

**Information Technology
and Open Government**

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For the Commissioner's views and recommendations on the subject matter, readers are advised to obtain the *Annual Report -- Information Commissioner 1993-94*. The Commissioner gratefully acknowledges the contribution of this report to ideas presented in the annual report to Parliament.

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1. Introduction

Information plays an important role in the delivery of government programs and services. The *Access to Information Act* (Canada) promotes open government by providing the right of access to government information. The underlying principle of the Act is that records held by the federal government should be available to the public. By granting the right of access, the Act provides the means by which the public can hold the government accountable. The Act clearly states that access should be the norm, and exclusions to the Act or exemptions to access should be limited and specifically defined.

In the 1990s, the environment of government operations is changing rapidly. Advances in information technology are changing the way government departments and agencies collect, store and distribute information. At the same time, the drive toward more efficient government has resulted new information management practices such as generating non-tax revenue from the licensing of government information and the pricing of information products to more fully recover the cost of those products.

These developments -- new information technology and new information management practices -- mean the environment of government information has changed since the *Access to Information Act* was enacted in 1983. The purpose of this report is to assess the impact of new information technologies and new information management practices on open government in general, and the principles and application of the *Access to Information Act* in particular.

This report first reviews the legal aspect of access to government information by reviewing the *Access to Information Act* and other relevant statutes such as the *Copyright Act* and the *Archives Act*. Next, we review current administrative practices within the federal government such as generating non-tax revenue, pricing practices and the establishment of "special operating agencies" that are likely to have an impact on access to government information. Third, the impact of new information technology on the way information is collected, stored and disseminated is examined with respect to how these developments are likely to affect access to government information.

After reviewing legal, administrative and technological developments, the report then discusses the

major issues related to the effective administration of the *Access to Information Act* during the 1990s. Where appropriate, we recommend amendments to the Act or administrative practices that will ensure that the basic principles of the Act are maintained.

The report does not attempt to be comprehensive in the analysis of current practices or technology. Rather, selective examples are used throughout to illustrate important trends in the area of information technology and information management. We are convinced that the federal government's initiatives to improve customer service, as well as developments in information technology, provide opportunities for improving access to information. However, the focus in this report is on those aspects of government administration and information technology that can be a threat to the principles of open government and widespread access to government information as intended by the *Access to Information Act*.

2.

The Legal Framework

The purpose of this section of the paper is to examine the legal context of access to government information in Canada. This overview will focus on those statutory and regulatory provisions which are particularly affected by developments in information technology. Statements of the law are up to date as of January 31, 1994.

Purpose and Scope of the Act

Purpose of the Act. The *Access to Information Act*, R.S.C. 1985 c. A-1 is one of the few Canadian statutes to explicitly state its purpose:

2. (1)The purpose of this Act is to extend the present laws of Canada to provide a right of access to records under the control of a government institution in accordance with the principles that government information should be available to the public, that necessary exceptions to the right of access should be limited and specific and that decisions on the disclosure of government information should be reviewed independently of government.

(2)The Act is intended to complement and not replace existing procedures for access to government information and is not intended to limit in any way access to the type of government information that is normally available to the general public.

The purpose clause establishes three principles:

- the basic right of access to government records;
- that exemptions to the right of access should be specific and limited; and
- the provision for an independent review of decisions on disclosure.

The underlying philosophy is that government will be more accountable to the public if the public is ensured the right to access government information.

Since the Act was enacted in 1983, the Information Commissioner of Canada and the courts have relied on the purpose clause when interpreting the Act and have confirmed that the purpose clause is a

substantial part of the Act.

Mr. Justice Rothstein, in the *Information Commissioner v. the Prime Minister of Canada* (1992), rejected the argument that the purpose was merely descriptive and without substantive effect.

Confirming that the purpose clause should form the basis for the interpretation of the Act, Mr. Justice Rothstein wrote:

When Parliament has been explicit in setting forth the purpose of an enactment and principles to be applied in construing it, I am of the opinion that such purpose and principles must form the foundation on which to interpret the operative provisions of the Act.¹

Information in Records. While the name of the *Access to Information Act* speaks of access to "information," the operative provisions of the Act limit that access to information which is contained in records. The purposive section introducing the Act sets out the distinct limitation of its scope:

2(1) The purpose of this Act is to extend the present laws of Canada to provide a right of access to information in records under the control of a government institution . . . [emphasis added]"

This right is explicitly granted to s. 4 of the Act:

4(1) Subject to this Act, but notwithstanding any other Act of Parliament, every person who is

- (a) a Canadian citizen, or
- (b) permanent resident within the meaning of the *Immigration Act*, has a right to and shall, on request, be given access to any record under the control of a government institution.

By the right granted in s. 4(2) of the Act, the Governor in Council has extended the right of access to all individuals and corporations present in Canada.²

By confining the right of access to information contained in records, the Act recognizes that information of a more ephemeral nature which has not been recorded cannot be accessible. A public right of access to the unrecorded thoughts of government employees would lead to the kinds of discoveries and

¹ *Information Commissioner (Canada) v. Prime Minister (Canada)* (11 Nov., 1992), 57 F.T.R. 180. T-141892

² SOR/89-207, s.2

cross-examinations familiar in the litigation context, while access to telephone conversations would be akin to sanctioned eavesdropping.

The focus on modernizing freedom of information legislation, here and in the United States, has been an effort to expand the meaning of the word "record" so as to include machine readable records (as in databases). In the United States, where the *Freedom of Information Act*³ ("FOIA") has no definition of "record," the courts have readily accommodated the notion that requesters are entitled to computer-stored information.⁴ In Canada, the Act specifically addresses the issue in the definition section:

3. ... "record" includes any correspondence, memorandum, book, plan, map, drawing, diagram, pictorial or graphic work, photograph, film, microform, sound recording, videotape, **machine readable record**, and any other documentary material, regardless of physical form or characteristics, and any copy thereof . . . [emphasis added]

This definition of "record" is still not clear enough to cover all cases. The question to be addressed is whether or not the Act needs to be amended to clarify and extend its scope. If so, in what ways?

In the United States, the debate about the meaning of "record" seems to be centered around five questions.⁵

1. Does FOIA require agencies to create new software in order to search and retrieve information for requesters? (In other words, what is a "reasonable" search?)
2. Does FOIA require software to segregate disclosable from non-disclosable electronic record portions?
3. Does FOIA require agencies to provide requested records in particular database formats specified by requesters? (In other words, who chooses the access formats?)
4. Is software a "record" for the purposes of FOIA?

³ 5 U.S.C. para. 552 (1982).

⁴ See for example, *Yeager v. DEA*, 678 F2d 315, 321 (D.C. Cir 1982).

⁵ See Department of Justice Report on "Electronic Record" Issues under the FOIA, Office of Information and Privacy, Office of Policy Development, US Department of Justice October 1990; Perritt, "Electronic Public Information and the Public's Right to Know," Benton Foundation, Bauman Family Foundation, 1989.

5. How much should electronic access cost?

The studies noted in footnote 5, and the many other studies cited therein, provide a good analysis of the current state of US law on these issues. In terms of legislation they are quite unresolved, and though the courts have made certain decisions, there are no clear precedents. In Canada, the scarcity of litigation in this area has made the answers to these questions even less clear.

Providing Access: Reasonableness and Cost

Access to records generated for the purpose of meeting the request. In Canada, the issue of what is a reasonable search becomes an issue of the extent to which a government agency must use its hardware, software and expertise to produce records "which do not exist."

The idea that requesters may have access to records which do not exist is codified in the Act at s. 4(3):

4(3) For the purposes of this Act, any record requested under this Act that does not exist but can, subject to such limitations as may be prescribed by regulation, be produced from a machine readable record under the control of a government institution using computer hardware and software and technical expertise normally used by the government institution shall be deemed to be a record under the control of the government institution.

Further clarification of the right of access is provided for in the *Access to Information Regulations* SOR/83-507, which provide:

3. For the purpose of subsection 4(3) of the Act, a record that does not exist but can be produced from a machine readable record under the control of a government institution need not be produced where the production thereof would unreasonably interfere with the operations of the institution.

The concept of reasonable search and the production of a "record," then, is dependent upon the information processing facilities, including computing and human resources, available within the institution to compile the information.

At Common Law, the courts have steered away from placing any administrative burdens on the

government agency involved. In a case decided under New Brunswick access legislation,⁶ the New Brunswick Court of Queen's Bench held that a government agency had no obligation to compile existing information to satisfy an access request.⁷ Some of the requested information was stored on magnetic tapes, but was not coded appropriately to meet the request and would have required manual searching. The applicable legislation had no "non-existing record" provision.

