Preserving the Canadian Legal Heritage

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Introduction

A survey conducted by the Judges Computer Advisory Committee of the Canadian Judicial Council (CJC) in January 1996 revealed that not enough was being done to preserve the Canadian judicial heritage. Of the 24 courts surveyed, only 11 had developed a policy or strategy in this regard.

This is not surprising, since many Canadian courts have become computerised only recently. Not so long ago, keeping paper copies of court decisions seemed an adequate way of meeting any immediate or future needs. Only very recently have electronic documents begun to compete with and in some cases replace paper ones. This is exactly what the Judges Computer Advisory Committee of the CJC observed in the opening section of its standards for the preparation of judgements in electronic form:

> *The print-on-paper world has been supplemented—and in the future, may well be supplanted—by electronic or machine-readable text. Public demand for access to judgements in electronic form is increasing. Courts and publishers are trying to respond to this increased demand.*[1]

An American Bar Association committee formed to examine the question of legal citations has made a similar observation concerning the new, predominant role of electronic text:

> *In recent years, computer-based technology has added capabilities which are now commonly recognised as offering significant improvements in the way that legal authorities are published and disseminated. Few courts still use typewriters. Decisions are largely prepared on computer word processors.*[2]

This transition to electronic documents has gotten under way only during the last few years, so it is not too surprising that the first steps to preserve judgements in electronic form are being taken only now. But that is no excuse for dragging our feet about implementing a plan to protect this very special part of our Canadian judicial heritage. Concern about the insufficient protection currently afforded electronic documents has begun to be expressed in many quarters. In the United States, publishers, librarians, and archivists are sounding the alarm. As the Task Force on Archiving of Digital Information stated in a recent report:

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1 « Standards for the Preparation, Distribution and Citation of Canadian Judgments in Electronic Form », *Judges Computer Advisory Committee of the Canadian Judicial Council*, May 1996.

2 See para. 13, « Final Report and Recommendations », *ABA Special Committee on Citation Issues*.

> *The Task Force envisions the development of a national system of digital archives, which it defines as repositories of digital information that are collectively responsible for the long-term accessibility of the nation's social, economic, cultural and intellectual heritage instantiated in digital form. [...] Without the operation of a formal certification program and a fail-safe mechanism, preservation of the nation's cultural heritage in digital form will likely be overly dependent on marketplace forces, which may value information for too short a period and without applying broader, public interest criteria*[3].

It must be recognised, however, that preserving electronic documents is no simple matter. Merely saving files on diskette or hard disk is a necessary start, but it is not enough. What we need is a strategy that is based on advice from the best experts but that is also practical, given the actual resources and capabilities of Canadian judicial institutions. This document recommends a set of guidelines based on recent studies by archivists, which also attempt to take these constraints into account.

The conservation of statutory material is not so well guaranteed either. The conservation of statutes and regulations in all their versions is even more complicated. Indeed, judicial opinions are far less often updated (sic) than statutes! Generally speaking, we only need to keep a single copy of a decision and that's enough, but for laws we need all the versions of all sections. The work done recently at the Centre de recherche en droit public shows us that many phenomenons may occur in the statutes amendment process: sections may move from part to part, they can be renumbered and so on. That task, the conservation of our legislative history, must also be taken care of.

The first section of this document lays out our recommendations concerning electronic storage media. The second section deals with software and file formats (which become obsolete even faster than storage media). The third section presents several proposals regarding the structure of archives, which also needs to be standardised. The fourth section exposes considerations particular to the conservation of statutory material. The final section covers various other matters that must be dealt with in order to ensure future access to electronic versions of judicial documents.

1. Physical storage media

The variety of media available for electronic information storage is growing every day. The most common forms are diskettes, hard disks, CD-ROM, and magnetic tape. The diskette as we know it is probably on its way out and will soon go the way of the 5 1/4-inch floppy disk, which has all but disappeared. We can therefore assume that diskettes are not an option for preserving judicial archives.

