INFORMATION MANAGEMENT TO SUPPORT EVIDENCE-BASED GOVERNANCE IN THE ELECTRONIC AGE

A PUBLIC POLICY FORUM DISCUSSION PAPER

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This paper was prepared in the context of a project sponsored by the Public Policy Forum in the context of its work on governance and public sector reform. The project team was led by David Brown, Director, Special Projects, at the Public Policy Forum and also included John McDonald. The team was assisted by Geneviève Lépine, Research Associate at the Public Policy Forum.

This report is also available on the Public Policy Forum website at **www.ppforum.ca**.

The Public Policy Forum (PPF) is a non-profit organization aimed at improving the quality of government in Canada through better dialogue between government, the private and third sectors. The Forum's members, drawn from businesses, federal and provincial governments, the voluntary sector and the labour movement, share a common belief that an efficient and effective public service is a key element in ensuring our quality of life and global competitive position. Established in 1987, the Public Policy Forum has gained a reputation as a trusted, neutral facilitator, capable of bringing together a wide range of stakeholders in productive dialogue. Its research program provides a neutral base to inform collective decision-making.

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Preface

The electronic environment is dominating the agenda of modern governments including those in the developing world where the application of information and communications technologies (ICT's) are seen as a major catalyst to economic and social advancement. The potential is rising for greater citizen participation in governmental processes through the innovative use of ICT's and the adoption of e-government strategies. The growing intimacy between the citizen and the government is accelerating the need for effective strategies, tools and techniques to help citizens and governments transact business in trustworthy environments based on records that are authentic, reliable, accessible, understandable, and usable.

Based on discussions with the International Records Management Trust and subsequent funding from the National Archives of Canada, Public Works and Government Services, and the Treasury Board Secretariat, the Public Policy Forum (PPF) undertook a study of the relationship between governance and recordkeeping. The findings of this study are described in the report, "Information Management to Support Evidence-Based Governance in the Electronic Age" and an earlier research report entitled, "The Financial Capability Model and the Records Management Function: An Assessment".

The second report presents a critical analysis of the issues democratic governments face as they turn to the electronic record as the de facto form of decision-making and government program and service delivery. The first report describes the results of an investigation into the feasibility of using a maturity model developed for the financial management community as the basis for a similar model for use as a roadmap by the records management community. The first report was used as input to an initiative led by the National Archives of Canada to produce a more rigorous *IM and Records Management Capacity Check* (http://www.archives.ca/06/0603_e.html) for use within the Canadian federal government. It is currently being reviewed for use at the international level.

Both reports represent a key milestone in the development of a shared understanding of the role information plays in support of good governance. They are also designed to contribute to the further development of strategies and tools that will permit public sector organizations to manage information as an asset similar to any other valued asset.

The Public Policy Forum is grateful for the support provided by the National Archives of Canada, Public Works and Government Services, and the Treasury Board Secretariat. The Forum is also grateful to Andrew Lipchak and John McDonald who wrote the two reports while under contract with the PPF.

Executive Summary

The intent of this study is to explore the relationship between information management and good governance and to identify key issues which governments in both developed and developing countries should consider in assessing and improving their *recordkeeping* (or records management) programs. Specifically, the study focused on the following themes:

The nature and form of governance are changing as a result of many factors, most notably the rise of new technologies and their impact on the availability and distribution of information.

Good governance is built on a foundation of democratic values supported by appropriate goals, institutions, resources and management processes. New technologies, increasing interdependence and globalization are redefining governance and altering the roles and relationships among traditionally discrete sectors of society.

The greatest stimulus for change in the nature and form of governance has been the rise of new technologies and their impact on the availability and distribution of information. An interdependent, collaborative governance model depends on a cross-boundary flow of high quality, accessible information. This information flow tends to further dissolve boundaries between organizational structures, between management systems, between professions, between those who govern and those governed, and between the technologies themselves. The operative model or image for this interconnected environment is the *network* and *convergence* is its predominant direction. In this environment, the key management traits are: managing horizontally as well as vertically; managing through partnerships and teams; and managing by results, not processes. Unfortunately, older hierarchical and bureaucratic ways co-exist with progressive efforts to understand and embrace interdependence and build new collaborative governance models upon it. As well, globalization and a "digital divide" are complicating the information landscape and raising significant governance issues that affect the prospects of both developed and developing countries.

A focus on technology as the solution to all problems often obscures the critical information issues on which real government transformation depends (*e.g.* program / service restructuring and greater participation of citizens in democratic governance). This is called the *emperor's clothes syndrome* where the outer clothes of Internet portals and websites are removed to reveal a fragile and inadequate information infrastructure – one unable to ensure the integrity of government-held information or to support the deeper dimensions of *e-governance*.

Information is the *defining resource* of governance and critical governance issues and choices hinge on fundamental information management questions: What information needs to be created and acquired? For what purposes? Who will have access to it? Will information be shared, combined and integrated to solve increasingly interconnected problems? Will it be used to promote political and public debate and genuine stakeholder participation? Who will

own and control the information? How will its security, integrity and value be protected? Who will be responsible for making decisions about these issues?

Good recordkeeping is a core component of good governance, especially in an increasingly information and technology-intensive environment.

Authentic and trustworthy *records* – and convenient access to them – provide the fundamental means by which the transparency, accountability and effectiveness of government and its partners in governance can be accomplished, demonstrated and measured. Governments keep records as a fundamental basis for conducting business, serving the public, measuring progress and outcomes and protecting their own and others' rights. Records enable programs and services, public access to them and the availability of information about them. The records of government must be carefully managed to provide the legally verifiable *evidence* needed to support good management, fulfill public policy objectives and protect fundamental values on which the society is built. Records make modern governance possible.

The relationship between recordkeeping, accountability, transparency and public trust lies at the heart of democratic governance. Good records are essential to the establishment of trust *within* government and trust *in* government. Unless government can ensure the integrity and accessibility of its records, the confidence that citizens have in representative democracy itself will wither.

Access to information laws, where they exist, are based on the principle that the public's *right to know* is a fundamental element of democratic governance. The extent to which government balances access and privacy concerns (and ensures good recordkeeping on which access and privacy depend) is a measure of the extent to which it is committed to trust, transparency and accountability in the conduct of its affairs. Although access and privacy laws offer important protections, the most effective guarantee of access and privacy is the informed and ethical conduct of politicians and public servants (supported by good recordkeeping practices). An information *management* culture is more effective than an information *legislation* culture.

Based on financial, political, technological and other pressures, new alternative service delivery options are available within government and through arrangements with other government and non-government bodies. The success of these efforts depends on the availability of reliable information and data on which to base the changes and through which their impacts can be measured.

Recorded memory is an essential component of governance. Archival records support a variety of functions and help government and society exploit the value of individual and collective experience. Unless this knowledge is captured and preserved as a matter of course, departments are forced to re-invent wheels and duplicate the lessons – and often the failures – of the past. Because of their concern for the long-term integrity of the public record, archival institutions often play a leading role in developing and supporting government records management programs. The prospect of identifying, selecting and

preserving a comprehensive and credible archival record of governance depends on how well the records have been managed over their life cycle.

A learning culture and strong infrastructure of laws, policies, standards, practices, systems and people are required to support information management for both traditional and e-governance needs.

The degree to which information and knowledge are captured and used to support good governance depends on whether a strong underlying information management infrastructure is in place. The infrastructure consists of information-related laws and policies, program governance and accountability frameworks, information management (IM) standards and practices, technology-based systems and necessary staffing and other resources. It provides governance-related institutions and individuals with the *mandate, direction, responsibility, tools* and *capacity* to create, use and preserve information effectively in all forms. This infrastructure must be developed and sustained by a knowledge-centred *learning* culture. This culture and infrastructure need to be based on a strong *vision* of information-enabled governance and a set of fundamental information *principles.*

Serious gaps and weaknesses in the recordkeeping practices and infrastructure of government are common in all jurisdictions, however. As modern governments downsize, they are often left without knowledgeable records and information management staff to help guide and support good recordkeeping. Where this and other gaps are found, a variety of negative governance impacts and risks occur. Poor recordkeeping reduces the effectiveness of programs and services; impedes the achievement of social, economic and other goals; and reduces the confidence that citizens and others have in their governance. Good records management programs, however, provide important benefits that support and sustain effective governance, citizen participation and public trust.