In an application for access (made under the *Charter of Rights* s. 2b but not argued) to information in certain criminal informations, the Ontario High Court held that the administrators of the court system were not obliged to manually review all the informations filed over a two or three week period in order to pull the specific ones requested. Since the office of the court did not have a cross-referencing system, the refusal to disclose was reasonable and the request for access was denied.⁸

One commentator has pointed out⁹ that it is inappropriate to speak of "records which do not exist" when in fact they do exist, only not in the sequence or compilation desired by the requester. The issue is how the legislation should define "record" -- as a discrete "record" in the sense of the term used by database managers (the equivalent, say, of one filecard), or as a compilation of records in what is normally called a report, or both?

Who chooses access formats? Although the Act and Regulations provide that institutions may have to produce records in order to satisfy requests, there is no direction in the legislation as to the format in which records are to be provided. Section 12 of the Act defines the meaning of "access" as follows:

12(1) A person who is given access to a record or a part thereof under this Act shall, subject to the regulations, be given an opportunity to examine the record or part thereof or be given a copy thereof.

⁶ *Right to Information Act*, 1978 (N.B.), c. R-10.3.

⁷ *Lahey, Re* (1984), 56 N.B.R. (2d) 1, 146 A.P.R. 1 (*sub nom. Lahey v. N.B. (Minister of Finance)*) 10 D.L.R. (4th) 758 (Q.B.).

⁸ *London Free Press Printing Co. v. Ontario (Attorney General)* (1988), 66 O.R. (2d) 693 (H.C.).

⁹ Sorokin, "The Computerization of Government Information: Does it Circumvent Public Access Under the FOIA and the Depository Library Program?" (1991) 24 *Columbia Journal of Law and Social Problems* 267, p. 275.

The Regulations further stipulate:

8(1) Where a person is given access to a record or part thereof under the control of a government institution, the head of the institution may require that the person be given an opportunity to examine the record or part thereof, rather than a copy of the record or part thereof if,

- (a) the record or part thereof is so lengthy that reproduction of the record or part thereof would unreasonably interfere with the operations of the institution; or
- (b) the record or part thereof is in a form that does not readily lend itself to reproduction. [as am. SOR/85-395, s. 2]

In 1992, amendments to the *Access to Information Act* contained in the *Act to amend certain Acts with respect to persons with disabilities* provided a framework for people with sensory disabilities to receive access to information requested under the *Access to Information Act* in an alternative format.

The subsequent amendments to the *Access of Information Regulations* provided the required fee schedule for the production of alternative formats such as braille, large print, audiocassettes and microcomputer diskette.¹⁰

Exclusion of Published Information

The Act expressly contemplates some form of public availability as obviating the necessity for a separate access procedure. Section 68(a) provides:

68. This Act does not apply to
- (a) published material or material available for purchase by the public;

However, in some cases, "published" material may not always be readily available to the public. A recent decision by the Information and Privacy Commissioner of Ontario illustrates the difficulty when government information is "published" through a private vendor.¹¹ An access request under the Ontario

¹⁰ SOR/92-687, s.1

¹¹ Decision of Commissioner Tom Wright, IPC Order P-496, 14 July 1993.

Freedom of Information and Protection of Privacy Act was made for certain information in the possession of the Ontario Securities Commission. The Commission denied access on the basis that the records were available on a commercial basis from Micromedia, Ltd. a publisher and information provider in Toronto as well as at the local library. The Securities Commission head argued that since the information was "currently available to the public" it fell under the exemption in s. 22(a) and was not required to be released under the Ontario statute. In Order P-327, the Assistant [Information] Commissioner decided:

In my view, in order for records to qualify for exemption under s. 22(a), they must either be published or available to members of the public generally, through a regularized system of access, such as, for example, a public library or a government publications centre.

On appeal, the Information Commissioner supported that view, holding that Micromedia was not equivalent to a publications centre or public library. Commissioner Tom Wright wrote,

These purposes of the Act are key to the interpretation and application of section 22(a). In my view, the section should not be applied in a way that could indirectly prevent or limit the public's access to information. To do so would be contrary to the purposes of the Act. It could result in situations where members of the public would not be able to effectively exercise their right of access to information even when that information is most directly connected to the statutory mandate of an institution.

In my opinion, to adopt the position of the OSC would be to accept the proposition that a government organization covered by the Act can enter into an unrestricted business arrangement with a private company to provide access to government information, even though such an arrangement has the very real potential to inhibit the public's right of access. Basing an individual's right to access on his or her ability to meet conditions for access determined by a private sector vendor may result in inequitable access to information held by government.

In the circumstances of this appeal, although a private sector entity such as Micromedia may provide a system of access, it does not, in my view, provide a regularized system of access available to members of the public generally. Micromedia is not the equivalent of a government publications centre or a government-run public registry such as those referred to by the OSC.

Therefore, in my view, the fact that the records at issue in this appeal are available from Micromedia does not render the information "currently available to the public" within the meaning of section 22(a). Accordingly, the records do not qualify for exemption under section 22(a).

This decision by the Information and Privacy Commissioner of Ontario is currently being appealed to the courts. As of January, 1994, a date for the hearing had not been set.

Other Legislation Affecting Access

The *Access to Information Act* must be seen in the context of other legislation that has an impact on the public's access to government information. The relevant statutes include the *Copyright Act*, the *Archives Act*, and other statutes that may require government to disseminate information.

The *Copyright Act*, R.S.C. 1985 c. C-42. For the purposes of a discussion of open government in the age of information, the principle of Crown copyright becomes an issue in the context of tradeable data that is considered to be outside the Act. Section 12 of the *Copyright Act* states:

12. Without prejudice to any rights or privileges of the Crown, where any work is, or has been, prepared or published by or under the direction or control of Her Majesty or any government department, the copyright in the work shall, subject to any agreement with the author, belong to Her Majesty and in that case shall continue for a period of fifty years from the date of the first publication of the work.

The claim to Crown copyright has been supported in the case law,¹² although the issues are still cloudy enough, and the public policy contentious enough, to flag a fair degree of uncertainty.¹³ In a sense, the prerogative power of Crown Copyright has lain legally dormant until awakened by the power of information technology. Herbert Burkert puts it well when he states,

[With information consciousness] [a]dministrations found themselves in a dilemma: just when they had discovered, through the import of information management concepts from the private sector, that information was a valuable resource, valuable not only for more efficient execution of the programs but also for an external market, they were asked to hand over this resource to the very same private sector to which they had proved to be so eager pupils. Or perhaps to put it more dramatically: they were scolded for using a drug by those who had introduced them to it.¹⁴

¹² *R. v. James Lorimer and Company Limited*, unpublished judgment of the Federal Court Trial Division, Court no. T-2216-81.

¹³ For example, see Barry Torno's *Crown Copyright: A Legacy of Confusion*, Ottawa, 1981.

¹⁴ Burkert, Herbert, "From the Commercialization of Public Information to Administrative

In the context of fiscal policy allowing government institutions in some cases to capitalize on these information resources, and exemptions under the Access to Information Act for "published information" and "information having commercial value to the government," Crown copyright becomes a tool to control public access to government information. There is a distinct disincentive to release information through the "access" route, if government can reap the financial benefits of a monopoly through Crown copyright.

In most cases, the cost of access would be lower than the price for published information. The fee schedule in the *Access to Information Regulations* is based on the premise that the cost of access should be limited to the cost of reproduction. This cost would be lower than the price of published information when the price of the published information accounts for the cost of creation, production and any value-added characteristics of the product.

The Archives Act. Because the *Access to Information Act* provides for access to information held in government records, the provisions of the *Archives Act* become important in understanding the government's duty to create and retain records.

While the *Archives Act* is silent about the duty to create records, it is quite clear on the requirement of government institutions to retain records once they are created. Section 5(1) provides:

No record under the control of a government institution and no ministerial record, whether or not it is surplus property of a government institution, shall be destroyed or disposed of without the consent of the Archivist.

The duty to retain records requires government institutions to develop clear guidelines on information management. As in other sectors, the amount of information government deals with is increasing. As well, the storage of records is becoming more decentralized and distributed as computer systems move from a mainframe environment to an environment of networked microcomputers. It is quite possible that the only "record" of a particular item of information is stored on one personal computer in a department. The ease with which files can be deleted raises the issue of whether all records deemed

Information Law," *Proceedings of the Computers and Law International Congress*, Montreal, AQDIJ, 1992, p. 3.

important by the Archivist are, in fact, retained and identified as part of the institution's information holdings.

Statutory duty to disseminate. Many statutes direct or allow agencies to publish information. Any information so published would fall outside the *Access to Information Act* by virtue of s. 68. For example, under the *Atomic Energy Control Act*, R.S.C. 1985 c. A-16, s. 8(d), the Board may "with the approval of the Minister, disseminate or provide for the dissemination of information relating to atomic energy to such extent and in such manner as the Board may deem to be in the public interest..." The Canadian Centre for Occupational Health and Safety may "establish and operate systems and facilities for collecting, recording, processing, analyzing, evaluating and disseminating statistics and other information," and "publish and otherwise disseminate scientific, technological and other information."¹⁵ The *Access to Information Act* is intended to complement these situations where information is normally available to the public.

