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**STRATEGY AND ACTION
PLAN FOR DEVELOPING
FRENCH-LANGUAGE CONTENT
ON THE INFORMATION HIGHWAY**

**Background Paper for the
Information Highway Advisory Council**

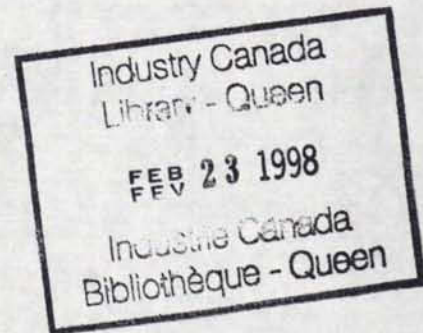
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STRATEGY AND ACTION PLAN FOR DEVELOPING FRENCH-LANGUAGE CONTENT ON THE INFORMATION HIGHWAY

Background Paper for the
Information Highway Advisory Council



François-Pierre Le Scouarnec Ph.D., for the Department of Canadian Heritage,
February 1997.

This background document was prepared to assist the Information Highway Advisory Council in its deliberations. The content of this document and the positions advanced are the responsibility of the author and do not necessarily represent the views of the Information Highway Advisory Council or of the Government of Canada.

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1. Introduction

Context

Ever since the appearance of the information highway on the basis of digital broadband technology, the trend toward globalization has been growing. This tends to favour countries and organizations that control the technology along with its production and distribution networks. As a result, there is a disproportionate use of the English language. For example, an analysis by *Québec Science* of words belonging to 6 Western languages on Lycos and Alta Vista pages concluded that the proportions reflect a preponderance of English-language content.

**Table 1. Occurrences of languages in two WWW searchers
(December 1995 and January 1996)**

Language	Occurrences of words	%
English	12,341,956	91.41
French	439,725	3.26
German	306,068	2.27
Spanish	152,286	1.13
Italian	135,394	1.00
Dutch	126,139	0.93
Total	13,501,538	100

These figures deal with one component of all the services provided on the information highway, and they cannot be interpreted without considering numerous variables such as the language used by the designers of search engines, as well as factors related to demand such as access to networked computers, the users' language, and the production of content in languages other than English.

The important point here is that existing large databases have little French-language content. Linguistic predominance provides a worldwide informational advantage, and information is now seen as a vital element in a country's economic foundations. The extent of a language's presence on the information highway reflects the linguistic, cultural, economic and political vitality of the groups that use that language. If there were a significant increase in Canadian content in both official languages, through concrete support measures, that would show the ability and willingness of Canadians to share, with each other and with English- and French-language communities elsewhere, the riches and advantages of the information highway, and to reduce the gap between the information-rich and the information-poor.

A centrepiece of the Canadian government's policies and initiatives is the idea that the construction of a Canadian information highway should provide a place for Canadian content in both official languages. Ever since Industry Canada set up an advisory committee on the information highway, and following the G7 Ministerial Conference on the Information Society, the Government has taken several steps aimed at developing an information society in which all citizens would participate. In May 1996, at the Midrand conference on the information society and development, and then again in August, at the federal-provincial-territorial conference of ministers responsible for the information highway, the Canadian government reiterated its vision of an information society that would benefit everyone and draw together communities in the developed and developing world as well as communities of various languages.

There are several issues involved in the development of content for the information highway, and they come under a variety of jurisdictions. The following table shows the federal jurisdictions involved:

Table 2. Contemporary issues related to information highway content

Issue	Jurisdiction
Access	
technical (interconnectivity)	Industry Canada
software applications	Industry Canada
economic	Industry Canada, all economic departments concerned with economic matters
acquisition of knowledge	Canadian Heritage and institutions responsible for training and literacy
Production of content	Canadian Heritage and federal institutions that produce Canadian content (e.g., CBC)
Distribution and export	Industry Canada, Canadian Heritage, Foreign Affairs
Control	
policy	Canadian Heritage
regulatory	CRTC
Organization of supply and demand markets	
Financing through direct supply through specific programs	Canadian Government and federal Institutions that fund Canadian content (e.g., Federal Business Development Bank of Canada, Telefilm, Canada Council)
through tax measures	Finance
through export assistance	International Trade and Export Development Corporation
Development in French-speaking countries	Foreign Affairs and CIDA

In the Canadian context, the federal government has a responsibility regarding access to French-language content on the information highway, in Canada and in the Francophonie. Access is determined by a set of technological, economic and knowledge factors as well as by the presence of a critical mass of products and services in French.

Mandate

This discussion paper aims to set out the key elements of a strategy and an action plan to produce, adapt, distribute and market French-language content, and to create an expanding French-language space on the information highway. For this purpose, the information highway is defined as computer networks which distribute video or audio data interactively and are for the use of either the general public or government (in the latter case, the information highway may include an intranet).