The creation, use and preservation of electronic records pose special challenges requiring new techniques and tools but based on traditional information management principles and goals.

As governments embrace the tremendous potential of information and communication technologies, there are particular problems in managing information in electronic form (*e.g.* e-mail and web-based information). Electronic information systems are complex, fragile and quickly changing. The long-term preservation of electronic records is a special concern for archivists, lawyers and others concerned about the integrity and authenticity of information required for governance, legal, e-commerce and other needs. Although electronic systems are becoming the primary medium of information creation and exchange, the paperless office remains unachieved. Governments must manage their information in all forms in this hybrid environment. To support the shift from *paper mountain* to *data stream*, traditional records management goals need to be married to new standards, systems, tools and skills. New tools include an expanding range of electronic document and records management applications. A new breed of information professional, supported by effective training, is needed in which traditional and new skills and perspectives converge. In time, "records managers" will be absorbed into a more mature multi-media information systems

environment in which business, accountability and related information management needs drive technology deployment.

To move in this direction, organizations need to assess their current IM strengths and weaknesses. A carefully considered plan and *strategy* for IM infrastructure development are required that include generating a shared vision for information management, a strong case for action and wide awareness and support on the part of key stakeholders.

Valuable initiatives in support of these directions are being undertaken in Canada and elsewhere which provide models for enhancing public sector information management.

Canada is demonstrating leadership in recognizing the importance of information management and in putting into place stronger IM programs and infrastructure. This leadership is being shown by the Chief Information Officer (CIO) Branch of the Treasury Board Secretariat and the National Archives of Canada, with strong support being expressed by the Information Commissioner of Canada and others. A variety of current and new strategies, frameworks, standards, guidelines and tools are being established to help government institutions assess and improve their IM capacity. Effective steps are also being taken in other countries, particularly in Great Britain, Australia, and the United States. Other important IM-related programs are being developed by the European Union, the World Bank (in collaboration with the International Records Management Trust), UNESCO and the G8 group of nations intent on stimulating improvements in governance in developing countries. As well, the International Organization for Standardization (ISO) has adopted a standard for records management in 2001 that provides a strong foundation for records management programs in all countries.

Although governments are increasingly recognizing the relationship between governance and recordkeeping, they are struggling to ensure that the related infrastructure of policies, standards and practices, systems and technologies, and people is complete, effective, and relevant, especially in an electronic environment. The struggle has been exacerbated by the absence of frameworks and tools (e.g., assessment tools, model policies and standards, etc.) to help them measure the adequacy of their existing recordkeeping infrastructures and to provide them with a road map to help guide them in enhancing records management capacity. This road map would respect their need to take steps that fit their resources, capabilities and conditions – particularly important in developing countries.

Those steps need to reflect an IM development strategy that includes:

- Generating awareness, partnerships and support;
- Identifying gaps, priorities, resources and participants; and
- Planning and building needed elements of the IM infrastructure.

In conclusion, good governance based on transparency, accountability and trust (and similar values) is becoming a shared goal among governments around the world. Achieving this goal requires a common approach to the establishment of

recordkeeping programs – programs that enable and support effective democratic governance. There is increasing momentum towards this objective and rich opportunity for new and effective collaboration, with Canada playing a leading role.

An intimate and interdependent relationship exists between recordkeeping and governance. Records, when well managed, are *instruments* for achieving accountability, transparency and trust; *evidence* of that achievement (or lack thereof); and authoritative *sources of information* that can be used to support decision-making and the delivery of government programs and services. The effective creation, use, and preservation of records are integral and essential components of a government's ability to provide good governance. The relationship between society and its government is based on trust. Citizens and a variety of bodies expect their governments to manage "in trust" the records that document their interactions with government and the full range of government activities, decisions and transactions.

New initiatives involving Canadian federal departments, the International Records Management Trust and others are part of the growing momentum for improving information management to support evidence-based governance.

These collaborative efforts must continue and increase. Based on its own experience and expertise, Canada can play a leading role in developing and sharing effective strategies, methodologies and tools that can benefit its own public sector as well as other governments.

In conclusion, this report is intended to contribute to a better understanding of the inter-relationship between governance and recordkeeping, and to encourage further study in this area. Even more important, it is hoped that the discussion of these issues will help stimulate strategies that permit governments to develop and implement recordkeeping infrastructures that respond to the imperatives of the emerging *e-world.* While Canada is playing a leadership role in these and related areas, there is a rich opportunity for more collaboration to develop international models for the management of information to support democratic governance.

Introduction

Globalization, increasing interdependence and the expanding impact of new technologies are bringing new challenges to governments and altering the roles and relationships among traditionally discrete sectors of society. The once-clear lines that separated the public sector, the private sector and a wide range of civil society organizations and institutions are blurring. Traditional forms of governance are changing as new partnerships and other governance arrangements appear in response to the changing environment -- local, national and international.

Newer technologies have awakened the world to the enormous significance of *information* as a key resource for both government and other sectors of society, alongside more traditional resources such as money, material and people. The records which government creates and maintains in a variety of media and for a diverse range of purposes are an essential category of information that must be carefully managed to provide the legally verifiable *evidence* needed to support good management, fulfill public policy objectives and protect fundamental values on which the society is built. Good recordkeeping is a *core component* of good governance. Understanding the relationship between the two is essential, especially in an environment in which new technologies and other forces are radically altering the environment and affecting our views of government and governance and their impact on every area of local, national and international development.

As governments embrace the tremendous potential of information and communication technologies (ICTs), there are substantial practical problems in creating, using and preserving information in electronic form. The introduction of complex electronic systems creates both management challenges and new levels of risk that go beyond those associated with a paper records environment. Governments in both developed and developing countries are attempting to define and address these risks and challenges as they strive to adapt traditional records management (RM) practices to a new information and technology environment. The risks are not only related to the real and potential loss of information – serious as that will be – but to the loss of *trust* that citizens and others will experience if the essential electronic evidence of government decisions, actions and transactions is gone.

At present there is no conceptual framework that adequately links recordkeeping requirements to public policy and governance requirements, either in Canada or internationally. Neither is there a good understanding of the relationship between records management and the broader territory of information and knowledge management that has come into prominence. Such an understanding is needed to clearly position information management (IM) within the sphere of public policy and governance. Practical guidance and tools are also required to permit governments to manage the life cycle of records that enable and support governance in the evolving e-world. Because of the major transformations – real and potential – made possible by information and communications technologies, a clear understanding of these issues would benefit governments at all stages of development. David Zussman, President of the Public Policy Forum, has said that, "as far as e-government is concerned, we are all developing countries."[i]

A government's capacity to manage and use electronic information is an important aspect of what is sometimes called *e-readiness* – the ability to participate in and take advantage of the networked world. The development of e-readiness requires the ability of to assess current information and records management capacity and to plan and implement strategies to improve that capacity. There is a need for effective tools and strategies to support these objectives.

This paper provides an opportunity to explore these and related issues. It is intended to assess the role of recordkeeping and other aspects of information management as essential elements of good governance in the public sector, particularly in the context of the emerging electronic information environment. **Chapter I** begins with a discussion of the relationship between government and governance, and government and democracy. It proceeds to discuss the impact on governance of increased access to information made possible by new technologies. It considers governance issues in the context of globalization and describes essential elements of e-governance in relation to both developed and developing countries. **Chapter II** addresses the role which data, records, information management and knowledge management play in supporting good governance. The function of records in relation to government restructuring and corporate memory is discussed. Electronic records issues and associated management challenges are reviewed as well as the need for a strong information management infrastructure to support evidence-based governance. Professional development and training issues are explored. Suggestions for an IM development strategy are provided. **Chapter III** describes the general state of information management in the Government of Canada and promising initiatives at both the central and departmental levels. Key international developments are noted. **Chapter IV** provides concluding remarks and suggestions for next steps.

The study and the work leading to the associated research report arose out of discussions between the Public Policy Forum in Ottawa, the London-based International Records Management Trust, and key Canadian government departments, notably the National Archives of Canada, Public Works and Government Services Canada and the Chief Information Officer Branch of Treasury Board Secretariat. Each of these bodies (and others interviewed as part of the study) has a critical interest in information management, recordkeeping and governance in both a Canadian and an international context.