Conclusion

This section has reviewed the legal context of access to government information. The review suggests that, in a changing technological environment, a clearer definition of record needs to be developed. Additionally, access to information may be threatened when information that is published, regardless of whether the information is published only by a non-government vendor, is exempt from the Act. Finally, the effectiveness of the *Access to Information Act*, in part, is directly related to the effectiveness of the requirement to retain records under the *Archives Act*.

These issues are not simply legal issues. They are closely related to administrative practices in collecting, storing and managing information in the federal government. In the next section of the paper, we review the current administrative practices as they relate to access to information. The issues that emerged from the legal review, along with the issues that emerge from the administrative and technological reviews are discussed as specific policy options in Section 5 of the paper.

¹⁵ *Canadian Centre for Occupational Health and Safety Act*, R.S.C. 1985, c. C-13, s. 6(1)(b) and (c).

3.

Administrative Practices

The purpose of this section of the paper is to review current administrative practices within the federal government that may restrict access to government information. The section focuses on communications policy and practices related to tradeable data and the pricing of government information.

Communications Policy: Availability and Pricing

The federal government has recognized its responsibility to disseminate information and make it widely available. Treasury Board policy on Information and Administrative Management states:

The government has a clear responsibility to ensure that information about federal policies, programs and services is disseminated or made available to all regions of Canada. This principle of openness in government enables informed public participation in the formulation of government policy, ensures fairness in government decision making, enables the public to assess the government's performance, and promotes accountability on the part of government.¹⁶

While the policy recognizes the responsibility to disseminate information, the policy also recognizes there is a cost to this dissemination. The policy goes on to state:

The *Access to Information Act* provides the legal framework for openness in government by giving Canadians the right of access, subject to limited and specific exemptions, to government information. The Act also makes it clear that it only complements and does not replace existing procedures for access to government information and should not limit in any way access to the type of government information that is normally available to the general public. **However, the provision of information is costly and should be undertaken only where there is a clear duty to inform the public or where the user is willing to pay for it. The full cost of providing information to serve the proprietary interests of individuals should not be borne by taxpayers at large.**¹⁷ [emphasis added]

¹⁶ Treasury Board Manual, Information and Administrative Management, Communications, 90-10-01, Chapter 1, p. 6.

¹⁷ *Ibid.*

The policy appears contradictory. On the one hand, the policy suggests that information about government programs should be made available to ensure informed public participation and to promote accountability. On the other hand, the policy suggests that the communication of government information at an affordable price should generally occur only when there is a clear duty to inform.

This duty to inform includes cases where the information...

- is needed by individuals to make use of a service or program for which they may be eligible;
- is required for public understanding of a major new priority, law, policy, program or service;
- explains rights, entitlements and obligations of individuals;
- informs the public about dangers to health, safety or the environment;
- consists of personal information under the control of the government and is requested by the individual whom it concerns; or
- has been requested under the *Access to Information Act* and fees are waived at the discretion of the head of the institution.¹⁸

The policy raises the question of pricing of information and the impact of pricing on access. The policy clearly suggests that except in those circumstances where there is a clear duty to inform, the price of information should provide for full cost recovery:

In assessing the cost of making information available for purchase by the public, institutions should take into consideration the full costs of collecting, compiling, preparing, producing, and disseminating information.¹⁹

With most physical goods, the price of the good can be set at the cost of producing the last unit (marginal cost) and the producer will recover the full cost of production. However, the cost structure of information goods is different from most physical goods. If information is priced at the marginal cost, a subsidy would be required in order to recover the full cost of production. This result is because the production of information involves extremely high "first copy" costs -- the costs of collection,

¹⁸ *Ibid.*, p.7.

¹⁹ *Ibid.*

processing, assembling, and storing the data in a particular medium. As more and more units are produced, the average cost per unit drops dramatically. That is, once the document is produced, these costs are no longer incurred, unless the document is continually updated. The cost of the second copy and additional copies fall. While other economic goods display similar cost structures, it is the dramatic decline in the cost of producing subsequent units of information products that makes marginal cost pricing ineffective as a means to recover the full costs of production.

A pricing strategy based on full cost recovery will raise the price of information and could result in an economic barrier to access for those who cannot afford the price of the information. An example of the implications of this policy can be seen in two agencies of the federal government -- Statistics Canada and Canada Communications Group. These two operations "publish" information based on the market demand and can price their products according to the full cost of developing the product. Pricing strategies by the two vary depending on the nature of the information. In one example of "market pricing," Canada Communications Group markets the federal government telephone book (available in print for \$20.00) on CD-ROM at a price of \$2,500. Statistics Canada's pricing policy is to charge for the "value" of the product in the market. Often, the market value of the information is more than the cost of producing the information, and thus the special operating agency can earn a profit.

Tradeable Data

Like other organizations, the federal government is looking at information as a valuable resource that must be managed effectively. More and more, information is seen as a marketable commodity. Treasury Board, in consultation with the Inter-Departmental Working Group on the Database Industry, has developed guidelines on the transfer of tradeable data held by the government. The thrust of the guidelines is to encourage non-exclusive licensing arrangements with the private sector to disseminate government information and to generate revenues. More recently, Treasury Board has developed a draft government-wide framework for licensing intellectual property that extends the guidelines on tradeable data beyond information to other types of intellectual property.

There is increasing interest in the federal government in the licensing of data. Energy Mines and Resources has entered into a licensing agreement for the data contained in its survey, mapping and remote sensing databases. These agreements call for a minimum annual royalty payment and a per-

transaction charge. In another example, Treasury Board has entered into an agreement with QL Systems to provide online access to the *InfoSource* database. QL pays a royalty based on gross revenue generated from online access. QL also provides access to the database for federal government employees as part of the agreement. Treasury Board continues to publish the print version of *InfoSource* and distributes it to depository libraries across Canada and markets the publication through Canada Communications Group and other distributors of government information.

The tradeable data guidelines are intended to cover data that is not specifically subject to the *Access to Information Act*. The Guidelines state:

- (1) information contained in the databases is subject to the provisions of the Act;
- (2) database information which is available to the public electronically (e.g., through a private sector vendor) is considered published and thus excluded from the provision of the Access to Information Act; and
- (3) published information is subject to market fees; ATIP information is subject to prescribed fees.²⁰

While the guideline promotes the distribution of government information, it seems to suggest that by "publishing" the information -- that is, licensing the data to a private sector vendor -- departments will generate revenue and **reduce** the amount of information that may be subject to access requests. In describing the benefits of electronic dissemination, the Guidelines go on to state:

In addition, electronic dissemination has the potential to help Federal Government managers:

- A. comply with the information dissemination requirements of the programme or institution in a potentially cost-effective way,
- B. reduce the burden associated with responding to Access to Information and Privacy (ATIP) requests,**
- C. contribute to the government deficit-reduction effort; the government relies increasingly on revenues from external user fees and charges (now exceeding \$3 billion), and

²⁰ Interdepartmental Working Group on Database Industry Support (IWGDIS), *Disseminating Database Information: Practical Guide for Government Managers*, October 30, 1991, p. II-2.

- D. possibly retain a portion of these revenues or receive incentives recognizing the increased revenue contribution and the incremental costs associated with the activity. [emphasis added]²¹

Certainly, the wider distribution of the information is to be encouraged. However, tradeable data guidelines threaten the effectiveness of the Act in two ways. First, if the information is only available through private sector vendors, the information is considered to be "published" and exempt from the Act. The requester of information is then left to pay the price set by the market. The end result is that while the information is published, the distribution (and pricing) of information is out of the government's control. Thus, accountability for pricing of this information is with the market, and not with government.

Second, the guidelines on tradeable data recognize that information in government databases has value in the marketplace. This value could be a basis for refusing to disclose government information under s. 18 of the Act which states:

18. The head of a government institution may refuse to disclose any record requested under this Act that contains
- (a) trade secrets or financial, commercial, scientific or technical information that belongs to the Government of Canada or a government institution and has **substantial value or is reasonably likely to have substantial value** ;
 - (b) information the disclosure of which could reasonably be expected to prejudice the competitive position of a government institution;... [emphasis added]

As a result of recent Treasury Board policy, departments now have greater motivation to release information through licensing. In 1993, Treasury Board adopted a policy where departments could retain royalties and fees from the licensing of Crown-owned intellectual property. In the past, departments had little motivation to generate revenues when excess revenue did not benefit the department's programs directly but became part of the general revenue fund. The new policy states:

Departments and agencies are now authorized to receive, through Supplementary Estimates, an annual appropriation equal to all revenues arising from the licensing of

²¹ *Ibid* at I.4.

Crown-owned intellectual property which the department or agency remitted to the Consolidated Revenue Fund in the previous fiscal year.²²

This policy will have the effect of encouraging departments to generate revenue wherever possible and provides the motivation for departments to price information in a way to maximize the rate of return.

As the value of information resources is assessed by departments, Section 18 could become a general reason for refusing to disclose information requested under the Act.