The strategy has three aspects:

- role of the federal government and its institutions
- Developing initiatives with the private sector
- measures the Canadian government could adopt to harmonize the objectives, policies and programs of the public and private sectors in French-speaking countries.

The analysis of the role of the federal government and federal institutions takes into account the statutes and regulations governing the use of the official languages, both in the provision of government services to the public and in dealings with employees.

The three aspects listed above are quite different, suggesting the need for distinct but complementary strategies and action plans.

Methodology

This paper is based on an analysis of a number of studies that have been produced by public and private organizations. In addition, interviews were conducted with 26 organizations: businesses of various sizes, governments, education and research institutions, and community groups (see list in appendix).

2. Official Languages: the role of the federal government and federal institutions

Current situation: the legal framework is adequate but there are problems of implementation

The strategy does not call for a formal evaluation of the application of the *Official Languages Act*. However, in order to establish the potential role of the federal government and its institutions, it is important to appreciate the broad outlines of the legal framework. This will ensure that the Act is upheld vis-à-vis the use of new information and communications technologies, and that regulatory requirements are monitored as well as compliance with the spirit of the law.

Among those interviewed for this paper (including individuals at the Office of the Official Languages Commissioner, the Treasury Board Secretariat, the Alliance des radios communautaires, the Fédération des Communautés francophones et acadienne du Canada, and the Fédération culturelle canadienne-française), many work in organizations familiar with the Official Languages Act and the agencies that implement it. Generally speaking, they were satisfied with the government's Internet user guide, and with the draft policy on the use of the official languages on electronic networks -- documents prepared by Treasury Board. However there was agreement that there are numerous infringements of official languages policies, guidelines and legal instruments. For example, despite the wide availability on the market of bilingual keyboards and software, it is well known that these are not always made available to employees who are entitled to them. Also, regarding service to the public, there are significant disparities in quantity and quality between information provided in French and information provided in English at federal computer sites.

Here are the main problems that were reported by the interviewees as well as in numerous writings on the issue of the official languages.

A) Problems faced by both federal employees and the public:

- Even with the existence of some Canadian multilingual and bilingual softwares (e.i. Tango from Alis Technologies and Francoroute from CRIM) the lack of access to bilingual materials (communications software, web navigators, search engines and other information highway tools, including user manuals) is due in part to the (often foreign) suppliers who fail to make plans to have their products translated, or delay the distribution of French-language versions. This is aggravated by the inability of some software to handle accented letters; for example the coding systems for e-mail software have remained unilingual. The lack of bilingual materials is still too often caused by ignorance or inaction on the part of those responsible for supplying software, or decision-makers who are not held accountable.

- The problems many people are encountering mean that there is a growing need to clearly organize the information in the two official languages and in accordance with the knowledge profile of users, whether they be Anglophone or Francophone.
- Ignorance of the conditions prevailing in services to which employees or the public are entitled shows the need to provide bilingual information on the responsibilities of those providing services and the rights of those receiving them.

B) Problems faced by federal employees:

- With some employees, lack of technical support or training tools in both official languages slows down or stops the process of taking ownership of the new information technologies, as well as the process of acquiring new knowledge. For example, if multimedia pedagogical material in just one language is used, where there should have been a bilingual hard copy, that creates systemic discrimination against certain employees.

C) Problems faced by the public:

- The public is generally not informed about the offices and sites providing unilingual service. To this is added the confusion created by several factors related to disorganization in the structure of partly unilingual sites: lack of explanatory icons for people who cannot read the language (i.e. references to a bilingual site), unilingual search engines which accept words in both languages, hyperlinks which take the user from a bilingual to a unilingual site or the reverse.
- Many institutions do not offer electronic content in both official languages simultaneously. This applies to home pages, other pages at the site, and sites accessible by hyperlink. To this must be added certain automated services that provide technical support in only one language, and access to unilingual service suppliers. Finally, there are cases where full-text information is available in English but the French version is available only by decompressing a file; this requires average users to have extensive technical knowledge as well as a computer sufficiently powerful to download the decompression software.
- Some federal sites present bilingual information but the English and French versions differ greatly in content.
- Delivery of government services via the information highway only rarely involves localization (translation and adaptation) of content. The new information technologies make it possible to adapt services to the needs of users (who may indicate specific needs thanks to interactivity), but many institutions offer a monolithic service. If services were adapted to users, there would be an opportunity to deal with the special problems of minority groups, such as the knowledge-related difficulties experienced by many Francophones living in maritime, rural or forest environments, who do not work in service

industries and are often unfamiliar with computers. Access by such persons, as well as those with visual handicaps, could be enhanced through the use of icons.

Issues

The main issue involved in compliance with obligations under the *Official Languages Act* is the relationship between a group of citizens and their government, and between groups of citizens having different languages. These relationships are bound to change rapidly under the influence of the new information technologies.

Issues

Complying with the spirit and letter of official languages legislation, regulations and standards.