Hard disks will probably be around longer than diskettes. But as a permanent storage medium they are expensive and have too many moving parts to be considered fully reliable. Moreover, ten years from now it may well be impossible to access or to repair the hard disks being sold today. Hence we should also exclude hard disks from consideration as a permanent archive medium.

Before we consider the traditional electronic archiving media—magnetic tape and optical disk or CD-ROM, let us quickly dispose of the wide variety of other media that have come on the market recently. In our view, these media should be approached with caution. As a committee of the International Council on Archives suggested in a recent report, it is preferable to choose a medium that already has a large market share, in order to minimise the chances that it will become unavailable any time soon. According to this report, the following is one factor on which the choice of a preservation medium should be based:

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3 From the Executive Summary of the Report "Preserving Digital Information", prepared by the Task Force on Archiving of Digital Information established by the Commission on Preservation and Access and the Research Libraries Group.

> *The medium should have sufficient market penetration that additional supplies and support (including the equipment to read and write) can be expected to be available over a length of time which makes it economically viable to use the medium.* [4]

That leaves the two most commonly used media: magnetic tape and optical disk. But according to an Australian study, even these media cannot really be considered suitable for archiving:

> *At the present time there is no stable electronic media available which can be considered archival. Optical media cannot be considered archival as the life and stability of the media is not yet known. Reel-to-reel magnetic tape has been in common use as an archival medium for over 30 years but now with the advent of cartridge and cassette tapes this is becoming obsolete and the new form of magnetic media is in the same position as optical media in that it is an immature technology.*[5]

For our purposes, however, we recommend CD-ROM as the storage medium for archiving Canadian judicial and statutory material. Because of its low cost, ease of use, and popularity, we consider CD-ROM the best medium for preserving electronic files. As for magnetic tape, the variety of cartridges and tape sizes currently on the market creates too much uncertainty for us to recommend this medium. It remains to be seen what CD-ROM encoding standard must be used. The older ISO 9660 is well established, but it limit us to the old 8.3 file-naming scheme from the DOS era. A newer standard ISO/IEC 13490,[6] is being adopted, but its acceptation by the industry is still to come.

2. File formats

Many authors state that the software format in which files are stored may pose more of a risk to their long-term preservation than the physical storage medium. File formats seem to become obsolete faster than storage media. This section discusses the various file formats that might be considered for archiving judicial records.

SGML and XML. Archivists are still looking for the ideal storage medium for preserving electronic documents, and they may never find it. But an acceptable file format for this purpose already exists: SGML (Standard Generalized Markup Language, ISO 8879). Because SGML is non-proprietary and does not require any particular computer hardware or software for its implementation, it is the most stable file format imaginable. But it does have one drawback: SGML is relatively expensive to implement. At the very least, SGML can be expected to require a larger initial investment than the more common solutions for preparing text for archiving. Fortunately, leaders of the SGML and Web communities have put their heads together and produced for use on the Web what can be called a SGML-lite, XML (Extended mark-up language) [Bray 96]. XML is a subset of SGML retaining most of its truly useful features. Its relative simplicity compared to SGML will mean much simpler and cheaper tools. The best can be hoped for XML, since Microsoft has endorsed it and will integrate it in its soon to be released Internet Explorer 4. Many of the deployment costs of SGML may be alleviated by using XML instead. Nevertheless, even

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4 « Guide for Managing Electronic Records from an Archival Perspective », *Committee on* Electronic *Records, International Council on Archives*, p. 43.

5 State Archives of Western Australia, "Electronic Records: An Investigation into Retention, Storage and Transfer Options," *LISWA Research Series,* No. 4, (1993), cited by Alf Erlandsson in "Electronic Records Management", Committee on Electronic Records, International Council on Archives, p. 67, note 187.