A recent complaint was brought to the Information Commissioner when Canadian Mortgage and Housing Corporation (CMHC) refused an access request for commercial information gathered by the government of Canada on the basis that the information had substantial value and thus was exempt under s. 18. The requester was informed that the requested information was available from Statistics Canada. However, the requester asked for simplified data that was collected by CMHC. The raw data compiled by CMHC did not appear to have commercial value because it was readily available from other sources. However, once combined with other data by Statistics Canada, the data did take on a commercial value. The requester had applied to CMHC for the raw statistics and did not request further analysis which was available from Statistics Canada. At issue was the question of accessibility to raw data which itself is not of substantial economic value but contributes to an end product which is of economic value. Unfortunately, the issues of the complaint were not resolved because the complainant withdrew his complaint saying he no longer required the information.

Conclusion

Despite the government's commitment to widespread dissemination of information, current administrative practices could lead to more restrained access to information in the future. First, government communications policy clearly directs government institutions to recover the full cost of producing information except in those cases where there is a clear duty to inform. This policy is likely to create economic barriers to access. Second, the guidelines on tradeable data and intellectual property could result in less information being subject to the Act because it is "published." If the information is

²² "Retention of Royalties and Fees from the Licensing of Crown-Owned Intellectual Property", Treasury Board Secretariat, Ottawa, July 19, 1993.

published only by a third-party vendor in the private sector, the pricing of that information is not under the control of government and would escape the normal political process of holding government accountable for pricing policies. Finally, the recognition of the value of information could lead to more information being exempt under s. 18 of the Act.

4.

Developments in Information Technology

In 1983, when the *Access to Information Act* was enacted, parliamentarians were well aware of the power of information technology. Unlike the U.S. Freedom of Information Statute, Canada's access legislation specifically includes computerized records and the processing capability of computers. However, the role of information technology has changed dramatically from 1983 to 1993. Two significant changes that affect the administration of the Act are:

- the development of networks and distributed computing; and
- object-oriented programming.

Networks and Distributed Computing

The first three decades of computing were primarily based on a single paradigm - host computing. Host computing involved large monolithic software applications operating in centralized hierarchical environments addressing specific large scale organizational needs. The host computer (often a mainframe) formed the top of the hierarchy connected to all terminals and other devices below it. These terminals and peripherals had limited or no intelligence and were dependent on the host as the central processing unit. Host computing led to isolated pockets of technology applications. Separate systems, proprietary in nature, were not compatible and served only those terminals which were directly connected to the host. The user interfaces were often terse, cryptic, and involved a difficult-to-learn set of unnatural commands that used alphanumeric characters. The end result was a computing environment based upon specialized, stand-alone systems accessible only to trained computer operators directly connected to the host computer.

In the 1990s, there has been a dramatic shift away from centralized host computing to decentralized, distributed processing and storage of information. This shift will have a dramatic impact on how people access information.

Network Computing. As microprocessor speeds continue to increase exponentially and digital

communications pathways increase in speed and scope, the centralized and hierarchical "host" computational model withers away. The basic architecture of digital information technology will evolve toward network computing.

The movement toward large scale network computing began with the proliferation of personal computers in the 1980's. Organizations and individuals connected to one or more local area networks as a means of communicating (e.g., e-mail, computer conferences, and sharing services to work-group users, such as laser printers, file servers, and communication servers.

Network computing inverts the intelligence hierarchy of host computing. It enables cooperative processing which involves the spreading of application components across multiple platforms and using the network to link these components.

To achieve a true network computing environment the IT industry is adopting a client/server model for integrating the various platforms. The work station becomes the client platform providing the user interface. If the work station or personal computer cannot perform a users request, the client passes the task to an appropriate server. The server performs the tasks requested by the user.

There are a variety of servers available. Those most likely to be widely used include: storage/retrieval servers, communication servers, transformation servers, recognition servers and management servers. These servers will operate at various locations within a network. Servers can be closely coupled to the work station or another part of the network. The server can also break the task into subtasks, or shift processing to a platform best suited to perform the specific task. These operations are transparent to the user who works with the same graphical user interface that they are familiar with.

The networked computer model, distributive in nature, necessitates software that can be cooperatively processed simultaneously on various platforms. This is achieved through the adoption of a standard set of distributed environments and interfaces -- an open system. An open system is a fundamental shift from the proprietary design of the host computer model. The networked open system computing model indicates a maturing industry seeking to extend its market both horizontally and vertically through systems and software based on standards which are vendor-neutral and commonly available.

Networking is common within the federal government. Most departments have functioning local networks within their departments that support e-mail and messaging services. One example of the use of networks is the Senior Executive Network within the federal government. Senior executives use the network for both inter- and intra-departmental communication. The network supports both e-mail and conferencing activities among senior executives of the federal government across Canada.

Online Networking. The information highways of tomorrow will have a revolutionary impact in the way society communicates. Just as the railroads and highway networks radically altered physical transport through increased speed, quantity, and reliability, the information highways of the future will enable enhanced two-way, interactive, integrated communication. Current basic networked services of file access and transfer, electronic mail, electronic data interchange, and virtual terminals will evolve into enhanced services of multimedia exchanges and distributive processing. The underlying communication technologies that will enable such communication will be transparent.

For example, Public Works and Government Services operates an online service related to the Open Bidding System. The system is operated by ISM Information Systems Management Corporation and provides online access to information about contracts that are required to have open bidding. Through external online access, users can enquire about contracts that are open for bids, and order bid material. In the future, the system will allow bidders to file bids for government contracts electronically. Another example of an online application is Revenue Canada's program that allows taxpayers to file income tax returns electronically.

An example of a larger network is the Department of Justice's Legal Information Network. The network began as the Public Legal Education and Information Network (PLEINet). The network supports ongoing conferencing among more than 200 people across Canada. Participants are members of public legal education organizations as well as employees of the Department of Justice. The computer conferences are housed on equipment at WEB (a non-profit computer network organization) in Toronto. The administration of the network is managed under contract by the Legal Resources Foundation in Edmonton. Both WEB and the Legal Resources Foundation are under contract to the Department of Justice.

Object-Oriented Programming: Changing the Concept of Record.

The most important restriction for today's databases, both hierarchical and relational, is that they do not support the additional manipulation that is needed in order to get the right information out of the system.

Object-oriented systems present information in units called objects which consist of data and a set of operations to manipulate them. Each object has the ability to receive messages from other objects, store this information, and perform a limited number of operations based on the data. By containing logic and data, they are intelligent, enabling them to link with other objects.

Object-oriented systems have three major components: data encapsulation, message passing, and inheritance. Data encapsulation stores the data and instructions on what the data can do. Message passing defines how objects interact with one another. Inheritance defines what one object can inherit from another. Objects with similar characteristics are then classed together and arranged in a hierarchy based on principles of inheritance. Each object inherits the general characteristics of the one above it, leaving only the differences that apply to a specific application to be coded.

The appeal of an object-oriented system is reusable software elements that can be used for a large number of applications including: object-oriented programming, object-oriented languages, object-oriented databases, and object-oriented user interfaces. Because object oriented systems group data and the operations performed on them into objects, they dramatically reduce the amount of programming a programmer must create, and reduce the complexity and quantity of programming operations required to develop an application. Thus the object orientation approach is a form of standardization, reducing development costs and increasing software portability.

Implications for Access to Government Information

The US *Freedom of Information Act* (FOIA) was drafted at a time when computers were simply not a factor in the management of government information. As one might expect, the Act does not deal with electronically generated or stored information. It has been up to the courts to define the scope of electronic access under the U.S. Act.

More recently, Senators Leahy and Brown introduced Senate Bill 1782, the *Electronic Freedom of*

Information Improvement Act of 1993. The bill gives public access to federal agency records maintained in electronic form and takes steps to alleviate delays in processing requests for government records. The Act also requires an assessment of agency computer capabilities required to comply with a request and requires agencies to provide information in the format requested when possible.

In Canada the *Access to Information Act* and Regulations do contain specific language dealing with computer records. However, reference to computerized records, and refining provisions to deal with the issues raised, will not truly generate a modern access regime for three reasons. First, the Act must consider the implications of local area and wide area networks within and among government institutions; second, the Act must consider the impact of personal computers (including portable computing devices) on the creation, storage, management, retrieval and communication of government information; and third, the Act must take into account the difficult but crucial movement in software to object-oriented programming, expert systems, and artificial intelligence.

"Record" concepts in an "information" age. The Access to Information Act gives members of the public access to records. The limitation of this record-based approach is quickly reached when the information required is not neatly contained in records. For example, some relational databases, object-oriented programs, hypermedia presentations, expert systems and artificial intelligence programs may be used to explore data models, to persuade decision-makers, or even to make decisions. Neither the input nor the output may fit the Act's definition of "record." But to exclude such information from the scope of the Act would be inconsistent with its purpose.

