



## ARCHIVED - Use of the Internet by Federal Institutions

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## ARCHIVED - I. Introduction

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In December 1996, the Office of the Commissioner published a special study on the *Use of the Internet by Twenty Federal Institutions*. At that time, with reference to language of service issues -- Part IV of the *Official Languages Act* (OLA), we placed emphasis on examining whether these institutions were according equal status to both official languages on their Web sites, and whether their online databases could be searched using diacritical (accented) text. Concerning *language of work* -- Part V of the OLA, our focus was on whether the software provided to employees allowed them to work effectively in the official language of their choice.

Issues looked at were whether employees could send and receive e-mail and e-mail attachments using diacritical text, whether they were provided a Web browser in the language of their choice, whether official languages rights and responsibilities were included in Internet course materials for employees, and whether online tools, such as Internet-based departmental manuals, were available in both official languages. Flowing from that study, the Commissioner made 22 recommendations.

The period since the publication of the special study has seen a remarkable growth of the Internet, both as a work tool and as a vehicle for cultural diversity and entertainment. As we approach the end of the decade, the Internet is assuming a role as a key component of the knowledge-based economy of the 21st Century. It has developed as a multi-faceted, highly accessible technology, eliminating geographic distances and bridging cultural differences. As a work tool, it facilitates communications within organizations, and between organizations and their clients. From a cultural perspective, it serves as an effective means by which almost anyone may easily publish anything he or she wishes, on every conceivable topic, and which can now be accessed from almost anywhere on the planet.

While the Internet has certainly fostered a "global village", it is mainly a unilingual English one. Historical, social and economic factors have made this so. However, ours is a multicultural and multilingual world, and while we respect the Internet "culture" of openness, we must both celebrate and safeguard this diversity via this new medium.

Pursuant to Part VII of the OLA, the Government of Canada also has a special obligation to advance the full recognition and use of English and French in Canadian society. It must therefore ensure that it fully reflects the two-language nature of our country in terms of the Internet presence maintained by federal institutions; it must also encourage the presence of both official languages in the content of sites which are not subject to the OLA. Given the existing linguistic imbalance and the lack of geographical boundaries on the Internet, we must in practical terms work with our international partners of la "Francophonie" to secure for the French language its rightful place on line. We invite the

reader to consult the commissioner's report *The Government of Canada and French on the Internet* (August 1999).

In this follow-up to our 1996 report, we examine the progress of federal institutions in meeting their obligations under the OLA in light of their increased reliance on the Internet as both a work instrument and a medium by which services are provided to the public. We have also added seven institutions to the twenty previously examined (see [Appendix A](#) for list of institutions), in order to reflect the increased Internet activity on the part of the federal government. Included in the seven institutions are two that have been recently transformed (see the Commissioner's report, *Government Transformations: The Impact on Canada's Official Languages Program* available on the Internet at the Office's Web site, [null](#)), but which still come under the ambit of the Act.

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## ARCHIVED - II. Methodology

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Our observations are presented in Part III below. [Section 1](#) provides a retrospective on the rapid growth of the federal presence on the Internet. It also furnishes an overview of the Commissioner's 1996 recommendations that takes into account both the responses of federal institutions and the extremely rapid changes in technology that have occurred since the report's publication. This information was gleaned as a result of interviews held with responsible managers of ten of the departments studied in this follow-up, and an examination of the various departmental internal "Intranet" sites.

[Section 2](#) is a review and analysis of the Internet related complaints the Office has received during the period 1996-1998.

In [Section 3](#), we focus on federal services to the public. We asked a team of technological experts from CIDIF, the Centre International pour le développement de l'inforoute en français located at the Edmundston campus of the Université de Moncton to examine federal Internet sites in order to gauge how well federal institutions are fulfilling their statutory official languages obligations. The Centre visited the Web sites of all 27 federal institutions. When it was not possible to obtain information by simply visiting the site, the appropriate Webmaster or virtual contact was reached directly (e-mail or online form). To evaluate the linguistic quality of the sites, a sample of three pages in French and their equivalent in English was established and both versions were compared.

In [Section 4](#), we examine whether federal employees are able to work in the official language of their choice when using the Internet as a work instrument. We conducted focus group interviews with 53 employees, representing all the 27 institutions studied in Ottawa, Montreal and Moncton. In addition, we met with departmental officials and reviewed relevant policies.

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## ARCHIVED - III. Observations - 1 -- Then and Now

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From the vantage of mid-1999, the changes that have taken place in the federal world online since the publication of the Commissioner' study in 1996 are simply astounding. One observer interviewed during the course of this follow-up study has compared the situation that existed a mere three years ago to the "Wild West." When our 1996 Internet study was published:

- the major software used to navigate the Internet's "World Wide Web," Netscape, had just been written;
- the major online search facility, "Yahoo!," had just come onto the market;
- the President of Microsoft, Bill Gates, was quoted as saying that the Internet was only a "passing fad."
- France, a major partner in the Francophonie, was deeply committed to "Minitel" and had expressed scant interest in the Internet.

From an official languages perspective, it was technologically very difficult to go on line in two languages. In his 1996 study, the Commissioner recognized that the technological factors were the major obstacles to according French and English equal status on line. He identified the following as issues of concern:

- There was often significant lag time between the publication of the latest English-language Internet software and the appearance of the French versions. Moreover, software that relates to highly specialized, state of the art, Internet functions is often only available in English-language editions.
- Due to coding problems, Francophone users of the Internet were often unable to receive or send electronic mail and/or e-mail file attachments containing accented text.
- Search engines or databases were unable to accommodate French-language accented text.
- Various Web sites had unequal service, both in French and in English. There were instances where there were errors in the French-language text, such as spelling mistakes and missing accents.

#### a) The Evolution of Federal Presence on the Internet

The considerable technological problems French-speaking Canadians faced on line at the time our initial report was published existed in an environment where the government was just beginning to scope out a federal presence on the Internet. It was only in March 1995 that the deputy ministers of the Treasury Board's Information Management Sub-Committee (TIMS) approved the government-wide Internet strategy. The number of federal Internet sites is now estimated at over 5,000.

