the concept of maintaining its independence, public broadcasters must acquire, produce and broadcast programs that are in the best interests of the public and reject any notions to promote political agendas or support political parties. In turn, government should not use public funds to promote their viewpoints, especially through the medium of public television.
Concern for National Identity and Culture:	From a cultural perspective, public broadcasting can serve to promote and reinforce national identity and language through the type of programming and services it offers to citizens. At the same time, however, it must create a balance between serving the needs of dominant culture versus making attempts to provision programming for minorities, especially those of different racial and socio-economic backgrounds.

Concept	Explanation
Financed by the public:	Public broadcasters, for the most part, rely on public funding to finance their operations so as to serve the social and cultural needs of the public, rather the economic interests of various commercial entities. Funding by the public may take the form of licence fees, annual appropriations from government, voluntary donations by community members, or a combination of all three. *

*The issue of funding is examined extensively in the latter part of this chapter.

The distinctive features presented in Table 2.1 set public broadcasters apart from private broadcasters, who seek to generate profit by maximizing audience share and whose primary accountability is to shareholders. Although public broadcasting will likely change in response to the competitive realities of the market, the core principles of media pluralism, dissemination of objective information, and freedom of expression still remain at the heart of public broadcasting and capture the main ideals of the socio-cultural perspective.

2.1.2 Criticisms of Public Broadcasting

A key criticism of public organizations or not-for-profit settings that can be applied to public broadcasting focuses on the *Principal-Agent* problem. According to Garson (2005), the central dilemma investigated by principal agent theorists is how to get the employee or contractor (agent) to act in the best interests of the principal (the employer) when the employee or contractor has an informational advantage over the principal and has different interests from the principal. In the case of public broadcasters, viewers (the principals) are unable to easily transmit their preferences to the public broadcaster (the agent), whose program managers select programs on behalf of the public and by doing so, substitute their own preferences for that of the public. From this perspective, the cultural concepts of democracy, impartiality and diversity of programming come into question, as program managers may be biased by their own preferences and political agendas for one type of program over another. Although it would be difficult to measure any perceived notion of bias on the agents' part, critics of public service institutions often point to the

Principle-Agent problem as a justification for the privatization of public services. In spite of this, as Khalegian & Das Gupta (2004, p.17) point out that:

“Rational choice and principal-agent models assume self-serving behaviour on the part of public officials and their workers and are good at explaining why things go wrong. But they are less effective at explaining why in some organizations, things go right—and why workers in these organizations conform to the public interest model of “principled” agents working in the public interest.”

While it is necessary to balance principle agent criticisms of programming with assertions of where public broadcasting has been successful, new directions for public broadcasting that respond to public input are also needed to achieve a truly valuable cultural space.

2.1.3 Public Broadcasting: An Economic Perspective

In principle, three methods of revenue generation may be used by broadcasters to fund their operations: a licence fee levied on all television viewers, direct charges for viewing of programming on a subscription or pay-per-view basis, and charges to advertisers for use of airtime. For commercial broadcasters, economic value is derived mainly from advertising and subscriptions. For example, in 2002, advertising revenues for the Canadian television system was \$2.6 billion and \$4.61 billion for subscriptions, respectively (Standing Committee on Canadian Heritage, 2003, p. 283). Based on the situation where commercial broadcasters earn revenues by selling time to advertisers or subscriptions to consumers, their economic viability is determined by their capacity to generate revenues and control costs. Unlike commercial broadcasting, public broadcasting is financed by government and/or community subvention. While public broadcasters depend on this funding to operate in the television marketplace, how is their economic value defined in the absence of profiteering and more importantly how can their economic viability be justified? To shed light on these questions, the next section considers the theory of public goods and market failures in assessing why public broadcasting has remained a viable entity within the television marketplace that has been weakened overtime by market ideology.

The Theory of Public Goods and Market Failures

“Public goods” are goods and services provided by government (*in most cases*) that can be consumed by the public and are characterized by two main properties; they are non-rivalrous and non-excludible (Buchanan, 1967). Non-rivalry means that once a product or service has been produced, consumers can benefit from it without it diminishing for the consumption and enjoyment of others. For example, a traffic light could be considered a non-rivalrous good, as the consumption of it by one or more drivers does not decrease the use of it for other drivers. Non-excludability means that once a product or service has been created, it is impossible (or at least very difficult) to prevent other people from gaining access to that good or service. A commonly cited example of a non-excludible good is a fireworks show. Hence, if an organization stages an outdoors fireworks show, the public can watch the show from their windows or backyards without actually paying for it. Non-commercial public broadcasting falls under the notion of a public good, in that any individual with access to a television set can tune in and benefit and the marginal cost of an additional viewer is zero.

Related to the concept of public goods is the notion of externalities, which can be defined as any valued impact (cost or benefit) resulting from any action (whether related to production or consumption) that affects someone who did not fully consent to it (Block, 1983). Externalities can arise in production or consumption and can be characterized as either positive or negative. Pollution by a firm in the course of its production which causes nuisance or harm to others would be considered a negative externality, whereas an individual planting an attractive rose garden in front of his or her house may benefit others living in the area would be considered a positive externality. From a consumption perspective, the market is more likely to overproduce negative externalities and under produce positive externalities, which represents market failure.

The concept of market failure was first introduced by Arthur Pigou, who argued that government intervention is necessary (i.e. by using taxes when externalities are negative or

subsidising when positive) when markets are not able to provide enough of a socially desirable good (Tadayoni, Henten & Skouby, 1998, p. 9). In the case of public broadcasting, market failure is intensified by two factors; the manner in which the commercial broadcast industry is financed and the programming content that is displayed on their network.

Commercial sources of revenues oblige private broadcasters to service the needs of their advertisers, sponsors and shareholders, which does not necessarily guarantee diversity in television programming for the general public. The product(s) that private broadcasters sell to viewers are not television programs but the ability to expose viewers to a range of advertising messages. The equation for commercial broadcasters follows the simple logic that the price paid for advertising will ultimately depend on the number of viewers that view a certain television program. This requires the broadcaster to select programming content that will solicit maximum viewership, while at same time enabling advertisers to gain maximum benefit from their messages. As a result, commercial stations will continue to duplicate a program as long as the audience share obtained is greater than that from other programs. A number of commercial broadcasters may compete by sharing a market for one type of program (such as reality television programs) and still do better in audience numbers than by providing programs of other types (such as arts and culture).

The argument for market failure based on television programming content rests on the notion that commercial broadcasters produce negative externalities by airing too many programs that are violent in nature and any costs resulting from exposure to this content is external because it is not borne by the producer, advertiser, or broadcaster. What is implied here is the view that commercial broadcasters are far more concerned with television ratings than the appropriateness of the programming content(s) that appears on their broadcast network. Recent trends in television violence on commercial networks would appear to support this notion. According to the Media Education Foundation, research indicates that media violence has not just increased in

quantity; it has also become more graphic, sexual, and sadistic (Media Education Foundation, 2005). Moreover, the level of violence that children are exposed to during Saturday morning cartoons is higher than the level of violence during primetime (Media Education Foundation, 2005). There are 3-5 violent acts per hour in prime time, versus 20-25 acts per hour on Saturday morning (Media Education Foundation, 2005). Lastly, nearly 75 percent of violent scenes on television feature no immediate punishment for or condemnation of violence (Media Education Foundation, 2005). The implications, in the face of these statistics, suggest that commercial broadcasters will exhibit insufficient programming options with external benefits for the general public.

Based on these recent trends, this is precisely where public broadcasting's strength is seen to lie, as its overall mission and purposes are different compared to that of the commercial broadcaster. Public broadcasters tend to encompass high and independent editorial standards that support a wide range of programming that responds to the cultural interests and the needs of people as citizens and not just as consumers. Based on the notion of negative externalities and market failure, public broadcasters function to provide external benefits through their quality programming that commercial broadcasters are unable to supply.

While it is evident that negative externalities exist when violent programming content is aired on commercial networks, public broadcasters, by contrast, provide for a number of positive externalities, including educational benefits, network externalities (i.e. the *water cooler effect*¹) and wider social or citizenship benefits (Armstrong & Weeds, 2004). For the most part, public broadcast programming provides information about a variety of topics from science to technology to history to arts and culture that can be defined as educational and enlightening for the viewing public. Similar to other formal types of educational institutions, public broadcasters supply information that has direct benefits for the economy through the creation and maintenance of a

¹ The effect created when two or more individuals are having an informal, face-to-face conversation, as though at a water cooler.

more educated and productive work force. Moreover, public broadcasting also has individual benefits, such as airing programs that teach first aid techniques that can be used in life-saving situations (Armstrong & Weeds, 2004).

That role of public television programming as a common experience that people discuss ‘*around the water cooler*’ might also be regarded as a form of network externality. Individuals derive pleasure from discussing educational programs they have watched and this in turn raises their enjoyment of viewing. This enjoyment results in a positive externality between different individuals who are able to explore and share a common interest while learning from one another. Hence, social relationships are facilitated through the medium of public broadcasting.

Certain public programming also contributes to a greater understanding and awareness of different communities and cultures, which can be recognized as a positive externality benefiting society. This is where the principles of national identity and culture are important as public broadcasting can facilitate tolerance and inclusiveness through fair and informed representation of minorities, especially those disadvantaged by physical or social circumstances. As Tracey (2002, p.28) points out, public broadcasting has a dual role to play – on one hand to provide minority groups with a voice, and on the other hand to provide coverage of their histories, interests and concerns for the public at large. Take for example Knowledge Network’s 2000 production of *Walk a Mile*, which featured different immigrant families from British Columbia and explored their daily obstacles including communicating in a different language, renewing professional credentials and trying to establish a new life in and around British Columbia. This type of programming enables all British Columbians to experience a first hand look into other cultural groups, which could lead to more tolerance and acceptance of others.