Reducing disparities in supply of services to English-speaking and French-speaking users.

Bringing isolated linguistic communities together.

Helping all users with the process of taking ownership of the new information technologies.

Strategic thrust: make the federal government and its institutions model bilingual users

The search for ways of treating English- and French-speaking citizens equally may lead to technical innovations (bilingual software) as well as social innovations (creation and localization of content) that have political, economic and cultural implications. The strategy must go beyond the government's legal obligations under the Act to deliver service in both languages, and embrace the opportunities created by the country's linguistic and cultural diversity. Such an approach starts from the observation that the growth in users connected to the information highway means that content production becomes a major issue for government. From the point of view of official languages, a government that intends to be a model user must therefore:

- 1) support both English and French as working languages
- 2) improve provision of government services in French
- 3) affirm the linguistic duality of Canada
- 4) support ties among Francophones across Canada and the development of minority communities

Suggested actions

The federal government's objective of becoming a model bilingual user of the new information technologies, in order to comply with its official languages commitments, is not just a matter of language. Like the Quebec government, which has adopted the model user approach, the Canadian government must recognize the importance of its role vis-à-vis the private sector as well

as other countries and governments. For example, by giving preference to purchases of bilingual software, the government may strengthen the capabilities of Canadian suppliers, which may in turn lead to an increase in the export potential of certain products. Thus the three aspects of the overall strategy (government, private sector, French-speaking countries), and some of the suggested initiatives for each aspect, overlap and complement each other.

1) Supporting both English and French as working languages

- Through purchasing policies or industry support programs, support research and development on the use of software and other computer tools under multilingual conditions. Such support should increase the supply of bilingual software, enabling compliance with the *Official Languages Act* and thus serving the goals of a model-user government. It would also strengthen efforts to create Canadian software for a number of domestic and foreign markets.
- Identify the official languages problems involved in deploying information technologies, including the problems already discussed. Create solutions through increased awareness of obligations within federal institutions, and concrete implementation of a policy for which these institutions would be accountable.

2) Improving provision of government services in French

- Consult with Francophone users of government services provided via the information highway and quickly resolve weaknesses in the application of the *Official Languages Act*.
- Promote user-friendly tools in both official languages.
- Ensure that English-language content is not just translated but localized (adapted to local markets and translated if necessary) for Francophone users.
- Put out a call for private and community Francophone organizations to contribute to the development and production of content for federal institutions when such work is being contracted out.
- Improve control over and quality of federal government information with regard to its production, organization and dissemination, and make decision-makers accountable for results.

3) Affirming the linguistic duality of Canada

- Make language issues a matter for regulation by the CRTC, in connection with its jurisdiction over telecommunications carriers and over the production of on-line multimedia content for the public. Give the CRTC a legal framework allowing it to

regulate content dissemination, through federal institutions or through organizations that would bring together several commercial or non-commercial services, resell these services on a subscription basis, or supply them (with the help of advertising).

4) Supporting ties among Francophones across Canada and the development of minority communities.

- Support measures aimed at giving one or more Francophone organizations (public or private, associations or community groups) the mandate to manage, produce and disseminate Francophone content.
- Recognize language as a factor in community isolation, by amending the criteria for Industry Canada's Community Access Project (CAP), and specifically:
 - i) requiring that projects submitted by remote communities which have French-speaking members include specific and adequate measures for access by these members;
 - ii) asking remote communities where an Anglophone or Francophone group has a CAP to provide access to members of both language groups, or
 - iii) allowing the group without access to the CAP equipment to submit an application to the Program, and
 - iv) allowing applications to be submitted by small linguistic communities living within urban areas which are too large to be eligible for CAP.
- Set aside a part of the funds allocated to supporting Telefilm's multimedia efforts, for the production of content originating in Francophone minority communities. (This could be a co-operative effort with existing provincial programs.) Financial assistance for multimedia production should not be limited to economically viable projects. Funds should also be allocated to production, promotion and dissemination of on-line French-language content which, despite its quality, cannot reach a market sufficiently large that no support would be required.
- Support networking among Francophone organizations, especially those in the social and cultural sectors, as part of an overall development strategy for French-speaking Canadians. Aside from financial assistance for purchasing equipment and other one-time items, there could be ongoing network support based on internal local and sustainable development models. For example, it would be important for local communities to develop a technical capability with regard to both the production of content and the maintenance of equipment, and to encourage projects aimed at training trainers and at enhancing awareness of information technologies, as well as projects to educate Francophone users. For some groups of Francophones, often those situated outside

Quebec, sustainable development should be based on a federal-provincial strategy that would include adult literacy programs as an aspect of access to the new information technologies.

- Support efforts to strengthen local Francophone heritage, local cultures and local tourist sites using information technology. Within the existing programs of agencies like the Canada Council, funds could be allocated for specific projects that would help Francophones with the process of taking ownership of information technology, and assist in the production of content with which they can identify.