The government has created a main federal site called "Canada Site" and a main internal intranet site, known as "Publiservice."

## **b) The Canada Site**

Public Works and Government Services Canada (PWGSC) in co-operation with the Treasury Board Secretariat, maintains the primary Internet site that is the information gateway for citizens. The Canada Site is found on the Web at <http://www.canada.gc.ca> It acts as a citizen-centred Web site that provides information about the government services most in demand by Canadians.

The Canada Site began in 1995 and was visited 7 million times in its first year of operations. As an indication of how the Internet has grown, the site now receives 7 million visitors monthly. The site links to more than 450 separate government institutions in a hierarchical fashion, listing in alphabetical order the various federal institutions. The Canada Site also receives 11,000 e-mail messages annually from the public.

In addition to providing links to federal institutions, the site also incorporates the Government of Canada telephone directory, which can be searched. It will also soon incorporate the electronic Blue Pages that provide citizens with access to programs and services made available to Canadians by federal, provincial, territorial and municipal governments.

The Canada Site whose objective is to provide Canadians with a single source of information on a variety of subjects was revised in 1999 and now presents itself as a one-stop subject matter gateway.

## **c) Publiservice**

Publiservice is the primary Intranet site of the Government of Canada, and exists independently of the various departmental intranet sites. It started operations in 1995, and is now accessed 250,000 times daily.

Publiservice is very much a working tool for public servants. It provides a source of information and tools that can be used by all departments, for example, government press releases, links to other governments at all levels in Canada and internationally, and links to various government policy manuals. The government's policy manuals are no longer printed in "hard copy" format, but are only available online, through both Publiservice intranet and Internet sites available to the public at large. It also contains specialized areas, such as human resources, where, as an example, employees may find job competition notices and apply for jobs online. Finally, Publiservice is used by various interdepartmental committees for online forums. These are both open and password protected.

## **d) GOVNet -- Government on the Net Conference**

Government on the Net -- GOVNet -- is an annual Internet conference that began in 1992. It grew out of discussions held in 1991 between the National Library of Canada, Industry Canada, the National Research Council and the Canadian Institute for Scientific and Technical Information on the issue of "open government."

When it first began, the GOVNet Conference was concerned with "how to get on the Net" from a technological perspective. However, in the ensuing years, the technological problems have been replaced by issues that address the government's use of the Internet as a tool of governance and how to use the Internet to move content and services to the public. The 1998 GOVNet Conference brought together 650 representatives from all government institutions.

The Office of the Commissioner of Official Languages conducted a workshop at GOVNet 1998 on the Internet and official languages issues. This was the first time that a workshop devoted exclusively to official languages matters was held at this conference.

## **e) Common Look and Feel**

The most important recent development concerning the federal presence on the Internet is the decision by Treasury Board Ministers of February 19, 1998, to develop with agencies a Common Look and Feel to all Internet and intranet sites including electronic products and services.

The goal of Common Look and Feel is to increase federal presence and visibility and to ensure consistency of services

and standards. Common Look and Feel covers many areas, including style and presentation, official languages, and accessibility for persons with disabilities. Pursuant to the Federal Identity Program, it will also standardize the way in which federal signs and symbols are presented on line by all federal institutions.

Common Look and Feel, now in its developmental phase, has important implications for official languages matters. It will standardize file and directory names, as well as notices concerning the availability of content in the user's preferred language, and will address how to best ensure that government Web-site and e-mail addresses comply with the OLA. The matter of Internet addresses is an issue of concern to this Office, and this has been brought to the attention of the Treasury Board.

#### **f) The Commissioner's Recommendations**

In the 1996 study, the Commissioner made twenty-two recommendations that sought to address these issues by encouraging the development and procurement of Internet software in both official languages; by calling for the establishment of a policy for common encoding standards so as to facilitate the transmission of electronic mail and attachments using diacritical text; and by taking steps to ensure that local search engines and databases can conduct queries in both official languages; that documentation is published on Web sites simultaneously in both official languages and that appropriate quality control steps are taken; that Internet training and technical support is available in both languages; that Public Works and Government Services Canada establishes and maintains a list of Internet software available in both official languages, and that the Treasury Board Secretariat provides appropriate policy directives to departments and in its own *Internet Guide* to ensure that issues concerning language of work rights are respected when the Internet is used as a work instrument. (A list of the Commissioner's recommendations is found in [Appendix B.](#))

In its September 1997 final report, *Preparing Canada for a Digital World*, the Information Highway Advisory Council agreed in principle with the thrust of the Commissioner's recommendations and proposed "that the government reinforce its role as a model user of information technologies and software that reflect Canada's linguistic duality...".

In mid-1999, we are pleased to report that many of the twenty-two recommendations of an essentially technological nature have become dated. Two factors are responsible: very rapid technological change, coupled with the positive reaction of market forces to what is, after all, a global medium used by people of many languages.

The foregoing is not meant to say that all the Recommendations are now obsolete. Many, especially those which deal with policy and quality control issues, are as vital today as when the Commissioner first enunciated them.

#### **i) Policy Development**

With reference to the Recommendations concerning policy development, we note the positive response of the Government. Recommendation 20 asked that by March 31, 1997, "**...the Treasury Board Secretariat include the official languages aspects of its *Internet Guide* in the Official Languages Component of the Treasury Board Manual.**" Recommendation 21 asked Treasury Board to **inform all federal institutions that official languages requirements would also apply to "pilot projects" on the Web**, and Recommendation 22 asked Treasury Board to **advise all federal institutions to ensure that their Internet policies contain an official languages section.**

It should be noted that the Government does not have a separate, comprehensive Internet policy per se, because there is existing policy to deal with specific media. In accordance with Recommendation 20, on April 1, 1997 the Treasury Board Secretariat issued a *Policy on Using the Official Languages on Electronic Networks*. This policy document addresses issues beyond the Internet and encompasses all electronic networks used by federal institutions, such as telephone-based "bulletin boards." Moreover, section 6.3(d) of the policy also satisfies Recommendation 21.

