EXECUTIVE SUMMARY

STUDY ON MECHANISMS TO PROMOTE THE DEVELOPMENT AND DISTRIBUTION OF CANADIAN MULTIMEDIA AND OTHER NEW MEDIA CONTENT AND SERVICES

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Canadian Heritage and the
Canadian Radio-television and
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WALL COMMUNICATIONS INC.

EXECUTIVE SUMMARY

I. INTRODUCTION

This study was commissioned by Industry Canada, Canadian Heritage and the CRTC. The objectives of the Study (as required by the Terms of Reference) were to provide a profile of the Canadian new media industry (including identifying the strengths and weaknesses) and to recommend policy mechanisms to promote the industry.

The Study was conducted under the direction of Gerry Wall of Wall Communications Inc. The Research Team principals were Bernie Lefebvre (Wall Communications), Kathleen Fildes (MKF Research), Mairi MacDonald (Barrister and Solicitor), Jean Bouchard (Contracom), Adam Froman (Froman & Associates) and Opinion Search. Perry Venier performed the lead role at Opinion Search.

Objectives of the Study

In examining the new media industry, we were asked to bear in mind the following federal government economic/industrial and cultural objectives for new media:

- to encourage economic growth and efficiency, the creation of jobs, exports, and consumer accessibility to a wide range of new media content and services at competitive prices;
- to encourage investment and innovation, including research and development;
- to foster fair competition and an increased reliance on market forces, and to enhance the competitiveness, both internationally and domestically, of new media producers and distributors operating in Canada;
- to ensure that mechanisms, where necessary, are consistent with these objectives, interfere only as necessary with market forces; and are readily adaptable to scientific and technological change;
- to encourage development of content that is distinctively Canadian in character, utilizing Canadian creative resources and contributing to Canadian identity;
- to stimulate, in both English and French, the creation and accessibility of domestic content;

- to encourage development of content that reflects the multicultural origins of Canadians and Canada's aboriginal peoples; and
- to stimulate and sustain Canadian creative expression, and ensure access to a diverse range of Canadian content (relevant to Canadian of all ages, tastes and interests).

The methodology employed in carrying out the project involved a literature review, an on-line industry consultation with over 100 new media content developers and producers, personal interviews with key representatives of the distribution and content production sectors, personal interviews with academic and private sector policy experts, issues assessment sessions with the Study sponsors and extensive economic and policy analysis.

The New Media Market: Background

The terms multimedia and new media are often used interchangeably, and definitions of these terms vary widely. For purposes of this study, the Terms of Reference describe "new media content and services" as:

- encompassing digital video, audio, images, computer graphics, and alphanumeric text, either individually or in combination, which can be received and manipulated by users via sophisticated terminal devices (e.g. personal computers); and
- potentially involving new forms of electronic distribution over networks that may be interconnected locally, nationally or globally and which may permit two-way interactivity in real time (although new media content and services can also be delivered using existing distribution technologies).

In our view, new media involves the growing use of three essential elements: **digitization, interactivity**, and **interconnected networks**. Each of these elements is having a powerful, and transforming, effect on media. The combination of the first two elements (and increasingly the third element) separate "old" from "new" media.

Industry Segmentation

The new media market has not yet developed to a point where it can be clearly and precisely described in terms of the types of services and the types of suppliers which will ultimately find acceptance in the market. This is both a strength and a weakness. On the one hand, innovation and exploration today is dynamic because the Aright@ products, services, processes and business models are unknown. On the other hand, attempts to develop policies for new media will necessarily carry more risk since there is less certainty about what the industry will ultimately require for success.

As a means of framing the industry to provide a profile (and examine related policy options), this study considers three ways of segmenting the market. Each of the following segmentations is used at various points in the study.

The first approach divides the market between firms who are involved in conventional media, but who are moving into new media as an adjunct to their primary business, and start-up firms with limited or no ties to conventional media.

MARKET SEGMENTATION
BY CONVENTIONAL MEDIA VS. START-UP

CONVENTIONAL MEDIA		START-UPS
Content	Distribution	
Film *(feature, short, animated, documentaries)* Publishing Television Production Sound Recording Heritage Institutions Performing Arts Other	Cinemas Telephone Companies Cable Television Satellite Terrestrial Wireless Retail Theatrical Box Office Broadcasters Other	Internet-related Computer Software Computer Hardware Computer (Other)

Wall Communications Inc. 1998

A second approach divides firms between those who produce *content* and those that *distribute* new media.

Content production can include the development of CD-ROMs, web-sites or services used by third-parties (e.g. a new media training program for a corporation or an animation program for another new media company). Distribution involves the delivery of content (by whatever means) to end-users.

A third approach divides market segments by customer groups. Content, for example, can be divided into three types of customer: business, institutional (government, not-for-profit and educational), and consumer (or mass market). Distribution can be broken out by the system which brings products to end-users: physical distribution (e.g. CD-ROMs) versus electronic network.

II NEW MEDIA CONTENT INDUSTRY PROFILE

With respect to types of products and services, the Canadian new media content industry is involved in the design and production of a wide range of interactive products and services. Learning tools, business applications, entertainment, "edutainment", "infotainment", Internet applications, computer animation and special effects, and software tools are examples of the types of products and services Canadian new media companies offer. These companies are also involved in many facets of production and related activities, including design, development, production, packaging, supporting, and distributing new media products and services.