3. Developing initiatives with the private sector

Current situation: a market characterized by a weak demand and a supply that has expanded but is still for smaller than the supply of English-language products.

A number of stakeholders feel that industry supply currently leads demand. Anticipation of significant earnings generates huge investments by production and telecommunications companies. According to a report from Fortin International, a Montreal brokerage firm specializing in the information technology sector, US regional telephone companies invest between \$20 and \$25 billion a year to upgrade their systems in order to provide high-speed services, while cable distributors need to allocated \$5 to \$6 billion a year to peripheral equipment associated with operation of the information highway. Wireless communications technologies should alone generate expenditures of almost \$40 billion for licence acquisition and infrastructure building.

Investments that increase information highway access capacity lead to broader dissemination of content, which is generally American. Original production of French-language content therefore appears to be a means Canada has of compensating for the effects of unlimited access to the national market and developing a strong, exporting national industry.

As far as demand is concerned, the Yankee Group, a US telecommunications consulting firm, assesses at 30 percent the annual growth in the volume of information carried by communications networks. This communications explosion creates a strong push effect in the supply of new technologies for consumers, who often do not yet have access to suitable computer tools.

Canadian users are overwhelmed by the richness and variety of English-language content. In these circumstances, a number of challenges face firms interested in the French-language market, which is going through a period of growth and structuring. For example, in 1998 Canada will become the first nation whose schools are all on-line. This level of connectivity does not guarantee demand from educators if they are unable to incorporate into the school curriculum learning activities assisted by the new information technologies.

A) Demand

- According to private agency and Statistics Canada figures, there are currently between 100,000 and 150,000 French-speaking households that subscribe to on-line services. The available data indicate that French-speakers are lagging somewhat behind English-speakers in terms of information technology use. The phenomenon is in part attributable to the high Francophone illiteracy rate and the fact that some French-speaking communities outside Quebec earn their living mainly in the primary harvesting sector (fisheries, agriculture, forestry) and are therefore less exposed to computer tools than people who work in the service sector or live in an urban setting.

- According to Christian Huitema, an INRIA researcher and member of the Internet Architecture Board, a supply of specifically French-language on-line content requires 2.5 million users (a household can have more than one user). Development of French-language on-line services cannot be wholly dependent upon demand, as it is currently being expressed, since it is too low. There is a risk of widening the gap between French-speakers and English-speakers in terms of access to the new information technologies and their applications.
- A number of analysts make an analogy with the development of the radio, and later, audiovisual sectors, where the Canadian government intervened to bolster supply and foster demand through the creation and development of the Canadian Broadcasting Corporation and Telefilm Canada. They maintain that the federal government should consider a series of actions to structure supply and demand.
- Demand-limiting factors include user cost, access, interest and awareness as well as user technical ability, network adaptability and interactivity, and the relevance and quality of supply.

B) Supply

- A number of large firms have taken up the role of intermediaries between producers of French-language content and the public. In Canada, these providers of French-language content and value-added services include InfiniT, Sympatico, Infonie, and the Presse Internationale (Québecor multimédia) gateway. Other projects have been announced or will appear in the coming months. On a smaller scale, in economic terms, groups outside Quebec include the Réseau Interaction (Francophone electronic village in Ontario), franco.ca sites and Acadie.Net. Finally, Microsoft Corporation intends to distinguish itself from service providers by continuing as a producer of computer tools and localized content (Cityscape project).
- Market forces are encouraging vertical concentration (Bell and Videotron model), that is, a single group of businesses controlling the four levels of the production and distribution chain.

- | |
|--|
| <ol style="list-style-type: none"> 1. Content producers 2. Suppliers of content and value-added services 3. Telecommunications carriers 4. Providers of access to services |
|--|

- The model that fosters content production and facilitates content dissemination (Netscape or Microsoft Cityscape model) involves developing new horizontal synergies among the

various players who contribute directly to generation of content: creators and data processing specialists.

- Control of content which is the primary source of value added services, determine the potential for viability and for growth of on-line services.

1. Content producers Text, graphics and still images, sound, video and digital animation, virtual reality.

2. Suppliers of content and value-added services
3. Telecommunications carriers
4. Providers of access to services

- The growth trend in multimedia (on-line and off-line) indicates that after the publishing sector, and then graphics and music, the next industry to be hit by the Internet will be video and digital animation. A horizontal synergy development model should encourage producers and disseminators of French-language content so as to promote the emergency of significant economic players in Canada and the French-speaking countries as a group.

C) Competition

- International competition favours the Americans, who have taken over the electronic networks through control of the hardware and software industry and large-scale databases, domination of localized content (adapted to local markets and translated if necessary) and ownership of the firms producing the video and animation content that will make its way onto the Internet.
- France also offers strong competition to Canadian firms, since that is where translation into French or localization of nearly all American CD-ROMs takes place. It is important to note that two firms, Havas and Hachette, control approximately 80 percent of the publishing industry in France.