This Office has reviewed the policy, and has found that it fully complies with the letter, the spirit and the intent of the Official Languages legislation.

As for Recommendation 22, Treasury Board has not encouraged the development of independent policies by federal institutions. Institutions are allowed to disseminate a version of this policy in their own format or under their own identification for internal purposes but whose provisions correspond to those of the Treasury Board policy.

Recommendations 4 and 5 deal with the **establishment of policy relating to use of common encoding systems, to**



**ensure the proper receipt of diacritical (accented) text.** Section 6.3(d) of the above noted policy also satisfies Recommendation 4. It states, in part;

"(d) An office required to post information in both official languages, whether for service to the public or for language of work, must ensure that:

it provides on its site clear information on the encoding schemes used so users of the site can select the appropriate encoding scheme for receiving files or documents containing diacritical text (e.g. electronic mail or other texts in French)."

However, while Recommendation 5 has not been dealt with substantively by the Board, we note that both Recommendations 4 and 5 are now effectively "spent," due to technological change (see subsection v) below). The *Policy on Using the Official Languages on Electronic Networks* is reproduced entirely in the Government of Canada *Internet Guide*. This document, which is available on the public Internet as well as the internal federal intranet is, as the title implies, a four-part "guide" to the federal presence on the Internet. Issues covered include a background to the evolution of federal presence on the Internet, how to plan and build a Web site, a guide to appropriate style and a compendium of applicable legislation and policies. Official languages issues are extensively dealt within an independent section to the guide, as well as being integrated into other policy issues, such as the Federal Identity Program.

The establishment of the aforementioned policy and guideline satisfy Recommendations 4, 20, 21 and 22. However, we remain concerned with the way in which information concerning employees' language rights is disseminated. We note, however, that the manner in which federal institutions disseminate Treasury Board and internal departmental official languages-related policies to employees represents a microcosm of the changes that have taken place in the way the Internet / intranet is used as a work instrument.

## ***ii) Internal Internet Policies***

During the course of this follow-up, we learned that not all federal institutions have established their own Internet policies. However, most have created links to the Treasury Board policy directly from the departmental intranet site. Or, if the department has created its own policy, it too is linked from the intranet, so that all employees may refer to it. We also learned that many departments rely upon their internal intranet sites as the principal way in which employees are informed of changes in policies and departmental procedures. Typically found on intranet sites are news releases, departmental procedures manuals, human resources manuals, etc. The result is that employees now have a responsibility to consult their departmental Intranet sites to verify, for example, their linguistic rights.

## ***iii) Quality Control***

Recommendations 8, 9 and 10 refer to quality control issues. Specifically, **that all federal institutions ensure that information published on the federal Web site is published simultaneously in both official languages, that the materials are of equal linguistic quality, and that the home page of each site is bilingual.**

Treasury Board's *Policy on Using the Official Languages on Electronic Networks* makes offices responsible for the equal quality in both official languages of the texts that they post.

In the course of our meetings with various departments, responsible officials were categorical in stating that no documentation would be placed on the public Internet sites that was not in both official languages. We were provided with examples of instances where departments had declined to include online various materials that were only available in one official language.

However, with reference to the establishment of formalized quality control mechanisms, situations vary. One department noted that as a result of cutbacks, its communications branch lost its editorial staff. Quality control was delegated to an operational level, and this was referred to as "problematic." Another department had specifically delegated quality control to operational managers, later making them responsible and accountable. Still another department has developed a guide for language quality as part of its corporate intranet and admits that certain prior publications were released using poor quality French. The guide provides a number of suggested control mechanisms, such as involving representatives of the Translation Bureau and Communications Branch in planning meetings, and including these organizations as part of the final approval process.

It is interesting to note that two institutions dealt with delegation of authority in similar ways, but had different outcomes. Clearly, the key to success is direct managerial accountability. (See CIDIF's observations in [Section 3, Subsection c](#).)

#### ***iv) Software Procurement***

The issues relating to software procurement were dealt with by the Commissioner globally in Recommendations 1, 2, 3, 14, 15 and 16; we look at 1, 14, 15 and 16 in this section. (Recommendations 2, 3, 4, 11 and 12 are examined in [subsection v](#)) below, since they are more related to the way in which technological changes and market forces have impacted on their continuing relevance.)

Recommendations 1, 14 and 15 and 16 are complementary. **Recommendation 1 requires the Treasury Board Secretariat to ensure that procurement policies and practices of federal institutions regarding Web user software respect official languages requirements. Recommendation 14 requires the Treasury Board Secretariat to establish a policy requiring federal institutions to monitor the availability of Internet software in both official languages; Recommendation 15 requires Public Works and Government Services Canada to establish and maintain an updated list of bilingual Internet software, and Recommendation 16 calls for federal institutions to actually undertake the monitoring.**

In its policy on using official languages on electronic networks, the Treasury Board Secretariat has complied with Recommendations 1 and 14. Section 6.2(e) of the policy states,

"(e) Federal institutions must ensure that regularly and widely used software for gaining access to material on electronic networks (e.g. software for browsers and local search engines) is available in both official languages to employees working in bilingual regions for language of work. The software's capabilities must be comparable in both official languages. In unilingual regions, this software must be available in the language of work of those regions. Employees required or entitled to use French texts must be able to view and print them with accented characters."

Treasury Board officials have nuanced their interpretation of Recommendation 14 by noting that what was deemed to be important was the result achieved, not necessarily the specific manner in which the monitoring takes place. Ways to satisfy the policy could include maintaining lists or holding information seminars.

Concerning Recommendation 15, the standing offers of purchase from Public Works and Government Services Canada ask software manufacturers to identify which software is available in two-language format.

With reference to Recommendation 16, there was consensus among departmental officials interviewed for this study that all the widely used Internet Web browser and electronic mail software is readily available in both official languages and that this issue has largely been resolved (see [subsection v](#)) below). Many departments store both language versions in software directories found on their corporate intranet. Employees need only launch the version in the official language of their choice.