CHAPTER I – Understanding Governance in a Changing World

Governance and Democracy

Governance is the essential purpose of any organization, institution or political body, whether it is a government, a corporation or a community group. Governance is the process by which they organize themselves, function, exercise authority and ensure their continuity. In the context of the public sector, governance can be viewed as the arrangements and processes by which power, authority and influence are wielded to define and achieve desired public policy objectives in the economic, social and other spheres.[ii]

In the public sphere, government and governance are sometimes assumed to be synonymous. Governance is seen as the "running of government" with emphasis on the higher decision-making structures and functions. The role of government is to provide good governance. The concept of governance, however, goes beyond the structure, processes and activities of government. In an environment marked by increasing complexity and interdependence, governance is a broader and richer concept and focuses on how the values, goals and needs of society are conceptualized and addressed, whether by government alone or with others.

In the context of this paper, governance encompasses the *values* that underpin the society; the formal *institutions, structures and instruments* that embody and protect those values; the *goals* that drive public policy; and the *management and control functions* that apply resources to the achievement of those goals and enable decisions to be made and actions taken. Governance also includes the dynamic culture of *attitudes, behaviours and relationships* through which good governance is often accomplished (or impeded) – and the interplay and tension among all of these elements in the context of local, national and international forces and influences.

In Canada as in many other countries, the political context for governance is the tradition of democratic values, institutions and practices. While citizens everywhere expect government to maintain social stability, ensure law and order and promote security, in countries where democratic traditions prevail, they also expect to be governed in ways that reflect democratic values. Aside from its other benefits to individuals and institutions, good governance is that which reflects, serves and protects those values and traditions. They include:

- **Respect for the rule of law:** just laws, equitably applied, define the rights and obligations of individuals, organizations and the state, guide their conduct in key areas and protect fundamental human rights such as the right of free speech, the right of assembly, freedom from discrimination and freedom of belief;
- **Citizen participation:** the more engaged citizens are in vital public policy issues and in the activities of government, the better the quality of governance provided; citizens give governments their authority and legitimacy through their participation in public elections and other activities that give them *voice*; they help ensure the

quality and responsiveness of government through their input to policies, programs and services; they help ensure high standards of governance through vigilant scrutiny and oversight; citizen participation is dependent on access to information and the related rights of free expression and free association -- these rights allow citizens "to organize, to advocate and to challenge the decisions of the government representing them"[iii];

- **Ethical conduct** those in government – both political leaders and public servants – are expected to demonstrate high standards of conduct including honesty, integrity, fairness and professionalism in serving and protecting the government's and the public's interests;
- **Privacy and security:** in a democracy, there is a fundamental belief in the right of citizens to be protected against unwarranted invasion of personal privacy by government or others, *i.e.* the right "to be left alone"; the right to privacy (and confidentiality) is the necessary balance to information access; citizens also want themselves and their property to be safe and secure;
- **Transparency and openness:** governance policies, structures, practices and decisions should be open to public view, be clearly and honestly described and communicated; full and accurate information should be available and reasonably accessible (while respecting the need for privacy and confidentiality);
- **Accountability:** individuals and bodies involved in governance are expected to act within their authority, acknowledge their actions and decisions, accept responsibility for them (including their stewardship of valuable public resources such as money and information) and to accept the consequences of their actions.

In the Government of Canada, such values are embedded in ***Results for Canadians***, the Government of Canada's management framework (discussed in more detail in **Chapter III**). The "Principles of the Public Service of Canada" (Privy Council Office) reflect the expected attitudes and behaviours of the public service:

- "We operate within a framework established by the rule of law; where the rights, responsibilities and actions of citizens, elected officials and ourselves flow from statute and jurisprudence.
- Our commitment to responsibility flows from the principles of parliamentary democracy which includes loyalty, neutrality and non-partisanship.
- Through our actions we serve Canadians and the government with integrity, honesty, equity, fairness, openness, respect, inclusiveness and courage.
- Our performance is measured on the basis of, and characterised by, excellence, effectiveness, efficiency, innovation, and teamwork."[iv]

Good governance is built on the foundation of democratic values, but also requires other elements through which the values are reflected and expressed. In the context of this paper, these include:

- The ***goals*** and ***purposes*** of governance: basic public policy objectives such as efficient and effective public administration; social harmony; security of person and property; a healthy population; a compassionate and caring society; the protection of

human rights; a sustainable natural environment; a vigorous and competitive economy, a creative and enterprising workforce; and an educated, informed and engaged citizenry. As an example, the current priorities of the Government of Canada include:

- Building a "world leading" economy;
- Making quality health care services available;
- Ensuring a clean, healthy environment;
- Maintaining the safety and security of Canadians; and
- Enhancing a shared sense of citizenship.[v]

- The core ***institutions*** and ***instruments*** of governance: elements and activities that provide authority, legitimacy, mandate and vision and which define its goals, deploy its resources and respond to public needs; they include institutions such as Parliament and similar representative governing bodies; statutes and regulations; executive leadership and decision-making bodies that set policy, develop strategies and put appropriate management structures in place; the courts, judicial reviews and commissions of inquiry; commissioners, ombudsmen, auditors (and other guardians of good governance); key public participation processes such as elections, plebiscites and referenda; core governance documents such as the Canadian Charter of Rights and Freedoms; explicit and implicit codes of organizational and individual conduct; and a variety of civil society elements that function as monitors, safeguards and contributors to the governance process (such as a free and vigorous press and non-government organizations representing a variety of interests);

- The ***resources*** of governance: these include the traditional categories – people, finances, facilities, equipment – and, increasingly, corporate assets such as technology, data, information (*e.g.* records), intellectual property and less tangible but critical resources like knowledge and wisdom; this group constitutes the essential resources of the "Information Age" and the "Knowledge Society";

- The ***management*** of governance: the processes by which institutions harness resources and apply them to achieving their goals, including developing, delivering and evaluating policies, programs, services; designing and maintaining information-based systems – manual and automated – to support these and other functions that involve evaluating needs, making decisions, taking action and measuring outcomes.

Good governance exists where these values and other dimensions interrelate and function reasonably effectively. This invariably involves, however, tension and conflict among the elements as government and its institutions struggle to balance a variety of influences and demands and as they rationalize common frameworks with unique needs.

In the context of developing democracies, the World Bank identified the characteristics of good (and poor) governance as follows:

> "Good governance is epitomized by predictable, open and enlightened policy-making, a bureaucracy imbued with a professional ethos acting in furtherance of the

> public good, the rule of law, transparent processes, and a strong civil society participating in public affairs. Poor governance (on the other hand) is characterized by arbitrary policy making, unaccountable bureaucracies, unenforced or unjust legal systems, the abuse of executive power, a civil society unengaged in public life, and widespread corruption."[vi]

The Bank's programs are intended to promote good governance in developing countries by assisting them "to create the legal and institutional framework for transparency, predictability, and competence in the conduct of public affairs and the management of economic development."[vii] Its concern with "accountability, transparency, and the rule of law reflects the contribution they make to social and economic development, and to the Bank's fundamental objectives of sustainable growth and poverty reduction in the developing world."[viii]

Too often it is assumed that good governance is a trait of "developed" countries and that so-called "developing" countries invariably suffer from poor governance. This stereotype ignores both the failings of governance in economically and technologically advanced countries as well as the governance achievements of countries in transition. The question needs to be asked: are "developing" and "developed" governments really so far apart? In both, good governance is often more a matter of degree than a clear reality. While some elements of the model for good governance may be in place, others invariably are missing or may not function well. In all nations, there may be a lack of leadership, a lack of will, a lack of capacity or a lack of resources. Narrow personal, political or parochial interests may predominate rather than the greater public good. Accountability may be avoided where responsibilities are sufficiently blurred. Corruption, patronage and nepotism may thrive. Good laws may be subverted through inaction or ineptitude. Political leaders and public servants may lack important information and evidence or choose to ignore it. In spite of overwhelming evidence to the contrary, governments may steadfastly refuse to admit error. Key information may be lost, altered or destroyed. A free press may falter in its investigative zeal. Citizens may become apathetic and complacent, settling for the protestations and promise of good governance rather than its substance. All of these occur in one degree or another in every country and political environment, including those where democratic values and traditions are most vigorously espoused.