In the on-line survey of new media start-ups, 90% of companies reported developing products and services for on-line delivery, 79% indicated they are developing products for CD-ROM and/or DVD, and 55% of companies reported producing for hybrid or multi-platform delivery. On-line delivery appears to be the way of the future, with 52% of companies indicating that this will be their primary product delivery platform by 2001 as compared to 37% in 1998. Only 16% of companies surveyed expect that CD-ROM and/or DVD will be there primary delivery platforms,

As noted earlier, Canadian new media content companies do not tend to specialize in one market, typically deriving revenues from all three markets. Only 15% of respondents indicated that 100% of their business came from one market - 1.9% of respondents rely solely on the institutional market, 2.8% rely solely on the consumer market, and 10.3%

rely solely on the corporate market. The corporate market is the most significant source of revenues for most Canadian new media content firms.

PROPORTION OF NEW MEDIA CONTENT RELATED BUSINESS IN THE CONSUMER, CORPORATE AND INSTITUTIONAL MARKETS

Business	Consumer Market	Corporate Market	Institutional Market
Less than 50%	73.4	17.6	84
50% to 99%	20.4	70.9	13.2
100%	6.1	11.5	2.7

Source: Wall Communications Inc., 1998

While there are some notable exceptions, it is our impression that, conventional media companies are cautious about committing too heavily to new media at this time. In the interviews conducted for this study, the conventional media companies which have reported little or no involvement in the new media market have stated that they are postponing any major involvement because of the costs involved in multimedia production and their perception that the market has not developed to an extent that would make its entry worthwhile.

We also speculate that conventional media companies have lower risk opportunities in their conventional businesses and that the lack of a well-defined business model is heightening the caution of conventional media companies. Start-ups, on the other hand, have less to lose from committing to new media, and the (short-term) opportunity cost of their efforts in new media is lower than for conventional media.

Nevertheless, opportunities do currently exist for conventional media firms. For example, conventional media firms have experience in the creative process, contacts with distributors and/or retailers, as well as access to existing content artists and characters. Entering the new media industry allows conventional media firms to "re-purpose" content and make use of existing intellectual property. Companies involved in both new media and conventional forms of content can, as can other diversified companies, cross-promote and cross-merchandise their products.

Just as conventional media companies are expanding into the new media marketplace, new media companies are also participating in the production of conventional media. In the on-line survey conducted for this study, 70% of respondents reported involvement in the production of conventional media of one form or another. The level and type of involvement of each company varies. Some of the companies interviewed for this study reported using or leasing their production facilities, which were built primarily for the production of new media components, for the production of various forms of content for conventional use. Some new media companies are producing special effects, computer animation or other elements for inclusion in conventional media projects (e.g. film and television production). Still other companies (particularly those which produce learning applications) also produce books which are meant to complement their new media products.

We would note the lack of a wide-spread, accepted business model for new media. While demand for new media services by corporations appears to be healthy and growing, the mass market remains unclear. At least two general types of business models have been suggested for the mass consumer market. The first is an advertising-driven model where advertisers purchase exposure on a website or other on-line service. Similar to conventional over-the-air broadcasting, advertisers would pay based on the number of "hits" at the site. While many advertisers (and electronic service providers) are aware of (and interested in) this type of opportunity, revenue-generation activity is very limited to date.

The other widely discussed business model is one where customers pay a subscription fee or an amount based on the degree of usage of a service. This type of arrangement has proved its viability in niche markets, but has yet to obtain mass appeal.

There are many opinions on why new media have yet to achieve mass appeal in the consumer market. Certainly the lack of a ubiquitous, intuitive, high-speed interface for electronic networks or the counterpart in stand-alone applications (i.e. personal computers or game stations) is a key factor. Perhaps equally important is the lack of appealing consumer entertainment products which utilize one of the strongest features of new media: interactivity. Conventional entertainment media (books, television, films) tend to rely on a narrative or story for appeal, which in turn depends on pacing, timing or rhythm. Interactivity breaks rhythm.

As such, new media products which can utilize the power of interactivity while offering some of the most appealing attributes of conventional entertainment media (i.e. plot, characterisation, etc.) may create a new type of popular media. Such products are beginning to appear, but it is obvious that the potential of new media and the "magic formula" for mass appeal have a considerable development stage ahead.

Most companies interviewed for this study expressed the view that the Canadian market for new media products is too small to sustain the production of new media products and services which are of appeal only to Canadians. These companies, many of which are expanding into world markets, are focussing more on the production of content that will have global appeal. However, these companies were quick to point out that their products, despite their intended global appeal were being created in Canada, by Canadians.

Despite that, several companies which were interviewed did indicate a belief that "distinctively" Canadian new media productions do have some place in the market. However, they felt that Canadian content of this nature would likely require public funding to offset its limited global market appeal.

While most firms (45.3%) reported that less than 5% of sales were currently export sales, more than 56% of firms expect export sales of between 5% and 50% of revenues within 3 years. By 2001, every firm reporting in the on-line survey expects to have more than 5% of sales attributable to exports.

Whether selling in foreign markets or not, most firms interviewed for this study recognized the need to reach foreign markets, particularly the U.S. market in order to reach their financial goals. These companies believe that the Canadian marketplace is simply not large enough to sustain their development over the long term.

Almost all respondents (94%) to the on-line survey for this study reported lack of financing as a factor which limits their growth prospects to some extent. Respondents indicated this factor as a significant barrier to growth more than any other factor.

Access to capital emerged as the most significant problem facing the industry today.

The on-line survey undertaken for this study also revealed that the skill which is most difficult to obtain in Canada is programming. Almost half of all companies surveyed reported having difficulty in staffing software programming positions. This is a significant finding, given that 74% of companies surveyed ranked technology skills as the most important skill for their business.

It is important to note, however, that there are a number of excellent facilities in Canada, both public and private, offering programs at various levels for people interested in many areas of new media development.

