# Managing Records in the Modern Office: Taming the Wild Frontier

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### Résumé

Du point de vue de la gestion des documents, le bureau moderne constitue un territoire sauvage. Les employés de bureau peuvent créer et envoyer des messages et des documents électroniques à qui ils veulent. Ils peuvent les ranger selon leurs propres besoins pour ensuite les détruire sans approbation. L'autonomie individuelle règne en maître. En développant des solutions à la gestion des documents, nous nous devons de comprendre l'évolution que connaît présentement la technologie des systèmes de bureautique. Les dernières années ont vu un recul graduel de la frontière: alors que différents logiciels tels que les traitements de texte, les tableurs, et le courrier électronique (tous conçus pour augmenter la productivité individuelle) constituaient la norme, nous nous dirigeons maintenant vers un paysage plus structuré, caractérisé par l'apparition des logiciels intégrés supportant directement l'automatisation du travail (conçue pour augmenter l'efficience organisationnelle). Cet article retrace cette évolution et soutient qu'à mesure que la loi et l'ordre s'imposeront en territoire inconnu, de nouvelles possibilités d'intervention sur la gestion des documents s'offriront aux archivistes et aux gestionnaires de documents.

### Abstract

From a record-keeping perspective, the modern office is like the wild frontier. Office workers can create and send electronic messages and documents to whomever they wish. They can store them according to their own individual needs and then delete them without turning to anyone else for approval. There are no rules of the road. The autonomy of the individual reigns supreme! In developing record-keeping solutions, however, we need to understand the evolution that is taking place in the use of office systems technologies. In recent years there has been a gradual shift from the wild frontier, where distinct soft-

ware tools such as word processing, spreadsheets, and e-mail (designed to enhance individual productivity) are the norm, to a more settled landscape characterized by integrated software supporting directly the automation of work processes (designed to enhance organizational effectiveness). This article traces this evolution and argues that as law and order come to the wild frontier, they will present archivists and records managers with exciting opportunities to influence the way that records are managed.

During the eighteenth and nineteenth centuries, land was settled in a variety of ways in different parts of North America. For some settlers the process was quite orderly. The government of the day developed rules and regulations, managed the movement of people, administered land grants, and established cities, towns, and transportation networks. For new-comers in other areas, the experience was much more chaotic. The land was there for the taking and people simply moved in and staked their claims. In the absence of laws, people made up their own rules, but only when absolutely necessary and only for self-serving purposes. Individual freedom and autonomy reigned supreme.

In many ways the modern office environment is not unlike the wild frontier of the last century. Instead of horses and wagons, our organizations have provided us with computers and software, telling us to charge off into the great unexplored plains of cyberspace where supposedly we can work more effectively. With a few mouse-clicks, we can easily send e-mail messages to people at all levels of the organization. We make no distinction between the substantive message and the informal "let's do lunch" type—they all go through the same electronic channel. We use our own sometimes unorthodox approaches to describe and classify our documents. And when our directories are too full, we simply get rid of the old stuff that we do not need anymore. If we could just remember what that old stuff was.

Often we do all of this while forgetting that in the hardcopy world we would have thought twice about having a memo prepared and forwarded without following some procedures about who should review it, approve it, and so on. We would have added a file number, the "yellow" copy would have been sent to file, another copy sent to the originator and still another copy to the chron file. In some cases a manual or perhaps an automated logging and tracking system would have been used to ensure that the document was routed to and actioned by the appropriate officials.

Corporate rules of the road and other mechanisms have yet to be established in the electronic world. The wild frontier is unfortunately more the norm than the exception. In the modern office, it is the office worker, not the technical specialist, who works with technology applications on a daily basis. It is the office worker, not the organization, who decides what information will be created, transmitted, and stored. And it is more often than not the office worker, not the organization, who makes up the rules, if any.

In recent years, however, the familiarity with which office workers are using information technology and growing concerns about what to do with the "stuff" generated and received in the office environment have together spawned a number of questions. Is e-mail a record? If it is a record, what should be done with it? Does

everything need to be documented? Are there any rules to be followed concerning what should be kept and where it should be filed? Should everything be printed onto paper? What are my responsibilities? Who can provide me with advice and guidance? How can responsibilities for good documentation and record-keeping be carried out in a way that does not become a burden or prevent me from getting my job done?