Ultimately, good governance depends on *people* – and more on those who are governed than those who govern. It requires citizens who take an active interest in public affairs and keep themselves informed about issues in their community, their country and the world. They are aware of their legal rights and expect those rights to be respected. They understand that rights must be balanced with responsibilities and they strive to comply with just laws, respect the rights of others, exhibit tolerance and demonstrate compassion for those less advantaged. They seek to choose leaders who are genuinely committed to the high ideals of public service. They communicate their views to government leaders on important issues and they expect government to be responsive to legitimate needs. They monitor the performance of public officials and let them know when they fail to fulfill the public trust. They expect government to be effective in its programs and services, to be prudent in the management of its resources and to be accountable for what it says and does.

Good governance also depends on political leaders and public servants who respect the values of democratic governance; who act in the best interests of citizens and other legitimate stakeholders; who provide careful stewardship of the public resources in their care; who keep their constituents, colleagues and the public well informed; and who seek their input into important policies, programs and services.

Good governance is most likely to be found where democratic values are shared, are expressed with passion and commitment, and *where they guide behaviours* in government and in society. It prospers when actively practiced and withers when neglected. Where good governance is found, *trust* is created among those within government and between citizens and the state. Trust is a fundamental characteristic of good governance as it is in all important relationships. Public trust ultimately depends on whether there is *evidence* that government is observing these values and basing its actions and decisions on them. Good governance is *value*-driven and *evidence*-based. **Chapter II** explores the close relationship between evidence and governance.

Governance, Technology and the Democratization of Information

While the essential elements of good governance can be described, it is clear that the nature and forms of governance are changing in Canada and elsewhere.

In the public sector, the traditional model of governance is based on industrial-age structures, concepts and patterns of behaviour. In this model, top-down, hierarchical, command-control structures prevail. Authority is centralized and clearly defined. Departments are organized around specific sets of responsibilities, supported by narrowly proscribed skills and expertise. Departmental priorities, interests and actions are paramount. Problems are defined uni-dimensionally and within the context of the department's responsibilities. There is a limited flow of information, information assets are closely guarded, secrecy flourishes and there is relatively little collaboration internally and externally. The need to work together with others to coordinate activities is, of course, recognized and often achieved. The insular nature of the bureaucracy, however, its predilection for risk avoidance, and competition between departments for resources discourage high levels of collaboration and trust.

This model reflects fundamentally different cultural values than those described earlier. Instead of the rule of law, it substitutes loyalty and the primacy of bureaucratic imperatives. Instead of citizen participation, it offers paternalism and at times paranoia. Instead of flexibility, it is characterized by rigid behaviours and strict codes of conduct. The right to privacy, internally and externally, is seen as a barrier to bureaucratic authority and freedom of action. Transparency, openness and accountability are viewed in the narrowest of contexts and often as impediments to organizational discretion.

Although this model is described here in its worst light, it reflects and responds to the needs and conditions that are present. It functions effectively where professional, political, social,

gender and other relationships are rigidly defined; where organizational business objectives are straightforward; where the work environment changes only by limited and gradual degrees; where external influences are predictable; and where the resources of business and government – particularly information and technology – are scarce and may be easily controlled.

Over time, however, government and other sectors of society began to realize that this model no longer meets the needs of an increasingly complex and quickly changing environment. This realization stems from a better understanding of the *interconnected* and *interdependent* nature of society and of the challenges facing it. Economic issues, social issues, the educational system, the environment, the health sector, science and technology, the cultural sphere and many others are increasingly recognized as intertwined and interdependent. Better understanding of these connections developed as more information and knowledge became available and the analysis of public policy issues became more sophisticated. There was a greater realization that the challenges facing government required collective and collaborative efforts to solve them. As well, economic and fiscal pressures placed a premium on efficiency, collaboration and innovation in maximizing the impact of limited public sector resources.

The greatest stimulus for change in the nature and form of governance has been the rise of new technologies and their impact on the availability and distribution of information and the sharing of knowledge. Information and communication technologies (ICTs) are transforming the roles, structures and relationships in government and between government and other sectors of society. They are stimulating new, decentralized governance arrangements involving different levels of government, the broader public sector (*e.g.* non-governmental organizations - NGOs) and the private sector. Although ICTs are fundamental drivers behind this shift, their impact on governance has not been widely understood.

An interdependent, collaborative governance model "depends on a cross boundary flow of information that is current, of high quality, easily accessible, and effectively communicated"[ix] This technology-enabled, multi-directional flow of information, in turn, tends to further dissolve boundaries between organizational structures, between management systems, between professions, between those who govern and those governed, and between the technologies themselves. The operative model or image for this interconnected environment is the *network*, and *convergence* is its predominant direction.

Some time ago, a group of senior Canadian civil servants called attention to the need to recognize and embrace these fundamental shifts. They said:

> As society becomes more interconnected, complex and turbulent, more traditional ways of organizing and governing are being overwhelmed. In a more educated, interconnected, information-rich environment, governing systems predicated on a limited flow of information, including both bureaucracy and representative democracy itself, lose their credibility and authority.[x]

Older governance models are based on limited and closely guarded access to information and technology. "Knowledge is power," wrote Peter Drucker, "which is why people who had it in the past often tried to make a secret of it. In post-capitalism, power comes from transmitting information to make it productive, not from hiding it."[xi] This increase in information sharing is due more to inevitability than enlightenment. With the rise of the Internet and other ICTs, government and other organizations have become porous to information flowing into the organization, out of the organization and within the organization. The monopoly of technologically advanced organizations no longer exists in societies like Canada, where low-cost computers and Internet access are available. Jessica Matthews, president of the Carnegie Endowment for Peace, described this phenomenon:

> Widely accessible and affordable technology has broken governments' monopoly on the collection and management of large amounts of information and deprived governments of the deference they enjoyed because of it. In every sphere of activity, instantaneous access to information and the ability to put it to use multiplies the number of players who matter and reduces the number who command great authority. The effect on the loudest voice—which has been government's—has been greatest.[xii]

With greater access to information through the Internet, the "500-channel universe" and other sources, the information and knowledge which government departments developed and maintain no longer remains the protected domain of bureaucrats, scientific, and professional staff. Information has been liberated. As a result, political, economic, social and technological structures and power systems are being fundamentally altered and democratized.[xiii]

The democratization of information and technology is enabling individuals and groups to become better informed, more active and more engaged in their own governance. They can "look over the shoulder" of politicians electronically and challenge bureaucrats in ways that were impossible before. They expect government to share information and are affronted when it resists doing so. With inexpensive computers and network connections, citizens and public servants alike can communicate across space, time and bureaucratic and political boundaries with ease. According to political scientist Donald Kettl in *New Paradigms for Government,* increasing access to information is leading to a "twilight of hierarchy" where "smaller scale and more decentralized technology will level power within government and power over government.[xiv]

An example of the impact of this new communications environment can be seen in the decline of political parties in Canada. Jeffrey Roy, Managing Director of the Centre on Governance at the University of Ottawa, noted that,

> the decline of political parties – highly representational and hierarchical entities – is inversely related to the growth of the Internet, which can serve as a proxy for empowerment. An online world allows people to inform, communicate with and engage others in more fluid and direct ways than political parties can provide.[xv]

The Internet has created a new public space, a digital *agora* where individuals and organizations can share information, express political and other positions and otherwise become directly engaged in their governance.

These shifts have also led to wider perspectives and new options for planning and delivering public sector policies, programs and services. Chief among these is the possibility (or more accurately, the *necessity*) of closer collaboration and integration among government departments. As well, government at all levels and a variety of non-government stakeholders increasingly collaborate in developing policies and delivering programs. In the Government of Canada, the potential for *alternative service delivery* was brought into focus by the government-wide Program Review initiative of the early 1990's. Departments were asked: could government programs and services be delivered better and more cheaply by other means? In a more interconnected, better-informed and technologically-rich society, the answer is frequently "yes." As examples: a greater share of the publicly financed health care system in Canada is administered by the private sector. Social services are increasingly delivered by community-based agencies. Prisons are now sometimes operated by the private sector on the government's behalf. Industry, community and environmental groups are collaborating to plan and deliver government policies for the management of forests and other natural resources. Research and testing that were previously undertaken by government scientists are now performed by a variety of agencies and private firms. In these and other areas, government has shared, delegated or completely transferred authority to other bodies in order to achieve its public policy goals.