According to interviews conducted for this study, the difficulty lies not so much with a lack of trained individuals, but in the lack of funding to train in-house. Many of the companies interviewed indicated that the particular skills and training required for their business are often best acquired by employees through in-house training. However, most of these firms do not have the financial resources needed to train and mentor employees.

Finding and training skilled workers is only part of the problem. Interview subjects also noted the difficulties they have in retaining skilled staff.

III. NEW MEDIA DISTRIBUTION INDUSTRY PROFILE

New media content and services are distributed in a variety of ways. These can generally be grouped into two categories: physical delivery and electronic delivery.

Physical distribution encompasses a broad variety of means through which a producer or publisher of new media delivers its products or services directly to customers. One means is the sale of CD-ROMs either directly to customers or indirectly through a distributor through retail outlets such computer equipment and accessories, book and CD-ROM stores, along with other retail outlets. Another more common delivery vehicle is direct or contract sales, where new media applications and services are provided on a fee-for-service basis directly to a corporate or institutional client such as designing, creating and managing a web site for a client. As well, new media products and services are also provided through kiosk and other on-site or location-based delivery means.

Electronic distribution of new media content and services, on the other hand, involves on-line delivery. This is typically accomplished over the Internet, a company's private network or Intranet facilities, or a combination of the two. For instance, the new media content or service could be accessed via the Internet at the content or service provider's web site or, alternatively, down loaded directly from the provider's server either over the Internet or private network facilities.

A range of alternative means of electronic delivery are either available today or will soon be available. These include services provided over telecommunications, cable, satellite, or terrestrial wireless network facilities.

Respondents indicated that on-line delivery is now marginally more popular than CD-ROM/DVD. In addition, 22% indicated that they relied on a hybrid/multi-platform approach that includes both on-line and CD-ROM/DVD platforms. Looking ahead three years, however, the survey results indicate that on-line delivery will become by far the most important delivery platform.

DELIVERY PLATFORMS: TODAY AND IN THREE YEARS

	1998	2001
On-line	37%	52%
CD-ROM/DVD	32%	16%
Hybrid/Multi-Platform	22%	20%
Other	8%	6%

Source: Wall Communications Inc., 1998

Given the relatively small size of Canadian market, many new media companies often produce, at best, a few CD-ROM titles. This makes it difficult to deal with larger distributors who generally prefer to handle brand name products and high-volume, multititle accounts. Similarly, major retail outlets prefer to deal with only a few large-scale distributors. As a result, it is extremely difficult for small Canadian CD-ROM producers to get access to shelf space to sell their products in Canada and, for that matter, outside the country. Consequently, in some cases, new media companies must approach retail outlets themselves to distribute their products.

One of the most common means of electronic delivery today is over the Internet. While the Internet has been in existence for some years, with the recent introduction of browser software that provides ready access to the World Wide Web and straightforward file transfer capabilities, its use has grown at an explosive rate. The Internet is now a global resource for millions of people, providing access to an enormous range of new media content and services.

Despite the rapid growth in the Internet and the constant hype surrounding it, the Internet still far from a mass market phenomenon today. In fact, we are yet to clearly pass the "early adopters" stage of development, at least as far as the consumer market is concerned. The Internet, at this point in time, is merely a crude prototype for the much more powerful and sophisticated Information Highway of the future.

The availability and quality of on-line features on the Internet such as graphics, animation, audio and video is also steadily improving. However, the key limitation in this respect is bandwidth. Standard dial-up access at 28.8 kbps is simply not sufficient to provide high quality video and audio. Consequently, the ability to delivery full feature new media product and services on-line over the Internet will be severely limited until higher speed access services are more widely and economically available. At the same, Internet backbone facilities will also need to be expanded to avoid traffic congestion problems that exist today and which could potentially compound as Internet penetration and usage increases over time.

New media activities undertaken by telecommunications carriers, broadcasters and cable companies were minimal at best in the past year. There is considerable capacity, however, both in terms of financial and human resources, to become involved with new media and have a significant impact on this emerging business. Indeed, comments by individuals in the broadcasting, cable and telecommunications sectors almost uniformly indicated that they expect to become increasing involved in new media and expect to generate considerable growth from these activities in the coming years.

Canada is also well positioned when it comes to both quality and coverage of telecommunications and cable television networks. In addition, there is a growing variety of other technologies that are capable of carrying communications and traditional broadcast media in addition to new media to both consumers and business. These include terrestrial wireless technologies such as digital Personal Communications Services (PCS), "wireless cable" services Local Multipoint Communications Services (LMCS) and Multipoint Multichannel Distribution Systems (MMDS), and satellite services such as Direct To Home (DTH) or Direct Broadcast Satellite (DBS) and global satellite communications networks.

With the range of players now active in the market or on the verge of entering the market, Canadians should have an unprecedented range of options available to them within the next decade in terms of how they obtain telecommunications services, traditional media and new media services. Ultimately, the availability of numerous networks for the delivery of new media in Canada indicates that a healthy degree of competition is likely to emerge in electronic distribution.

There are about 400 Internet Service Providers or ISPs in Canada today. Of these, Sympatico, AOL Canada and MSN Canada are the largest with about one third of the market. While all ISPs provide access to the Internet, many offer other services such as web site hosting, web page design services, Intranet and electronic commerce solutions. As well, to varying degrees, ISPs lease underlying network facilities to provide Internet access and/or backbone services. However, with the large number of firms in business today Internet access has largely become commoditized, making it very difficult to be profitable by solely offering Internet access.

In addition to providing access to the Internet, the larger ISPs generally produce Canadian new media content and services for on-line delivery over the Internet as well as feature links to Canadian and foreign new media content and services on the World Wide Web. In this respect, they can be considered "information service providers" to distinguish them from pure ISPs who strictly provide Internet access.