6 Standard ISO/IEC 13490 is the successor to ISO 9660: 1988, which is still the most commonly applied standard for writing to CD-ROM. Adopted in December 1995, ISO/IEC 13490 allows such innovations as the use of filenames up to 64 characters long.

thought the long-term advantages of SGML/XML are obvious, and they should be used wherever possible, we need to explore and identify the alternatives.

Text format. ASCII files are machine-readable now and are likely to remain so for some time to come. But ASCII code cannot represent all of the accent marks used in Latin languages, so it doesn't make up a proper solution for our purposes. International character set ISO 8859-1, commonly known as ISO-Latin 1, is quite another matter. The CJC Judges Computer Advisory Committee already recommends its use in the *Standards for the Preparation, Distribution and Citation of Canadian Judgements in Electronic Form.* ISO-Latin 1 characters are fully capable of representing Latin languages, but that is still not enough. In addition to a character set, we need some means of formatting the pages to reflect the document's structure. If we simply reproduce the text without any formatting, information is lost. Thus we consider an all-text format unacceptable for archival purposes, especially since another solution that allows the document's appearance to be preserved is already available: HTML.

HTML (Hypertext Mark-Up Language). HTML is a mark-up language defined by means of SGML but its large adoption, the vast number of tools available, make it very simple to use. It is HTML that is used to encode the documents posted on the World Wide Web. We consider HTML a promising method of encoding documents for judicial archives, and the popularity of HTML leaves little doubt on this promise. HTML documents, at least in their simplest form, can now be created using functions available directly in the most popular word-processing software. Because HTML is an open standard, it can be read and displayed by any computer, using a wide variety of software. In fact, HTML files can even be read directly, because the files are still text-only, and what is even better, the accented characters in these files are encoded by means of ISO Latin-1 entities. These files can thus be read by any computer software that can display ASCII text. We therefore recommend HTML as a file format for judicial archives, because HTML documents are easy to create, preserve much of the original document's appearance, and have the same universal readability as ordinary ASCII files.

PDF (Acrobat) format. PDF (Portable Document Format) was developed by Adobe Systems, Inc. as a form of electronic "paper". (PDF is sometimes also called Acrobat format, after the software that Adobe supplies for viewing it.) Adobe is the same company that developed the widely used Postscript page description language used in many printers, and they developed PDF to allow users to, in effect, print their pages on screen. Some experts have definite reservations about PDF. For example, many negative comments greeted a recent proposal by the Administrative Office of the United States Courts to use PDF as a the preferred document format for electronic filings. One point mentioned in many of the comments was that PDF is proprietary. Other comments mentioned certain technical limitations on the reuse of text distributed in PDF format. However, no one can deny that PDF has a far greater ability to reproduce the physical appearance of a page than technologies such as HTML, which are designed more for representing the structure of the information itself.

Producing documents in PDF is much like producing them in HTML, which is simple, and can be done with the latest version of popular word processing package. To view a PDF document, you do need the Acrobat Reader software published by Adobe, but Adobe distributes this software free of charge. Recent efforts to develop an open standard for PDF may increase its potential usefulness for Canadian legal archives[7]. It should also be noted that in the past few months several U.S. government bodies have adopted PDF for archiving purposes.[8] In conclusion, because PDF can reproduce the appearance of

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7 « Proposed Technical Standards for Electronic Filing in the Federal Courts », *Administrative Office of the United States Courts*, December 30, 1996. See, in particular, recommendation G1 and the accompanying comments. http://www.uscourts.gov/elfrulwp.pdf

8 Ibid.

documents so accurately, and because it is currently moving toward an open standard, we believe that this format can play a role in preserving the Canadian judicial and statutory legacy.

Word processor file formats. The native formats of popular word processing packages cannot be considered a reliable means of archiving electronic documents. MacWrite and WordStar are just two examples of word-processing formats that were extremely popular in their time but that have disappeared scarcely ten years later. However, the documents that we want to preserve are originally produced as word-processor files and can therefore be preserved in this form at no additional cost. Hence we feel that we should not discourage the preservation of such files.