From an economic perspective, market failure is considered a fundamental justification for the maintenance and continued support of public broadcasting. As was noted in the cultural perspective, proponents of public broadcasting suggest that its institutional values and aims are in

contrast with the profit-oriented objectives of commercial broadcasting. Despite its intentions to capture the maximum total viewing audience with its programming, commercial broadcasters cannot guarantee or consistently deliver on the social, cultural and educational needs of society. Public broadcasters, on the other hand, attempt to fill this gap by the positive externalities that they create with their programming content. As such, the economic rationale for public broadcasting is strengthened in spite of market ideology.

2.2 The Status of Public Broadcasting

Over the past 20 years the face of television broadcasting has changed dramatically due to the introduction of global media systems (facilitated by digital cable, satellite and other distribution technologies) that provide consumers with access to a range of broadcast content from across the world. As a result, the classification of different public broadcasting systems has become increasingly difficult to define. Prior to the expansion of the global media system, public broadcasting within a nation was generally categorized in three ways: (1) A mixed or compromise system, (2) A purely commercial system, and (3) A state owned and controlled service. (Lanara, 2002, p. 21). See Table 2.2 for a description of these systems:

Table 2.2 Models of Public Broadcasting Systems

<p>Mixed or Compromise Systems</p>	<p>Evolved from former public service monopolies. This is the case in most of the countries of Western Europe, Canada, Australia and Japan, where public service broadcasting organizations hold a prominent position in the media.</p>
<p>Purely Commercial Systems</p>	<p>Operate along market lines. The state holds a minimal role equivalent to that of a traffic policeman whose job is to prevent confusion. The commercial system is adopted in the US, in many Latin American countries and some parts of Asia. Public media are present at the margins of the system in an alternative form such as the UN National Public Radio and the Public Broadcasting System, and in community media form in Latin America.</p>
<p>State Broadcasting Service</p>	<p>Implies an absolute state-controlled broadcasting monopoly and exclusively public funding. The system is mainly encountered in countries with non-democratic regimes of various shades. The state directly or indirectly controls all broadcasting activities and has a strong say in programming.</p>

Source: Lanara, 2002, p. 21

While the categories for public broadcasting have been useful as a method of general classification, public broadcasters are better recognized by the great diversity of their legal status, the organizational models they employ and their various sources of funding. In an attempt to examine the current status of public broadcasting, the next section examines how public broadcasters worldwide are employing unique and different strategies within the context of transformation occurring within the industry.

2.2.1 Challenges Facing the Public Broadcasting Industry

Over the past two decades, the public broadcasting industry has undergone significant changes resulting from declining budgets, increased audience fragmentation and transformations in digital and Internet technology. In part, these changes have resulted from the gradual deregulation (especially in Europe and North America) of public service monopolies, which had traditionally included public broadcasters. As Jeanette Steemers (1999, p.3) points out:

“The debate about the future of public service broadcasting is hardly new. What has changed, however, since the 1980’s is the acceptance in Western Europe of commercial broadcasting as part of a dual system, with public service broadcasting performing a significant, but no longer dominant role.”

While the deregulation process has continued forward, the public broadcasting industry has been shaped and redefined by a combination of political, economic and technological factors. These factors are discussed below:

Political Factors:

Governments from various countries have sought to deregulate or privatize a number of existing public service monopolies, suggesting that consumers will benefit from the flow of competition present in free market environments. The merits of this suggestion, however, are far from substantiated and depend largely on the industry or sector that has undergone deregulation. As an example of an industry that has benefited from government deregulation, Iacobucci et al. (2004, p. 61) point out that telephony services in Canada is by and large a success story pointing to improved efficiency in telephony regulation including the rebalancing of long distance and local rates and the near complete reliance of market forces in mobile telephony. On the flip side, however, the same authors (2004, p. 62) point to the electricity industry in Canada as an example of where deregulation has been far less positive² and in some cases disastrous. While the debate over the positive versus negative effects of deregulation will persist, public broadcasting has not been exempt from the movement of governments to deregulate or privatize its services. In the past decade alone, a number of public broadcasters worldwide have faced the threat of privatization or significant budget cuts, including the PBS, CBC, TVOntario and Knowledge Network. For example, the most recent White House budget proposal in the US seeks to eliminate \$80 million in funding for digital infrastructure upgrades for public stations, which amounts to a

² “Prior to electricity reform in Ontario, a vertically integrated, government-owned monopoly was the sole supplier. Like California and Alberta, Ontario experienced very volatile electricity prices under deregulation, in Ontario’s case only months after the opening of the market in May 2002. (Iacobucci et al. 2004, p. 62)

25% cut in overall funding for public broadcasting's operations and infrastructure (Broadcast Engineering, 2005). This would be included in the overall cuts of more than \$92 million for public television in fiscal 2006 (Broadcast Engineering, 2005). In a committee hearing in November 2004, CBC's president Robert Rabinovitch noted that the network's parliamentary appropriation was \$415 million less than it was in the 1990's (The Canadian Press, 2005). Provincially, TVOntario's budget was nearly cut in half from \$91 million in 1992 to \$48 million in 1999 and despite avoiding privatization, the broadcaster has become more entrepreneurial and less dependent on government funding (Kozolanka, 2001, p. 54). The most dramatic change to public broadcasting in Canada over the past decade, however, was the 1994 privatization of Alberta's Access Television. The broadcaster was sold for \$1 to Learning and Skills Television Alberta (LTA), which is now called Access Media Group (majority owned by CHUM Ltd). As a result of the Canadian Radio-Television Telecommunications Commission's (CRTC) decision to transfer the licence to LTA, Access has become the only privately owned, for-profit television station in Canada licenced as a provincial educational broadcaster. Given its for-profit status, Access Television now operates in a similar fashion with other private broadcasters, selling commercial advertising and program sponsorships to generate revenue for its operations.

Economic Factors:

The above political trends have also been accompanied by significant changes in the economic environment of mass media ownership, where extensive restructuring has taken place over the past two decades. The trend towards media concentration worldwide has manifested in sizable mergers, acquisitions and alliances consolidated between six conglomerates: Viacom, Universal Vivendi, Time Warner, Disney, Bertelsmann, and the News Corporation. According to data from PBS Frontline (2001) and Yahoo Finance (2005), the AOL and Time Warner's merger was valued at \$165 billion; Viacom and CBS's merger was valued at \$50 billion and their 2004 revenues will likely top \$40 billion; the Walt Disney Corporation's 2004 revenues will likely top

\$36 billion; Vivendi's 2004 revenues were \$28 billion; Bertelsmann is privately owned and has interests in roughly 600 companies in 53 countries; lastly the News Corp revenues will likely top \$25 billion in 2004. The extent of these financial trends has paved the way to a *new media* economy in which increased privatization and commercialization of media goods and services has made it increasingly difficult for public broadcasters to compete for television viewers. In response to the proliferation of commercially viable private broadcasters, public broadcasters have sought to increase their commercial sources of funding, which puts them into direct competition with private broadcasters and may serve to undermine their public service nature.

Technology Factors:

In the past few years digital technologies have enabled different types of data, including text, audio, images and video to be combined together and distributed through a variety of digital platforms including television broadcast systems, cell phones, PDA devices and the Internet. The convergence of information through these different communications platforms is enabling users to enjoy virtually unlimited and on-demand access to information resources across a wide spectrum of product and service offerings. Opportunities for investment and innovation within the telecommunications, broadcast and computer industry has opened up new markets in the areas of satellite transmission, interactive television and web-casting³, which have arguably de-legitimized some of public broadcasting's claims to public funding, most notably its provision of diversity and innovation (Collins et al, 2001, p.2).

Digital television also poses challenges for public broadcasters who are undertaking significant steps to upgrade their broadcast infrastructure and create a strategy for providing digital programming to the general public. While the digital television industry is still in its

³ To use the Internet to broadcast live or delayed audio and/or video transmissions, much like traditional television and radio broadcasts. For example, a university may offer on-line courses in which the instructor web-casts a pre-recorded or live lecture, or an enterprise may web-cast a press conference in lieu of or in addition to a conference call. Users typically must have the appropriate multimedia application in order to view a web-cast. (Webopedia, 2005)

infancy across much of North America, US cable companies have spent more than \$80 billion dollars upgrading their networks in anticipation of the mass adoption of digital television (eMarketer, 2003). As such, competition between cable and satellite TV providers is becoming intensified with the introduction of digital television products such as video-on-demand (VOD), high-definition TV (HDTV) and personal video recorder (PVR) functions. Selected findings from the *Digital Television 2003* (eMarketer, 2003) report indicate that:

- VOD households in the US currently number 6 million in 2003 and will reach 16.3 million by 2006
- During the same time, annual VOD revenue will rise from \$720 million to \$1.8 billion
- US PVR households now number 3.6 million and will climb to 15.3 million in 2006
- HDTV households in the US are expected to grow from 2.2 million in 2003 to 16.4 million in 2006, at a compound annual growth rate of 128.7% from 2002 to 2006

eMarketer forecasts the number of US digital TV households to reach 56.5 million in 2005, up from 38.9 million at the end of 2002. That equates to a rise in digital TV penetration from 35.9% of households in 2002 to 50% in 2005 (eMarketer, 2003). In Europe, this technology has received a far more enthusiastic response with estimates that HDTV will penetrate 4.8 European households by the end of 2008 – up from 50,000 in 2003 (Technology Marketing Corporation, 2005).

The switch from analogue to digital requires a significant investment in the public broadcasting industry. Estimates for upgrading the American public broadcasting system, including television and radio, have been calculated in the range of \$1.7 billion over four to five years (Current Briefing, 2002). Similarly, between 1998 and 2006, the BBC projected that it would require £900 million to upgrade to new digital services (Davies, 1999, p.19). Based on

these estimates, it is evident that the public broadcasting industry will face financial issues in their ability to transform from analogue to digital broadcasting.