D) Financing

- In countries that are self-sufficient in term of domestic consumption, the content production and dissemination sector will be funded through advertising of subscriptions. A number of American experts, including Bill Cleary (president of CKS Group, a Silicon Valley advertising agency), hold that the potential for on-line advertising could reach 20 percent of expenditures on US media by the year 2000, or \$85 billion in the American market. The fast-growing Quebec market for on-line advertising mainly benefits fewer than ten or so sites sharing revenues of approximately \$1.5 million in 1996 (as opposed to \$200,000 in 1995). Still, it would be imprudent to extrapolate US trends onto the

Canadian market. A critical mass of French-language content could be funded by advertising, if the market were sufficiently structured (access, French-language content, production financing, dissemination control, and so on). But if Canada does not have an active national production policy backed by powerful economic players, the US market could force its content upon us, either in the original English or localized for the Canadian market.

- The Bank of Montreal estimates that firms working in the field of knowledge-based technology (in which value-added information plays a preponderant role), which currently account for 10-11 percent of GDP, will increase their share to 33 percent in the next five years. This view, based on the current growth trend of 50 percent a year, is shared by a number of investors who are willing to earmark risk capital for the French-language on-line multimedia industry.
- In addition to a supply of capital, there are numerous support programs including the following:
 - Multimedia production loan program (Telefilm);
 - Digitization support program (SCHOOLNET Canadisk);
 - Multimedia title production income tax credit program and multimedia title production assistance program (SODEC);
 - Quebec information highway fund program;
 - Vidéotron fund for the production of French-language educational content;
 - Stentor fund (Beacon initiative).
- Purchasing programs of value-added service providers, such as Sympatico and Infonie, help to expand producer revenue sources.
- Despite the supply of capital, small production houses have difficulty finding the necessary funding for their projects, especially when these projects target narrow markets, as is often the case with firms outside Quebec and cultural products.
- Marketing of on-line multimedia products depends in large part on advertising support provided by the conventional media (magazines, newspapers, audiovisual media and so on). On-line content producers who make use of a periodical specializing in their niche have sizable competitive support. The highly creative small firms in the multimedia sector generally have neither the support of another medium nor the financial or human resources to market their production here and abroad. The conventional assistance programs of the Export Development Corporation or departments that fund foreign trade missions do not entirely meet the needs of this newborn industry.

E) Human Resources

- The extensive training required by content producers generates significant demand. Training programs for the unemployed do little to meet the needs of firms that are seeking highly qualified human resources from among the ranks of current job-seekers. While the job-seekers' profile may meet the labour force reentry criteria of present-day training programs, it does not quickly yield content producer specialists.
- In Quebec the Groupe Vaugeois Mercure Project, which has federal government support, would make it possible to train people and create 500 direct jobs a year, over five years, in the multimedia field. On-job training initiatives, based on the Mercure model or other models, have the advantage of working against delocalization of firms that depend, in the information economy, on highly qualified human resources.

Issues

The excitement that characterizes the development of the new information technology industry complicates government intervention in the private sector. None the less, as in the era when the introduction of American television in Canada threatened affirmation of the national culture, today, blind allegiance solely to the laws of the marketplace would give short shrift to the societal circumstances of French-speaking Canadians and even compromise the significant presence of original content in French-speaking countries. It is therefore important for the federal government and its institutions to take structuring action that will support the production of French-language content and promote the emergence of a strong, exporting industry.

Concern for optimization of government action dictates proceeding, insofar as possible, through improvement of existing agencies and programs and encouraging institutional cooperation. In this respect, two departments have a particularly important part to play: Canadian Heritage, for matters of content and cognitive access, and Industry Canada, for infrastructure and the roles of several economic players.

Issues

Developing in Canada a structure for supply and demand of French-language content

Supporting the development of an economic regime for the content-producing industry

Training specialists in French-language content production.

Strategic thrust: *Government as a model bilingual user and catalyst for structuring the market and production sector for French-language content*

Returning to the model bilingual user theme, the strategy recommended here is extended to include the dimensions that will provide for the development of the private sector. Furthermore, the government is called upon to use its catalyst capability to structure supply and demand.

As model bilingual users, the federal government and its institutions can address the issues identified above by adopting an interventionist approach in their operations as economic players, with a view to developing policies and practices that will stimulate the supply of and demand for French-language content, particularly with regard to exportable products and services.

In their role as catalysts, the federal government and its institutions can adopt policies and programs that contribute to the development of a French-language content production industry. The market analysis pointed to certain weaknesses in supply and demand that can be corrected by initiatives aimed at:

- a) Structuring demand to develop the market
 - i) Improve access programs and support user awareness and training projects
 - ii) Support the building of networks linking organizations of French-language communities

- b) Structuring supply by supporting sound undertakings that can rely on qualified human resources
 - i) Promote alliances and partnerships, within the framework of horizontal synergies, between content producers
 - ii) Facilitate capital investment in businesses and funding of specific projects
 - iii) Facilitate the transfer and adaptation of French-language content on the information highway
 - iv) Foster the export of French-language content and multilingual software
 - v) Promote the training of a specialized work force for the production of French-language content.