Concerning the monitoring function called for in the above-mentioned Recommendation, we were informed that this is often accomplished by examining the software catalogues from suppliers as part of the standing offer to determine if the software is available in both languages. Another monitoring technique described to us is for employees to examine Internet-based catalogues to see if the medium meets the needs of the department, including the official languages aspect.

Technological change has also obviated the need, in many cases, for departments to maintain lists of the current versions of software. Software manufacturers generally offer update information concerning the latest versions of their products via electronic mail, or on their Web sites, often with the ability to download a "demo" version to try it out.

#### ***v) The Impact of Technological Change and Market Forces***

In the original study, the Commissioner identified specific technological problems that French speakers were encountering when using the Internet. These referred to difficulties in sending and receiving electronic mail and attachments using diacritical (accented) text, the ability to query databases and search engines using accented text, and the availability of French-language versions of the latest Internet software. **Recommendations 2 and 3 addressed**

**these issues in terms of the larger community of "la Francophonie" and the computer industry. Recommendations 4, 11 and 12 speak to the specific technological problems.**

We are pleased to report that the aforementioned Recommendations dealing with these essentially technological issues have largely been resolved through technological change and market forces.

The following are examples of how, since the publication of the Commissioner's 1996 study, technological change and the market place have impacted on these Recommendations.

It is literally impossible to catalogue the extent to which individual software packages are available in multilingual format. Rather, we note that Windows 98, the popular computer operating system, which includes the Explorer Web browser and the Outlook electronic mail program, is published in forty-three languages including three French-language versions (French-Canadian, French-Arabic and Modern French) and two English-language versions (US English and International). The latest version of the Web browser, Netscape, is available for download from the Internet in thirteen languages, including English and French. In this regard, we were informed by departmental informatics specialists during the course of this follow-up that although a great deal of Internet software is developed in the United States, US publishers are often apt to publish multilingual (including French-language) editions in response to market forces.

Most of the problems reported in the Commissioner's 1996 study concerning the ability to send and receive electronic mail (and attachments) using accented text were due to the fact that three transmission encoding schemes, UUENCODE/UUDECODE, MIME (see [Appendix C](#) -- Technical Considerations) and BinHex, were in common usage, and were not compatible with one another.

In the ensuing three years, MIME has emerged as the common encoding scheme. Interviews held with various departmental officials in this follow-up indicate that in most cases, their department has already switched to MIME-compliant software, thus making Recommendations 4 and 12 no longer pertinent. However, we do note that in two cases, departments are just now in the process of switching from non MIME-compliant to MIME-compliant e-mail software.

There was broad consensus, both from departmental officials interviewed and from the participants of the six focus group sessions, that accessing local search engines and databases with accented text is no longer problematic. We can, therefore, consider Recommendation 11 to be no longer pertinent.

In conclusion, many of the technical issues that were obstacles to French and English sharing equal status online have been resolved. However, there are still many outstanding official languages matters to be dealt with concerning both language of work and language of service, as witnessed by an analysis of complaints received by the Office during the period since the initial report was published, as well as by the CIDIF report and the comments of employees made during the six focus groups.

Although we have not commented specifically on implementation of Recommendations 6, 7, 13, 17, 18 and 19, issues dealing with language of work (Recommendations 13, 17 and 18) were discussed at focus group meetings (see [Part IV](#)). As to the other Recommendations, Recommendation 6 was addressed in Treasury Board's *Policy on Using the Official Languages on Electronic Networks*; the remainder have been rendered obsolete due again to technological advances.

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**ARCHIVED - 2 -- An Analysis of Internet-Related Complaints Received, 1996 to 1998**

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**a) Analysis of Complaints -- Issues of Concern**

This analysis examines whether the issues that were identified as being of concern in the 1996 report continued to result in complaints during the period covered by the follow-up study.

**b) Findings**

- There were a total of 62 Internet-related complaints covering 25 federal institutions received during the period 1996-1998. Fifty-one concerned language of service issues; eleven related to language of work.
- Of the 25 separate federal institutions that were the object of complaints during the period 1996-1998, 13 were subject to multiple complaints.
- Nine of the 20 institutions covered in the 1996 report were the object of complaints during the period 1996-1998. Of these, seven were subject to multiple complaints.
- Almost all the complaints received during the period 1996-1998, under both language of service and language of work categories, were due to reasons **unrelated to technological issues**. By far, the largest number of complaints related to the poor quality of French text on the Web sites (15), followed by the use of English only in file names and e-mail addresses (12). Issues such as the inability of search engines or databases to accommodate French accents, or the inability to send/receive e-mail and attachments with accented text resulted in five complaints during the period.

As the following table notes, the number of complaints has increased during the past three years. This reflects the increased use of the Internet by both the public and federal employees.

**Number of Complaints Related to Language of Service and Language of Work, per Year**

Year of Complaint	Total Number of Complaints	Language of Service	Language of Work
1996	10	9	1
1997	27	21	6
1998	25	21	4

**Complaints Analyzed By Subject Related to Language of Service and Language of Work**

Subject	Language of service	Language of work
Total lack of service in French or English on the public Web site	7	
Partial lack of service in French or English on the public Web site	4	1
Total lack of service in French or English on the departmental intranet site		1
Partial lack of service in French or English on the departmental intranet site		1
URL or e-mail address using only English or only French domain or text	12	2
French accents do not appear in the text on the Web site	3	
French accents do not appear in the text of the e-mail message	1	
Text in inappropriate language (e.g. French text found in English version of Web site)	2	2
Link is to inappropriate language selection	4	1
Poor quality of French text	15	
Internet services provided by third party contractor not available in both languages	1	
Database does not deliver French service	1	
Browser software not available in French		2
Welcome page only in one language		1
Internet training not available in French		1

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## ARCHIVED - 3 -- Service to the Public

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The following observations were made by CIDIF, based on actual site visits or through contacts with Web masters or virtual contacts.

#### a) Home Page

All the Web sites visited, except one, had a home page identifying the institution and offering visitors the option of continuing the site visit in either of the two official languages. In one case, the site's layout differed from that of other institutions in that the home page offered the visitor a bilingual menu.