From a political, economic and technological perspective, it is evident that public broadcasters face formidable challenges that require them to consider new market strategies and changes within their organizational and operating structures. The fundamental issue present within all of these perspectives is the source of funding for public broadcasting and where it should derive from. Although proponents and critics for and against public broadcasting would arrive at different conclusions on this question, a report by McKinsey (World Radio and Television Council, 2002), a consultancy, suggests that an appropriate funding model for public broadcasting should meet the following criteria:

- Financing must be substantial so that public broadcasting can be a counterweight to commercial services and not be confined to a marginal role.
- Financing must be independent from both commercial and political pressures; this is where licence fees come into their own; because of their automatic character, financing is not subject to the moods of government or economic fluctuations.
- Financing must be predictable; its stability and multi-year character must therefore be assured. If no mechanism guarantees the stability of public funding, for example, there is a real danger of seeing financing become a means of influencing or controlling the public broadcaster.
- Financing must be growing according to the broadcaster's costs, simple and equitable, in order to avoid political controversy.

While the McKinsey report provides an interesting framework for potentially addressing the funding challenges that currently face the public broadcasting industry, most public broadcasters are funded through a variety of mechanisms, which are explored in the next section.

2.2.2 Mixed Commercial Funding

Many public broadcasters throughout North America and Europe are financed through a mixed scheme of funding mechanisms including advertising, public funding, either through a licence fee or directly from government, and sales of merchandise. Below, is the presentation of three public broadcasters that fall within the domain of this funding scheme: The BBC, CBC and PBS.

The British Broadcasting Corporation (BBC)

The British Broadcasting Corporation (BBC) is the UK's national publicly funded broadcaster that produces and broadcasts programs on television and radio. Its flagship services include the television channels BBC One and BBC Two, the news channel BBC News 24, and on radio the BBC World Service, Radio 1 and Radio 4. The BBC is funded through a number of funding mechanisms including television licences, commercial holdings, revenues from its World Service and additional sources such as property and interest. BBC's 2003 annual report indicates that in total £2,659m in licence fees were collected from UK residents and the expenditure of the fees were as follows: 50% for BBC One and BBC Two, 15% for local TV and radio, 12% for network radio, 10% for digital (BBC Three, Four, News 24, BBC Parliament, CBBC, CBeebies), 10% for transmission costs and licence fee collection and 3% for BBC Online (BBC, 2003).

Although BBC's licence fees provide for stable funding, this financing scheme has been criticized as a regressive tax, in that the very poorest in the UK are those least likely to have a licence, and least able to pay the fine for not having a licence. A report by the National Association of Citizens Advice Bureaux pointed out in 1998 that failure to pay the licence fee fine is the single largest reason for the imprisonment of single mothers (National Association of Citizens Advice Bureaux, 1998).

Canadian Broadcasting Corporation (CBC)

Public broadcasting in Canada is fashioned after the British Broadcasting model. “The British decided to create a socially responsible, centralized, non-commercial monopoly that was subject to periodic reviews and public scrutiny through the renewal of broadcasting licences and charters”(Fleras, 2003, p. 352). Its essential public service philosophy was fully embraced by Canada and other countries of the British Commonwealth, Canada being the first in North America to adopt it. The Canadian Broadcasting Corporation (CBC), which operates four commercial-free radio networks and two television networks in English and French, has traditionally relied on subsidies from general revenues of the federal government to finance its operations. More recently, however, in the case of CBC television, they also generate revenues from advertising, cable subscription fees (for its speciality services) and licence fees from the sales of its programs. Although the majority of CBC’s operations are financed by parliamentary appropriations, mixed commercial funding has enabled them to operate on annual revenues ranging from \$1.15 billion to \$1.32 billion between 1996 and 2002 (Standing Committee on Canadian Heritage, 2003, p. 196). As a result of budget cutbacks, Canadians now spend less per capita on public broadcasting than most developed countries except the United States. Compare the \$19 per capita per year in Canada with \$119 in Sweden and \$180 in Britain (all figures in Canadian dollars). The resulting revenue gap has compelled the CBC to rely on advertising sources, including proceeds from sports programming which account for about 40 percent of all advertising revenues (Fleras, 2003). The CBC's main dilemma, however, has been how to maintain a distinctive television profile while competing commercially, and how to respond to the vast demands of an encompassing mandate in a context of government cutbacks.

Public Broadcasting Service (PBS)

The PBS is a not-for-profit public broadcasting service with 349 member television stations within the United States (PBS.org, 2005). It is currently available to 100 million

American households through its television and online services (PBS.org, 2005). Unlike the BBC or CBC, PBS is not a broadcast network, rather a consortium of affiliate stations that pay substantial fees for programs acquired and distributed by the national service. The largest source of funding for PBS affiliated stations comes from donations by individual viewers. In addition to these membership fees, PBS receives federal funding through the Corporation for Public Broadcasting (CPB). PBS-distributed programs are also funded in part by corporate sponsors and non-profit organizations.

In order to supplement its funding, PBS, by its own admission, has become more market savvy and commercially oriented in the past few years. This can be directly attributed, as Hoynes (2003, p. 123) suggests, “to a broad strategy aimed at leveraging the PBS brand to create new revenue sources by licensing the PBS logo, selling new forms of advertising, and developing several PBS brand-name product lines. See Table 2.3 for a summary of the wide range of activities that PBS has undertaken to commercialise itself to the American public.

Table 2.3 PBS Strategies to Increase Brand Awareness

	Branding Strategy	Description
1.	PBS Aloft	In 1999, PBS signed agreements with United Airlines and US Airways to incorporate PBS programs into to their in-flight services. “These airline deals will generate only minuscule revenues for PBS, said a spokesman for the public broadcaster. Their purpose, he says, is to expose upscale viewers to PBS programming” (Reed Business Information, 1999).
2.	PBS Records	On January 8 th , 1998, PBS and Warner Bros. Entered into a five-year record and television program funding partnership. This partnership would launch the PBS records label (Sterophile, 1998).
3.	PBS Home Videos	In partnership with Warner Home Videos, PBS created a brand-name video and DVD line for consumer in home use. The merchandise is sold on both PBS and Time Warner’s websites.

	Branding Strategy	Description
4.	PBS Kids	Perhaps one of their most recognized media assets, PBS has been very successful in building and leveraging their Kids franchise. This includes a distinct PBS logo, a separate online presence at pbskids.org and a PBS kids Home videos and DVDs.
5.	PBS.org	Is the home of PBS's comprehensive, award winning website. It features over 1000 PBS television programs and specials as well as web content for parents, teachers and kids. Each page serves as a commercial avenue to promote PBS's many related products and services. In addition, Shop PBS (http://www.shoppbs.org) provides an online platform for purchasing PBS related products. Moreover, PBS also has an online Affiliates Program that enables individuals to build their own online store to sell PBS videos and DVDs (PBS.org, 2005).
6.	Licensed PBS Brand Products	PBS has licence agreements with stores such as Learningsmith and the Store of Knowledge sell PBS merchandise to promote their brand.

After Hoynes, 2003, p. 124-125

Through these efforts and more, the CPB reports that entrepreneurial revenues for public television stations increased more than 150%, from \$46 million to almost \$117 million in 2001 (CPB, 2001). This branding approach, despite its obvious connection to commercial advertising, has enabled PBS to generate much need revenue in the face of diminishing sources of public funding.

Advantages of Mixed Commercial Funding

The main advantages of the mixed funding scheme lie in the economic aspects of supply and demand as it relates to advertising revenue. Public broadcasters benefit (*indirectly*) from the strong growth of advertising trends in the commercial sector, without having to compete directly with private broadcasters for access to this revenue. Moreover, public broadcasters, unlike private broadcasters, are not under pressure to maximize audience viewing that is tied to advertising

revenue, nor are they tempted to give preference to majority interests over minority interests. With regard to licence fees, public broadcasters are assured a certain level of funding that enables them to operate independent of the moods and fluctuations of government or the economy. According to proponents of this funding scheme, public broadcasters are given more flexibility and greater opportunities to financing sources that are less reliant on government assistance.

Disadvantages of Mixed Commercial Funding

Critics of this funding scheme point to the instability and unpredictability of advertising revenue and suggest that public broadcasters who become too dependent on this source of funding may face difficult times in the event of an economic down trend. When funding shortfalls occur, public broadcasters often reallocate or remove funds from core organizational activities that may negatively impact the value of their service. Moreover, a reliance on advertising damages the scope of public programming, since the commercial demands of advertising leave less room for innovation or risk (Fleras, 2003, p. 361). In addition, licence fees, while providing stability in funding for public broadcasters, is often met with resistance from private broadcasters who argue against privilege and unfair competition. They see public broadcasting organizations as powerful competitors and put pressure on policy makers to withdraw privileges and tighten obligations so as to make public broadcasters less of a threat. Private broadcasters also call for new forms of political control to ensure that public broadcasters do not exploit their privileges to operate competitively in new markets.

2.2.3 Pure Subsidized Funding

The pure subsidized funding scheme is no longer common within the public broadcasting industry and is characterized by near-exclusive public funding through government grants, without the aid of advertising revenue. Given the primary responsibility for financing public broadcasting, this funding scheme purports to protect the editorial independence and integrity of

public broadcasters by the rejection of private sources of funding. The presentation of Australia's public broadcaster exemplifies this funding scheme.

Australian Broadcasting Corporation (ABC)

The Australian Broadcasting Corporation (ABC) operates six national radio networks and one national television network. In addition, it also manages a symphony orchestra in each of the six states. According to Brown (2001, p. 2), "It's size and diverse functions make the ABC Australia's largest single employer of actors, scriptwriters, musicians, and journalists, as well as a significant book publisher and producer of contemporary and classical music". Presently, the 2004-2005 total appropriations for ABC were \$765.111m (equivalent to \$744M CDN at March 2005 exchange rates).

Despite having wide public support with nearly 70% of Australians watching ABC Television each week and over a million concertgoers attending their symphony orchestras, Padovani & Tracey's (2003, p. 138) research indicates that low employee morale, closer ties between top management and the government of the day, job cuts, poor programming and increasing political interference have been some major problems facing the ABC in recent years. These problems have been compounded by a reduction in public funding over the years, although new funds have been granted to support local programming. Padovani & Tracey (2003, p. 138) also report that since 1997, ABC has been reducing costs by outsourcing its productions and acquiring overseas buy-ins and reruns.