Suggested Actions

- 1) Government as a model bilingual user (development of use policies and practices that stimulate supply of and demand for French-language content, particularly with regard to exportable products and services).
 - Prompt government and federal institution employees themselves to become model users.
 - Stimulate demand for electronic data interchange and electronic transactions in general, by facilitating such transactions in both official languages.
 - Develop training tools in both official languages and bilingual databases.

- Conduct studies on French-speaking users in order to respond properly to their community and societal development needs.
 - Order multilingual software research and development projects (browsers, search engines).
 - Stimulate supply through government information and advertising. Under the current information dissemination and advertising placement policies of the government and its institutions, consider sponsoring some sites or purchasing banners on electronic bulletin board services of the home pages of community and private agency sites and browsers.
 - Adopt supply standards based on criteria that promote "made in Canada" localization. Such standards would facilitate user grasp of content and, at the same time, support a national local-adaptation industry (also see section on transfer and adaptation of French-language content on the information highway).
- 2) Government as a catalyst
- a) Structuring demand to develop the market
- i) Improve access programs and support user awareness and training projects
- Offer resources for the learning of written French, through information technology, by illiterate French-speakers and students of French as a second language.
 - Review Community Access Program criteria (see previous section).
- ii) Support the building of networks linking organizations of French-language communities
- Under current assistance programs, support network-based organization initiatives, such as virtual exhibitions and cybernetic culture and tourism information centres.
 - Support the establishment of inter-regional organizations, such as virtual chambers of commerce, in the cooperative spirit of the recent forum for business people and elected officials of bilingual municipalities (Beauce Region, Quebec, October 31 - November 3, 1996).
- b) Structuring supply by supporting sound undertakings that can rely on qualified human resources
- i) Promote alliances and partnerships, within the framework of horizontal synergies, between content producers

- Create a consortium that would serve as a French-language showcase for access to Canadian-produced content. The purposes of this showcase would be to enable Francophones throughout Canada to find a common access point for the services of many content producers and suppliers of value-added services and to promote horizontal synergies. Financed by the Canadian government, this consortium would benefit from the contribution of content provided free of charge by community organizations, private firms and the public sector. The cost impact on the government could be alleviated by the establishment of licence fees for Internet access providers, suppliers of content licensed by the CRTC and value-added on-line service companies.

The consortium would be made up of organizations that produce educational and cultural content (Télé-Québec, TFO, publishers, record companies, and so on) and other suppliers of content and value-added services (Presse Internationale gateway, InfiniT, and so on), which would provide free access to some of their content (with links to their servers). Content from small, independent firms that create difficult content to market would be purchased. This way, just as in the early days of the audiovisual sector, on-line multimedia would have the benefit of a launching ramp that would position Canada on the forefront of information societies.

- Under alliances with local and community organizations, counterbalance the decline in the CBC regional presence through dissemination of special productions on the information highway.
- While retaining an economic regime of healthy competition, promote the grouping of French-language content producers through partnerships and alliances among copyright holders, publishers, the record and video sectors, broadcasters, and independent producers. Such groups would encourage pooling of various specialized skills and optimize production conditions within a small market, at the North American level. The Canadian market is going through a rapid structuring phase that should provide for the emergence of groups which are strong enough to serve national needs and spill over onto the international scene.

ii) Facilitate capital investment by businesses and funding of specific projects

- In general, set up automatic financial assistance mechanisms (tax credits) rather than those calling for project analysis, using institutions already in place such as Telefilm Canada. However, the discretionary programs that would remain, because they would serve to fund commercially unviable projects, should have clearly defined criteria and mechanisms to limit arbitrary authority.
- Offer a bilingualism bonus, in tax credit form, for the production of content in both official languages. Provided automatically, this tax credit would stimulate the supply of English-language products created and localized into French in Canada and would

help to expand the range of French-language products, once they have been localized into English in Canada.

- Make lending institutions, including the Business Development Bank of Canada, aware of the needs of businesses that produce intangible property and develop a loan guarantee program through existing institutions (convertible into tax points for provinces preferring to manage the program through their own institutions).
 - Subsidize some cultural projects through existing institutions such as the Canada Council.
- iii) Facilitate the transfer and adaptation of French-language content on the information highway
- Increase support for digitization of French-language cultural heritage (museums, libraries, archives, film libraries) through the programs of existing organizations.
- iv) Foster the export of French-language content and multilingual software
- Financially support development of the US market for French-language content, in various niches including second-language instruction.
 - Develop a support program for international marketing of French-language on-line content, under the activities of institutions such as the Export Development Corporation and Telefilm Canada.
 - Within the framework of existing institutions, develop a loan program for Canadian localization in order to facilitate the efforts of firms wishing to obtain international French-language localization rights.
 - Encourage the production of content and software free of rights costs (or offered for a prescribed fee) for export, in particular by sponsoring the production of cultural or specialized content.
- v) Promote the training of a specialized work force for the production of French-language content.
- Work to adapt training programs to the needs of the on-line multimedia sector and provide proper financial support to trainees, through mechanisms such as the Mercure Project (discussed on page 24).