#### b) Presentation and Linguistic Quality of Web Sites

All sites were presented in both official languages. However, some displayed the title of the page (at the top of the browser window) in English only. In general, the linguistic quality of the sites was comparable in both official languages. The quality of material in French in some cases, however, left something to be desired. At a number of sites, quite often French documents were found to closely follow the English text, an indication that they were first written in English and then translated, more or less well, into French.

#### c) Quality Control

In general, according to the federal institutions surveyed by CIDIF, quality control measures with respect to material published on the Internet do not differ from those already in place for material distributed in any other form. The quality control role of the Webmaster or advisor consists in many cases in ensuring that all material on the institution's Web site, including introductory pages and tables of contents, is available in both official languages. Responsibility for linguistic quality of the content itself quite often lies with the originator, e.g., the division or program producing the document. This is as it should be -- as mentioned earlier, effective quality control is a matter of direct managerial accountability.

#### d) Internet address

Only three of the 27 Web sites were found to comply fully with the OLA with respect to their Internet address (domain names, directories and files). As shown in the above table on complaints by subject(s), URL (Uniform Resource Locator)

or e-mail addresses using only English or only French domain or text account for 30% (15 out of 52) of complaints received concerning service to the public during the period 1996-1998.

### ***i) Domain names***

With regard to domain names (see [Appendix C](#)), not all sites comply with the OLA. As to those which do, either the domain name is bilingual (www.hrdc-drhc.ca), the name chosen fits both languages (www.statcan.ca) or two domain names, one in English and one in French, are registered (www.canadapost.ca and www.postescanada.ca). As previously mentioned, the matter of non-compliant Internet addresses has already been brought to the attention of the Treasury Board.

### ***ii) Directories***

At most sites, directory names are not francized. Although technical obstacles prevent complete francization of directory names, it would be preferable, in our opinion, to see .../français/... (even without the "ç") or .../fr/... rather than .../French/..., as is the case at many sites.

### ***iii) Files***

In general, file names (see [Appendix C](#)) referring to a page in French are preceded or followed, in one way or another, by the letter "f." At one site visited, file names take the form of numbers or figures, such as 6\_6.htm, avoiding the linguistic question.

It should be noted that in a closed system, the names of directories and files are usually hidden. In the case of the Web, they are part of the URL (see [Appendix C](#)), which is displayed in the browser window. Special attention should therefore be paid to the francization of domain, directory and file names on Web sites covered by the OLA. As already mentioned, an objective of Common Look and Feel is to standardize file and directory names.

### **e) Search Engines**

In general, the search engines (see [Appendix C](#)) available on the Web sites visited appear to have no difficulty with accented texts. In one case, however, examination showed that when one of the key words has diacritical signs, the search engine does not return any document that satisfies the search criteria. As for search and results pages, they are available in both official languages with one exception. In this case, the search engine available on the site is not fully francized. Not only is the question page in English, but the results are also returned on a page containing English text. In addition, the help page appears only in English. As we know from the findings of this follow-up, the above problems can be overcome.

### **f) Hyperlinks**

Fifteen of the 27 sites visited, or more than half, have hyperlinks to unilingual English sites without a standard notice to the effect that these sites, which are not federal sites, are not available in both official languages. In some cases, this may simply be an oversight because few of the institutions' hyperlinks were found to be deficient in this respect; in other cases, however, it is clear from the large number of deficient hyperlinks that there is no directive on the use of standard notices.

When the names of proposed pages or sites are in English, it can be assumed that their content will also be in English. The same cannot be said when the name of the page or site has been translated. For example, one French site visited has a list of links, some of which give no indication that the documents with which they are associated will be in a language other than French. Some sites have a notice of a general nature informing the user that the sites proposed are not necessarily available in both official languages. Treasury Board Secretariat's Official Languages Division will examine the possibility of integrating into the *Policy on Using the Official Languages on Electronic Networks* the suggestions concerning hyperlinks that are part of the Government of Canada *Internet Guide* notably notices to include on sites that offer users hyperlinks with other sites. Furthermore, Common Look and Feel will standardize the provision of notices concerning the availability of content in the user's preferred official language.

### **g) E-mail**

The e-mail software used by institutions meets the standards applicable to the Internet for the exchange of accented characters. Theoretically, members of the public can exchange e-mail with diacritical signs with the staff of the institution. In some cases, however, these signs were found to be lacking. With two exceptions, all the sites offering question or comment forms provide automated e-mail answering services in both official languages.

#### **h) Automatic Dissemination in Both Official Languages**

As to Web pages where the information must be in both official languages, the findings of the review team suggest that the practice of automatically disseminating information in both languages is widespread. In some cases, English pages appeared on the French site. The reason for this was sometimes given on the page in question.

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ARCHIVED - 4 -- Language of Work Issues -- Summary of Focus Group Meetings

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In order to gauge the extent to which employees are able to use the Internet in the official language of their choice, we conducted six focus group meetings with employees in Ottawa, Montreal and Moncton. We met with a total of 53 employees from all the 27 federal institutions examined during this follow-up study.

The focus groups gave employees an opportunity to freely express their views. What follows is a summary of the comments received on each of the issues dealt with.

**What interest is there in using the Internet and how frequently is it used?**

The focus groups indicate that the Internet has become internalized as an essential working tool, especially the departmental Intranet. Participants reported that the intranet and the Internet are used at least daily for activities such as research, searching for information, translation, finding out information about other departments, and in one case for marketing purposes. Employees noted that it is difficult at times to find information; that the Internet has radically changed the way of work; and that people want everything right away. Other comments were that the Internet is creating two categories of people; those without Internet access are truly forgotten. There were comments that the quality of information available in French was poor and that there was a large problem relating to the absence of scientific documentation in French.

**Do employees have access to Internet software published in the official language of their choice?**

The focus groups revealed that the problem is not so much the availability of software in French, but rather that employees are not actively offered a choice of software in their preferred official language. Several employees indicated that when a new software package is installed, the English language version is provided by default, and there is sometimes an inordinate wait if the employee wants the installation to be in French.