The purpose of this article is to address these questions by drawing on our experience at the National Archives of Canada, as well as other organizations that are facing similar challenges. This is not just an archiveal issue, nor is it restricted to Canada. The growing concern that organizations are suffering from corporate amnesia has generated a rapid increase in the number and kinds of projects that are attempting to deal with the issue. Examples include the excellent work of colleagues in the Netherlands and Australia, as well as organizations such as the United Nations, the World Bank, the New York State Archives and Records Administration, and the US National Archives and Records Administration. At the University of Pittsburgh, David Bearman and Richard Cox are leading an initiative to develop and test functional requirements for record-keeping systems, while at the University of British Columbia, Luciana Duranti and Terry Eastwood have initiated a study on the characteristics of a record.

## IMOSA

Our experience at the National Archives of Canada was based on a project called IMOSA, or Information Management and Office Systems Advancement.[1] IMOSA was the working title given to a partnership project led by the National Archives that included representatives from the public, private, and academic sectors. All participants shared a common concern about the corporate management of information in the so-called "automated office."

IMOSA's first objective was simply to permit the partners to learn. We needed to understand the overall impact of office technology applications on the workplace. What were they being used for? What was the impact on record-keeping? What opportunities were being provided to enable institutions to keep records? Were existing records management tools and techniques applicable in this environment? The second objective was to develop functional requirements that would provide government managers with some guidelines on developing technical solutions for keeping both hardcopy and electronic records generated in the office.

Both objectives were addressed through the testing of prototype records management software in the Government Records Branch of the National Archives. Users created and exchanged electronic documents using software applications for word processing, spreadsheet, e-mail, etc., that were available on the local area network (LAN). The prototype application, located on a file server on the LAN, was available to users through a list of menu options. It permitted users to file, browse, search, and retrieve documents while also providing the records manager with functions to control and manage both electronic and hardcopy holdings.

Much of the automated index to the departmental subject classification system was downloaded to the file server to ensure that consistency could be maintained in the classification of documents regardless of recording media. A document could not be altered or deleted once it had been filed. Among the important features designed into the prototype were version control, file management, security, and retention and disposition standards and strategies. A field was even included in the file profile to reflect archival value, so that all documents in the designated file would be destined for preservation by the Archives.

The prototype application was assessed by a small user group of project officers and managers from the test site as well as departmental records management staff. The results of the assessments, combined with work undertaken by other partners, led to the development of a host of products: a final report on the project; a draft set of functional requirements that are being used by an increasing number of vendors of automated records management systems and text retrieval software; survey findings concerning North American software products that were beginning to reflect the requirements; an excellent report by one of the partners, a researcher at the Massachussetts Institute of Technology, who assessed a subsequent pilot site established at Revenue Canada; and a report on the role of thesauri by another partner, Université Laval, which has since led to a National Archives-led government-wide project on the use of thesauri in the management of government information holdings.

One of the most important results of IMOSA, however, was the understanding that was gained of the evolution taking place in the use of office system technologies. In the years since the introduction of office networks we have seen a rapid advancement in the sophistication of the automated tools that we are using. There has been, however, a very slow evolution in the application of these tools to the business processes of organizations. In many respects we are still living on the wild frontier, a world where creation, transmission, use, and retention of electronic records is under the control of the individual user. In supporting the needs of individual users we seem to have neglected (or perhaps we do not yet understand) the application of these technologies within the context of the business activities and processes of the organization.

The fact that we are still in the early stages of the evolutionary curve of technology application has influenced the kinds of information products that the National Archives of Canada is currently developing. One of these products is a basic guideline designed to help government institutions answer some of the questions raised earlier: Is my e-mail, or any electronic communications for that matter, a record? What am I supposed to do with it? Am I supposed to keep it all? And who can I turn to for help?[2]

Based on the direction set by the IMOSA project, and keeping in mind that we are still at a stage where the electronic world revolves around the individual user, we developed a guide to managing information in user directories.[3] We wanted to promote a consistent approach among users and to set the stage for greater user acceptance of common filing systems in the future. The guide suggests that the classification scheme be based on the functions and activities of the user—a scheme that should, ideally already be reflected in the function/activity based-clas-

sification scheme used by the records management programme. Besides providing advice on establishing directory structures and naming conventions, the guide also suggests approaches for systematizing retention and deletion of documents.