Advantages of Pure Subsidized Funding

Despite frequent changes in policy making, the pure subsidized funding scheme provides a degree of stability and security for public broadcasters that tends to be less volatile than commercial sources of funding. Given its institutional relationship to the state, public broadcasters who are solely funded through government appropriations are seen to promote and

uphold the values of national and regional culture through their broadcast programming. Furthermore, the public broadcaster remains firmly rooted in public service traditions.

Disadvantages of Pure Subsidized Funding

The main disadvantage of this funding scheme is rooted in the limited potential for revenue growth for public broadcasters. Governments establish annual budgets for public services based on a range of political, ideological and economic influences that may or may not be sufficient for the actual needs of the service being funded. Moreover, critics of this funding scheme also point to the strong dependency of public broadcasters on political decisions that may result in the public broadcaster becoming alienated from its viewers.

2.2.4 Other Sources of Funding

The mixed commercial funding scheme and to a lesser extent the pure subsidized funding scheme are accompanied by other sources of revenue that derive from program sales, viewer donations, sub-licensing, electronic commerce, and the provision of goods and services to third parties. It may also include revenue from the transfer of profits from commercial subsidiaries or joint ventures.

The mixed commercial model and purely subsidized model of funding represent the different ways in which public broadcasters worldwide are being financed. Both models have advantages and disadvantages that appear to challenge certain aspects of the underlying principles of public broadcasting. In spite of this, public broadcasters, including Knowledge Network will continue to seek out innovative ways to increase or balance their funding objectives so that they may continue to provide the public with programming choices that educate, inform and entertain.

2.3 An Overview of Knowledge Network

Established in 1981, Knowledge Network (KN) is British Columbia's not-for-profit, commercial-free, public educational broadcaster. KN is legally a statutory component of the Open Learning Agency, who is designated "*as the Provincial authority for British Columbia under the Federal Order in Council in respect of educational broadcasting*" and was granted a Canadian Radio-Television Telecommunications Commission (CRTC) broadcast licence for KN in 1992. KN is currently available to 98% of households in British Columbia and averages more than 1.4 million viewers per week (Spring 2004, BBM Canada). Knowledge Network's mission is "To deliver high quality, relevant, credible and compelling educational programming accessible to all British Columbians via television and the Web." To support this mandate, KN operates on an annual budget of approximately \$7.4 million derived from three primary funding sources: (1) A \$5.1 million operating grant from BC's Ministry of Advanced Education (MAVED), (2) \$1.7 million donated from KN's *Partners in Knowledge* (PIK) fundraising program, and (3) \$0.6M received from community partners and sponsored projects.

2.3.1 Analysis of Knowledge Network

External Analysis

The specific external factors that impact Knowledge Network are rooted in many of the political and ideological, economic and technological factors presented above. Of critical importance to the imminent survival of Knowledge Network, however, is the ongoing *Core Review* process that BC's provincial government initiated in 2001 with all government services to assess which ones should remain publicly funded. While the outcome of this process is still uncertain for Knowledge Network, all other external factors will be assessed in the context of the *Core Review*. These other external factors include the regulation of Knowledge Network's Licence by the CRTC, the future direction and funding of Canadian television programming and public perception of Knowledge Network.

The Core Review

In June 2001, the newly elected Liberal provincial government announced its intention to conduct a comprehensive core services review of all ministries and Crown Corporations within British Columbia to identify services it could eliminate, privatize, rationalize or change. The *Core Review* process, according to the Liberal government, was predicated on the notion of finding answers to following specific questions (Government Information Archives, 2001):

- (1) Does the mandate, program, activity or business unit continue to serve a compelling public interest?
- (2) Is the package of programs, activities or business units affordable within the fiscal environment?
- (3) Are we doing the right thing? Is there a legitimate and essential role for the provincial government in this program, activity or business unit?
- (4) Are the current organizational and service delivery models the most efficient way to manage and deliver the program, activity or business unit?
- (5) Are the current measures and reporting mechanisms the most effective way to account for program, activity or business unit performance (relevancy, effectiveness, service)?

Like all public services, the Open Learning Agency of which Knowledge Network is a division of, underwent the *Core Review*, although the Ministry of Advanced Education was rerieved of any budget cuts during the process. In February 2002, results of the *Core Review* process were announced for the OLA and their Board was immediately replaced with an interim Board along with the appointment of a new interim CEO. On October 30th, 2002, the Ministry of Advanced Education announced that key programs and services at the OLA such as the BC Open University and Open College would be transferred to other public post-secondary institutions and

the Knowledge Network would be separated from the OLA while further work was to be completed by government to determine KN's future direction. Almost one year later, Partnerships BC Inc., on behalf of British Columbia's Ministry of Advanced Education (MAVED) and the Open Learning Agency (OLA) announced their intention to seek out *Requests for Expressions of Interest* (RFEOI) to establish a new operating model for Knowledge Network that would eliminate the province's funding for the organization. The government suggested the potential for collaborative partnerships with the public sector, private sector, or a combination of both to help deliver "what British Columbians need and want from educational programming well into the future." (Knowledge Network, 2003) Moreover, the government suggested that the submission deadline for *Expressions of Interest* was imminent and a partner was to be selected early in 2004. The transition process was expected to be complete in fall 2004.

While the results of the *Core Review* process for the OLA has seen the transfer (most recently BC Open University to Thompson Rivers University) or dissolution of its many divisions and services, the process to redefine Knowledge Network has yet to materialize. Although seven proponents submitted their *Request for Expressions of Interest*, the provincial government has not provided Knowledge Network with an update on the final status of the *Core Review* process and KN remains the only existing entity within the Open Learning Agency. Speculation as to why a final decision has yet to be made on Knowledge Network, has been attributed to the political ramifications that could result for the provincial Liberals in the lead up to the May 2005 provincial election. This speculation appears to be partially supported by an Ipsos-Reid March 2004 survey indicating that a strong majority of British Columbian's want the Knowledge Network to remain in public hands. According to the results of this survey, 69% of British Columbians said they opposed the idea of the provincial government selling the Knowledge Network to a private broadcaster (Friends of Canadian Broadcasting, 2004).

Impact of the Core Review Process

As the provincial government determines Knowledge Network's future direction, the organization has been instructed by the Ministry of Advanced Education and the OLA Board to operate on a business as usual approach. In spite of this, the corollary effects of the *Core Review* process that have noticeably impacted Knowledge Network include the following: (1) Effects on program acquisitions and productions, (2) Limitations on capital spending, (3) Changing perceptions of *Partners in Knowledge*, and (4) Decline in employee morale. These are summarized below.

Program Acquisitions and Productions:

KN acquires and produces television programs that are broadcasted daily on Knowledge Network. The acquisition process requires KN to sign multi-year binding contracts with distributors, independent producers and syndicators to licence their programs for single or multiple playback(s) on KN. Program acquisitions make up approximately 85% of KN's entire broadcast inventory and broadcast schedule (at any given time) and thus are vital to Knowledge Network's ability to air television programs on its network. In the past two years, however, this process has been adversely affected by confusion surrounding KN's ability to proceed with these contracts in light of the government's *Core Review* process. In most cases, KN has been able to move forward on program acquisitions, but face difficult questions, inquiries and perceptions from distributors on the viability of Knowledge Network programming long-term.

Knowledge Network productions, both internally funded and externally sponsored are also predicated on the notion of binding contracts and financial commitments with external agents including independent producers, distributors for KN programs, talent and relationships with funding partners. These productions, like acquisitions, have faced a degree of uncertainty in the eyes of KN Management and external agents who are unsure about their ability to make commitments beyond a short and specified time frame.

Capital Spending:

Since the *Core Review* process was initiated, KN's annual budget allocation from the Ministry of Advanced Education has been reduced by 15% over the past two years. Among other things, the reduction has impacted KN's ability to engage in capital asset spending beyond the required necessities for normal business operations. While there have been no major disruptions to KN's broadcast, production, and editing systems over this period of time, the core elements of the physical plant continue to deteriorate including analogue machinery and equipment in Master Control, Central VTR⁴, Online and Offline video edit suites and KN's production studios. The analogue machinery and equipment will need to be replaced in the next few years, however, in light of the CRTC's proposal to ensure that two-thirds of television broadcasting in Canada will be available in high-definition (HD) format by December 31, 2007, the movement towards overhauling the plant with digital equipment is becoming increasingly important for KN to consider. The change from analogue to digital will require significant planning and capital investment by KN and this has been essentially stalled by the uncertainty surrounding the *Core Review* process.

Perceptions of Partners in Knowledge:

KN's Partners in Knowledge (PIK) program is a donor-based membership program that enables Knowledge Network viewers to make tax-deductible financial contributions to KN to support the acquisition and production of television programs. Potential and existing *Partners in Knowledge* are recruited and sustained using three on-air television campaigns, regular direct mail solicitations and nightly telemarketing activity. In recent years, Knowledge Network has been able to generate between \$1.5M and \$1.7M annually in revenue and its donor base maintains approximately 28,000 active members. Despite the strength of these numbers, Knowledge Network has received 140 inquires and complaints from *Partners in Knowledge* who

⁴ Video Tape Recorder suite where KN performs video dubbing.

threaten to pull their financial support of Knowledge Network if government proceeds with privatization. Below, are a select number of quotes from *Partners in Knowledge* that illustrate their dissatisfaction with the potential privatization of KN:

- “I am a member of the Knowledge Network and have been for some time. I've just heard that this government is going to privatize it. I hope you realize that people like myself are going to stop all our donations to help you go along, and get along, from the best programming that there is in Canada as far as I'm concerned. So maybe you better tell your people who are planning on doing this I won't be the only one who will stop contributing.”