Treasury Board Secretariat's officials have informed us that this question will be examined in the context of a review of official languages policies to see if some clarification is required within existing policies of what institutions are expected to do in this regard to ensure that they respect section 36 of the *OLA*.

**Can accented e-mail & attachments be received and sent by employees?**

There was consensus that the sending and receiving of e-mail and attachments with accented text is no longer

problematic. Several participants alluded to the fact that this was a problem two or three years ago, but that the situation has greatly improved. Isolated incidents of difficulties in this regard were reported, but this was attributed to either someone using outdated software or the message coming from another country.

**Have employees received and do they understand the official languages components of Treasury Board's policy on electronic networks, and other Internet policies and programs?**

The response to this issue varied greatly. Many employees expressed an awareness that the policies existed, but were at times not certain where to find them. Others indicated that their department had created links from their intranet site to the policy. Still others expressed no awareness of the policies at all.

**Is Internet training available in both official languages?**

Departmental officials interviewed all indicated that whatever training is provided is done in both official languages. This was confirmed by focus group participants. However, a problem frequently brought up during the focus group meetings was that Francophones often experienced delays in obtaining training, due to the lack of participants needed to fill classes. As a result, many French-speaking employees opted for English language training. It was also frequently reported that French-speaking employees would ask to receive training in French but on the English-language version of the software. This was attributed to the familiarity of English technical terms. There were also comments expressed that Internet training in French provided by private sector companies was given by Anglophone instructors, resulting in a lesser quality of instruction.

**Can employees access technical and help-desk support in both official languages?**

In general, focus group participants indicated there was no problem in obtaining first-level support in both official languages. This is usually provided by an information telephone line. However, several participants voiced problems when it came to second-level support, meaning either when the technician is required to go to their work station or when support is provided by third party private sector companies. Here, it was much more difficult to obtain support in both languages. Often it was available only in English.

**Can employees use departmental Web-based Internet and intranet search engines and databases with diacritical (accented) text?**

There was consensus that departmental databases and search engines may be accessed with accented text. That said, an employee from one department indicated there was a problem with using their search facility in French. Also, the issue of indexing was raised. While the search engines now functioned in French, the issue was raised that not all descriptive indexing (known as meta data) is always done in both official languages. This can result in the failure of the search engine to find the French language material, even if there is no problem in inputting the keyword in accented text. This problem was also noted during the on-site visits.

**Are disabled employees provided access to the specialized software needed to access the Internet in the official language of their choice?**

In the almost three years since the publication of the Commissioner's report, the issue of accessible technology for persons with disabilities has taken on increasing importance, although this was not the subject of a specific recommendation. With reference to language of work issues, we were concerned that in using the Internet as a work instrument, disabled French- and English-speaking Canadians would have equal access to the software tools needed to function in their language of choice. In this regard, we are pleased to report that several "non-visual" Web browsers are now available in French-language editions. These translate the contents of the Web page into the spoken word and are used in conjunction with computerized speech synthesizers. In addition, software tools that allow mobility-impaired persons who cannot type to speak into a microphone and have their speech translated into word-processed text are also available in French-language editions.

While these tools are readily available, we learned during our meetings and the focus group sessions that departments vary as to how they have addressed this issue. Some have been pro-active in purchasing copies of these software products, while others indicate they would react positively to any request made by an employee for such aids.

**Is the software needed to access Internet-based employment programs (telework) available and provided in both official languages?**

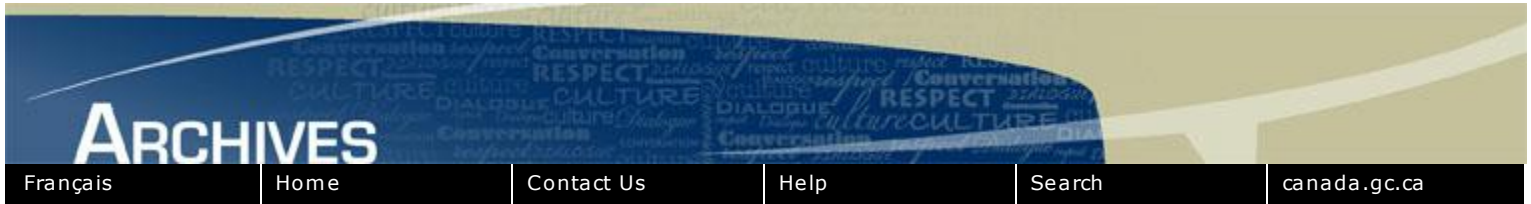
Another Internet-related work area that was not addressed in the 1996 study as a Recommendation, but which warrants comment is telework. Telework is the process by which employees may work at home one or more days weekly and can often access the departmental network via computer.

Not all departments have their own internal telework policies. However, representatives from all departments interviewed for this follow-up that did allow this practice (one department subject to this follow-up does not allow telework for security reasons), indicated that employees are furnished tools (software, hardware) that function in the official language of their choice. That said, telework is not broadly practiced and not all employees are familiar with this program. Asked about this, focus group participants were in general agreement, although two participants indicated difficulties in obtaining tools in French.

### **Is the language quality of internal intranet sites comparable?**

This issue drew a mixed reaction from focus group participants. Some were very satisfied with the quality of content in both official languages. However, many other participants voiced comments concerning the poor quality of French-language content on departmental sites. Participants noted that predominantly English-speaking units will place French content on the intranet site without realizing that the material is full of errors. This was blamed on the decentralized way in which content is placed on the site and the lack of translation resources. One participant noted that "the Web has taken many managers by surprise. The budgets are not there for translation."

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## ARCHIVED - IV. Conclusion and Recommendations

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In the period 1996-1999, the Internet has assumed a large role, both in terms of a medium by which the Canadian public may be served and as an effective working tool for public servants. From an official languages perspective, we have indeed entered a world substantively different from that which existed just three short years ago.

In 1996, French-speaking Canadians encountered significant technical problems in using the Internet. Because of competing coding systems, it was difficult to send electronic mail (including file attachments) that contained accented text. Browser software was not readily available in French and it was difficult to input search engines with words containing accents. Today, as witnessed by the information gathered during the course of this follow-up, we are pleased to indicate that these technological issues have largely been resolved.