Folio and other proprietary formats. Though Folio is extremely useful as a distribution format, and is now largely used by government agencies and legal publishers, we do not consider it a good choice for archiving. Being proprietary, it is too subject to change with the business plans of the company that owns it.

To sum up, we think that a strategy to preserve Canadian judicial archives may be build on HTML, PDF and the native word-processing formal in which the document was originally produced[9]. Appropriate software for reading HTML and PDF files must accompany the archived documents. SGML would be better, but the cost to develop a SGML solution is out of reach of the majority if not the totality of Canadian Courts. The situation in Quebec is distinct in this regard because the court system is more centrally managed. The same may also be true of some of our larger and most important court organisations.

3. Standardisation and organisation of files

Even when preserved in an appropriate file format on an appropriate storage medium, electronic information can be considerably less useful if poor organisation and inadequate file-naming conventions make it nearly impossible to access. This section, essentially centered around the building of judicial material archive, discusses directory structures for archive volumes, file-naming conventions, and other related topics such as the various systems and standards that have been proposed for managing meta-information about documents. The archiving of statutory material will be treated in a next section.

Archive volume directory structures

The directory structure of archive volumes of judicial material should be kept as simple as possible. We think that this goal can be achieved by adopting something like the following very small number of guidelines, which are self-explanatory. Archive volumes should be organised as follows: each volume should be annual (one year = one CD-ROM); directories should be created so that all files in the same format (HTML or PDF) are stored in the same directory; within these directories, sub-directories can be created to separate files according to the first differing character of their name.

File-naming conventions and citations of archive files

The standard that the CJC Judges Computer Advisory Committee recently proposed for the preparation of judgements in electronic form includes a file-naming convention. However, given the highly positive reception accorded another recent proposal on this subject by a committee of the American Bar

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[9] More thinking is needed to determine if it is really a good idea to include native word-processing formats along with the other recommended formats. One may feel that confusion could arise from excessively lax guidelines.

Association, we feel it is worth re-examining this issue briefly. The central elements of the ABA committee's proposal are very simple:

> *The court should include the distinctive sequential decision number described in paragraph C below in each decision at the time it is made available to the public.*
>
> *The court should number the paragraphs in the decision.*
>
> *The court should require all case authorities to be cited by stating the year, a designator of the court, the sequential number of the decision, and where reference is to specific material within the decision, the paragraph number at which that material appears*[10].

These guidelines make it very easy to cite a specific paragraph in a decision. Here is an example:

> 1996 SDNY 15, 26

In this example, 1996 is the year, SDNY identifies the court (the Southern District of New York), the number 15 indicates that this is the 15th judgement rendered by this court in 1996, and the number 26 identifies the 26th paragraph in the judgement.

As the CJC Judges Computer Advisory Committee observed in the previously cited standards for the preparation of judgements in electronic form:

> *Many commentators have pointed out that Canada lacks a national system for case identification. It is strongly urged that a national standard be adopted in which every court registry is assigned a unique code and a series of numbers with which to assign file names. (This, combined with paragraph numbering, is the key to a truly vendor-neutral citation standard. Armed with a unique file name and a consistently applied paragraph number, users should be able to find copies of a judgement in any source, electronic or print, without reference to a specific publisher, database or series of reports.)*[11]

Perhaps the time has come to reconsider assigning codes to Canadian courts so that all of their decisions can be readily cited without reference to commercial publications. The ABA's proposal seems like a good starting point for developing a new system of designating Canadian courts.

We may consider establishing an alphabetical code to identify all Canadian courts. Such a coding system should meet the following guidelines: each alphabetical code should comprise a limited number of capital letters and contain no punctuation; some of thoses letters may use existing province and territory codes to identify the jurisdiction (national, provincial or territorial) of each court; the proposed codes should be linguistically neutral, for example, SCA for the Supreme Court of Canada, FCA for the Federal Court, and AQC for the Quebec Court of Appeal; the decision on how to use the remaining alphabetical positions should be left to the appropriate jurisdictional bodies.