- Unknown, September 23, 2003

- “I am VERY distressed about the recent news that knowledge network is about to be sold by this provincial government. I am wondering what I can do to make my feelings heard regarding this proposal. I am also wondering how this will affect Distance Ed., which has been a partner of Knowledge?? We here love Knowledge. We have been supporters for many years; the opportunity to see the sort of programming you offer and without advertisements has been a constant pleasure in our home for many years. We feel it is untenable that this dreadful government is proposing selling it. I believe the quote I heard was that "we aren't in the business of television"!!!! Please let me know what I can do. Out membership is due and I am VERY unwilling to send money for the Liberals to sell off our beloved network.”

- Unknown, March 31, 2004

Knowledge Network may continue to lose *Partners in Knowledge* overtime that will subsequently affect its ability to generate much-needed revenue and community goodwill that has been historically engendered through the *Partners in Knowledge* program. While KN continues to receive inquiries about the *Core Review* from current donors, the unknown factor that is disconcerting to the organization is the number of potential *Partners in Knowledge* who do not contact KN to voice their concerns and instead decide not to extend their financial support.

Employee Morale:

While the turnover rate for employees at KN has been low since the *Core Review* process began in June 2001, employee morale has been negatively impacted based on my perception of how colleagues have responded to the ongoing uncertainty of KN's future. Despite the fact that

government has yet to make a final decision, all employees have been made aware of four possible scenarios for Knowledge Network. These include: (1) organizational status quo, (2) establishment of a public-private partnership (P3), (3) privatization, or (4) outright closure. Of these options, the most threatening to KN employees remains the prospects of privatization or outright closure, where the fear of organizational shakeup or job loss is perceived as threatening. This uncertainty manifests itself in “water-cooler” conversations and departmental meetings where KN staff have expressed frustration over the lack of information provided by government. This frustration has been compounded by a series of layoffs at the OLA during the transition process of its other divisions and services. KN Management fear the loss of key personnel who may decide to exit the organization to look for more job security and stability.

Taken together, it is evident that the *Core Review* process has negatively impacted Knowledge Network over time, both internally from an operational point of view and externally from an audience relation’s perspective. This will continue to be the case until the provincial government renders a final decision on Knowledge Network by leaving the asset in tact, changing its business model or shutting it down completely.

The CRTC and Regulation of Knowledge Network

Knowledge Network, like all other broadcasting entities in Canada is licenced by the Canadian Radio-Television Telecommunications Commission (CRTC), which is an independent agency responsible for regulating Canada's broadcasting and telecommunications systems. The CRTC reports to Parliament through the Minister of Canadian Heritage (CRTC, 2004). The CRTC's mandate is to ensure that all broadcasters in Canada comply with and fulfil the terms outlined in *The Broadcasting Act*.

The Broadcasting Act broadly defines the roles and responsibilities of broadcasters in Canada. It clearly articulates broadcasting policy for the Canadian broadcast industry, and

strongly supports the creation, distribution and development of Canadian program content.

Section 3 of The Broadcasting Act states the following about Canadian programming: (The Canadian Legal Information Institute, 2005):

(i) the programming provided by the Canadian broadcasting system should

(i) be varied and comprehensive, providing a balance of information, enlightenment and entertainment for men, women and children of all ages, interests and tastes,

(ii) be drawn from local, regional, national and international sources,

(iii) include educational and community programs,

(iv) provide a reasonable opportunity for the public to be exposed to the expression of differing views on matters of public concern, and

(v) include a significant contribution from the Canadian independent production sector;

To this end, the current *Broadcasting Act* states: “educational programming, particularly where provided through the facilities of an independent educational authority, is an integral part of the Canadian broadcasting system.”

Authority for Educational Broadcasting:

The CRTC (CRTC, 2002), on direction of the Governor in Council stipulates that “at least one channel of a cable transmission facility be set aside for the use of a provincial authority for educational broadcasting...the time reserved on such channel or transmission facility shall be used for broadcasting the following types of programming:

a) programming designed to be presented in such a context as to provide a continuity of learning opportunity aimed at the acquisition or improvement of knowledge or the enlargement of understanding of members of the audience to whom such programming is directed and under circumstances such that the acquisition or improvement of such knowledge or the enlargement of such understanding is subject to supervision or assessment by the provincial authority by any appropriate means; and

b) programming providing information on the available course of instruction or involving the broadcast of special education events within the educational system.⁵

The above description of programming is the definition of educational broadcasting according to the CRTC. Any interpretation of this definition is done under the authority of the provincial authority for educational broadcasting - the board of the OLA.

The Open Learning Agency's Broadcast Licence:

The Open Learning Agency's broadcast licence for Knowledge Network includes the following conditions and covenants:

- Knowledge Network shall be operated by the Open Learning Agency.
- Adhere to the Canadian Association of Broadcasters self-regulatory guidelines on sex-role stereotyping.
- Adhere to the Canadian Association of Broadcasters Broadcast code for Advertising to Children.
- Adhere to the guidelines gender portrayal set out in the Canadian Association of Broadcasters Sex-Role Portrayal Code for Television and Radio Programming.
- Adhere to the guidelines set out in the Canadian Association of Broadcasters Voluntary Code Regarding Violence in Television Programming.
- Adhere to the requirements of the Television Broadcasting Regulations by devoting 60% of the broadcast year and 50% of the evening broadcast period to the broadcast of Canadian programs.

The expectations and commitments of Knowledge Network to remain in good standing with the CTRC require the broadcaster to:

⁵ Direction to the CRTC (Reservation of Cable Channels) [§113-7]

- Provide accurate logs during the new licence term.
- Increase the level of closed-captioning during the new licence term.
- Continue commitment to membership, dialogue and collaboration with members of the Association for Tele-Education in Canada (ATEC).
- Provide a voice for Canada's First Nations community.
- Support the independent production community.

With these covenants and expectations in mind, the Open Learning Agency's broadcast licence for Knowledge Network is up for renewal. Under normal circumstances, the CRTC grants a broadcaster a seven-year broadcast licence if the information contained in the broadcast licence application meets the objectives of the *Broadcasting Act* and has a viable business model. There are specific conditions attached to each broadcast licence based on the nature of the broadcast service. Conversely, the CRTC may also reduce a broadcaster's licence term or revoke their broadcast licence if the conditions and commitments of the broadcast licence are not met. Ultimately, the CRTC is concerned with the financial viability of all broadcast services, as well as the impacts of ownership structures. If a licenced broadcaster is interested in pursuing a business model that is different from what was submitted in its most recent licence application, it must be approved by the CRTC prior to implementation. With that said, Knowledge Network has taken significant steps to comply with CRTC regulations, however, the provincial governments decision to potentially seek out a new model for KN has put the licence renewal process in limbo. The components of the Open Learning Agency's broadcast licence that are tied to the *Broadcasting Act* are the most difficult to challenge. The CRTC may approve changes to Knowledge Network's business model including activities such as cable licensing fees or commercial advertising if the business case is clearly demonstrated in a business plan that supports the principles of the *Broadcasting Act*. While such a business plan has not yet been

publicly formalized, the licence renewal process for Knowledge Network remains an ongoing challenge.

Direction and Funding of Canadian Television Programming

Historically, the Canadian broadcasting industry has been regulated with a high degree of sensitivity around Canadian cultural content and its place within the television-broadcasting environment. This sensitivity has resulted from growing audience demands for American and foreign television programming, in addition to the fact that Canadian broadcasters have not always had enough Canadian programming content to fill their schedules. To help create, assist and sustain Canadian television programming for Canadian television broadcasters, in 1996 the Federal government announced the creation of the Canadian Television and Cable Production Fund (CTCPF), which was later renamed the Canadian Television Fund (CTF). The current objectives of the CTF is as follows (Canadian Television Fund, 2005):

1. To encourage the financing and broadcasting of high-quality Canadian television productions.
2. To reflect Canada to Canadians by assisting the creation and broadcast, in prime time, of high-quality, culturally significant Canadian programs in both official languages in the genres of drama, children's, documentaries and variety and performing arts, and by both majority and minority official-language sectors.
3. To support Aboriginal language productions in the eligible genres.

Based on these objectives, the CTF is geared towards supporting a variety of genres that are distinctly Canadian in content, however, due to its own funding parameters, it continues to focus on programs with the widest possible appeal to all Canadians. While in principle, this represents great opportunities for broadcasters and independent producers to produce meaningful Canadian

content, the current system does not provide for an abundant amount of programming content for Knowledge Network.

Since the CTF depends on high licence fees, KN can only take a second-window, or at best, a shared-window with other educational broadcasters, in particular TVO, who can afford the high licence fees. Increasingly, commercial broadcasters are paying higher licence fees to trigger CTF funds, leveraging longer periods of exclusivity, and shutting out second-windows in an effort to build brand loyalty for their networks. In a presentation to the Standing Senate Committee on Transport and Communications, Knowledge Network's General Manager points out (Wayne Robert, 2005):

“In the 10 years since Knowledge Network began pre-licensing Canadian programming, supply and demand have changed dramatically. For the same fee we have gone from sharing first windows, to taking a second window a year after delivery to no longer having access at all to documentaries which are being produced through the Canadian production funding system. As a result, though these funds continue to support conventional and specialty broadcasters in the development of their industry, the amount of funding for programming directed toward the public interest is diminishing.”

The creation of the CTF was followed by a 1999 policy review by the CRTC, which put forth the ruling that not less than 60% of the broadcast year and not less than 50% of the 6 p.m. to midnight evening broadcast period must be devoted to Canadian programs (CRTC, 2004). This policy, despite its *cultural* intentions, has made it difficult for public broadcasters who have limited funding to consistently meet this annual quota. The CRTC requirements for Canadian programming have also been underscored by the licensing of new digital specialty and pay channels that are demanding varying amounts of Canadian television content. The total number of specialty and pay channels has grown in Canada from 47 to 109 in the past five years (PricewaterhouseCoopers, 2004). The increased number of channels equates to increased competition for viewers as new broadcasters attempt to differentiate themselves in the marketplace, hence greater audience fragmentation. As a result, the increasing pool of buyers of

Canadian content make it difficult for smaller broadcasters to get access to quality programming in a timely manner. Thus, Knowledge Network's ability to acquire uniquely Canadian educational programming, within its current funding environment, is becoming more and more challenging.