Since the use of information technologies in some organizations has evolved to the stage where they are being used to support "work group" activities, the National Archives is now in the process of developing and testing a guide on the management of group space. Similar in nature to the computer directory guide for individual users, this publication will help work groups structure their file directories, establish naming conventions, and develop retention and offloading procedures. It will also assess options concerning who should manage the group space and to what extent and under what circumstances it can be used to hold those records that need to be retained as part of the organization's corporate memory. The guide will also present various strategies concerning how users in the group can interact with group space for filing and retrieving documents, etc., in a manner that minimizes burden while maximizing its value to the group. A draft of the guide is being tested in sites that are already supporting group space based on groupware such as Lotus Notes, PC Docs, and Microsoft Office.

So where does that leave the functional requirements generated by the IMOSA project? We are still living in the world of the programme utility using applications such as word processing, spreadsheet, and e-mail. Users do not always want to print to paper those records that belong in the corporate filing system. Recognizing this situation, a number of organizations have expressed an interest in getting together to upgrade their existing automated records management applications to address the management of electronic records. Over the past few months we have been working with the Treasury Board's Office of Information Management, Systems and Technology led by Andy Macdonald, Chief Informatics Officer for the federal government, to establish a management board and user group to review and confirm the requirements. Once endorsed, the requirements will be built into a shared procurement strategy to select one or two automated records management systems that will be used by most government departments for the management of their electronic and hardcopy records.

Guidance will be make available to help introduce these systems to workers and to facilitate their use in the organization. The guidance will be very important because in many instances users will be required to file their own documents electronically, an activity that they may perceive to be more of a burden than a benefit. Even the introduction of a "c.c. to corporate files" option in e-mail will for many seem like an imposition. The guidance will help organizations introduce such applications in a way that minimizes the burden while attempting to maximize benefits.

This brings me to the dilemma that we are facing with respect to the solutions that we are presently developing. The products that I have described may seem adequate in terms of where we are today, but in the future, they will probably be seen as primitive and, from a record-keeping perspective, woefully inadequate. Why? Simply because guides on the management of user directories, group space, and even enterprise-wide automated records management systems are outside the context of how people normally work. What we are doing now is providing people

with more utilities, such as filing systems, to help them manage documents that are produced through the use of other utilities such as word processing and spreadsheet software.

We lack defined business applications that support work processes that are entirely automated, as well as rules and procedures that guide office workers in carrying out their responsibilities for keeping records in the context of these applications. We are restricted to providing them with repositories in which they can file documents or "records." The identification or selection of the "record" and its storage somewhere is addressed as an afterthought and is not a natural result of the transactions associated with the work activity. In the absence of real work process applications, it becomes extremely difficult to make the record-keeping rules, practices, and technologies transparent to the user, or, in other words, function on the other side of the screen.

If we accept that we must travel from the utility-bound world of today to the business applications world of tomorrow, it is essential, even as we build current-day interim solutions, not to neglect the development of strategies that will meet the requirements of tomorrow. On a positive note, I believe that the office system technologies of the future will enable us, finally, to situate the issue of record-keeping within its proper context. It will not be a separate application or function, but something that is interwoven with the normal conduct of the business functions and activities of an organization.

What will this future look like? Right now my screen is full of icons that represent a "toolbox" of software utilities such as word processing, spreadsheet, e-mail, database, etc. In the future, as a programme manager, I want a screen that contains icons that reflect the business activities that I manage. In my work environment at the National Archives, I want the icons to be based on the Operational Plan Framework (OPF) of the department.

Every federal government department is required to have an OPF describing its functions and activities. It is used as the basis for managing resources, reporting to parliament, and measuring performance. An OPF is much more stable than an organization chart because it is based on functions and activities that tend to remain constant over time. For instance, the OPF of the National Archives has been in place since 1990 and has survived and indeed facilitated the reorganizations that we have experienced over the past few years.

All of the activities and sub-activities of the National Archives are related to its four functions: Services, Awareness, and Assistance; Management of Government Information; Holdings Management; and Administration. My division, the Information Management Standards and Practices Division (IMSP) advises government departments on the application of standards and practices to the management of records. It is responsible for nine activities that support three of these functions. All of IMSP's resources and initiatives, for which I am accountable, are managed and reported on in accordance with these activities. They are: "development" of standards and practices, "advice," "professional development," "evaluation," "programme support—Canadian," "programme support—international," "related operational activities," "planning" activities, and "administration." I want an icon on my screen for each of these activities.