In contrast, there is a growing number of pure information service providers or "aggregators" who provide users with a range of news and informational services– e.g., CANOE and CNN Interactive. Similarly, navigational or search engines provide a further layer of Internet service – e.g., Yahoo! and AltaVista. These non-facilities-based service providers offer a "point of departure" for finding specific individual or categories of web sites. These web sites draw a large volume of traffic and, consequently, are becoming more attractive to advertisers. These providers are also beginning to expand service provision into their own content services, or partnering with content providers.

With respect to the physical distribution of new media, the market structure is largely similar to book and sound recording distribution industry in Canada. While there is a large number of potential CD-ROM/DVD distributors in Canada, much of distribution of mass-market products is handled by a few large companies such as Beamscope, Ingram Micro Canada, Merisel Canada and Quebecor. These companies typically distribute a wide range of computer and entertainment products in addition to CD-ROM/DVDs.

IV. POLICY ANALYSIS

Most support mechanisms available in Canada can be identified as belonging to one of seven broad categories: direct and indirect contributions; public provision; quotas; taxes on imports; market restrictions; fiscal measures (e.g., tax incentives); and others.

Any mechanisms selected to support the creation or distribution of new media content should be consistent with Canada's international obligations. While in principle it is widely accepted that support of a country's culture, as an objective for government action, is both appropriate and necessary, in practice the growing integration of world trade leads to friction between such objectives and the goals of agreements seeking to achieve freer trade.

As a result, the Canadian government must consider whether proposed support mechanisms are likely to violate any provisions of trade agreements to which Canada is a signatory. The principal agreements are: the North American Free Trade Agreement ("NAFTA"); and the instruments administered by the World Trade Organization ("WTO"), being the General Agreements on Tariffs and Trade ("GATT") and the General Agreement on Trade in Services ("GATS"). In addition, as a member of the Organization for Economic Co-operation and Development ("OECD"), Canada is an integral part of the development of the proposed Multilateral Agreement on Investment ("MAI"), which, if it is successfully completed, may have an impact on Canada's ability to implement new media support mechanisms.

In our analysis of promotional mechanisms, we examine each set of objectives separately, starting with the economic/industrial objectives. *In our view, successfully achieving the Canada's economic/industrial objectives for the industry is in many ways a prerequisite for also achieving Canada's cultural objectives.* Without an economically healthy and vibrant Canadian new media industry, it will be virtually impossible to ensure that Canadians have access to a wide choice of Canadian new media content and services in the longer term.

It may be equally true, however, that the achievement of cultural goals will aid the long-term interests of the Canadian economy through the creation of valuable intellectual property and communications infrastructure upon which future businesses will be built.

In this sense, the interrelatedness of the objectives may allow some policy mechanisms to simultaneously further both the industrial and cultural objectives.

On the other hand, some policy mechanisms may further one type of objective only at the expense of another objective. *We believe that policy promotion mechanisms should be targeted directly at either economic or cultural objectives, but the same mechanisms should not attempt to directly achieve both economic and cultural objectives. We believe this is the best means of ensuring that the government's objectives are met in substance and with efficiency.*

Wall Communications uses a set of five economic and qualitative criteria to assess the merits of alternative mechanisms that could potentially be implemented to address specific new media production and distribution concerns. These are as follows:

i) Precision (e.g., broad-based or narrowly focussed);

ii) Degree of effectiveness (or magnitude of impact);

iii) Efficiency Incentive characteristics;

iv) Transactions or administration costs; and

v) Sustainability/endurance (with respect to international developments, technological change, etc.).

The recommendations are addressed according to two types of concerns: near term and longer term. In addition, near term concerns are further divided into broad concerns and narrow concerns. The broad near terms concerns are more significant in scope and potential impact than the narrow concerns, and policies to address them are therefore more substantive.

Longer term concerns should not be considered any less important than near term broad concerns. However, due to the early stage in the industry's development, several longer term concerns are potential in nature, and further industry development must occur before such concerns can be fully assessed and possible remedies formulated.

Near Term Concerns (Broad)

Access to Capital

Key Recommendations

- *Establishment of a New Media (Loans/Equity Financing) Fund*
- *Government Facilitation Role*
- *Expansion of Tax Credit Program to New Media*

In many respects, it is not surprising that small companies in or not far beyond the start-up phase of operations such as those in the new media industry face serious financing challenges. Small start-up companies in other sectors of the Canadian economy also face problems securing adequate financing. However, what is unique and may contribute to a form of market failure is the lack of understanding of the new media business, especially by traditional financial institutions.

We would argue, that private sector sources of financing may not be providing levels of funding commensurate with the overall societal benefits likely to accrue from support for the new media content industry. In particular, we would note that the development of new media intellectual property might have important long-term benefits for the Canadian economy.

As knowledge and awareness of the new media business grows, and a number of widely identifiable new media industry success stories become available, financing should become less of a problem. However, at this critical stage of development of the new media industry, access to capital assistance is needed to help maintain and promote the rapid growth of the new media industry.

Loans and Equity Financing

There currently are numerous programs or agencies in place at both the federal and provincial government levels that provide public sources of capital to small and medium size enterprises in Canada. Other programs or agencies focus on specific industry sectors such as information technology, telecommunications, film, video and, in some cases, multimedia and new media. However, programs which specifically target new media are almost non-existent.