Some legislation takes a broader approach which may be instructive. For example, under the *Canadian Environmental Protection Act*²³, an inspector with the Department of Environment may:

100(6)(a) may...use or cause to be used any computer system at the place to examine any data contained in or available to the computer system....

This is a good start, but the section goes on to unduly (and unwittingly) restrict the inspector's powers:

100(6)(b) may... reproduce any record or cause it to be reproduced from the data in the

²³ R.S.C. 1985, c. 16 (4th Supp.), s. 100(6)(a).

form of a printout or other intelligible output²⁴

In some statutes where a full and meaningful right to access is granted to specifically authorized individuals, the statutory language does not speak of records. A good example is found in s. 19 of the *Family Orders and Agreements Enforcement Assistance Act*²⁵:

19. Where information requested in an application under section 13 is found in an information bank that may be searched under this Part, the information bank director of that information bank shall cause the information to be transmitted to the Minister in accordance with the regulations.

Conclusion

The developments in information technology -- the growth of networks, distributed processing and object oriented programming -- will have three important implications for the administration of the *Access to Information Act*.

First, as more and more information is stored throughout the federal system, it becomes increasingly difficult to manage a complete inventory of government information holdings. Because much of the information is not stored in a centralized database or on a central mainframe, it is much more difficult to monitor what records exist and what records do not exist. Creating an accurate inventory of information holdings within departments becomes essential in order to ensure that requests are not denied because the department believes a record does not exist when, in fact, the record does exist or could be compiled from information controlled by the department.

Second, the cost of computer processing time is declining. The growth of standardized platforms and object-oriented programming means that in many cases, it will cost less to create a record requested under the Act. For example, common word processing programs like Word and Wordperfect can store a file in a form that can be read by other word processing programs.

Third, and perhaps most importantly, the definition of a record is changing such that a "record" need not

²⁴ Similar provisions may be found in the *Competition Act*, R.S.C. 1985 c. C-34, s. 16(1), and the *Hazardous Products Act*, R.S.C. 1985 c. H-3, s. 22, for example.

²⁵ R.S.C. 1985, c.4 (2d Supp.).

be located in a single file or even on a single computer. Rather, a "record" is compiled based on the criteria of the user (or requester) from a "pool" of information.

5.

Issues and Recommendations for Reform

Access to government information has long been recognized as playing an essential role in a democratic political system. The right of access enshrines the right of the citizen to be informed and places an obligation on government to enable the free flow of government information.

The purpose of this section of the paper is to discuss the issues raised in the legal, administrative and technology reviews, and where appropriate, to suggest amendments to the *Access to Information Act* to ensure the Act remains effective in a changing information environment.

The issues in this section can be grouped into six areas:

- exemption of information as a valuable resource;
- third-party vendors, Crown Copyright and the pricing of government information;
- the changing definition of a "record;"
- the creation and retention of records;
- the reasonableness of searching and producing information requested; and
- the administration of access requests, including formats and fees.

Exemption of Information as a Valuable Resource

Section 18(a) of the *Access to Information Act* exempts "trade secrets or financial, commercial, scientific or technical information that belongs to the Government of Canada or a government institution and has substantial value or is reasonably likely to have substantial value." In the context of the Treasury Board guidelines on Tradeable Data and intellectual property, the potential exists for more and more government data to be declared exempt from access requests because it has value to the government.

In 1987, the Federal government began to articulate and codify its policy with respect to managing

information resources with the publication of *Information Management Policy Overview*.²⁶ This policy began to define government information as a marketable corporate resource which needs to be organized and managed in a cost-effective way, rather than primarily as a public resource. The policy, in combination with the 1993 Treasury Board policy that allows government heads to retain up to 100% of net non-tax revenue, encourages government institutions to view information holdings as assets and encourages their exploitation through revenue return. The result is that it is more and more likely that access to information will be denied based on the Section 18(a) exemption.

Section 18(a) is contrary to the intention that exemptions should be limited and specific. We believe that Section 18(a) of the Act should be amended to provide that s. 18 cannot be used to exempt information the government intends to disseminate or that is considered "tradeable data." However, the amendment should preserve the exclusion for trade secrets.

Third-Party Vendors, Crown Copyright and the Pricing of Government Information

Currently, the Act does not apply to published material or material available for purchase by the public. Published material is defined as "an information product which has been created and edited for the purpose of distribution or sale." Presumably, this exemption is to ease the burden and cost of responding to a request under the Act when the information is readily available. However, as we have noted earlier, this exemption is problematic when:

- information is licensed to third-party vendors and is not distributed by the government agency directly, and
- the government, as a result of crown copyright, prices its own published information at a level that limits access.

Information distributed by third-party vendors. Electronically stored government records are not necessarily prepared for distribution and sale and are covered by the Act. However, a database

²⁶ "Information Management Policy Overview: Strategic Direction in Information Technology Management in the government of Canada," Treasury Board Secretariat, Ottawa, 1987.

distributed through a third-party vendor is considered to be published and is therefore excluded from the Act. Vendors can charge market prices for access to the information. While the information is therefore, "available for purchase by the public," the purchase includes value-added components that may go beyond what the requester wants.

The publication exemption raises the issue of economic barriers to access when a government agency does not control the price of the publication. This issue was at the centre of the Ontario Securities Commission order by the Ontario Information and Privacy Commissioner discussed earlier. As Commissioner Wright noted:

Basing an individual's right to access on his or her ability to meet conditions for access determined by a private sector vendor may result in inequitable access to information held by government.²⁷

We believe the intention of the Act was to not place an unnecessary burden on government to comply with requests made under the Act when the information is already available. However, if information is only available through a private sector vendor, we believe access could be denied and the requester would have to pay for the information in the form generally provided by the vendor which would include additional value-added features such as additional information or improved search algorithms that go beyond what the government record originally contained.

Crown copyright and the pricing of government publications. Crown copyright allows government to maintain monopoly control over information it publishes. If the pricing of this information is at full-cost recovery, access may be limited by one's ability to pay.

Copyright is a federal matter governed exclusively by the *Copyright Act*, R.S.C. 1985 c. C-42. The statute expressly deals with copyright in Crown works. Section 12 provides:

²⁷ Decision by Commissioner Tom Wright, IPC Order P-496, 14 July 1993, p. 4.

12. Without prejudice to any rights or privileges of the Crown, where any work is, or has been, prepared or published by or under the direction or control of Her Majesty or any government department, the copyright in the work shall, subject to any agreement with the author, belong to Her Majesty and in that case shall continue for a period of fifty years from the date of the first publication of the work.

According to the Act, then, protection against unauthorized copying or dissemination of published government works would last fifty years. An access request for unpublished Crown records would not constitute publication of the record, nor would the provision of a copy of that record to the requester itself constitute an infringement of copyright, by virtue of s. 27(2)(i) of the *Copyright Act*:

27(2) The following acts do not constitute an infringement of copyright:

. . .

(i) the disclosure pursuant to the Access to Information Act, of a record within the meaning of that Act, or the disclosure, pursuant to any like Act of the legislature of a province, of like material . . .

Reference in s. 12 to "any rights or privileges of the Crown" has spawned debate among legal historians and commentators as to the contemporary existence or the extent of the historical Crown prerogative power over publishing certain works, including statutes and judicial decisions. There are those who argue that the Crown clearly has, in addition to and notwithstanding any statutory right of copyright, a *perpetual* copyright in certain miscellaneous works.

For example, Paul von Nessen has written: ". . . there can be no doubt that the Crown, by virtue of its prerogative, has the exclusive right to print and publish statutes."²⁸ C.J. Bannon has asserted that: "While the Crown has not insisted upon its prerogative copyright to prevent private publishing of law reports, its rights probably still exist."²⁹ Barry Torno, while accepting the existence of a limited prerogative right, argued for its abolition in favour of a pure statutory scheme of Crown copyright.³⁰

On the other hand, Colin Tapper and others have argued that the prerogative power over law books in

²⁸ "Law Reporting: Another Case for Deregulation," (1985), 48 *Modern Law Review* 412-433 at 413.

²⁹ "Copyright in reasons for Judgment and Law Reporting," (1982) 56 *The Australian Law Journal* 59 at 60.

³⁰ *Crown Copyright in Canada: A Legacy of Confusion*, Ottawa 1981, p. 44. See also Fox, *The Canadian Law of Copyright and Industrial Designs*, Carswell, 2d ed., 1967, at 279.

England no longer subsists. Tapper goes even further to suggest that the decisions of English judges may be in the public domain by virtue of the inconsistency between copyright and free access to the law.³¹ Some support for that position is provided in an obiter dictum by Hutcheon J.A. of the British Columbia Court of Appeal, who stated:

. . . there may be cases where the publication of materials becomes part of the public domain either because of a statutory requirement to publish the material or because it is inherent in the circumstances that to recognize the claim to copyright would be contrary to public policy. A judge's reasons for judgment may be an example of the latter.³²

It would appear that such a "public policy" defence to infringement could apply to categories of Crown works beyond statutes and judicial decisions.