An example might help to illustrate what I mean and show how all of this is directly relevant to record-keeping. When I click on the "development" icon, for instance, I want to be provided with a number of options. I may want to initiate a project, monitor it, write a memo on some aspect of it, or perhaps organize a meeting about the project. Rather than develop a project proposal from scratch, I would like to see the appropriate form already set up using style sheets and macros imported from word processing or project management software. The proposal form would reflect the format and rules that my division has decided upon for developing project proposals. When I click on the routing list for my proposal, rather than having to select from all of the names of the staff in the National Archives, I want to see the names of those people who normally receive "development" project proposals. I also want to know, as the proposal is being sent, that the record-keeping rules that were designed into the project development application are respected.

Above all, as a manager, just as I recognize my accountability for finance and personnel, I would like to be able to carry out my responsibility for applying the record-keeping rules of the organization in a manner that directly supports the accountability and business requirements of my programme. Naturally, I would also like to think that I could count on a records manager or facilitator to help me meet my responsibilities.

In another example, if I needed to send a draft of the annual report of the Electronic Records Committee of the International Council on Archives to the committee members, I would click on "Programme Support—International" and be presented with a suite of pre-designed and inter-connected utilities. These tools would permit me to develop a covering letter, attach the report and send the package to the members and the people to whom I automatically communicate all Committee business via e-mail or the Internet.

There would be no "filing" icon as such on the screen. All of the tagging, storing, and other record-keeping activities would happen automatically based on rules and criteria developed by the "records manager," in consultation with my managers and myself. The rules for establishing how the content, context, and structure of the records of the actions and transactions of my division's business activities are to be kept would already have been designed into the applications. Record-keeping functions would take place unobtrusively behind the screen. If any of my staff or I want to retrieve records, we would simply click on the "information locator" icon which would serve as a corporate "gopher" searching for records, information, and data regardless of where they are located. The mechanics involved in enabling this to happen would be designed into the navigation utilities located behind the screen.

Over time, the need for a central repository of electronic and even hardcopy records would diminish with the increase in the sophistication of the tools that could be employed to access and retrieve records and any other information needed to support our work. I would not care if I was accessing the holdings of the records office or the library. All I would want to know is that I have access to all the information that I need and that it is available, understandable, and usable. Again, I would like to think that I could count on a facilitator, such as the librarian, to help me respond to my access and retrieval needs. The librarian, collaborating with

technical people and the records manager (i.e., the person who understands con-
text), could develop and integrate the appropriate tools and place them behind the
screen.

The evolution that is taking place in both the automation of business processes
and the significance of electronic information generated or received by these
processes is causing officials at all levels (including deputy ministers) to recognize
that they too are facing a "record-keeping" issue. This recognition has not come
about because of the concern of archivists or records managers but because man-
agers know that record-keeping is an essential element in the effective application
of technology to the automation of their work activities and processes. In line with
this recognition, however, is the growing concern that the records manager does
not seem to be positioned to provide the answers.

If record-keeping utilities are to move behind the screen and the office worker is
to become a record-keeper, then institutions will need "renaissance" records man-
agers. These individuals must understand what a record is, know what it means to
keep records, and be able to set the rules for record-keeping (on behalf of and with
the approval of the organization).[4] They must also act as facilitators who help users
carry out *their* responsibilities for record-keeping. Finally, institutions will need
records managers who can express record-keeping requirements in the context of
these terms and who can work with technical specialists to ensure that these
requirements are reflected in the design of automated business processes.[5]
Unfortunately, many of the government's existing records managers lack the
knowledge and abilities required to assume this role.

The library community faces challenges also. If the vision of an information loca-
tor is to be realized, then institutions will also need "renaissance" librarians who
are skilled in information access and retrieval techniques. They will need to under-
stand the business activities of the institution and their associated information
requirements. They must know how to provide an active service designed to
respond to and even anticipate the information requirements of clients within the
context of their work. Librarians must make no distinction between unpublished
and published information but they must understand the difference between
records, information, and data. They must be capable of expressing information
access and retrieval requirements and be able to work with technical specialists and
records managers to incorporate them into the design of systems, including those
that reach out into cyberspace. Again, and similar to their records management
counterparts, many federal librarians lack an understanding of this emerging pro-
fessional role.[6]

### Towards the Year 2000

What I have described is not a distant dream. It is beginning to happen now. And it
is happening because vendors such as Microsoft, Lotus, and others are recognizing
that their future depends on the extent to which their products are truly supportive
of the work of organizations. We are witnessing the integration of word process-
ing, database, and spreadsheet utilities with e-mail and automated routing software.

We have seen the advent of work group computing where these integrated tools are now being used to support the automation of work processes. While we continue to live in a multi-media environment of microfilm, paper, etc., the *de facto* record of the business of our government will be electronic. In fact, even now, the term "multi-media" is not being used to refer to paper or other physical carriers of information. It is being used to refer to various types of digitized information such as graphics, text, voice, and so on.