4. Canada and the international Francophonie: measures to harmonize the activities of public and private-sector stakeholders

Current situation: producers of French-language content in Canada must act quickly to take advantage of their lead, if they wish to establish themselves on the information highway.

A) Increasing uses in French on the information highway

- In Canada, a number of provincial, territorial and municipal governments use the information highway to provide some of their services. In some cases, a specific mandate is given to a decision-making centre, such as the Quebec Secrétariat de l'Autoroute de l'Information, which co-ordinates the development of the information highway. Sometimes the structuring of uses and applications is turned over to the private sector. Lack of co-ordination and harmonization can lead to unnecessary and unproductive proliferation of various initiatives.

B) Major players on the scene

- A number of measures to harmonize Canadian public- and private-sector activities in order to establish French-language content on the information highway are linked to developments in the United States and France. The parameters of electronic commerce, an important stimulus to activity in French-language cyberspace, will probably be determined by the country foremost in the field, the United States.
- France plays an ambivalent role. In some spheres, it exhibits relative unconcern about the dissemination of information in French. For example, the Adminet server, managed by the Ecole des Mines in Paris, issues information about French administrative bodies in English only. However, the temporary lag in France in terms of computer connections to the information highway is largely offset by rapid growth in the number of French servers (4,008 servers in October 1996 and 4,660 in November, according to the domaine authority), its wealth of experience in producing high quality content, its ownership of rights to an extensive heritage, its control of major institutions in the francophonie world, such as the AUPELF-UREF, and its influence on a number of French-speaking countries.

C) French as a language on the information highway

- The worldwide tendency to favour the use of English will shift toward diversification of the languages used on the networks. French will remain a top-ranking international language if it has a significant presence on the information highway.

D) The international community of French-speaking countries: challenges and opportunities.

- Among the 49 countries and governments which qualify as members of the francophonie, several developing countries need the support of developed countries to achieve access to technology and content. The inhabitants of these countries help constitute the critical mass needed to develop a range of French-language content.
- In some countries, the assimilation of technology by French-speaking users calls not only for the methods set forth earlier in this strategy to increase the production of French-language content, but also for approaches which are consistent with sustainable development and training in democracy.

Table 3. Internet in French-speaking countries: an overview

Country	Number of computers connected to Internet	Population (millions)	Connections per 1000 inhabitants
Canada (ca)	372,891	29.46	12.7
Switzerland (ch)	85,844	7.2	11.9
Luxembourg (lu)	1,516	0.406	3.7
Belgium (be)	30,535	10.11	3.0
France (fr)	137,217	57.98	2.4
Monaco (mc)	56	0.032	1.75
Bulgaria (bg)	1,013	8.78	0.12
Lebanon (lb)	88	3.73	0.024
Tunisia (tn)	82	8.88	0.009
Morocco (ma)	234	29.17	0.008
Moldavia (md)	10	4.49	0.002
Senegal (sn)	14	9.01	0.0016
Guinea (gn)	2	6.55	0.0003
Ivory Coast (ci)	3	14.79	0.0002

Source: *Lettre de la Francophonie* #94, October 1996, Agence de la Francophonie

- A number of French-speaking countries' institutions are active in the communications technology sector, including the Agence de la Francophonie and the Association des universités partiellement ou entièrement de langue française-Université des réseaux d'expression française (AUPELF-UREF).

Issues

In view of the predominance of the English language in terms of content and American control of technology, it is important to exhibit leadership or support the co-ordination of the efforts by Canadian and international Francophone community players to bolster the Francophone presence on the electronic networks.

Issues

Using the information highway to broaden the French-language presence at the national and international levels.

Optimizing the actions of existing institutions, in the international French-speaking community as both a formal entity and grouping of associations, and in the Francophonie member States and governments.

Taking account of the special needs of the least developed partners of French-speaking countries.

Strategic thrust: Rapid expansion and enhancement of the French-language space on the information highway.

The Federal Government and some of its institutions may take preconceived plans to:

- 1) Harmonize certain government programs and policies within Canada.
- 2) Provide support to businesses that target the international Francophonie
- 3) Cooperate with the countries and institutions of the international Francophonie.