Apart from the competitive pressures from new entrants, the CRTC is also putting increasing pressure on the Canadian broadcasting industry to increase the amount of closed captioning programs available on their networks for the hearing impaired. Although the regulation of closed captioning has not been strictly enforced, the CRTC has made it a requirement of broadcast licences that a certain proportion of all programming during the broadcast day be captioned. Despite the merits of this initiative, Knowledge Network's ability to acquire or produce closed-captioned programs is costly to implement. Regardless of this, Knowledge Network's 2004 – 2005 annual corporate targets suggest that it will close caption 100% of all its productions, and ensure that 60% of daytime and evening programming broadcast on Knowledge Network is closed captioned by Spring 2005.

Overall Public Perceptions of Knowledge Network

The last part of this external analysis focuses on overall public perceptions of Knowledge Network. The importance of these perceptions cannot be understated, as Knowledge Network ultimately exists to serve the public's desire to view quality educational television programming. In Fall 2003, Knowledge Network commissioned Ipsos-Reid to conduct market research with three key stakeholder groups to ascertain public impressions of KN in British Columbia. These stakeholder groups included: Information Seekers and Television Viewers, Educators and Special Interest Groups, and Individual Donors from KN's *Partners in Knowledge* fundraising program. A total of 59 stakeholders over the age of 25 participated in focus groups and one-on-one interviews. The findings of these different constituent groups are summarized below:

- Public awareness of Knowledge Network is high and public perception is positive. However, there is a lack of depth of understanding of Knowledge Network's unique role as a regional educational broadcaster.
- Key considerations for *Partners in Knowledge* include increasing their general awareness of Knowledge Network's mandate and how it is funded. For current donors, giving them a sense of pride in what their non-commercial TV station does for society as a whole is important.
- There is a lack of understanding of how Knowledge Network partners with educators to deliver educational messages, and why it relies on public funding to provide quality, educational programming.
- Most stakeholders are aware of and have a generally positive impression of Knowledge Network, and very few differences are found between the regions.

While the Ipsos-Reid research suggests that stakeholders have a generally positive impression of KN, the implications of the report do not go far enough in assessing the value of Knowledge Network's regional programming to British Columbia. From this perspective, the following questions that still need to be addressed in this analysis include: does Knowledge Network offer unique regional programming that is somehow non-reproducible by commercial broadcasters? Is KN's regional programming valuable to British Columbia, if so, is the relative value of this programming important enough to warrant continued public funding by the provincial government? These questions are explored in-depth in Section of 3 of this paper.

3 THE REGIONAL VALUE OF KNOWLEDGE NETWORK

The goal of this section is to assess the value of Knowledge Network's regional programming to British Columbians. It begins by outlining the current challenges facing regional broadcasters within a Canadian context. Based on this analysis, a framework for assessing the value of KN's regional programming is presented. It concludes with a discussion of how British Columbians view KN's contribution apart from the regional programming that it offers.

3.1 Regional Programming in a Canadian Context

The Standing Committee on Canadian Heritage (2003, p.354) reveals that while there exists a legislated mandate for regional representation within the Canadian Broadcasting system, there is a substantial amount of confusion between the interpretation of community, local and regional broadcasting. The confusion around the meaning of 'regional' broadcasting is attested to by Mr. Arnold Amber's testimony to the Committee. He states (2003, p. 356):

“We must clear up in the [A]ct what is regional and what is local. Having been at CBC for a number of years, I have had the great advantage of seeing one administration at CBC determine that regional was local, and another one determine that local is regional. It depends on what's playing in that administration in a given year, and this must be cleared up.”

The *Broadcasting Act* section (5)(2)(b) requires the CRTC to take “into account regional needs and concerns” for the Canadian broadcasting system. However, according to the Standing Committee, the CRTC rarely addresses a specific issue of regional broadcasters, and when it does - it is usually in conjunction with local concerns. Nevertheless, the CRTC does specifically define a regional television broadcaster as, “a licensed television station, other than a local television station, that includes any part of the licensed area of the undertaking.” With the notable exception of the CBC, regional television is almost exclusively the domain of provincial educational

broadcasters. The CRTC also has a criterion for qualifying regional programs (2003, p.355) in the following manner: “Canadian regionally-produced programs [are] English-language programs at least 30 minutes long (less a reasonable amount of time for commercials, if any) in which the principal photography occurred in Canada at a distance of more than 150 kilometres from Montréal, Toronto or Vancouver. Programs in which the principal photography occurred on Vancouver Island will also be considered regionally produced programs.”

While these definitions attempt to provide clarity for regional broadcasting, the Saskatchewan Communications Network (SCN) raises the issue that (2003, p. 355): “Regulatory structures and mechanisms put in place have served the interests of the portions of the Canadian broadcasting system located in the Toronto and Montréal “Centres of Excellence”, while ignoring the other sectors and program types listed as being essential in the Act”. There is, according to SCN, a void in regional Canadian programming in which there is a lack of regional representation for public educational broadcasters from the rest of Canada. The SCN argument points out the larger issues surrounding the definition of and justification of regional broadcasters within the Canadian broadcasting system. The issues pointed out by SCN are also compounded by the high costs of producing regional content, which forces public educational broadcasters, such as SCN and KN, to acquire content from other regions thereby negating some of their claims to regional representation.

The value of regional public broadcasting is presented in terms of serving a specific community as well as representing a marginalized regional perspective within the larger Canadian context of a multi-channel media environment. Despite the fact that Knowledge Network and other public educational broadcasters are challenged to produce a high quantity of regional programs, they still maintain an overall positive regional identity. The Standing Committee (2003, p. 355) suggests that, “Canada’s educational broadcasters, are widely recognized as voices of their respective regions. These services appeal to broad audiences, ranging from adult learners

and adolescents, to pre-school children and specific demographic groups.” Based on this suggestion, how then does one assess Knowledge Network’s programming value from a regional context? A framework for addressing this question is presented in the next section.

3.2 A Framework for Assessing the Value of Regional Programming

The public value of KN’s regional programming can be framed in three interconnected ways (BBC, 2004) including (1) the individual value, (2) the citizen value and (3) the economic value. These are discussed below:

From an individual perspective, the value of Knowledge Network’s regional programming will depend on the quality, reach and impact of the regional program being aired. These indicators can be solicited and measured directly by audience feedback through commissioned surveys (like the Ipsos-Reid’s survey) and / or voluntary comments (via email, phone, and letters). The following comment received from Peter Dukes through Knowledge Network’s website illustrates the individual impact that KN’s programming has had on his life:

“This is just a note of thanks to your network. In the late 1980s and early 1990s, as a teenager, I watched programming on your network very enthusiastically. At times, those were tough days, both in my life and at school. However your shows and mail correspondence were extremely uplifting to me.

I am now a few months from completing a Ph.D. in mathematics at a university in the U.S. There is no doubt in my mind that I wouldn't be in this position without the influence of the Knowledge Network. At the age of 12, while just changing channels one day, I came across an intriguing program about physics. I continued to watch these programs and tried to understand what little I could. More shows in different areas caught my interest as well. Your staff was extremely courteous by scheduling "Caller's Choice" re-runs of things I missed, and by sending me information in the mail. And it turns out I am attending the school which produced the physics shows that I first noticed on your network.

Back then, I was a Partner in Knowledge, and I will gladly resume my support for your network in the near future when I return to Canada. Thank you for having such an important impact on my life.”

- Peter Dukes, May 9, 2002

KN's regional programming may also produce indirect consequences for individuals. For example, their regional productions called *BC Moments* highlight the geography, history and culture of various areas and communities around British Columbia. The individual benefits from these programs provide British Columbians with engaging information that may result in the exploring of the province further. While KN may never become aware of this impact, it nevertheless has produced a positive externality, an untold cultural, educational and economic benefit (i.e. tourism) from its regional programming.

A more difficult element to measure based on KN's regional programming is the citizen value that it creates. As the BBC suggests (BBC, 2004), this value should be thought of as an uplift over and above individual value – that is the additional value that people recognize which extends beyond their own personal gain. By contributing to the well being of the entire society, citizen value rests on the notion that regional programming can have a multiplier impact on society. Take for example Knowledge Network's 2000 production of *Walk a Mile*, which featured different immigrant families from British Columbia and explored their daily obstacles including communicating in a different language, renewing professional credentials and trying to establish a new life in and around British Columbia. This type of programming enables all British Columbians to experience a first hand look into other cultural groups, which could lead to more tolerance and acceptance of others. The same can be said of a recent Knowledge Network's three-part series titled *Taking Care: Child & Youth Mental Health*, which explored mental illness issues in children, and youth around British Columbia. Awareness of mental health issues effecting teenagers has been raised amongst teenagers themselves and other individuals as a result of broadcasting this program. Email feedback from parents of teens testifies to the impact. Another series on Fetal Alcohol Syndrome (FAS), *FAS: When the Children Grow Up*, also drew a significant sympathetic response from parents of children who have FAS, from community

groups and advocates. The citizen value derived from regional programming results in a positive network externality between individuals and groups of diverse communities.

The economic value of educational programming, as aforementioned, produces indirect benefits or positive externalities that result in the creation and maintenance of a more educated and productive work force. Moreover, depending on the program being aired, it may also result in costs savings by making the public aware of certain societal issues that affect people's lives. For example, the above mentioned series, *Taking Care: Child & Youth Mental Health* provided information that could potentially save the health care system money in the long run if parents are able detect and recognize symptoms of mental illness in their children and seek treatment sooner than later. While these cost savings are difficult to measure in the immediate term, Knowledge Network's regional programming offer's indirect economic benefits to British Columbia.