In these new arrangements, the participants – and ultimately the public – need to be sure that they provide real benefit and that the *evidence* of their value is available and reliable.

The Culture of Governance

Whether effective public policies and programs are delivered by government itself (*e.g.* using new technologies) or by other bodies, their design and delivery typically reflect three key management traits:

- managing horizontally (as well as vertically);
- managing through partnerships (and multi-skilled teams);
- managing by results (an emphasis on outcomes rather than processes).

Although there is ample evidence that these management modes are slowly emerging in public sector organizations, they still represent elusive goals in both developed and developing countries. Older ways of thinking and acting persist at both the political and bureaucratic level. The National Archivist of Canada, Ian E. Wilson, described this problem in remarks he made concerning the prospects for effective e-government:

> Although technology provides alternatives that were not available before, the real reasons the solutions were not implemented then lie deep in bureaucratic cultures and in the hierarchical ways [we] organize ourselves, define our

> accountability frameworks and reward our behaviours. Can we safely assume that these will change in the e-world?…Real e-government requires…fundamental changes in the way the public service and its institutions think and function: from satisfying bureaucratic objectives to focusing on client and user needs; from command-control management styles to shared decision-making; from competition to collaboration; from a focus on structure to a focus on relationships; from managing information as a waste by-product to treating information as a valuable resource; from knowledge hoarding to knowledge sharing.[xvi]

In public sector environments, many of these changes have yet to take place and there has been, as Donald Kettl noted, a "rampant fragmentation of norms, ideologies, values, and institutions"[xvii]. The problems are not simply those of government "bureaucracy", but relate as much to the political level and to the complex and conditional relationship between public servant and political master. At both levels, narrowly defined and self-centred loyalties and objectives co-exist with political and public service efforts to understand and embrace interdependence and build new collaborative governance models upon it. Government organizations and structures (and their new program and service partners) are at varying levels of governance *maturity*. The issue is not simply of old ways failing to give way to the new. Complex challenges exist in *how* power is shared and in the implications for democratic governance. Under older, more hierarchical governance arrangements, for example, accountability was easier to define if not assess. Responsibilities were clearer. In multi-level, multi-participant and technology-rich governance environments, it is often difficult to determine roles and responsibilities and assess performance. In those environments, both government and citizens need to ask: *can we reduce red tape and increase risk taking without eroding accountability and the careful stewardship of public resources?*

This *tension* between old and new ways of thinking and acting makes the definition of a shared view of governance a challenging exercise. It also brings into focus the importance of information as the *defining resource* of governance. Critical governance issues and choices hinge on fundamental information management questions: What information needs to be created and acquired and for what purposes? Who will have access to it? Will information be shared, combined and integrated to solve increasingly interconnected problems? Will it be used to promote political and public debate and genuine stakeholder participation? Who will own and control the information? How will its security, integrity and value be protected? Who will be responsible for making decisions about these issues?

Governance and Globalization

The concept of *globalization* recognizes that in an information and technology-rich environment, the interconnections and interdependencies are increasingly international in nature. Although globalization is primarily viewed in terms of world financial and commercial markets, it is also a profound political and social phenomenon with impacts related to the world natural environment, international law, human rights and other areas.

Political scientist Donald Kettl called globalization the "increasing interpenetration of individual lives and global futures".[xviii]

In all of these areas, governance is being redefined. In the area of global trade, for example, the international marketplace requires regulations and agreements that have the objective of harmonizing trade rules, reducing legal and other barriers, integrating markets and providing a stable climate for investment. Richard Pastor, a U.S. academic commenting on the North America Free Trade Agreement (NAFTA), said that such agreements involve "issues that had previously been regarded as domestic", adding that "as [continental] integration proceeds, the line that separates internal from external issues blurs."[xix] Increasing interdependence and collective action among nations lead inevitably to changes in governance. As an example, the World Trade Organization (WTO) has the delegated power to set conditions affecting trade among its member countries. This, in turn, limits the ability of individual governments to take unilateral action to protect and advance their own economic, social, environmental and other aims. Their ability to exercise power, authority and sovereignty – an essential element of national governance – is reduced.

In the context of market-driven forces, it is as yet unclear whether this shift threatens the democratic underpinnings of good governance. Political commentator Richard Gwyn cautioned against "a subtle and permanent and irreversible decline in our democracy that happens as power shifts from nation-states, whose governments we elect, to the global market and to transnational corporations and international bureaucracies over which we have no – or almost no – control."[xx]

Aside from impacts on international commerce, globalization includes joint initiatives to enhance international security, a major objective after the September 11, 2001 terrorist attacks. These efforts, too, can have major impacts on how individual nations create policy, take individual action and treat fundamental rights such as freedom of speech, the right of assembly, the right to privacy and the right of access to government information. Individual nations must ask whether joint action reduces their ability to protect these rights as they attempt to ensure the safety and security of their citizens.

Globalization in itself does not threaten democracy. In compensation for the loss of some freedom of action, individual nations, civil society and others can now participate in governance on a larger scale based on a newly emerging, globally defined public interest. Market economies and democratic goals should be mutually reinforcing. Trade and development initiatives must take into account cultural diversity, social justice, the rule of law, representative government and other dimensions of democratic governance. The global *marketplace* must include the sharing of democratic values and practices as well as goods and services. Whether in a national or multinational setting, institutions must aim for transparency and accountability. They need to provide *evidence* that they are performing in the broad public interest. This evidence must be found in their actions and in the information they provide. New technologies can assist this process and enhance the flow of information, but governments, international organizations, civil society, the media and others must assess whether globalization is, in fact, *strengthening* democratic governance and ensure that it does so. As business columnist David Crane wrote, "The world of the future has to be one based on democratic principles. Markets are not a substitute for democracy."[xxi]

Although it may limit individual and state action, the sharing of power brings many benefits. Increased trade and investment offer huge potential benefits for both poor and wealthy countries. Poverty is the breeding ground for repression. International cooperation is needed to deal with global security threats. Other positive directions include shared efforts to protect the environment, combat global crime, provide medical and other aid to disaster-stricken countries, fight HIV/AIDS, improve literacy and other social conditions and champion human rights. Perhaps globalization's greatest promise can be found in international efforts to promote democratic governance as a counterbalance to global market-driven priorities.[xxii] These efforts are based on the premise that in a well-informed society, the prospects for effective governance are increased. The democracy movement, in particular, demonstrates the power of information and communications technologies to inform, integrate, and inspire.

The benefits of globalization can also be seen in the development of international standards for managing e-world resources, *i.e.* information and information technology. As an example, the International Organization for Standardization (ISO) has approved a standard for the management of records (ISO 15489) – discussed later – which provides a consistent and effective basis for the design and implementation of national records management programs and infrastructure.

The Digital Divide

Globalization depends on the wide distribution of new information and communications technologies through which shared interests can be defined, communicated and managed. The "networked world", however, is a phenomenon that still largely pertains to the world's wealthier nations. A "digital divide" separates these countries from much of the rest of the world where the distribution and application of new technologies are less developed. At a meeting of G15 nations, Jamaican Prime Minister Percival Patterson said, "Technological and scientific research is oriented to respond to the needs and aspirations of the powerful."[xxiii] The streams of data that flow over the Internet and other communications networks occur in countries with the best technological infrastructure. Millions of miles of fibre-optic cable – much of it unused – connect the most economically powerful countries while many other countries aspire to basic communications capabilities. Norway has more telephone lines than Bangladesh, a nation with 30 times Norway's population.[xxiv] Almost half of those in developed countries are Internet users (with levels in Canada even higher).[xxv] More than 96 percent of computers connected to the Internet are located in the wealthiest nations, representing only 15 percent of the world's population.[xxvi] Finland hosts more Internet sites than all of Africa.[xxvii] In the Information Age, more than 1 billion adults worldwide remain unable to read and write, 98 percent of them in developing countries.[xxviii]

Even in "developed" countries, however, many citizens do not have access to, cannot afford or do not feel comfortable with the Internet and other new technologies. In Canada, they include people in rural, remote, northern and aboriginal communities as well as the urban poor and many older Canadians. As well, an estimated 38 percent of Canadians remain functionally illiterate or semi-literate.[xxix] Governments in Canada and elsewhere must still

provide information and services through traditional channels and forms, aside from the need to address fundamental economic, social and educational inequities.