In *R. v. James Lorimer and Company Limited*, [1984] 1 F.C. 1065 (Fed. C.A.), a commercial publisher published and distributed without permission an abridged version of a federal government report. The original report was published in seven volumes and cost \$70, and was made available by the government in certain public libraries. The abridged version was sold in paperback and contained no original text.

The court rejected a defence of "fair dealing," and also rejected a defence based on the right to freedom of expression in the Charter.

Although the Crown was successful in its infringement action, the Court made some interesting comments which suggest that a defence of "public policy" might have been successful had the facts been different.

³¹ "Copyright in Judgments," *Computer Law and Practice*, January/February 1985, p. 76 at 79.

³² *B.C. Jockey Club v. Standen (Winbar Publications)* (1985), 8 C.P.R. (3d) 283 (B.C.C.A.) per Hutcheon J.A. at 288.

. . . it seems to me there is as a minimum an element in all of the public interest cases as they relate to copyright, in any event, the suggestion that the publisher has through his work accomplished the disclosure of some information which otherwise the public might not learn; so that I think it can be said that, as a general principle, laws generally and specifically the copyright laws ought not to be used to assist the suppression of information when it is in the public interest that the information be made known.³³

The court held that merely enhancing access was not sufficient to override the right of Crown copyright in the name of public interest.

The issue of concern here is the extent to which a claim of Crown copyright may interfere with or contradict the right of access to government information, and the ways in which Crown copyright may or may not affect the market for tradeable government data in the information age.

It has been argued that Crown copyright allows the Crown to act as a "trustee" on behalf of the public to ensure that government information is disseminated widely, inexpensively and accurately. Copyright would also be the cornerstone of a government tradeable data policy, since it would allow the Crown to enter into exclusive licensing agreements and to control the dissemination of its information directly and indirectly, at least for the time frame of the *Copyright Act*. The copyright power would also provide the legal authority for the collection of royalty payments.

Opponents of Crown copyright argue that such a right is inimical to open government and the widest possible accessibility of government information. They point to the United States, where "Government works," including judgments and statutes,³⁴ are not subject to copyright, and are hence in the public domain.³⁵

In *From Gutenberg to Telidon - A White Paper on Copyright* the suggestion was made that "some consideration could be given to the abolition of copyright for works of the Crown." However, the

³³ *R. v. James Lorimer and Company Limited*, unpublished judgment of the Federal Court Trial Division, Court no. T-2216-81, transcript p. 17. On appeal, the Court of Appeal upheld the trial judge on this point: "I have no doubt that a defence of public interest as enunciated in the English cases is available in proper circumstances against an assertion of Crown copyright." per Mahoney J.

³⁴ See *Compendium II of Copyright Office Practices*, pp. 200-8, 300-5.

³⁵ See *Wheaton v. Peters*, 33 U.S. 660 (1834) re judicial decisions; *Davidson v. Wheelock*, 27 F. 61 (C.C.D. Minn.)(1866) re statutes. Also, See 17 U.S.C. §105¶10,035 and ¶10,015.

White Paper recommended the retention of Crown copyright and the prerogative copyright over statutes and case law as well. To allay concerns about access, the report indicated that the Crown could always waive its right where copyright protection is not required, and that guidelines would be formulated to indicate where copyright would or would not be enforced. The guidelines would "establish the broadest possible dissemination; maintain the accuracy and dignity of the information; and provide for the recapture of public funds spent on the creation of such works where there is a market demand."

A Canadian House of Commons Sub-Committee on the Revision of Copyright reported in October of 1985 in *A Charter of Rights for Creators*. Recommendation 10 was that statutes, regulations and judicial and administrative decisions should be in the public domain. This, of course, goes much further than a mere administrative waiver of Crown copyright. However, it is similar to the Australian Copyright Act of 1968 that provides that Crown copyright is not infringed by the making of a single copy of certain prescribed works. The prescribed works include statutes, regulations, judicial and administrative decisions.

Recommendation 11 was even more sweeping in its scope: it recommended an abolition of Crown except for moral rights, works produced by Crown agencies for the purposes of entertainment (e.g., CBC and NFB productions), and custom-made statistical information.

The government's response to the report was published in 1986. The government agreed in principle with recommendation 10, but felt that more analysis (and more exemptions) would be required with respect to recommendation 11.

Ensuring Access to Published Information. Pricing can become a barrier when government information is only available through a private-sector vendor or when crown copyright enables the government to price information as a monopolist. In both these situations, the price of information could create a barrier to access. There are a number of options to resolve the issue of pricing as a barrier to access. These options can be grouped into four broad areas:

- political accountability for pricing,
- regulation of government pricing,
- elimination of crown copyright enabling market mechanisms for pricing, and

- the requirement that information that is published not be exempt unless it is available at a "reasonable" price.

Political Accountability. The Act could be amended to restrict the definition of "published" to a work that is available for purchase by the public and the pricing is under the control of an institution of the government. This solution eliminates the possibility that only third-parties control the price and terms of access to "published" government information. Under this solution, crown copyright would remain in force and the government would continue to set prices for published information. If the price of government information became a barrier, the normal means of political accountability could be used to attempt to correct the pricing policy.

Regulation of Government Pricing. Another option would be to regulate the price of published government information. This option would also require that the Act be amended to provide that government information that is only available through a third-party vendor is not exempt under Section 68(a). This option would, in effect, adopt a public utility model for government information with the goal of ensuring that price is not a barrier to access. It would require a new regulatory structure or the addition of this regulatory mandate to the duties of an existing body.

Elimination of Crown Copyright. Another option would be to eliminate Crown copyright on government publications and enable the market to react to pricing of government information. In this case, if information were published by a third-party vendor and the price of that information became a barrier to access, a lower-priced product might emerge if there was sufficient demand for it. This option would not require amendments of the *Access to Information Act*. However, it is based on the assumption that the market will respond to demand for information at low cost and that additional vendors would attempt to satisfy niche markets for government information. However, experience with other information markets suggests that only that information that has significant demand would be produced.

A "Reasonable Cost" Solution. A final solution is to amend section 68(a) so that only published information that was available at a "reasonable" cost would be exempt from the Act. The Act could be amended further to give the Information Commissioner the power to determine whether the information

was "available to the public at a reasonable price." If the Commissioner found that the information was not available at a reasonable cost, the information would not be exempt under s. 68. The procedure for the Report of the Commissioner' findings and appeals to the Courts currently contained in the Act could be maintained.

"Reasonableness" can be judged on either objective or subjective standards. Because each information product is unique, it would be extremely difficult to generate objective standards of reasonableness. However, subjective standards based on the price of the publication, whether the information is readily accessible to the public (e.g., through a library), or other circumstances specific to the particular request, could be reviewed by the Information Commissioner. This option allows the flexibility needed to ensure that all Canadians have basic access to government information without requiring the government to forego revenues from the sale of published information or the sale of tradeable data, or to relax Crown Copyright.

We recommend the "reasonable" cost solution. We believe this solution allows for the flexibility needed while being responsive to the needs of requesters. Political accountability for pricing would react slowly while the regulatory approach would be very costly. Finally, the market would respond only where there is sufficient demand for the information and would not respond well where there is limited interest in particular information. Allowing the Information Commissioner to review exemptions under section 68 for reasonableness would provide a flexible, responsive solution.

What Constitutes a "Record" in Electronic Age?

Computer records increasingly bear fewer and fewer similarities to paper records. New computer and database technologies and structures have begun to raise questions about whether computer stored information can even be conceptualized in terms of discrete records. Information technology has and continues to change the way in which electronic information is stored, processed, retrieved and transmitted. Traditional interpretations about records and searches need to be modified to ensure even basic access to public information.³⁶

³⁶ *Jurimetrics* p. 51 Fall 1990

While the title of the *Access to Information Act* refers to access to information which is contained in records, the purposive section of the Act sets out a distinct limitation of its scope:

2(1) The purpose of this Act is to extend the present laws of Canada to provide a right of access to information in records under the control of a government institution...

The Act defines a record as:

3. In this Act, "record" includes any correspondence, memorandum book, plan, map, drawing, diagram, pictorial or graphic work, photograph, film, microform, sound recording, videotape, machine readable record and any other documentary material, regardless of physical form or characteristics, and any copy thereof;

The limitations of the Act's record-based approach is quickly reached when the information requested is not discretely contained in records. The capabilities of current and future information technologies do not fit the Act's definition of a record. But to exclude such information from the scope of the Act would be inconsistent with its purpose.

As database technology evolves, the parallels with paper records become ever more remote. Databases have come to resemble "pools" of information rather than discrete documents. Thus a record may result from the synthesis of information retrieved from several files and/or databases. As such, a specific record may not be created until a request is made and the software associated with the database compiles the information. Viewing databases as pools of information rather than a series of files is essential as technology evolves. The Act must also consider the implications of these technologies linked distributively to local area networks and wide area networks.