Moreover, what has become evident is that the Internet is now, from an official languages perspective, a medium like any other. The nature of the Internet complaints which this Office has received, e.g. inequality of status of French and English, poor quality of French text, failure to publish simultaneously in both languages, are now no different in substance than those attributable to other communications media. Thus it appears from our findings that the only outstanding technical problem in terms of service to the public, and an ongoing concern of this Office, involves Internet addresses. As already mentioned, the Commissioner has brought this matter to the attention of the Treasury Board. Moreover, an objective of Common Look and Feel is to examine how best to ensure that government Web-site and e-mail addresses comply with the OLA.

As already noted in this report, the linguistic quality of material published on the Internet was found in some cases to be lacking in its translated version. The same has been said of material published internally on the intranet. This has been attributed in some instances to the lack of translation resources, managers having not foreseen the increase in the number of documents being published on Internet. We share the view expressed by institutions that responsibility for the quality of content rests with the program division producing the document. Hence we believe that responsible managers ought to include, in their financial resource planning, funds to be allocated specifically for translation and revision of material intended for publication on the Internet or intranet.

As to language of work, the following problems persist. Employees in some cases are not offered Internet and related software in the official language of their choice and they have not been provided with adequate information on Internet-related policies. Moreover, there are delays in obtaining Internet training in French, and training, as well as technical and help-desk support, are sometimes not available or not of comparable quality in both official languages.

The Commissioner therefore recommends that Treasury Board:

#### **Recommendation 1**

Actively seek a solution to the problem of non-compliance with the *Official Languages Act* of Internet addresses (URLs or file names) which is acceptable to all federal institutions.

Treasury Board Secretariat agrees that a solution to this issue must be found. It informs us that this issue is presently being examined by its Internet Advisory Committee's working group on official languages. Proposed solutions will also be discussed within the context of the Common Look and Feel initiative.

The Commissioner further recommends that federal institutions:

#### **Recommendation 2**

Ensure that their Internet presence, in terms of both language of service and language of work, conforms to the same official languages standards as those governing any other communications medium;

#### **Recommendation 3**

Ensure that sufficient funds are allocated for translation and revision of material destined for publication on both the Internet and the intranet so that it be published in both official languages simultaneously;

#### **Recommendation 4**

Ensure that a) employees receive Internet and related software installations for their workstations in the official language of their choice; and b) that Internet training, as well as technical and help-desk support, are provided in both official languages and that these are of equal quality;

#### **Recommendation 5**

Provide employees with the Treasury Board policy relating to the use of official languages on electronic networks (including any amendments or additions thereto).

This follow-up study will no doubt be the last that specifically addresses the technological aspects of the Internet as they relate to official languages issues. That said, federal institutions must remain ever diligent to ensure that on this medium, the equality of Canada's two official languages is assured. As such, the recommendations issued pursuant to this report will be followed up in the context of other studies the Office undertakes.

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## ARCHIVED - Appendix A: List of Federal Institutions

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- Agriculture and Agri-Food Canada
- Atlantic Canada Opportunities Agency
- Atomic Energy of Canada Limited
- Canada Post Corporation
- Canadian Broadcasting Corporation
- Canadian Food Inspection Agency
- Canadian Heritage
- Canadian Museum of Civilization
- Canadian National
- Canadian Space Agency
- Citizenship and Immigration Canada
- Environment Canada
- Finance Canada
- Fisheries and Oceans Canada
- Foreign Affairs and International Trade
- Health Canada
- Human Resources Development Canada
- Industry Canada
- National Defense
- National Library of Canada
- Natural Resources Canada
- Office of the Information Commissioner of Canada
- Public Works and Government Services Canada
- Revenue Canada
- Statistics Canada
- Transport Canada
- VIA Rail



## ARCHIVED - Appendix B: List of Recommendations (initial study)

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#### ***On ensuring the development of software in both official languages:***

##### **Recommendation 1**

That, by March 31, 1997, in accordance with Paragraph 36(1)b) of the *Official Languages Act*, the Treasury Board Secretariat ensure that the procurement policy and practices of federal institutions with regard to Web user software respect official languages requirements;

##### **Recommendation 2**

That the federal government pursue its partnerships with interested parties (provincial, territorial, municipal governments in Canada, the countries of la Francophonie and the informatics industry) to work towards the ongoing development of bilingual Internet user software;

##### **Recommendation 3**

That the federal government continue to stimulate applied research for the creation of French-language software for the Internet.

#### ***On federal standards for electronic messaging media:***

##### **Recommendation 4**

That, by March 31, 1997, the Treasury Board Secretariat establish a policy requiring that federal Web sites with two-language obligations provide clear user instructions regarding the type of encoding scheme to use to receive diacritical text properly, and that by June 30, 1997, all federal institutions comply with this policy;

**Recommendation 5**

That, by March 31, 1997, the Treasury Board Secretariat establish a policy for common encoding standards applicable to all documents to be made available via the Internet or transmitted over any administrative network, and issue an appropriate directive by June 30, 1997, to all federal institutions.

***On the Official Languages Act and Federal Web sites:*****Recommendation 6**

That the Web sites of those federal offices which do not have an obligation to deal with the public in both official languages carry a standardized initial bilingual advisory on the home pages to the effect that, in accordance with official languages regulations, services are available only in the language of the majority of the geographical area those offices usually serve.

***On automated user support:*****Recommendation 7**

That, by March 31, 1997, the Treasury Board Secretariat advise federal institutions with two-language Web sites of the necessity of providing appropriate external user support for all site features offered so that the public will be able to receive the services without difficulty.

***On quality control:*****Recommendation 8**

That, by March 1, 1997, all federal institutions with Web sites that have an obligation to provide services in both official languages put in place quality control measures and, if required, enhance them, to ensure that all information posted is of equal quality;

**Recommendation 9**

That, effective January 1, 1997, all federal institutions with Web sites that have an obligation to provide services in both official languages ensure, as a rule, that all information produced by them is posted simultaneously in both official languages;

**Recommendation 10**

That, effective January 1, 1997, institutions with Web sites ensure that, in keeping with the Treasury Board Secretariat's policy, the home page of each such site is bilingual.