In countries where economic and technological development has been limited, the "Information Age" is a meaningless phrase. More fundamental issues claim attention. There is likely greater interest in clean water than in high bandwidth. Power is still concentrated at the top and citizen *voice* – especially that of the poor – is often unheard.

The "digital divide" is the Information Age's expression for more fundamental divisions in individual societies and internationally – between wealth and poverty, power and powerlessness, knowledge and ignorance. Information and communications technologies can improve economic, social and other conditions and enhance democratic governance because they help break down these divides. Poverty, corruption and other societal problems decline when citizens become more informed, interconnected and engaged in their own governance. For this to happen, ICTs must be widely available, accessible and affordable.

Electronic Governance

Globally and within individual nations, digital technologies are radically changing the way government functions, manages its resources and how it interacts with citizens, clients and customers. They are changing the speed, convenience and form of government services and facilitating citizen-centric *e-governance*.

ICTs are having a fundamental effect in a number of key areas, each with its own set of information-centred legal, policy, management, technology and other issues:

- **improving access to citizen-centric services and government information** through 7 day/24 hour Internet portals, lower information distribution costs, reduced delay between information production and distribution, quick and timely updating of information, and customized information delivery based on user needs and preferences ("customer relationship management");

- **improving citizen access to entitlements** and benefits through online application for grants, rebates, retirement and pension benefits, *etc.*;

- **facilitating citizen compliance** with legal and regulatory requirements by increasing the convenience of renewing drivers' licenses, registering a business, securing permits, paying taxes and fines, paying bills, *etc.*;

- **restructuring and improving government internal functions** (*e.g.* in policy and program planning, program development and delivery, monitoring and evaluation, parliamentary procedures) through improved business processes, better workflow and the elimination of unnecessary activities;

- **re-engineering and reforming major public-sector systems** such as health, justice, education, transportation and resource management through more effective processes, the integration of services across departments, new forms of partnered service delivery, *etc.*;

- **enhancing government-to-government information and service integration** across government levels, offering "one window" government services in areas such as adult and child social services; and

- **improving government-to-business relations** by enabling government and business to deal with each other electronically (procurement, contract bidding, online legal and tax filing, business registration, *etc.*), by leading in the adoption of ICTs through government's own example; and by government stimulating e-business and e-commerce by promoting private sector investment in ICTs and ICT-based enterprises.

As ex-Clerk of the Privy Council, Mel Cappe, noted, "E-Government is not just "electronic" government. It is "enabled" government – government that delivers different and better programs and services to Canadians."[xxx]

The deepest and most valuable impact of technology is in its potential to enable *increased citizen participation in governance* and to foster a true "digital democracy". That involvement is made possible by greater access to government information and by the potential for two-way communication and feedback between citizens and government. ICTs provide new and convenient channels for citizen engagement through electronic mail, online discussion forums, virtual town meetings, online voter registration and ultimately online voting. This dimension of e-governance is the most difficult to achieve and likely to take the longest to mature.

Surveys on the topic of e-government have shown that citizens value all of these real and potential benefits. Improved delivery of common government services ranks high in many studies (*e.g.* renewing a driver's license; ordering birth, marriage and death certificates; accessing park information and making reservations; securing hunting and fishing licenses; *etc.*).[xxxi] Other studies, however, have demonstrated an appreciation of the potential of ICTs to improve democratic governance and citizen involvement. In the *Hart-Teeter* study in the U.S., for example, citizens gave prominence to the ability to access a candidate's voting record, to comment on legislation and to enable cost savings in government operation. When those surveyed were specifically asked about the "benefits" of e-government, the highest-ranking responses were more efficient/cost-effective government, greater public access to information and increased government accountability to citizens.[xxxii] From these studies, it is clear that the public's "vision of e-government extends beyond efficient and high quality services to a more informed and empowered citizenry and a more accountable government."[xxxiii]

As is often the case, the public's expectations may be outpacing government's capacity to deliver. In most instances, the use of new technologies has been focused on automating internal business processes, delivering existing services electronically and distributing

information faster and more efficiently. The use of digital technologies to fundamentally restructure and reform government business processes and make government more democratic has been relatively rare to date. This is much more difficult than setting up and populating a website. Technology, although complicated, is easier to manage than fundamental business, political or cultural change.

With some notable exceptions, governments have been content to translate existing services and information into accessible and attractive online forms. The Government of Canada's e-government goals are represented by the desire to be "known around the world as the government most connected to its citizens".[xxxiv] Government On-Line (GOL) is its term for communicating with and serving citizens electronically. It has established a target date of 2005 by which time most government information and services are to be available via the Internet. Canadian departments are currently focused on this objective and all ministries and most agencies have their own websites that augment more traditional delivery channels. In comparison with other countries, Canada's progress has been substantial. A 2002 survey of twenty-three governments undertaken by Accenture (formerly Andersen Consulting), ranked Canada first in its progress toward "on-line government" (followed by Singapore and the United States).[xxxv] This ranking was based on how many of 169 common services could be accessed online and the degree of possible government-user interaction. Another study by the Bertelsmann Foundation in Germany also found that Canada's on-line service dimension was strong in terms of "user orientation [and] friendliness".[xxxvi]

While on-line service delivery is an important part of e-government, the higher potential for e-government (*e.g.* genuine business transformations and true citizen engagement) has yet to be realized in most countries. The Bertelsmann study found that there tended to be little interest at the political level in Internet-based forms of citizen participation (*e.g.* introducing and discussing legislative proposals, reviewing voting records, submitting electronic petitions, voting, *etc.*). This disinterest cannot be adequately explained by the cost and complexity of electronic interaction – barriers that are rapidly decreasing. One must look to the political and bureaucratic culture to discern if there is real interest in knowing what citizens think and want. The Bertelsmann study ranks most jurisdictions (including Canada) low in terms of electronic participation and transparency / accountability (*e.g.* whether citizens can engage with and follow governmental processes online). With some notable exceptions[xxxvii], Bertelsmann found that "the integration of citizens into existing e-government services is still in its infancy" and "e-democracy is still not much more than a slogan".[xxxviii]

A focus on technology at the expense of deeper organizational change gives rise to what can be called the *emperor's clothes syndrome*. In this situation, the impressive outer clothes of Internet portals and websites are removed to reveal a fragile and inadequate information infrastructure – one unable to ensure the integrity of government-held information or to support the richer dimensions of e-governance.

Technology is an essential *enabler* of change, not a solution for organizations that do not want to change. It makes the above types of transformations feasible, but does not guarantee that they will be undertaken or be successful. These changes are dependent on necessary shifts in organizational structure, thinking and behaviour which involve considerable *risk*. These risks include threats to traditional centres of power, to political and

bureaucratic cultures and relationships, to established patterns of communication, to familiar work processes (including information hoarding practices) and to traditional professional communities.

The *Center for Technology in Government*, Albany, New York, identified some of the key requirements for the mature implementation of e-governance. These include:

- methods and measures of citizen participation in democratic processes;
- new models for public-private partnerships and other networked organizational forms;
- models of electronic public service transactions and delivery systems;
- interoperable systems that are reliable and secure;
- improved methods of managing IT systems;
- intuitive decision support tools for public officials;
- matching research resources to government needs; and
- electronic records management and archiving frameworks and tools[xxxix]

Together, these requirements comprise essential elements of a more effective, innovative and responsive governance environment supported by new information and communication technologies.

As the essential resources for governance in the electronic age, how governments create, distribute, manage and use *data*, *information* and *knowledge* becomes hugely important.

CHAPTER II – Managing Information for Improved Governance

Data, Information and Knowledge

Although advanced technologies are essential to the emerging e-world in Canada and elsewhere, the ability to provide good governance depends on our capacity to create, manage, share and use the most critical resources of the 21st century – information and knowledge.