Any request for access to information, in whole or in part, should be treated as a standard request for records. Access to records would include all information in the control of a government institution acquired in the legitimate conduct of its official duties. The Florida Supreme Court has interpreted this to include "any material prepared in connection with official agency business which is intended to perpetuate, communicate, or formalize knowledge of some type."³⁷

³⁷ Shevin v. Byron, Harless, Schaffer, Reid and Assoc., 379 So. 2d 633, 640 (Fla 1980).

This approach would ensure that information that results from electronic mail(E-mail) and electronic data interchange(EDI), and computer conferences are included in the concept of record.

We recommend that the definition of "record" in the Act be clarified to explicitly include e-mail, computer conferencing and other computer communications made or received in carrying out business of a government agency covered by the Act.

The Creation and Retention of Information

The effectiveness of the *Access to Information Act* in maintaining open government is dependent, in part, upon the effectiveness of the *Archives Act* in ensuring that there are records to get access to. The *Archives Act* should be amended to specifically include the duty to create records containing adequate and proper documentation of the organization, functions, policies, decisions, procedures, and essential transactions of the agency and designed to furnish necessary information to protect the legal and financial rights of the government and of persons directly affected by the agencies activities. This provision is similar to that required under the *Federal Records Act* in the United States.

While applications such as E-mail and computer conferencing allow data to be created, transmitted, processed, and analyzed, they also allow individuals to dispose of the information. For example, upon return from a holiday, one government employee discovered 1,100 E-mail messages waiting on his system. Because it would take too long to review the messages, the employee erased all of the messages. While it is unlikely that all 1,100 messages were important enough to be kept for the public record, one will never be sure. The *Archives Act* and its regulations should include provisions for the retention of relevant information, including E-mail and other similar communications, once the information has been created.

The necessity for retaining all messages on these systems stems directly from the notion of open and accountable government. To limit the retention of electronic documents to the option of the user would clearly jeopardize accountability. The Iran-Contra scandal illustrated the importance of determining the "record status" of electronic information flows for the public interest. Messages retained on a backup

file that had been created to protect against power surges, ultimately confirmed and informed the public about US arms sales to Iran and the diversion of funds to the Nicaraguan Contras.³⁸

Towards a Definition of Reasonable Effort

The question of defining a standard for "reasonable effort" in the electronic age is inherently dynamic, as capabilities for retrieval and manipulation of data have become increasingly efficient and cost effective. To what degree is an institution obliged, within its public service mission, to commit time and resources to fulfil access requests?

The Act holds that a request itself should be specific enough to enable an experienced employee of the institution to fulfil the access request with reasonable effort. The Act does not mandate the acquisition of sophisticated information technologies. It simply requires the utilization of existing hardware and software.

The most satisfactory approach to reasonable effort necessitates that the information held or accessed within an institution's control could form any number of records. Assuming the request complies with the Act's requirements, the information should be provided whether additional programming is required or not. Thus, the request for information necessitates the use of information technology used in its normal operations.

In an application for access to information in certain criminal informations, the Ontario High Court held that the administrators of the court system were not obliged to manually review all the informations filed over a two or three week period in order to pull the specific ones requested. Since the office of the court did not have a cross-referencing system, the refusal to disclose was reasonable and the request for access was denied.³⁹

³⁸ Report of the Congressional Committees Investigating the Iran Contra Affair pg. 110, 689 Nov 1987.

³⁹ *London Free Press Printing Co. v. Ontario (Attorney General)* (1988), 66 O.R. (2d) 693 (H.C.).

Had such a cross-referencing system been in use, access should have been granted. In a precedent-setting case in the US, *Public citizen v. OSHA*⁴⁰ access to specific information was denied. During the appeal, OSHA had expanded its computer capabilities and was able to fulfil the request and the case was dropped.

At present, the definition of what constitutes a reasonable search is at the discretion of the institution, subject to review by the Information Commissioner and ultimately by the courts. Whether an effort is "reasonable" or not will depend on the circumstances of the case. We believe the Act's provisions allowing for review by the Information Commissioner and the courts is the most workable means by which "reasonableness" can be assessed. We do not recommend any amendments to the Act with regard to standards of reasonableness.

Format Disclosure -- A Question of Accessibility and Utility

While paper copy remains the most accessible and commonly accessed format, other formats must be made available, providing they exist or can be created with a reasonable amount of effort. The desire to obtain copies of public information in electronic form is driven by the increased utility of the format. In this regard, the 1986 U.S. House Policy Report (U.S.) remarked:

When dealing with information, the distinction between form and substance are difficult to apply. In many instances, the form in which information is provided makes a great deal of substantive difference to the way the data can be used.⁴¹

By releasing electronically held information in a non-electronic format to a request for an electronic record, the agency has failed to provide the most effective access to the information. Conversely, an agency should not release information solely in an electronic form since the paper copy is the most accessible form across the population.

The *Access to Information Act* and Regulations provide minimal guidance regarding format

⁴⁰ *Public Citizen v. Occupational Safety and Health Administration (OSHA)*, Cir. No. 8600705 (D.D.C. 1988).

⁴¹ 1986 House Policy Report, supra note 10, at 36 n.151 (emphasis supplied).

dissemination. The Act allows a requester to request information in one of the official languages. The regulations provide for the cost of diskette copies as well as for braille, large print and audio cassette formats. However, the Act and Regulations do not specifically mention the conversion of data from one format into another, for example, from dBase into another database format, from WordPerfect to another word processing format, or from a printer's tape to stripped-down ASCII text. Assuming all of these conversions (which are often capable of being done automatically by simple utility programs) will cost the requester for "programming" time, one wonders whether subsequent requesters will have to pay the same costs, or whether the institution, having accomplished the conversion once, should be under some compulsion to maintain the data in the converted format, in anticipation of future requests. Would documents printed on demand from an electronic record be held, in anticipation of a future request? There exist no regulations for on-line or remote access to electronic information.

We recommend the regulations be amended to specifically grant a requester the right to request information in a particular format, including conversion, if utility programs for conversion exist within the institution and it is reasonable for the agency to do so. Where utility programs do not exist, the department or agency should be obliged to disclose the information in its original format or in an alternate format.

Software: the Foundation of Electronic Access

Access to electronic data requires the appropriate software. This begs the question, does the Act cover access to software? Access to software becomes an issue when data is stored electronically in one software format, but the requester does not have access to that software. In cases where the software is available in the market the requester should purchase the software or have the right to receive the information in an alternate format.

Where the software is proprietary to the government, it is impossible for the requester to purchase the software in order to "read" or access the information. The agency could require the requester to receive the information in an alternate format. However, if the requester has the right to access the information in whatever format he or she prefers, and the preferred format is electronic, what is the best way to provide this access? Surely the government is not expected to distribute the proprietary software. The

agency or department could provide access through a terminal located at the head office of the institution. If the agency or department has the operating system networked to other agency offices, access could be granted at the agency location most convenient to the requester.

Fees

The Act and the Regulations deal with the cost of making an access request by setting specific fees. Where machine readable records are produced to satisfy a request, s. 11(3) of the Act simply refers to the Regulations:

7(1) Subject to subsection 11(6) of the Act, a person who makes a request for access to a record shall pay

- (a) an application fee of \$5 at the time the request is made; and
- (b) where applicable, a fee for reproduction of the record or part thereof to be calculated in the following manner:

...

- (vi) for magnetic tape-to-tape duplication, \$25 per 731.5 m reel.⁴²

(3) Where the record requested pursuant to subsection (1) is produced from a machine readable record, the head of the government institution may, in addition to any other fees, require payment for the cost of production and programming calculated in the following manner:

- (a) \$16.50 per minute for the cost of the central processor and all locally attached devices; and
- (b) \$5 per person per quarter hour for time spent on programming a computer.

The idea that generating a report from a database is tantamount to "programming a computer" is outdated. Modern report-generating tools, available at a very modest cost, readily permit the manipulation of database reports into a variety of reports, based on different sort and selection criteria.

There is little to no programming involved in storing a Word text file as a Wordperfect file. Similarly, a

⁴² The section was amended by SOR/92-687, s. 1, to include fees for records produced in alternate formats. Among those fees is 7(1)(c)(iv), "\$2 per microcomputer diskette."

per minute charge for central processor time, while still relevant in many mainframe environments, is much less relevant in today's LAN client/server computing environments. Charging for central processing time is an artifact of the days when the processing capacity of a mainframe was the same as today's 486-systems and processing capacity was a scarce resource. Additionally, mainframes represented a significant financial investment and the pricing of processing time was one method to amortize the cost over the full range of use.

The movement from a host computing environment to a networked computing environment is the result of the price and performance advantages of microprocessor technology. As performance has increased, the relative price of performance has decreased. The decreasing price/performance ratio is reflected in the cost per million instructions per second (MIPS). The cost per MIPS for a workstation is expected to decline by 83.33% between the years 1992 and 1995, whereas a mainframe price/performance is only expected to drop by 42.9% (see Figure 5.1).