***On search engines:*****Recommendation 11**

That all federal institutions with Web sites that have an obligation to provide services in both official languages take the steps necessary to ensure that their local search engines can conduct effective queries in both official languages by June 30, 1997, and that, in the interim, users are informed of the limitations of any local search engines.

***On electronic mail:*****Recommendation 12**

That, with regard to Internet electronic mail, federal Web sites advise their public of the encoding scheme(s) they have adopted.

***On language of work:***



**Recommendation 13**

That, effective January 1, 1997, all federal institutions procure, where required, client browser software in both official languages and actively make it available to their employees;

**Recommendation 14**

That, by March 31, 1997, the Treasury Board Secretariat establish a policy requiring federal institutions to monitor the availability of Internet software in both official languages, and, if necessary, that they take the appropriate measures to ensure conformity with the obligations flowing from Paragraph 36(1)b) of the *Official Languages Act*;

**Recommendation 15**

That, by January 1, 1997, Public Works and Government Services Canada establish and maintain an updated list of Internet software available in both official languages and make the list available to all federal institutions;

**Recommendation 16**

That, where required, federal institutions conduct ongoing monitoring of the availability of French-language Internet software to keep pace with the latest products and to ensure that the language-of-work rights of French-speaking employees are respected;

**Recommendation 17**

That federal institutions ensure that their technical support units have sufficient two-language capability to serve their clients in both official languages where required and that they remind these units of their obligations in this respect;

**Recommendation 18**

that, where required, all federal institutions include official languages rights and responsibilities in Internet course material for employees;

**Recommendation 19**

that federal institutions ensure that, where required, the Internet service provider selected is able to communicate with users in their preferred official language.

**On policy:****Recommendation 20**

That, by March 31, 1997, the Treasury Board Secretariat include the official languages aspects of its *Internet Guide* in the Official Languages Component of the Treasury Board Manual;

**Recommendation 21**

That the Treasury Board Secretariat inform all federal institutions without delay that the language obligations which apply to official Web sites apply equally to pilot projects and that it include a provision to that effect in the next edition

of the *Internet Guide*;

**Recommendation 22**

That the Treasury Board Secretariat advise all federal institutions that they should ensure that their Internet policy includes a comprehensive official languages section to provide language guidance for the planning, creation and implementation of their Web sites and that, in a timely fashion, they disseminate to their staff at large an official languages policy with regard to the Internet.

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**ARCHIVED - Appendix C: Technical Considerations in 1999**

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Until very recently, English was in practice imposed on some users as a language of communication because their national character set was not accepted by the software available to them: electronic mail systems, browsers, etc. Today, accented characters are accepted without great difficulty, provided that software consistent with the new standards governing operation of the Internet is used.

These standards posed, and in some cases - such as domain names and URLs -- continue to pose technical obstacles to the exchange of information in different languages. To allow the internationalization of the Internet, these standards must be changed in accordance with a specific procedure, determined by the IETF (Internet Engineering Task Force) and be the subject of an RFC (Request for Comments). Once the standards have been adopted, they can be implemented by the various Internet services.

**Information coding**

The representation of information circulating on the network requires the use of a particular coding. With regard to character sets, the coding most widely used in Internet protocols is ASCII, which uses only 7 bits and therefore does not allow for the representation of accented characters. This constraint makes such coding unusable for the transmission of French and most other languages over the Internet.

**ISO 8859-1 and ISO 10646**

To circulate properly, the French language needs, at the very least, ISO 8859-1 (ISO LATIN-1) coding. Unfortunately, this coding is not accepted by all Internet protocols. Internet regulatory agencies now foresee the use of a universal character set, ISO 10646, for language coding. Theoretically, ISO 10646 permits the encoding of all known human languages. Its use, however, is not widespread.

**MIME**

Unfortunately, the use of coding such as ISO 8859-1 is not sufficient to solve all the problems posed by the French language. It is also necessary to encode messages. With the MIME standard (Multipurpose Internet Mail Extensions) it is possible to define the format of messages sent by the Internet. A message coded with the MIME standard has headings identifying the version of MIME used, its content (text, WordPerfect file, etc.) and the coding used for each

part of the message.

### **Domain names**

Domain names identify precisely the computers connected to the Internet. The DNS (Domain Name Server) is the service that makes it possible to relate the name of a computer to its Internet address or IP (Internet Protocol) address.

This being said, domain names must consist of a character subset taken from the ASCII code, limited to letters, numbers and the symbol «-». This excludes diacritical characters and, thereby, the complete francization of domain names. For example, the domain name `www.health-santé.gc.ca` is illegal for the purposes of the DNS; it would be necessary to use `www.health-sante.gc.ca`. The promoters have instead opted for `www.hc-sc.gc.ca`.

### **File names**

The marked preponderance of ASCII also poses problems when it comes to naming files. Although some operating systems such as Windows™ 95/98 authorize the use of accented characters in file names, nevertheless most software that handles data files on the Internet presupposes ASCII. In fact, it is highly likely that many net surfers would be unable to read a file that had been named `boîte.html`.

### **URL**

The full address of a resource accessible through the Internet is called the URL. The URL address has three separate parts:

1. The protocol to be used to access the resource (`http`, `gopher`, `ftp`, `mailto`, etc.);
2. The address (domain name) of the server that houses the resource;
3. The access route to the resource in this server.

The URL address is therefore the Internet equivalent of a file name. Once again, there is no standard that proposes a method for internationalizing URLs.

### **Search engines**

Searching for information in French on the Internet is not effortless. The handling of accents often proves problematic. As already mentioned, it is highly likely that many net surfers would be unable to read a file that had been named `boîte.html`. Some search engines allow the use of accents, while others do not. And what happens to characters that have been replaced by numeric character entity (e.g. `&233`) or character entity (e.g. `é`)? How are they handled? The answers to these questions should be provided to the user to enable him to analyze the operation of each search engine and adapt his search to the engine used.

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