Two funding approaches could be followed to help the new media industry in Canada address the problem of access to capital. The federal government could either establish a new fund targeted at the new media industry or provide additional funding to existing programs and institutions that would be earmarked for new media companies. The former is considered preferable, however, since a new targeted fund would simplify administration of the program and simplify applicants' access to the funds. The complexities of and time involved with understanding and meeting the requirements of the many different existing programs was a frequent complaint of new media companies. Creating a targeted funding program for new media would provide an opportunity to streamline the application and review process. In addition, a separate fund could be more easily promoted within the industry.

A new loans and equity fund would augment existing funds available to new media companies, directly mitigating the access to capital problem they face. The criteria established to qualify for funding under the program would be based solely on "economic factors" – i.e., targeted at new media companies whose business proposals demonstrate potential for growth and strong prospects for success, whose primary operations are based in Canada and which employ Canadian resources in the context of the funded project or operations. Consequently, funding would be broadly available within the industry and directly focussed on the access to capital problem.

While other cultural considerations relating to the nature and content of the new media content and services could be incorporated into the qualifying criteria for such a fund, we recommend that the access to capital and cultural objectives be addressed separately (although we note that each program will have cross-over benefits in achieving other objectives).

The suggested approach is in keeping with Wall Communications' conclusions that the development of an economically healthy new media infrastructure in Canada will itself create more and better opportunities to achieve cultural goals.

It is our recommendation that a new media fund of **between $50 and $100 million be established for disbursement over a 3 to 5 year period**. The size of the fund is based on an average cost of a typical new media project of roughly $750,000 which would allow for between 75 and 150 projects a year (over a 3-year time frame) where 30% of a project's financing is available through the new fund.

We would suggest further consultation and examination by the government prior to setting the funding level.

A loans and equity program (as opposed to a grant program) is recommended. Since funds must be repaid, the firm is pressured to meet commercial objectives and competitive requirements. This is in keeping with the focus on supporting economic objectives such as achieving economic growth.

Facilitation Role

The federal government could serve as a "facilitator" to make the new media industry itself aware of the sources of financing available and how best to gain access to them. The government is well-positioned to facilitate development of this industry by bringing together and working in partnership with new media industry associations such as the Interactive Multimedia Arts & Technologies Association and Association Des Producteurs en Multimedia du Quebec.

For example, Industry Canada's existing "$ources of Financing" web site is an excellent example of how the federal government can help new media companies become familiar with alternative potential sources of funding. However, greater efforts are required to ensure that new media companies are aware of the services and tools available to them to help secure financing. As well, the federal government could work with industry organizations to help bring together the new media companies and potential investors -- e.g., various financial institutions and venture capital fund managers -- to promote a better understanding of and interest in investing in the industry.

Another approach is to help establish a form of third-party relationship between new media companies and potential investors, where the government would act as the third party providing a bridge between borrower and investor.

Tax Credits and Incentives

An additional indirect method of addressing access to capital difficulties is through fiscal or tax-based measures aimed at providing new media companies with increased cash flow and/or additional sources of financing.

One approach would be to extend the existing Canadian Film and Video Production Tax Credit program, to the production of new media by adapting the eligibility criteria established for film and video production companies to new media companies. This would not only indirectly help ease financing requirements, but also directly promote economic and job growth in the industry.

Tax-based measures do not deal directly with the access to capital problem since they do not provide up-front financing assistance. However, tax credits help indirectly ease the problem somewhat while also helping promote growth in the new media industry. Similarly, since the measures can largely be implemented through extensions of existing programs, the costs of introducing and administering the programs could be controlled.

Distinct Canadian Content

Key Recommendations:

- *New Media Fund (Grants) for Distinctively Canadian Content*
- *SchoolNet (working with educational content developers)*
- *Facilitating Alliances and Partnerships between public institutions and the private sector*

The policy objectives set out for this study clearly indicate a desire on the part of government to stimulate the production of distinctively Canadian new media which utilizes Canadian creative resources and contributes to Canadian identity.

This study does not attempt to define "distinctively Canadian" new media, nor does it attempt to measure whether existing levels of production of Canadian new media content meet public policy objectives. However, the analysis of the new media market has identified a potential weakness in the size of the Canadian market in relation to the global market for new media products which could provide a disincentive for Canadian new media firms to create and develop "distinctively Canadian" new media content that might not have global appeal. According to the research conducted for this study, Canadian new media production companies are looking primarily at world markets rather than focusing solely on local or domestic markets. By implication, if left to market forces, the production of Canadian new media content could well fall short of the amount of content needed to satisfy public policy objectives.

It is important to note our recommendations for a cultural policy mechanism to encourage the production of "distinctively Canadian" content differs from "traditional" cultural mechanisms. Generally, past and present mechanisms related to content tended to encourage the production of Canadian content (meaning content produced by Canadians). Such measures do not necessarily result in content which is "distinctively Canadian".

New Media Grants Fund for Distinctively Canadian Content

It is recommended that a new program be established that will stimulate the production of "distinctively Canadian" new media.

The funding, which should be project-based, should be made available to all forms of "distinctively Canadian" new media content, including content produced for on-line delivery and content produced for CD-ROM or DVD, or any other physical or electronic mode of distribution. Educational, information, and entertainment projects should be eligible for funding. The only type of project which in most cases should be specifically excluded from the funding initiative should be fee-for-service work, which is predominantly corporate work (i.e., it does not significantly contribute to cultural policy objectives and is financed directly by the client).

Applicants should be allowed to request funding for one or all of the following three stages:

- concept design and development;
- production; and
- distribution/marketing/promotion.

It is recommended that the funding program aimed at stimulating the production of "distinctively Canadian" new media content be comprised of grants. Loans and equity funding agencies will fund projects which are most likely to repay the loan or yield high returns on investment (i.e., commercially successful projects). While there is no reason that "distinctively Canadian" new media content cannot become commercially successful, commercial success should not be the primary objective of the funding decision. Grants allow greater freedom to produce works which may not recoup costs, but which allow creators to achieve the cultural objectives set out by government.