Taken together, the framework for assessing the regional value of KN's programming can be directly and indirectly measured by the positive externalities that it creates for British Columbians as individuals, citizens and the economy as a whole. The question of regionalism is also pronounced in terms of how British Columbian classify Knowledge Network as an institution within the province. The classifications include the following references to KN's regional role (Ipsos-Reid, 2003, p. 32) as defined by KN's *Partners in Knowledge*:

- Public Service: This category would include CBC and PBS and some lobby groups.
"They provide a public service for British Columbians."
- Cultural Organization: Knowledge Network is perceived by some to be similar to other cultural organizations such as the symphony or the ballet.
- Educational: Some stakeholders classify KN as an educational institution and put it in the same category as the University of British Columbia. They feel, similar to post-secondary

institutions that Knowledge Network is there to educate British Columbians and should be supported

- Lifestyle. A few donors classified Knowledge Network as part of their lifestyle – suggesting that it is *educational, cultural and social*.
- Entertainment. Many donors noted that Knowledge Network was entertaining to them and support it financially for their own personal interest similar to PBS.

Based on this manner of classification, KN's unique role as a regional public broadcaster can also be said to be embedded within and related to other cultural and institutional forms. This example and line of reasoning is not an attempt to side step the need for regional representation through KN's programming but rather an attempt to draw attention back to the unique service KN does provide for its particular region. On the other hand KN's efforts at providing regionally based content may need critical review.

While it is evident that KN's regional value is pronounced both in terms of the programming it offers and the cultural form that it takes on within British Columbia, the question of whether this value is enough to warrant continued public funding remains critical to the question of KN's future survival. This leads to a discussion of what alternatives are available to the provincial government and Knowledge Network to explore to reduce uncertainty and / or enhance KN's offering as a public educational service to British Columbians.

4 ALTERNATIVES

The intended goal of this section is to propose a variety of alternatives to both government and Knowledge Network with the hope of providing direction to reduce the ongoing uncertainty related to KN's future. These alternatives develop out of the external analysis that has been provided in the previous sections and will be followed by a series of recommendations that outline which alternative(s) should be pursued.

4.1 Government Alternatives

4.1.1 Alternative # 1: Terminate Knowledge Network

The government, with the permission of the CRTC and in conjunction with the Ministry of Advanced Education and the Open Learning Agency will close down Knowledge Network and relinquish control of its broadcast licence. This will involve selling off KN's current assets and providing staff with severance payments as per British Columbia's *Employment Standards Act* and existing agreements with Knowledge Network. Once the severance payments are paid out, the Ministry of Advanced Education will re-allocate KN's funding to other important educational initiatives.

4.1.2 Alternative #2: Privatize Knowledge Network

The government, with the permission of the CRTC and in conjunction with the Ministry of Advanced Education and the Open Learning Agency will sell KN's broadcast licence to an existing commercial broadcaster. The commercial broadcaster will decide what assets, including existing employees, it will retain for expanded mandate and operations. Once the sale is

complete, the Ministry of Advanced Education will re-allocate KN's funding to other important educational initiatives.

4.1.3 Alternative #3: Establish a Public-Private Partnership (P3) for Knowledge Network

The government, with the permission of the CRTC and in conjunction with the Ministry of Advanced Education and the Open Learning Agency will form a public-private partnership (P3) with a commercial broadcaster. The partnership will enable Knowledge Network to reach different audiences and provide programming that is both educational and non-educational in content for all British Columbians. Depending on the percentage of ownership agreement, the government funding of KN will likely decrease, enabling the Ministry of Advanced Education to reallocate funds to other important educational initiatives.

4.1.4 Alternative #4: Downsize Knowledge Network

Government will downsize Knowledge Network to refocus the organization on providing British Columbians with educational tele-courses (consistent with KN's original mandate), while eliminating all other non-academic television productions, including dramas and documentaries that do not tie directly into accredited course content. Within the framework of this scenario, KN will work closely with all post secondary institutions to facilitate distance learning through television. Depending the costs associated with tele-course productions, government funding of KN will likely decrease, enabling the Ministry of Advanced Education to reallocate funds to other important educational initiatives.

4.1.5 Alternative #5: Maintain Current Funding for Knowledge Network

The government, in conjunction with the Ministry of Advanced Education and the Open Learning Agency will maintain current funding levels for Knowledge Network and let the organization fulfil its status quo objectives. This will allow KN to continue its educational

mission of delivering high quality, relevant, credible and compelling educational programming to British Columbians via television and the web

4.1.6 Alternative #6: Increase Funding for Knowledge Network

The government will increase funding for Knowledge Network through a larger operating grant and / or advocate the CRTC to award the organization with licence fees to supplement public funding of KN's core activities. The increased funding through a larger operating grant or licence fee amount will be based on an independent assessment of KN's yearly financial requirements and will be adjusted according to the rising costs of inflation. Increased funding will enable KN to undertake more productions and acquire better quality educational programming within the television marketplace.

4.2 Knowledge Network Alternatives

Knowledge Network's current mission is to deliver high quality, relevant, credible and compelling educational programming to British Columbians via television and the web. Adopting a strategy that will enable the organization to seek out new opportunities for revenue development will help to fulfil this mission and make their reliance on public funding less of a concern. The challenge, however, is to consider alternative sources of revenue that do not compromise KN's public service remit or contravene its CRTC licence as not-for-profit public educational broadcaster. With that said, Knowledge Network will actively pursue new revenue sources that will supplement their funding grant from the Ministry of Advanced Education.

4.2.1 Alternative #1: Schedule Underwriting

Knowledge Network will consider schedule underwriting as an opportunity to earn revenue and develop strategic relationships with sponsors including government, community organizations and / or industry partners. PBS is currently utilizing schedule underwriting for

example, in its timeslot called *Mobil Masterpiece Theatre*, in which the presenting sponsor is given on-screen acknowledgement in a form that is slightly more limited than traditional advertising. This type of sponsorship is dependent on timeslots or series within a broadcast schedule that have consistent and high audience numbers and therefore does not work for all programming in the schedule. Moreover, this type of on-screen credit is of limited brand name awareness, rather than providing the sponsor with the opportunity to display product specific information, which upholds KN's commercial free status.

The possible pricing rationale for schedule underwriting at Knowledge Network could follow the PBS model where underwriting credits are sold at a CPM⁶ (cost per thousand) rate two-thirds of those achieved by commercial broadcasters and leading cable channels for 30-second commercial advertising spots. CPM rates are assumed to range, in 1996, from \$2.10 USD to \$6.20 USD for national underwriting and \$2.90 USD to \$8.50 USD for local underwriting (Corporation for Public Broadcasting, 1996). The revenue generated from schedule underwriting will be largely supplanted by future underwriting opportunities and the credits offered to potential sponsors will focus on parts of KN's television schedule that will be forecasted to generate two-thirds of the underwriting revenue.

The next three alternatives focus on technology applications and services that will provide small revenue streams for Knowledge Network. The applications put forward include narrowcasting, expansion of DVD production and e-learning opportunities. The presentation of these technology options is followed by a discussion of a potential revenue model to supplement KN's current funding through the Ministry of Advanced Education.

⁶ The cost, per 1000 people reached, of buying advertising space in a given media vehicle.

4.2.2 Alternative #2: Narrowcasting at Knowledge

Narrowcasting refers to a model of distributing broadcast and multimedia content to specific venues, targeted towards individuals and groups of people who are interested in accessing this content. Unlike the typical broadcast model, where all locations receive the same content from a broadcast signal, narrowcasting provides precise targeting to ensure that the desired content is timely and relevant to its intended audience.

Knowledge Network specializes in the production, packaging and delivery of educational video content over their broadcast network and website. With its expertise in editorial and video production and on-demand broadcasting, KN has an opportunity to deliver educational seminars to targeted groups across the province via a narrowcast model. The proposed model will focus on utilizing new or existing video content and repurposing it for organizations that are interested in a specific subject matter and wish to investigate it further. The educational seminars will involve narrowcasting to a group of individuals in a remote location, perhaps followed by panel of experts that could speak to the content being presented and take questions by telephone or email from participants. Knowledge Network will facilitate the narrowcast both in terms of the video content being produced and the technology used to provide the video and audio feed in addition to the communication bridge between participants and the panel of experts.

4.2.3 Alternative #3: Expanding DVD Production

Knowledge Network already has limited capacity to produce, duplicate and distribute DVD's, however, there is an opportunity to further utilize their video, new media production experience and broadcast plant to become a major DVD production facility in British Columbia. The enhanced DVD production model will focus on reaching out to government, community groups and industry partners to make them aware of Knowledge Network's ability to produce, author, duplicate and package educational DVD's for their specific purposes. The current strategy of DVD production at Knowledge Network has generated minimal income thus far, due to the

fact that KN offers partners DVD as a media format for finished KN video productions only. An expanded strategy will focus on providing services to take on all levels of the DVD production chain and let the clients drive the editorial and creative aspects to suit their own requirements. To stay true to their mandate, however, KN will only work with partners that share their educational values; hence they would not produce DVD's for purely commercial purposes.

The expansion of KN's existing broadcast plant into a DVD production facility will require a major capital investment in technology and staffing resources. Please see the Appendix for more information on the technical details of implementing an enhanced DVD production facility. Based on a complete end-to-end solution for professional DVD production, the costs could range anywhere between \$60,000 to \$100,000 CDN.

4.2.4 Alternative #4: Facilitating E-learning with Educational Institutions

Along with its experience in video production, Knowledge Network has become a recognized developer of innovative new media products over the past three years. Within this time frame, KN has worked with various organizations, including government and community partners to build a library of interactive and educational websites called *Knowledge Tools*. These are self-contained online features or Webcasts, which provide the public with an opportunity to explore educational topics in-depth, through a multi-media interface incorporating text, graphics, sound, animation and video. As KN's Director of Television, Programming and New Media points out, "*Knowledge Tools* have helped Knowledge Network make the most of its proprietary television content through re-purposing online and they also provide an ideal vehicle to deliver on the second part of the Knowledge Network mission statement – to partner with educators to deliver educational information to audiences."