Thus, instead of:	re *ST. Marys Paper Inc*., [1996] 1 R.C.S. 3
We may have:	re *ST. Marys Paper Inc*., 1996 SCA 1
Or, in short form:	1996 SCA 1
And even, for data-processing, and archiving purposes:	1996SCA1

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9 ABA Official Citation Resolutions, Resolution 107, *American Bar Association*, August 6, 1996

10 "Standards for the Preparation, Distribution and Citation of Canadian Judgments in Electronic Form", Judges Computer Advisory Committee of the Canadian Judicial Council, May 1996.

Metadata

Archivists place great emphasis on including metadata, or information about the archived information, when archiving documents, and rightly so. They consider this metadata essential for the future use of the archived documents. Many proposals have been made for standardising the contents and encoding of metadata, but the various standards proposed still have to be analysed. One worth mentioning is the GILS standard, which was originally developed for cataloguing active government documents but has since been extended to meet the needs of archives as well[12]. Other methods have been proposed over the past few years to use metadata to make it easier to find documents on the Internet. These metadata management methods are much less elaborate than GILS. The Dublin Core is a good example of these types of proposals.[13]

In their simplest form, metadata are similar to the kinds of information typically found in bibliographies. Many models of this kind are available, including the one proposed by the CJC Judges Computer Advisory Committee in its recent standards for the preparation of judgements in electronic form[14]. Our archiving scheme must include a solution to add metadata to the documents, and great benefits may come from a standard way of doing so.

4. Conservation of statutory material

The conservation of statutory material presents a problem quite different from the one related to judgements. As everybody knows, statutory material, statutes, regulations and similar documents are subject to be amended regularly. Thus, the conservation of their various version presents a more difficult problem than that of judicial documents. One the other side, this kind of document is produced by heavily centralised organisations. At the opposite of the habitual court situation, we have complicated documents managed by large, technically savvy, organisations. At least, they must be so. Lets now us turn to those two aspects: the complexity of statutory documents and the resources accessible to those who manage them.

The statutory material changes, it's its nature. The first and most evident of these changes are the modifications to the wording of a section. But other more complicated changes also occur. For instance, the structure of a statute may change. The sections may move, they may be renumbered and they may be relocated in an other part of the legislative piece. The statute name itself may be modified. Furthermore, at some point, some sections, or amended sections, may be known but nevertheless not in force. If one wants to know the state of the affairs at a specific moment, he needs to know about these not yet in force elements.

The simplest way to conserve the versions of a statute is certainly to save a copy of each succeeding version of it. But it's cumbersome. Even thought the space occupied by electronic archives is not anymore a big concern, when one considers heavily modified legislation, like the Income Tax Act, it doesn't seem

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11 See in particular the Canadian guidelines on this subject: « The Canadian Government Information Locator Service Guidelines for the Preparation of GILS Records » *National Library of Canada*, Draft 7, 18 October 1996, http://gils.gc.ca/gils/guide_e.html

12 For general information about metadata, see « Digital Libraries: Metadata Ressources », *International Federation of Library Associations*, updated 18 February 1997; regarding Dublin Core, see: Lou Burnard, Eric Miller, Liam Quin, and C.M. Sperberg-McQueen, « A Syntax for Dublin Core Metadata: Recommendations from the Second Metadata Workshop », 19 April 1996 http://www.nlc-bnc.ca/ifla/documents/libraries/cataloging/metadata/dublin2.htm

13 « Standards for the Preparation, Distribution and Citation of Canadian Judgments in Electronic Form », *Judges Computer Advisory Committee of the Canadian Judicial Council*, May 1996.

very reasonable to save the whole thing every day. That bring us to the second solution: to archive the versions of the sections. With this approach, the whole project becomes less trivial without being completely satisfying, for the conservation of the versions of the sections is not enough. We will miss many kinds of change, as the structural ones. The best solution appears to be the production of an SGML version of the statutory material. It's more complicated, but the legislative bodies and the government departments which produce the legislative pieces have the resources to look at that kind of solution. This brings us to the second part of our analysis.