In terms of eligibility, projects being produced by public institutions, private sector companies/persons, or collaborations of public and private entities should be eligible for funding. Public institutions should be eligible for funding under any new mechanism to support the production of "distinctively Canadian" new media content, although a balance between private and public projects would need to be set.

It is not recommended that Canadian ownership be a requirement for funding. However, use of Canadian resources and a requirement that the funding is spent in Canada should be criteria for funding. This approach will also make the funding mechanism less open to attack under existing trade obligations. In any event, Canadian ownership is a likely characteristic of most successful fund recipients, since it is difficult to imagine non-Canadian firms consistently proposing better, more "distinctively Canadian" projects than Canadians.

Of course, the most important criterion for funding should be a requirement that the project be "distinctively Canadian". In lieu of having projects qualify subject to a precise definition, it is recommended that the applicants themselves be required to demonstrate to the funding agency that the project for which they seek funding is "distinctively Canadian". Over time, as projects are accepted or denied on the basis of this requirement, a de facto definition of "distinctively Canadian" should emerge. The process will provide a forum for a collective effort to help define the term.

In terms of the level of funding, further analysis should be undertaken to define an appropriate amount. However, we note that funding which results in just a few projects per year would not likely achieve the government's stated objectives. Consequently, we suggest that **a range of $50 million to $100 million over a five year period** (i.e., $10 million to $20 million per year) be considered initially. This would likely result in at least 40 projects per year (based on an average project production cost of $750,000 with a 30% funding cap). We would suggest that these funds be targeted at production (i.e., exclusive of administrative and other costs).

It is our recommendation that funds should be taken out of general tax revenue.

We recommend further examination and consultation by the government to determine the best means of administering the fund. We would note, however, that the individuals chosen to direct the fund at its early stages will largely determine the type of criteria which will be applied in future years to judge what is distinctively Canadian. In this sense, the initial selection of persons to direct the fund is critical to its ultimate success.

Labour Supply and Mobility

Key Recommendations:

- *New Media Tax Credit Program (for Labour & Training Costs)*
- *Review/Expand Youth Employment Strategy Program (Targeted at New Media)*
- *Facilitation of the Development New Media Skills Training Programs*
- *Review of Income Tax Policies*

Many new media companies indicated that there is a shortage of labour with the necessary skills for the new media industry today. In particular, a key problem area is finding individuals with the necessary programming skills. To help deal with this problem, many new media firms tend to hire less skilled or experienced workers, and then provide them with some degree of in-house training C more often on-the-job training than dedicated training programs. However, this is generally considered a costly and risky means to acquire or upgrade labour skills. As an individual gains more experience and on-the-job training, there is an increasing risk of losing the employee given the high rate of mobility in the industry. Moreover, given the small size of many new media companies and the difficulties they already face obtaining access to sufficient capital, setting aside resources and money for training is a difficult challenge.

Any programs introduced to help deal with skills shortages should be a part of a broader overall strategy to ensure that Canada does not fall behind other countries with respect to skills in the high-tech sectors generally. However, broader measures or policies aimed at training and education programs in Canada are outside the scope of this study.

New Media Tax Credit Program

Tax credits under the CFVPTC program apply to eligible labour costs (i.e., salaries and wages). By extending the CFVPTC to new media, the cost of labour for the company receiving the tax credit would be lowered, stimulating growth and hiring in the new media industry. While this measure will not in all cases remedy supply problems, it will allow firms to hire qualified staff on a more permanent basis, thereby reducing problems caused by labour force mobility. Further, by allowing firms to train more persons in key areas, the labour supply problem will be mitigated.

Youth Employment Strategies

The federal government already has internship initiatives in place under its Youth Employment Strategy Program managed by Human Resources Development Canada. In particular, the Science and Technology Internship Program provides financial assistance to small and medium size companies to hire recent college and university graduates (or summer students) to work in a number of areas including the development of multimedia tools and products. This program should be reviewed to determine if sufficient emphasis has been given to placements in the new media industry. In part, this may involve working with new media industry associations to ensure that their members are aware of the program.

Current initiatives such as the federal government's SchoolNet Digital Collections (SDC) program, School Net's "Notemakers" and the Community Access Program are all commendable and should be expanded.

Development of Other Training Programs

As already discussed in the context of the access to capital concern, the federal government could take a more active role as a facilitator within the emerging new media industry. In the case of labour and training concerns, the federal government could work with industry associations, individual companies, and various educational institutions, among other stakeholders to help determine alternative means of addressing skills shortages and training requirements within the new media industry. Indeed, the Strategic

Human Resources Analysis/Sector Analysis Division of Human Resources Development Canada (HRDC) is already actively involved in this type of activity in a variety of sectors throughout the Canadian economy. HRDC's initiatives should be reviewed to ensure the current and future employment, skills and training needs of the new media industry are adequately addressed.

Labour Mobility & Tax Burden

Human resources account for the greatest proportion of new media companies' operating costs and also represent the most important resource the companies rely on to be successful in the new media business. However, this critical reliance on individual creativity, skills and experience also makes new media companies vulnerable. It is relatively easy for talented and experienced employees to leave one company to join another or start up a new company. Indeed, in doing so, many of those surveyed or interviewed for this study noted that leaving the country for the U.S. market is a particularly attractive option for many individuals in the industry.

A comment frequently encountered during the interview process is that Canada's tax system creates a considerable incentive for highly skilled labour to leave the country for the U.S.