To better understand how they can be "managed" in support of good governance, it is important to define and understand key terms: *data, information, knowledge.* According to traditional information theory and in line with standards issued by the International Organization for Standardization (ISO) and NATO,

> **data** are the *representation* of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation or processing by human or automatic means; data are the "raw material" for information;
>
> **information** is the *meaning* given to data, or "data given context and vested with meaning and significance"[xl];
>
> **knowledge** is "information that is transformed through reasoning and reflection into beliefs, concepts and mental modes."[xli]; knowledge is the *understanding* given to information which results in *insight* (and, potentially, *wisdom* which is the *set of values* given to knowledge).

Data is important only because it produces information, and information is of value only because it produces knowledge (and possibly wisdom). Shifting attention from data to information and knowledge is not always easy intellectually, professionally or organizationally. As an example: information technology (IT) systems have traditionally been focused on structured data and their hardware and software environments. Systems personnel "managed" and "processed" data and had less interest in (and comfort with) the concept of "records management" which largely dealt with unstructured, document-based information. Records management, information management and "new" areas such as knowledge management were largely left to others (program managers, records managers, librarians, archivists, *etc.*), except for the technologists' intrinsically high regard for systems and data security. With the early and still flourishing view that a technology "fix" was the solution to all organizational ills, attention and resources gravitated toward technology infrastructure and away from more traditional information management areas including records management. This relative inattention to information management was encouraged by the association of records and documents with an "out-dated", paper-based "legacy"

environment and by the perception of records management as a low level administrative activity.

As organizations establish essential information technology infrastructure and begin to use computer-based applications, they begin to realize both technology's substantial benefits and inherent limitations. The defining attribute of technology is *efficiency*. Computers can collect, store, distribute and process transactional data with astounding speed and exactitude. The most common (and most successful) computer applications are in processing financial and other highly structured transactions quickly and accurately. Although this has obvious value, it has little direct impact on the more complex needs of an organization, for example, how it recognizes and adapts to changes in its environment. The success of a complex organization such as government depends on this higher capability. Senior managers are increasingly aware that there is a gap between operational efficiency and the organization's inability to deal effectively with changing conditions and new challenges. Computers have had relatively little impact so far, for example, on helping organizations do strategic planning and direction setting. Peter Drucker said "information technology has been a producer of data rather than a producer of information – let alone a producer of new and different questions and new and different strategies."[xlii] Dealing with these questions and strategies is a complex management function and primarily depends on higher-level reasoning skills involving the interplay of context, observation, analysis, assessment, and verification. This is the process by which *knowledge* is created. As IM/IT authority Paul Strassman said, "Technologies without strategic context are only toys."[xliii]

Managers increasingly realize that costly IT systems have often failed to provide tangible benefits because essential business needs and related information management issues were ignored. An example is the Year 2000 problem in which both systems developers and business managers neglected to protect the integrity of data that had a longer life span than the systems in which it was stored.

As managers become comfortable with the technology, their attention moves to where it should be: to their fundamental business needs and to information and knowledge as their most critical resources. The more important question becomes not *'how can I do things right?"*, but *"how can I do the right things?"* As organizations understand that their success depends on the innovative application of information and knowledge, emphasis shifts from technology to information, and from technology management to information and knowledge management. This continuum represents a *maturity model* for the e-world (as well as a useful basis for evaluating the maturity of information management in organizations).

This maturation process is gradual, uncertain and by no means inevitable. Governments have an impressive capacity to confuse superficial change with fundamental transformation, to equate connectivity with meaningful connections and to mistake "robust" data for real know.ledge. There is evidence that the private sector is recognizing the importance of information and knowledge management more quickly than the public sector. Paul Strassman, former head of information systems at Xerox, said, "It is through effective information management practices that [the managers of a firm] create all business value."[xliv] A study by Gartner, Inc. noted that 30% of pubic service managers identified serious problems related to information management, more than double the percentage for other sectors. These problems included "siloed" information, information overload, unorganized

information and ineffective/inefficient searching. The study also found that the level of adoption of knowledge management was substantially lower in government, with less than 3 percent of government respondents indicating successful KM implementation.[xlv]

Fortunately, this situation is changing. Senior managers in government are beginning to understand that the most important resources they need to manage and use effectively are the information and knowledge captured in their business records, in their employees' heads and in their organization's corporate experience and memory.

Governance and Records

In the previous section, *data*, *information* and *knowledge* were defined. Within that conceptual framework, "information" does not exist as something tangible. It exists in people's minds as the meaning given to data presented to them through a variety of means. When people say they are *managing* information, they are really managing (creating, using, sharing, *etc.*) tangible representations of that meaning (*e.g.* in a memo or an e-mail; statistical information in a spreadsheet; a publication; *etc.*). This is why terms such as "information holdings", "information assets" or "recorded information" were introduced. These concepts refer to "explicit" forms of information as opposed to "tacit" information which is received or conveyed but which is not captured or recorded in explicit form.

Records refer to any *recorded* information created, generated, collected, or received in the conduct of a business activity. According to the recently approved International Records Management Standard:

"a record is information created, received and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business"[xlvi].

Based on these definitions, a record is something that has a *purpose* (*i.e.* it is not merely the residue or by-product of organizational activities). It is created because it serves necessary functions: to provide information and evidence used to make decisions, take action, demonstrate accountability or enable other uses. It also has *structure* (discernable organization), *content* (it conveys identifiable information or

Records Management, Information Management and Knowledge Management

Records Management (or *recordkeeping*): the field of management responsible for the "efficient and systematic control of the creation, receipt, maintenance, use, and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

- ISO Standard 15489 ("Records Management")

Information Management: a broader term not limited to the management of records, but "the means by which an organisation efficiently plans, collects, organises, uses, controls, disseminates and disposes of its information, and through which it ensures that the value of that information is identified and exploited to the fullest extent."

- Queensland (Australia) Information Standards

Knowledge Management: the process by which organizations generate value from their intellectual assets with emphasis on capturing, sharing and applying information and knowledge from explicit, tacit and cultural sources .

- Knowledge Management Research Centre

evidence) and *context* (reference to the circumstances in which is was created or acquired).

Governments keep records as a fundamental basis for conducting business, serving the public, measuring progress and outcomes and protecting their own and others' rights. Records enable programs and services, public access to them and to information about them. Records certify and confirm pension and other entitlements; register births and deaths; confirm citizenship and verify voting rights; enable the collection of taxes and census enumeration; support financial management and the making of payments; support land claims and litigation; document and enable implementation of inter-governmental agreements; enable economic planning; describe the government's accomplishments; document the nation's history and development and enable countless other information-intensive activities.

Government records are the essential *evidence* of actions, transactions and decisions and of government's interactions with citizens, clients and customers and an expanding range of governance partners. Authentic and trustworthy records – and convenient access to them – provide the fundamental means by which the transparency, accountability and effectiveness of government and its partners in governance can be accomplished, demonstrated and measured. Working within a framework of laws, management practices and organizational culture, political leaders and public sector managers are expected to create, maintain and protect the evidence that they have acted responsibly and appropriately. Trustworthy records provide this evidence. When those in government speak "on the record", they pay tribute to the perception that records convey integrity and truthfulness. Without full, accurate and authoritative records of government actions and decisions, it is impossible for citizens and others to ascertain whether government officials and institutions have performed effectively and fulfilled the public trust.

Good records enable governance and are essential to the establishment of trust *within* government and trust *in* government. If public servants lack the information they need to fulfill these expectations, or if they do not trust the integrity of the information, they will lack confidence in their actions and decisions. As well, if citizens cannot trust the information they are receiving from government, they will be unable to trust the policies, programs and promises of government.

Values such as trust, transparency and accountability are not abstract concepts. They are at issue in every decision of government, every action it takes and in every transaction between government and citizens, clients and partners. These values must be reflected in the legal and regulatory framework of government, form part of the management environment, and constitute an essential aspect of the professional ethos required of political leaders and public servants. Trust depends on the openness and accountability of government, supported by trustworthy records. If government cannot ensure the integrity and accessibility of its records, the confidence that citizens have in representative democracy itself will wither.

This relationship among records, accountability and trust lies at the heart of democratic governance.