Based on the success of the *Knowledge Tools* model, KN will extend its new media services to post secondary institutions in British Columbia to develop and maintain educational

resources for various online courses. This will be facilitated by the formation of strategic partnerships with educational institutions, where KN will produce multimedia features on their behalf, and host these presentations on knowledgenetwork.ca. The educational institution will have the desired content produced, promoted, and delivered, while KN will expand its online inventory and further establish its website as an effective venue for delivering educational content to British Columbians. The only difference with this approach compared to the current model for *Knowledge Tools*, however, will allow educators and instructors to drive editorial content, while KN will focus on the creative aspects of multimedia development.

The revenue model for all three-technology options will follow KN's current financial approach to supplementing its operational grant from the Ministry of Advanced Education, where partners are offered significant in-kind resources from KN (including equipment and overhead) to offset some of the hard costs incurred with television, new media and DVD production. The cash infusion by partners will be used to pay for in house staff production time or outsourcing charges incurred by contracting services to the third party clients. For three years continuously, Knowledge Network has been able to generate over \$600,000 in extra revenues (year-over-year) from television and new media productions. The expansion of any or all three of these technology options will provide KN with additional opportunities to further subsidize its operating grant.

5 RECOMMENDATIONS

Based on the current ownership of Knowledge Network by the provincial government, the recommendations in this section follow the logic that any guidance directed towards the provincial government will ultimately impact KN's ability to carry through on its own set of recommendations.

5.1 Government Recommendation

5.1.1 Recommendation #1: Increase Funding for Knowledge Network

If government values the principles of public broadcasting, including high and independent editorial standards that support a wide range of programming that responds to the cultural interests of British Columbians and believes that Knowledge Network consistently meets these objectives, they should continue to finance KN through public funds. Based on this premise, the government can either maintain its current level of funding as noted in Alternative #5 or support Knowledge Network by increasing funding through a larger operating grant or supporting KN in its application to the CRTC for licence fees. A larger operating grant or licence fees will enable Knowledge Network to expand its range of program offerings, including providing British Columbian's with more regionally based productions. In addition, KN will also have more funding to enhance its pre-licensing activities to support BC's independent production community.

To reinforce the importance of this recommendation as an alternative to privatization, government should consider what happened to Access Television in Alberta as model of a station that is no longer mandated by government policy. Over the past five years, the imperative for audience numbers at Access Television has driven programming decisions to value increasingly

lighter, broad-appeal programs that steer away from more-in-depth, serious educational content. Since there is no single definition of what constitutes “educational” programming, Access Television can air almost any program on its broadcast network as long as an Alberta Educational institute supports it. This is precisely why the station now airs *Green Acers*, *America’s Next Top Model* and the *World Poker Tour* as support for courses in “pop culture”. If this were the type of broad appeal programming that the provincial government would prefer for educational television, then they should perhaps withdraw their funding from Knowledge Network and consider privatizing it.

5.1.2 Recommendation #2: Avoid Downsizing Knowledge Network

The argument for downsizing, as proposed in Section 4.1.4, represents an alternative for the provincial government to consider as a way of decreasing public funding for KN. The difficulty with downsizing, as Tracey suggests (2002, p. 266), “is that not all organizations are quite so overstaffed, nor is it always clear where to stop the downsizing especially if the reorganization begins to impact on those vital but intangible commitments from which many public broadcasters, and therefore their audiences, have greatly benefited.” In Knowledge Network’s case, staff has already being downsized by 20% in the past year, leaving only 47 permanent employees to run KN’s operations. This has resulted in the organization becoming very selective about capital expenditures, investing in new systems that employ fewer people, and trying to direct any available funding to programming that appears on their broadcast network. In light of this, government should avoid any attempts to downsize the organization, however, it should continue to monitor Knowledge Network’s operations through the OLA Board and recommend ways to continually improve.

5.2 Knowledge Network Recommendations

5.2.1 Recommendation #1: Pursue Schedule Underwriting

In order to further supplement the operating grant that it receives from the provincial government, Knowledge Network should pursue schedule underwriting as a possible alternative. Schedule underwriting will enable Knowledge Network to seek out strategic relationships with government, community and industry partners who are interested in sponsoring a timeslot or a series that appears on KN's broadcast schedule. The best series for KN to initially focus its schedule underwriting efforts on would be *By the Book*⁷, which has an weekly AMA of 56,000 viewers (BBM, 2005) in addition to the presence of an existing relationship with *Vancouver Playhouse* that could be expanded to include schedule underwriting. In going forward with this recommendation, Knowledge Network would need to implement strict policies on the nature and form of how to recognize the sponsor on air, so as to remain true to its commercial-free status.

5.2.2 Recommendation #2: Pursue Narrowcasting

Of the three technology options put forward, Knowledge Network should focus its efforts on pursuing Narrowcasting. With full scale DVD production, a significant capital investment by KN would be required, which would prove to be a poor investment in the long run as duplication and packaging of DVD's can be serviced cost effectively by third party vendors. In the case of expanding relationships with educational institutions, Knowledge Network should do this by informing them about the availability of existing *Knowledge Tools*, however, giving up editorial control and ownership of content may diminish Knowledge Network's role as an information contributor. In essence, under the proposed alternative in section 4.2.4, KN's website would serve as a placeholder for the University's content or the university and KN would join forces and share costs in the production of educational content.

⁷ By the Book is a series dedicated to feature-length films inspired by some of the world's greatest works of literature.

Narrowcasting will allow KN to leverage its existing video production experience, professional content production facilities, recognized expertise in curriculum development and established working relationships with government, community and industry partners. These market segments are familiar with the quality of KN's broadcast programming and recognize the educational value that KN offers in targeting specific groups with relevant, credible and compelling information.

Currently there are no direct competitors to Knowledge Network in British Columbia in the educational narrowcasting market. Competition from commercial broadcasters for this type of niche service would unlikely develop as profit margins are minimal and barriers to entry for new entrants are high, resulting from the costs of investing in video production equipment, satellite fees or web hosting fees, and marketing and communications.

Given its business model of targeting small groups of individuals, narrowcasting will provide for a more efficient and possibly a more effective way of educating people as compared to the broadcast model of mass content diffusion. Knowledge Network will develop narrowcast programs in consultation with the client, making the content of the program very relevant, informative and meaningful to the target audience. Moreover, by providing very targeted information on a specific topic or issue, Knowledge Network could use this information and actual video content from the narrow as a precursor for new production ideas that would appear on their regular broadcast network. This is critical from the perspective that Knowledge Network must continue to offer a reshaped version of this content to a wider audience, so as to maintain the public broadcasting principles of universality of television content.

Related to the idea of targeted educational effectiveness, narrowcasting would enable Knowledge Network to explore new modes of interactivity with a limited audience. KN's narrowcasted programs could be followed by a panel of experts that would speak to the content being presented and take questions by telephone or email from participants. Moreover, depending

on whether the narrowcast was facilitated by satellite means or through a Webcast format, in the case of the latter, KN could develop interactive multimedia features (similar to *Knowledge Tools*) to engage audiences further. This may include the use of flash animations and related video content that could be accessed on-demand, once the narrowcast presentation had ended.

6 CONCLUSIONS

The institution of public broadcasting is struggling to survive in an environment of government deregulation, audience fragmentation, technological change and diminishing sources of public funding. The challenges are immense and public broadcasters worldwide are seeking innovative funding models to help circumvent this process, while at the same time strengthening their public service remit to inform, enlighten and entertain their audiences. While public broadcasting's traditional role is not in doubt, its expansionary activities through commercialization of its services are becoming increasingly problematic. It is problematic from the point of view of the commercial sector which points to the unfairness of cross-subsidy provision of public funds, but more importantly, the ethos of public broadcasting is under attack.

As a microcosm of these institutional problems in public broadcasting, Knowledge Network, British Columbia's public educational broadcaster, faces its own unique and related challenges that may see the imminent privatization, radical reshaping or closure of this organization. In its own struggle to survive, Knowledge Network will need to stand out from its commercial rivals by exploring new and innovative models that will leverage its vast experience in broadcast production, but also move the organization forward as the new media environment unfolds. Ultimately, Knowledge Network's ability to fulfil its role within British Columbia will depend on a more clearly defined character in the eyes of the provincial government, combined with the assurances of adequate financial resources to participate in new developments. As long as public broadcasting exists important questions about its relationship to society, its usefulness, effectiveness, affordability and workability will remain. Hence, a balance will need to be found between funding priorities and cultural priorities, so Knowledge Network and other public broadcasters will be able to continue their public service mission or switch channels to survive.

APPENDIX

Enhanced DVD Production Facility

Presently, there are many low-cost DVD recorders and authoring applications for DVD production; however, a technology solution for Knowledge Network would focus on a more hardware system that would join traditional broadcast equipment with new DVD technology. This is to differentiate between consumer DVD recording and professional DVD production.

A professional DVD production facility versus a stand-alone workstation model would be based on anticipated volume of the number of titles and quantity of DVD's being requested and duplicated. A stand-alone workstation model would include one or two high-end computers with large hard disk drives, an authoring and graphics program, connected to dual printer and DVD duplicator system. This is currently the configuration that Knowledge Network utilizes for a limited number (less than 5) of DVD productions that it has taken on in the past year.

In order to justify a distributed network model for DVD production, Knowledge Network would need to produce and duplicate more than 20 or 30 DVD titles per year. A distributed network model would involve a few individual workstations with integrated functions to specialize in each aspect of the DVD production chain. The integrated workstations in this model would be connected for shared storage on a high-speed network using shared RAID (Redundant Array of Independent (or Inexpensive) Disks) arrays. The peripheral systems that would feed directly into the network model would include a video encoding station where racks of Beta SP, miniDV, or Digital Beta decks would sit for conversion of original tape format into digital format.

A graphic artist and authoring workstation would be attached to the distributed network and require the latest software to create graphics and authored menus for DVD proofing and interactivity. The authoring workstation in particular would need to have playback ability from remote storage arrays and enough processing power to perform complex rendering in real or near real-time. The authoring workstation would also access the encoding station's files for audio and video content and the graphics station's files for navigation menus, subtitles and other displays.

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