Suggested actions

- 1) Harmonize certain government programs and policies within Canada
 - Consolidate efforts to support production and dissemination by building on the most positive experiences in the audiovisual world in which the Anglophone market is distinct from the Francophone market. For instance, the complementary activities of Telefilm and provincial agencies in audiovisual production could serve as models for activities to support the production of multimedia titles.
 - Simplify the programs providing support to the private sector (production, distribution, marketing and training assistance) by such methods as:
 - i) assigning management of the programs to experienced provincial institutions (transfer of tax points),
 - ii) ensuring consistency or complementarity in procedures (application forms calling for additional information, as they exist in the audiovisual field),

iii) twinning of programs. For example, the SODEC tax credit for producing multimedia titles is deemed to be a type of support which could easily be twinned with federal government programs.

- Bring the management of programs to support the production of French-language content closer to the end users, with the support of the provinces. For instance, it is important to encourage the establishment of a distributed system for the SCHOOLNET program, involving the provincial authorities concerned.
- Develop, within Telefilm Canada or other federal institutions, with the assent of Quebec, a program to support French-language projects outside Quebec submitted to SODEC or the Quebec government Fonds de l'autoroute de l'information. Using the model of a similar program set up by the Secrétariat aux Affaires intergouvernementales canadiennes (SAIC), the program would enable French-speaking producers outside Quebec who submit projects, in co-operation with a Quebec applicant, to obtain federal funds for the portion of the project completed outside Quebec.

2) Provide support to businesses that target the international Francophonie

- Encourage networking between businesses operating in French-speaking countries. For instance, government support for the idea put forward by Bell to create a forum for telecommunicators in French-speaking countries.
- With partners from the French-speaking countries, structure initiatives to sell or share Canadian expertise with a view to organizing policies concerning new information technologies.
- With the assistance of the Francophone Business Forum, promote the coordination of public supply.

3) Cooperate with the countries and institutions of the French-speaking world

- On the bilateral scene (France-Canada), sign a multimedia cooperation agreement as a schedule to the audiovisual agreement and implement an agreement on the virtual museum (New France).
- On the multilateral organizations scene, foster cooperation among French-speaking countries within international standardization bodies and with agencies which co-ordinate international trade. For instance, approve coordinated efforts with the European Community on the status of languages, set out a common position on cultural exemptions in negotiation of agreements on trade in services (GATS).

- Make the international community aware of issues of special concern to French-speaking countries and issues regarding compliance with official languages in international institutions, such as the UN (issues include the use of French on computer sites and multilingual electronic mail facilities).
- With respect to the production and dissemination of French-language content, support the interoperability of networks. Ensure that the development of French-language content is universal. For example, content development for UBI (Videotron) or for Minitel (France Télécom) should include a version for the Internet.
- Encourage and help the governments of the Francophonie:
 - i) open up government and parapublic French-language servers,
 - ii) facilitate the free movement of works by adopting standard provisions regarding copyright,
 - iii) develop commercial transaction activities in French,
 - iv) obtain access to common banks of tools (such as medical dictionaries and legal and terminological references),
 - v) share common search engines and foster the creation of hyperlinks between French-language sites.
- With respect to developing countries in the Francophonie expand access to the information highway, with the support of CIDA and private businesses. Such an initiative should fulfil various sustainable development purposes, including the sharing of educational and enabling content, the development of democratic institutions and the promotion of the various cultures of the Francophonie. It could encompass a series of initiatives to free up rights for developing countries of the Francophonie.

5. Conclusion

More than ever before, the strategies of the most powerful countries and some major businesses remind us that mastery of information and knowledge tools will determine the wealth of peoples. This strategy offers possible avenues to the federal government and its institutions for enabling the French-speaking community of Canada to develop culturally and economically, thus reaffirming the nation's identity in the eyes of the world. The initiatives outlined here support the vision of, in real terms, to look to a future in which language will not fall victim to technology.

Appendix

Organizations consulted for the Discussion Paper

Agence de la Francophonie (ACCT)

Alliance des radios communautaires

Association québécoise des Utilisateurs des Ordinateurs au Primaire et au
Secondaire (AQUOPS)

Astral Communications

Bank of Montreal (Innovation and Technology Centre)

Centre de recherche informatique de Montréal (CRIM)

Centre francophone de recherche en informatisation des organisations (CEFRIO)

Centre international pour le développement de l'informatique en français (CIDIF)

Éditions InfoPresse

Fédération culturelle canadienne-française

Fédération des communautés francophones et acadienne du Canada (FCFA)

Investissement Desjardins

Le Groupe Vidéotron

Micro-Intel

Microsoft

Ministère des Affaires étrangères, France

Ministère de la Culture et des Communications, Quebec

Multimédialog

Museum of Civilizations

Office of the Commissioner of Official Languages

Québécor Multimédia

SCHOOLNET/RESCOL (Industry Canada)

Secrétariat de l'autoroute de l'information (Government of Quebec)

Télé-Québec

Treasury Board of Canada

UNESCO