The conservation of statutes and regulations is complicated but certainly not more than their production and their consolidation. It may be difficult to justify the cost of implementing SGML in the only objective of assuring the conservation of the documents; nevertheless, some decide to do precisely that[15]. In most cases however, legislative bodies decide to consider SGML management of statutes and regulations to streamline their preparation, their consolidation and their publication. Doing that, they also solve a large part of the archiving problem.

The benefits of SGML for the archival of statutes and regulations come from the basic nature of the documents' encoding. The SGML solution is made of a DTD (Document Type Definition), of a collection of tagged documents, as well as of a collection of tools to automate the conversion or the preparation of documents, their verification, their management and their publication. Without describing all the underpinnings of implementing SGML, we may observe that a collection of SGML documents have all their structural elements tagged appropriately and that they are validated[16]. For that reason, it becomes easily possible to archive them. In such a context, a statute document may contain all the versions of its elements and, at the same time, its DTD gives the possibility to reconstruct a particular instance of that statute at any point in time.

Thus, for statutory material, the archiving solution exists but isn't a cheap proposition. It's not a project for *amateurs*. Fortunately, we may hope that the many benefits of a SGML approach may bring government agencies to look at this kind of technical solutions, and doing so, to solve the archiving problem for statutory material.

5. Other issues

Authenticity of information

The proposed archiving system may also include a means of calculating a checksum to guarantee the integrity of the archived documents. If we choose to protect the integrity of the collection that way, the software required to validate this check value should accompany the archived documents. It goes without saying that in our proposed system, the data cannot be altered, because they will be written to CD-ROM. But because the checksum will be available with each record, any user who obtains a copy from the archives will be able to use this value to verify the document's integrity.

Migration of existing archives

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15 The HMSO in Great Britain choose to use SGML for archiving purposes more thant ten years ago. Stutely, Robert, « HMSO's Database of Legal Text », SGML Users Group Bulletin, 2(2), pp. 91-93, 1987.

16 A good source of informations about the deployment of SGML is the Travis and Walot book. Travis, Brain E. and D. C. Walot, « The SGML Implementation Guide », Springer-Verlag, New York, 1995.

Some courts (eleven, according to our 1996 survey) have already begun to archive their judgements in electronic form. These courts should be encouraged to migrate their existing electronic archives to the formats proposed here. As mentioned earlier, archiving word-processing files in their original native format is not a safe enough way to preserve this information.

Required hardware and software and associated costs

For the courts, the hardware and software needed to implement our proposed strategy is not expensive. In terms of hardware, all that is basically needed is a CD-ROM reader with write capability. In terms of software, the proposed system calls for Adobe Distiller to create the PDF files, a word processor that can save documents in HTML format, and a software package for writing to the CD-ROMs. At the current prices, the total cost is about $1 000 (HP6020i, Adobe Acrobat). Blank CD-ROMs cost about $20 each.

Here again, the preservation of statutory material is a quite different business. The cost of implementing a complete SGML solution is larger by at least two orders of magnitude.

Proposed responsibilities

Many believe that the best way to preserve electronic documents is for the institutions that produce the information to do the work, since it is they who best understand the information's value. We think it's entirely reasonable, at least for preparing the original versions of the archive volumes. However, for long-term preservation of the documents, we consider a more centralised approach more appropriate. We may for instance investigate the appropriateness of adopting a central repository. The Federal Judicial Affairs Bureau would be a natural choice.