While we raise this problem in the context of this study because of the frequency with which it was raised by those surveyed or interviewed in the new media industry, we note that recommendations as to how and to what extent changes could be made to individual and business taxes in Canada to address this problem are beyond the scope of this study.

Longer-term Concerns

Visibility of Canadian On-line Content and Services

Key Recommendations:

- *Content Production Assistance (e.g., Funding and Tax Credits Programs as discussed earlier)*
- *Funding and Promotion of Content through Existing Programs*

One of the key industry strengths noted earlier was the impressive range of both English and French language Canadian content and services available on-line today. This range of content and services is currently provided by a vast number of information service providers, including private individuals, public and private institutions, firms of all sizes, and a range of other organizations, as well as dedicated information service aggregators (such as CANOE, PointCast and MSN).

While the visibility of Canadian on-line content and services is not a problem today according to those interviewed for this study, measures could be considered to help ensure that visibility does not become a problem in the future. Indeed, many of the program recommendations noted above, aimed at promoting both economic and cultural objectives, should also help ensure the ongoing availability and visibility of Canadian new media content and services. Nevertheless, ongoing monitoring of developments in the new media industry will be necessary to ascertain if additional measures are needed to promote the visibility of Canadian new media content and services.

Content Production Assistance (Financial Assistance)

At the outset, we note that an indirect, but very effective, approach to promote the ongoing visibility and availability of Canadian content and services on the Internet is through measures aimed at promoting growth in new media content production.

The merits of these programs were discussed earlier. However, it is important to reiterate in this context that by promoting growth in new media content production, Canadians will have a broader range of Canadian content and services from which to choose. A growing and innovative new media industry in Canada is perhaps the best way to ensure visibility of Canadian new media content and services.

Funding and Promotion through Existing Initiatives

To help promote the visibility of Canadian on-line content and services, many interviewees suggested that the government could play a productive role by promoting knowledge and awareness of Canadian new media. In addition, many felt that the government should take a lead role in the industry by being a model user and supplier of new media products and services. In fact, the federal government has taken many important steps in this direction already.

The federal government's Community Access Program already provides one vehicle not only to facilitate access to the Internet in communities across the country and expand familiarity with the Internet, but also to showcase a wide range of Canadian on-line content. SchoolNet provides another vehicle to promote knowledge and awareness of the Internet, among other objectives. As noted above, through its Digital Collections program the government is making a growing range of Canadian content over the Internet. The Federal Task Force on Digitization is investigating the most effective and efficient means of putting a vast range of the government's holdings of information, art, artifacts and scientific collections into digital form and making it available over the Internet. All of these programs effectively help develop and promote Canadian on-line content and services.

Basic Research

Key Recommendations:

- *Market forces (long term)*
- *Ensure that R&D for content is given as high a priority as R&D for infrastructure*
- *Clarify criteria and streamline procedures for existing R & D tax credits*

Firms involved in new media content production and distribution tend to be extremely innovative and creative. New products and services are continuously being introduced into the market. However, many of new media companies, particularly on the content development side, are not involved in a significant way in basic research. This can, perhaps, be traced back to one of the industry's key weaknesses - lack of capital.

It is possible that once measures have been put in place to increase the industry's access to capital, the industry will allocate more resources to research. It is recommended that three years from the introduction of measures to increase access to capital the government undertake a study to determine whether low R&D remains an issue within the new media sector.

The government should continue to rely on the work currently being done by existing institutions. It is recommended, however, that the government clarifies, perhaps with the assistance of new media researchers and developers, which existing programs for R&D encompass new media content and distribution. The results of research undertaken at public research facilities and through public programs should also be made as widely available as possible. Informational bulletins on the breadth of existing projects and their results could then be issued to the new media sector and other interested parties, perhaps through industry associations.

It is therefore recommended that the government, perhaps together with representatives of the new media content and distribution industries, examine all existing R&D tax incentive programs in order to ascertain whether and to what extent they apply to the production and distribution of new media content and services. This should provide the government with suggestions on how existing mechanisms can be streamlined and clarified. Regular bulletins outlining the criteria and processes for obtaining access to such mechanisms could be distributed to new media content producers and distributors, perhaps through industry associations.

Importance of Marketing

Key Recommendations:

- *Monitor at present time*

At the current stage in the life cycle of new media, the largest share of activity occurs in the corporate market and, to a lesser extent, the institutional market. The mass consumer entertainment market, with one key exception (games), is still lacking a set of readily-understood, widely-accepted products with associated business models.

The relative lack of success in the new media mass market entertainment segment is not expected to persist, although when and how success will be achieved remains very uncertain. It is our projection that once new media entertainment products begin to gel into a category of widely-accepted consumer products, marketing and promotion will become key factors to commercial success.

If marketing grows to be a significant success factor for mass entertainment new media products, opportunities could be limited for smaller producers or producers who are not vertically integrated or significant advantages could be provided to conventional media firms (which are moving into new media).

This issue can also be considered as part of the broader issue of whether consolidation in the industry is likely to occur over time and if so, whether measures should be considered to encourage consolidation at an early stage. However, as noted earlier, it is much too soon to determine how the new media industry will ultimately be structured. It is quite plausible that smaller content creators may prevail in a variety of important niche areas.

This issue is raised primarily because the potential consequences for industry structure could be significant. However, given the early stage of industry development, we do not see a need for any policy action.

Development of Intellectual Property

Key Recommendation:

- *Continued Updating of Copyright Laws to Protect Intellectual Property.*

With the growth of multiple electronic delivery systems (e.g. cable, satellite, telephone) competition should tend to force the price of electronic delivery towards cost. At the same time, content will become increasingly more important (and valuable). Content will be needed to fill these distribution channels. Continued development of intellectual property and the right and ability to profit from its use will accordingly become a key ingredient for long term economic growth in the new media industry.