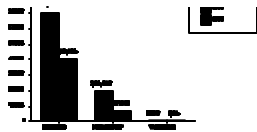


Figure 5.1

Source: Don Tapscott, *Paradigm Shift: The New Promise of Information Technology*, p.129

The increasing performance capabilities coupled with a declining cost of PC-based networked computing result in the machine time cost approaching zero. While charging \$16.50 for each minute of central processor time is applicable to mainframe computing, it can hardly be justified for networked personal computers. Additionally, personal computers have become standard office equipment, enabling operators to perform a number of tasks more efficiently. For example, in the past a request might have been filled by a clerk by looking up the appropriate catalogue number and then retrieving the file from the appropriate filing cabinet and making a photocopy of the document. Today, clerks can look up a file on their personal computers, access the file and immediately copy the file onto a disk or print the file without ever leaving their desks. In the past the use of catalogues or filing cabinets was not charged for, but clerk time was. In the same way, PC-based searching should not be charged for, but the staff time taken to fill the request may be.

The regulations to the Act should be amended to "exclude" PC-based processing from the central processing fee.

A second pricing issue is related to the fee to be charged for new distribution media not covered by the current fee schedule. The intent of the current fee schedule in the Regulations is that the cost to the requester should be limited to the cost of compiling and reproducing the information. This same pricing framework should be maintained for other storage media, such as CD-ROM or other distribution channels such as computer printouts. In the case of CD-ROM, the applicable charge may be in the range of \$10-\$15 per disc if there is no additional work required to compile or format the information for the disc. In the case of computer printouts, the applicable charge could be the same as the charge for photocopies that is currently in the fee schedule.

Improving Access in the Future

Throughout this paper, we have discussed how recent developments in technology and information management may threaten to dilute the public's right of access to government information. We have also made recommendations to address these problems. However, information technologies and management practices in the future could be used to promote broader-based and more meaningful access to government information. To what extent can public access be increased beyond "access to records" without unduly compromising the operation of government?

Electronic Access under the Act. As we have seen, s. 12(1) of the Act provides that "access" means examining records or obtaining copies. Assuming a requester seeks access to records which are located in a computer database, to what extent if any should dial-in access be available? We have already discussed the placing of a computer in the agency through which some access might be gained. But the opportunity is here to greatly expand the convenience of this access across the country by allowing some form of dial-in access as part of the procedure under the Act.

This kind of access is not merely a matter of convenience. Some kind of plug-in access (local or remote makes no difference) may be the only way of obtaining a meaningful understanding of government information where that information is managed within custom or proprietary systems; multimedia applications; expert systems; artificial intelligence programs or other non-linear, dynamic information management tools.

Dissemination through Public Networks. In our report we have discussed how the publication exemption may be a threat to access under the Act as more agencies explore the option of making databases available through third-party commercial publishers. We have recommended that the publication exemption be restricted to those situations where information is published and available at a reasonable cost.

The current explosion of interest in the "information superhighway" could provide an exciting opportunity in terms of greater access to government information while at the same time encouraging our information industry to compete.

Already, agencies in the United States are posting files on the Internet where they are accessible to millions of users at no cost or very low cost. For example, in October, 1993, the Securities and Exchange Commission (SEC) released on to the Internet their EDGAR database of corporate financial information. Commercial gateways charge roughly US\$1 per hour for Internet access.

Within a matter of years, public access to the Internet is expected to increase dramatically. The potential is certainly there for the creation of an electronic depository library, but many issues remain to be resolved.⁴³

Systems Analysis and Acquisition Planning. When government agencies draft specifications for their internal computer systems, acquire these systems and then implement them, careful thought should be given in all cases to the requirements of the Access Act. This means, for example,

- how the system may be programmed to handle the fine balance between security (privacy) and public access. It would be unfortunate if meaningful access to government databases had to be denied because of the presence of private information, if the inevitable intermingling of the public and private information were due only to poor systems planning or execution.
- how the system facilitates redaction. Computerized redaction software exists now and should be scrutinized in those agencies where manual redaction adds to the cost of satisfying access requests.
- how flexible are the system's reporting capabilities. Again, the cost of meeting access requests can be significantly reduced if systems have robust reporting capabilities. Moreover, these capabilities could assist in providing requesters with more useful information. For example, some database management programs are available in "run-time" versions. Access requests could be satisfied not merely by the presentation of a printed report, but by a diskette with selected records and a run-time version of the program at a nominal charge.
- how powerful are the system's document management and backup features. Agencies should be aware of the capabilities and benefits of dedicated document management software, not to mention full-text database and indexing software which, at a very low cost, could significantly enhance access to electronic files generated by word processing, database, spreadsheet and other software.

In addition to managing documents, draft documents and different versions of the same

⁴³ See, for example, Kahin, "Information Policy and the Internet: Toward a Public Information Infrastructure in the United States," (1991) 18 *Government Policy Review* 451-472.

document (all of which are important in the access situation), document management software also manages the archiving process. Backup software, an obvious internal requirement for any government agency, may also have a significant impact on access requests.

It should also be noted that with the increase in home office and mobile computing, government information is collected and created outside the traditional office computing environment. Document management technology as well as office procedures and guidelines are important to ensure that such information is not inadvertently (or deliberately) kept secure from access requests.

- how flexible the system's dynamic links, conversion and export utilities are. Many programs have built-in tools for linking information across programs, converting file formats and exporting records to different applications. These tools can be helpful to the access process if they are indeed present, and if they are flexible enough to meet varied demands for information without complication or custom programming.
- how well-trained staff are in creating, storing, and retrieving records. The staff who are responsible for responding to access requests must be sufficiently computer literate, and must understand their information systems well enough to provide effective and efficient responses. Moreover, other staff must be given to understand their responsibilities under the *Access to Information Act* and the *National Archives Act*, and should be trained to follow standardized procedures such as file naming conventions that can standardize records management across departments and make access easier to requesters.

Access to government information is central to open government. This paper has reviewed potential barriers to access as a result of changing practices in the administration of government and the application of information technology. The focus has been on a review of policy issues and recommendations in those areas where the basic right of access to government information is threatened. However, information technology provides an opportunity for government departments to manage information resources more effectively. Truly open government would look beyond the basic rights of access to opportunities provided by information technology to make government more accessible and accountable.

6.

Summary of Recommendations

This report has attempted to assess the effect of information technology and management practices on open government. As a result of the investigation, numerous issues emerged. The recommendations presented are:

Exemption for Information as a Valuable Resource

1. Section 18(a) of the Act should be amended to provide that s. 18 cannot be used to exempt information the government intends to disseminate or that is considered "tradeable data." The current exemption for trade secrets should be maintained.

Section 68(a) -- Publication Exemption

2. Section 68(a) should be amended to provide that only published information that was available at a "reasonable" cost would be exempt from the Act. The Act would be amended further to give the Information Commissioner the power to determine whether the information was "available to the public at a reasonable price." If the Commissioner found that the information was not available at a reasonable cost, the information would not be exempt under s. 68. The procedure for the Commissioner's Report of Findings and appeal to the Courts currently contained in the Act would be maintained.

"Reasonableness" can be judged on either objective or subjective standards. Because each information product is unique, it would be extremely difficult to generate objective standards of reasonableness. However, subjective standards based on the price of the publication, whether the information is readily accessible to the public (e.g., through a library), or other circumstances specific to the particular request, could be reviewed by the Information Commissioner. This option allows the flexibility needed to ensure that all Canadians have basic access to government information without requiring the government to forego revenues from the sale of published information or the sale of tradeable data, or to relax Crown Copyright.

Crown Copyright

3. Crown copyright should be relaxed for all information for which there is a statutory duty to disseminate, including statutes, regulations and court judgments.

Definition of Record

4. That the definition of "record" in the Act be amended to specifically include electronic mail(E-mail), electronic data interchange(EDI), and computer conferences and to provide that records include all information in the control of a government institution acquired in the legitimate conduct of its official duties.

Creation and Retention of Record

5. The *Archives Act* should be amended to include specifically the duty to create records containing adequate and proper documentation of the organization, functions, policies, decisions, procedures, and essential transactions of the agency and designed to furnish necessary protection of the legal and financial rights of the government and of persons directly affected by the agencies' activities.

Format Disclosure

6. That the regulations be amended to specifically grant a requester the right to request information in a particular format, including conversion, if utility programs for conversion exist within the institution and it is reasonable for the agency to do so. Where utility programs do not exist, the department or agency should be obliged to disclose the information in its original format or in an alternate format.

Access to Software

7. Where a request is made under the Act for electronic information that can only be used with software that is proprietary to the government, the department or agency should provide access via a computer terminal located within the institution at the head office or other locations.

Fees

8. The fee schedule in the regulations should be amended to include other media such as CD-ROM and computer print-outs.
9. The fee for central process time s. 7(3)(a) of the regulations should be amended to apply only to mainframe computer processing capacity and specifically exclude PC-based processing.

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