Relationship between archiving and distribution

It seems evident that the archiving system proposed in this document may facilitate access to the judgements of Canadian courts. We may find there one of the biggest benefit of the ideas presented here.

Archive maintenance

As time goes on, the archived documents will eventually have to be migrated to new file formats and new physical media. An appropriate procedure for this purpose must be developped. As Erlandsson notes:

> *There seems to be agreement that the selection of medium and the life-span of that medium is not the most important factor in preserving electronic records over time. Technological obsolescence will sooner or later make any medium useless. Conversion and migration to new media must take place, making the selection of medium secondary, and "copying" will take precedence over physical preservation*[17].

Methodology

A procedure must also be drafted to help court staffs in implementing the ideas presented so far to augment the quality of the produced archives and to facilitate the deployment of the plan we have sketched.

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17 Alf Erlandsson, « Electronic Records Management, Committee on Electronic Records », *International Council on Archives*, p. 70

Conclusion

The preservation of our judicial heritage in its electronic form must be addressed without delay. Until recently, some of its more important pieces have been erased without second thoughts on a day to day basis. To solve this problem, simple solutions are needed. Otherwise, many court organisations will not be able to implement them. On the other hand, there is no easy solution assuring the conservation of our statutory heritage. The technology to preserve it exists, but it's not cheap. However, the current processes used to produce, amend, consolidate and publish legislative text suggest the kind of technology able by the same token to solve a big part of its archiving problem.

In this paper, we have looked at some of the elements which may be part of the solution for the preservation of the Canadian Legal Heritage. Many questions are still open and call for a more complete study. However, we hope to have contributed in creating interest for the conservation of our legal heritage among the legal community, and all those who have an interest for our legal system as well.

Bibliography

NLC "The Canadian Government Information Locator Service Guidelines for the Preparation of GILS Records", National Library of Canada, Draft 7, 18 October 1996, http://gils.gc.ca/gils/guide_e.html

IFLA "Digital Libraries: Metadata Resources ", International Federation of Library Associations, updated 18 February 1997; On Dublin Core, see:

Burnard Lou Burnard, Eric Miller, Liam Quin, and C.M. Sperberg-McQueen, "A Syntax for Dublin Core Metadata: Recommendations from the Second Metadata Workshop", 19 April 1996, http://www.nlc-bnc.ca/ifla/documents/libraries/cataloging/metadata/dublin2.htm

AO "Proposed Technical Standards for Electronic Filing in the Federal Courts", Administrative Office of the United States Courts, December 30, 1996. http://www.uscourts.gov/elfrulwp.pdf

ABA 96 "Final Report and Recommendations", ABA Special Committee on Citation Issues, May 23, 1996, http://www.abanet.org/ftp/pub/citation/home.html

Bray 96 Bray, Tim and Sperberg-McQueen, C.M., *Extensible Markup Language (XML), Version 1.0*, World Wide Web Consortium, 1996 (Work in progress). Lastest version : http://www.textuality.com/sgml-erb/WD-xml.html.

CJC "Standards for the Preparation, Distribution and Citation of Canadian Judgements in Electronic Form", Judges Computer Advisory Committee of the Canadian Judicial Council, May 1996. http://www.inforamp.net/~mfelsky/www/normes.htm

CPA "Preserving Digital Information", *Report of the Task Force on Archiving of Digital Information*, May 1996, http://www.rlg.org/ArchTF/

Guide "Guide for Managing Electronic Records from an Archival Perspective", Consultation Draft, Committee on Electronic Records, International Council on Archives. June 1996, http://www.archives.ca/ica/english.html.

Australia State Archives of Western Australia, "Electronic Records: An Investigation into Retention, Storage and Transfer Options," *LISWA Research Series*, No. 4, (1993).

Erland Erlandsson, Alf, "Electronic Records Management", Committee on Electronic Records, International Council on Archives, April 1996, http://www.archives.ca/ica/english.html