The research conducted for this project reflects a very strong entrepreneurial bent amongst start-up new media content producers. We do not perceive this sector as lacking ambition or lacking awareness of the ultimate importance of intellectual property rights.

While we have not specifically examined the unique needs of the sector in terms of updated intellectual property protection, it appears to us that maintaining current and effective copyright laws is a priority.

We would therefore recommend that copyright laws and their interpretation be reviewed on an ongoing basis to ensure that the rights of intellectual property creators and owners are satisfactorily protected. Further, mechanisms for the efficient clearing of rights and collection of payments need to be considered in the context of new media production and distribution. The ongoing review of the suitability and adaptability of copyright laws to new media must include a careful analysis of international developments, including the increasing overlap between trade and intellectual property treaties.

Market Uncertainty

Key Recommendations

- *Conduct a process to determine the extent to which new media is circumscribed by the Broadcasting Act and what role should be performed by the CRTC.*
- *Promote awareness of New Media*

Due to the relative youth and complexity of the industry, considerable uncertainty surrounds how consumer market revenues will be generated and the potential size of the industry. As noted earlier, while still speculative, the most often-cited business models likely to emerge are advertising-driven, subscription-based or transactional (i.e. one-off purchases). The level of uncertainty pertaining to these issues will be a limiting factor to investment in new media.

A second concern involves the degree to which existing legislation (i.e. the *Broadcasting Act)* may affect or capture new media. If the services provided by new media suppliers meet the definition of "broadcasting" in the *Broadcasting Act*, the new media suppliers would be captured by the *Act*, and they must either be licensed or exempted. Any company providing services under the *Broadcasting Act* must meet the definition of "Canadian" under the *Direction to the CRTC (Eligible Canadian corporations).*

The current market uncertainties caused by lack of a confirmed business-model is a part of the growth process for many industries. It should not be considered a market failure per se. However, to the extent that the government encourages activity in new media, and promotes an awareness of Canadian new media products, uncertainty (in general) will be reduced. We do not recommend any additional measures to reduce market uncertainty of this type.

In the area of legislative scope (and attendant potential for regulatory uncertainty), a number of questions need to be explored. For example, if a firm operates a website and delivers "programming" (as defined in the *Act)* to a customer, would such a firm be carrying on as a broadcasting undertaking? If this type of activity does constitute broadcasting, should the service be licensed or exempted or dealt with otherwise? If a firm is not eligible to hold a broadcasting license as per the 1978 *Direction to the CRTC (Eligible Canadian Corporations)* and therefore cannot be licensed (or presumably exempted), would it have to cease new media activities which are captured by the *Broadcasting Act*? And finally, as noted by the CRTC in its convergence report to the government, will new and emerging services contribute materially to the objectives of the *Broadcasting Act.*

These questions are properly addressed in other fora, but we can provide a number of points to consider. Given the emergence of new media activities among so many firms (dedicated, conventional-media related and conventional non-media firms who only use new media to promote their automobiles, soft drinks, running shoes or what-have-you), the consequences of affirming the applicability of the *Broadcasting Act* to new media services would be deep and pervasive throughout the economy. It is possible that any website that includes audio or audiovisual elements may fall under the *Act*. Thus, the potential impact on the industry could be enormous. It should be noted that it is an offence to operate a broadcasting undertaking in Canada without a license or an exemption.

The scope of potential uncertainty in this area should not be underestimated. While answers to these questions cannot be provided in this Report, we would strongly urge an examination of the extent to which new media activities may fall under the *Broadcasting Act* and how any resulting concerns may be best minimized.

It will also be important to clarify the role of the CRTC with respect to new media. Some specific suggestions are provided in the next section, but a more general consideration of the role of the CRTC would also have merit.

Impacts on Conventional Media

Key Recommendations:

- *Examination of Potential for Conventional Media to Support New Media in Achieving Cultural and Other Goals*

A concern raised during the course of the research work suggested that new media could have a profound impact on conventional media. Further, to the extent that conventional media is regulated, whereas new media may not be subject to similar regulation, the differential regulatory treatment could "handicap" conventional media. This concern was not universally voiced. However, others suggested that the two industries would continue to grow and co-exist in relative harmony, and that the regulation of conventional media (i.e. broadcasting) is irrelevant to how new media should be treated.

It is important to recognize that the new media industry is still a relatively minor force in both an economic and cultural sense. There is a danger in overstating the near term impact of new media, particularly if overstatement is accompanied by policy measures which turn out to be premature and/or misguided.

With this caution in mind, and recognizing that new media is growing quickly but on a relatively small base, we would note that new media is for the most part a complementary activity to conventional media.

Ultimately, however, it is likely that new media will come to be substituted (to some degree) for conventional media. This conclusion is largely driven by the reality of limited time (i.e. only 24 hours in a day) and the likelihood that usage of new media will grow. Until the time when new media usage reaches a significant level (and therefore begins to negatively impact the widespread demand for conventional media), the formulation of policy measures to deal with the impact of substitution between media forms should be reserved.

Viewed from another perspective, however, new media represents an opportunity to develop and deliver distinctly Canadian and culturally relevant services just as such goals are achieved through the production and delivery of certain conventional media. Given that Canadian broadcast regulation exists to promote cultural and social objectives, the question can be posed as to whether and how regulatory treatment of conventional media could assist in the development of new media. The question is all the more relevant because conventional media suppliers (such as broadcasters) are investigating and beginning to produce new media.

Resolution of these questions, and related issues, would be facilitated by conducting a public examination which would allow for input by a wide variety of stakeholders.