In the Canadian federal government, the Chief Informatics Officer (CIO) has already announced that as much as possible government business will be carried out electronically. He sees the innovative use of information and information technology by government institutions as key elements in the government's current efforts to downsize and restructure itself. Information technology will also be used to automate streamlined and re-engineered work processes and to build closer relations with the private sector (through partnerships and joint ventures) as well as with other levels of government. Above all, the CIO sees the use of technology, together with the removal of bureaucratic barriers and red tape, as the means to help public servants do their work more effectively.[7] Although he knows that his vision of paperless business processes will not be achieved by the year 2000, he has put government institutions on notice that this is the direction that they must take. In order to position record-keeping within the context of the broad vision presented by the CIO, we recently developed a document called "Record-keeping in the Canadian Federal Government—A Vision Statement."[8] It provides a high level view of the kind of world that I described earlier, and an overview of the implications of this world for records management in the federal government. This document (setting direction for the future) together with the guides that I described earlier (providing solutions for today), are being reviewed extensively by officials across government including senior officials who are concerned about addressing short-term issues within a strategic context.

I believe that it is important that as we develop solutions to electronic records challenges, we understand the evolution that is occurring in the use of office system technologies. Solutions that revolve around the development of guidance on the management of personal and group space and the acquisition of automated records management systems may be entirely appropriate given our current position on the "wild frontier." At the same time, we need to develop strategies that guide us to that point along the evolutionary path where the emphasis is placed on business functions rather than software applications. Here, record-keeping can be addressed not as a separate application but as an integral component of the applications themselves.

Ultimately we need to recognize that this evolution will result in a transformation of the communities responsible for making all of this happen. This is why we also need to recognize that the "record-keeping" issue is but one part of a broader "information management" issue which can only be addressed successfully if the information disciplines are prepared to make the cultural and educational changes that are required.

## *Notes*

\*  Points raised in this paper were inspired by ideas generated by David Bearman and Margaret Hedstrom in their numerous articles on the subject of managing electronic records. Earlier versions of this paper were presented at the annual conference of the Association of Canadian Archivists, Ottawa, 1994, and the "Playing for Keeps" Conference, Canberra, Australia, November 1994, and were published in the Proceedings of the Playing for Keeps Conference.

1  For additional information on the IMOSA project see National Archives of Canada, *The IMOSA Project, Phase 1 Report* (unpublished report), (Ottawa, 1991).

2  National Archives of Canada, *Guideline on the Management of Electronic Records in Office Support Systems: Exposure Draft* (Ottawa, 1994).

3  National Archives of Canada, Managing Computer Directories and Files (Ottawa, 1993).

4  As well as understanding what a record is, the records managers should also be able to understand and communicate the distinctions between "function," "activity," "programme," "process," "task," "transaction," and "action."

5  Many of the ideas concerning the future of records management were stimulated by David Bearman and Margaret Hedstrom, "Reinventing Archives for Electronic Records: Alternative Service Delivery Options," *Archives and Museum Informatics Technical Report* 18 (Pittsburgh, 1993).

6  The lack of skills to deal with this new world became such a critical issue in one government department that a senior manager established parallel units of expertise to deal with the records and information access/retrieval issues because he could not rely on his own records management and library staff. He also commented on the tremendous opportunities that could have been gained if only the records and library communities in his organization would rediscover their principles, update and adapt their tools and techniques, and blend them together into a complementary whole that, he thought, would have resulted in benefits to his organization that would have been far greater than what is being accomplished today. He felt that if the librarians would concentrate on developing flexible and relevant *access* and *retrieval* strategies across all domains (records, information, data) the records management staff could extend their knowledge of what it means to keep records (i.e., provide *context*) to help other communities (e.g., librarians, data managers, etc.) ensure that when information is provided to users, that it can be understood and authenticated in terms of the activities and circumstances (i.e., context) that gave rise to its existence.

7  The strategic direction of the federal government from the information and information technology perspectives is described in Treasury Board of Canada, *Blueprint for Renewing Government Services Using Information Technology* (Ottawa, 1994).

8  At the national level, efforts are underway to give expression to a vision of the future for librarians, records managers, and archivists; a draft report (*Information Resources Sector—Consultation Draft*) was prepared by Price Waterhouse Inc. on behalf of the Alliance of Librarians, Archivists, and Records Managers (ALARM).