The lack of trust is not a theoretical possibility, but an all-too-frequent characteristic of the relationship between citizen and state. In the 1960's, 80 percent of Canadians trusted

government to "do the right thing". Today, only 30 percent believe this to be the case.[xlvii] Voter turnout in Canada and in many other countries has been steadily declining for decades. Citizen indifference and, at worst, cynicism about government are common.[xlviii] The reasons are complex, but distrust and disengagement are bred every time minutes of important meetings are purposely not kept, every time government refuses to release records subject to disclosure or if it unreasonably delays their release, every time files are altered or destroyed to avoid public and media scrutiny and every time records are withheld from auditors or ombudsmen to avoid possible blame.

Beyond their specific functions, it may be argued that records *define*, *enable*, and – in a very real sense – *create* governance and the governance relationship between citizen and state. Governance values are identified, defined and promoted in records. Authority is established, authenticated and exercised through recorded laws and regulations. Institutional policies and practices are developed, expressed and managed by means of records. The relationships among government workers are created and described through written protocols. Finances and other resources are identified, enumerated and expended via records. The relationships, rights and mutual obligations of government and society are defined, expressed, promoted, defended and measured by means of records. The achievements and failings of governance are "matters of record". The very identity of government, of institutions and of individuals is based on records. Records provide the evidence of governance – its nature and form, its aspirations and its reality. Records make modern governance possible.

If a government takes its responsibilities seriously, it can be expected to create and sustain an environment that values information and the role it plays in generating meaningful citizen-state interaction and other aspects of good governance based on democratic values (trust, transparency, accountability, etc). In this environment, public servants and their leaders are expected to:

- be fully aware of the role information plays in establishing a relationship with citizens built on trust, integrity, and quality service;
- understand the varied needs of citizens and other stakeholders and respond to these needs with information which is complete, relevant, organized, timely and conveniently accessible;
- understand the critical role records and information play in support of government business and accountability;
- see the records they create and maintain as valuable sources of information to help them do their job and as key instruments of accountability;
- understand the need to apply common standards and best practices to manage, make accessible and protect information assets; and
- appreciate the value of sharing and exploiting information and knowledge to support more collaborative and integrated program and service delivery (*i.e.* while respecting relevant policies and laws).[xlix]

Access, Privacy and Information Policy

The concepts of information access and information privacy are key elements of democratic governance. In his book, *Privacy and Freedom*[i], Dr. Alan Westin argued that the distinction between democracy and authoritarianism can be defined in terms of information policy. In authoritarian governments, there is easy access by government to information about citizens and extensive barriers to the ability of citizens to secure information about the government. In democratic governments, by contrast, there are considerable restrictions on the ability of government to acquire and use information about its citizens and relatively easy access by citizens to information about the activities of government. In democracies, the objective is to achieve some reasonable balance among public access, individual privacy and government confidentiality.

The extent to which government balances these elements and ensures good recordkeeping on which they depend is a measure of the extent to which it is committed to trust, transparency and accountability in the conduct of its affairs.

In a democracy, citizens, organizations and government exchange information within the terms of a reciprocal and conditional obligation. Individuals and groups are obligated to provide government with a variety of information it needs to enable programs and services, regulate certain activities, exercise stewardship of public resources, collect taxes, preserve law and order and otherwise serve the public good. In return, government agrees to provide information about its activities and decisions, to ensure the integrity of the information and protect the confidentiality of personal and certain other information that it maintains.

These obligations and responsibilities are both implicit and explicit. In Canada and elsewhere, a variety of laws, policies and organizational practices affect how information is gathered, managed, distributed, protected and used. From the perspective of governance and accountability, the most important provisions are the guarantee of the right of access to government records and the right of protection of personal information held by government.

Access to information (ATI) or "freedom of information" (FOI) laws, where they exist, are based on the principle that the public's *right to know* is a fundamental element of democratic governance (subject only to specific and limited restrictions on that right). ATI (or FOI) laws provide an invitation to citizens to learn about and participate in their governance and to use the records to hold government accountable. As Robert Vaughn noted, such laws assure the rights of citizens to:

> observe, understand and evaluate the decisions and conduct of government officials. Access to information permits citizens to challenge governmental actions with which they disagree and to seek redress for official misconduct. Access to information also deters official misconduct by reminding public officials of their accountability. The concept of transparency incorporates these same values underlying democratic accountability, values commonly referred to…by the term 'open government'.[ii]

ATI laws enshrine the belief that, in a democracy, government records should be open unless there are very compelling reasons why they should be closed. The laws encourage governments to be more open with their records, not only by providing ready and convenient access to records in response to formal requests, but by *proactively* disseminating information that the public is likely to want or needs to know (*e.g.* general information, reports, health advisories, *etc.*). ATI laws are really *rights of appeal* for citizens and others when access to records is not readily provided or has been denied.

Without good records and effective recordkeeping practices, however, such guarantees and encouragement are meaningless. If records that should exist are not created, if they are incomplete or inaccurate, or if access to them is unreasonably delayed, the rights that the law is intended to protect are empty ones. Open government exists in name only. Information access is impossible without good records management.

On occasion, however, access laws may discourage good recordkeeping. Where officials do not wish to have their actions and decisions open to scrutiny, they may take steps to see that a record (*e.g.* minutes of a meeting) is not created, or that it is hidden, altered or destroyed. Canada's *Access to Information Act* takes this tendency into account by making it a crime to improperly destroy or falsify a government record in order to deny the right of access under the *Act*.[lii] In a highly legislated information environment, however, oral transactions tend to increase, and key decisions and actions often go undocumented. In these circumstances, there is a fundamental conflict between information law and information culture. Access and other information-centred laws may exist, but are often at odds with the bureaucratic and political culture (*e.g.* information hoarding, excessive secrecy). The laws offer important protections, but the most effective guarantee of access is the ethical conduct of politicians and public servants (supported by good recordkeeping practices). An information *management* culture is more effective than an information *legislation* culture.

Ironically, those who willfully alter or destroy public records without authority are the individuals who are most intensely aware of the intimate relationship between good governance and good recordkeeping.

An Information Management Culture

- There is a shared commitment to open and transparent government;
- Information is readily shared where appropriate;
- Staff are aware of their IM responsibilities and trained accordingly;
- There are clear goals and objectives for information management;
- Effective IM policies, procedures, standards and practices are implemented;
- Adequate resources and tools are available to support information management;
- Measurement systems take IM performance into account.

A reciprocal principle of good governance is that the confidentiality of certain kinds of information must be protected, including personal information. This principle forms part of the information contract between the state and society and underlies *protection of privacy* laws and the limits on access to other kinds of sensitive information.

There are a number of reasonable and specific exceptions to the right of access that are identified in Canada's *Access to Information Act*. They include such areas as Cabinet confidentiality, national defense and security, international relations, law enforcement, personal privacy, intellectual property and certain other areas. The issue of personal privacy and access to personal information held by government is so compelling

that separate legislation is devoted to it (the *Privacy Act*), although in some jurisdictions, access and privacy provisions are combined.

Where limits on access are identified, the risks involved in disclosure – to the government, to individuals and to other bodies – are seen as outweighing the benefits of uncontrolled access. Canadian federal government departments are required to apply a *harms test*[liii] to identify the possible consequences of the disclosure of information subject to discretionary limits. Non-disclosure of personal information is mandatory, however, except in certain narrowly proscribed circumstances such as where informed consent has been provided.

Confidentiality is crucial from the perspective of citizen and organization engagement in governance. Unless confidentiality can be protected, citizens and organizations will be unwilling to provide personal, business or other types of sensitive information to government. Without such information, government could not function and the benefits of citizen-state dialogue and engagement (and the technologies that support them) would be lost. Public servants and political personnel must also be protected in certain types of internal information exchange. Protecting personal or other information also means that government should use collected information only for approved purposes, should not combine information (data matching) that could result in detriment to individuals, should not share or sell personal or business-related information to others (except with expressed permission or legislated authority), should keep the information for specified times (and no longer), and should maintain its integrity while in the government's care.

The need for confidentiality in the governance environment is a matter of perception and degree. As an example, the business records of public servants in the Canadian federal government are, by and large, accessible to the public either as a matter of course or through the provisions of the *Access to Information Act*. Certain records in ministers' offices, however, are not. At issue is the distinction between departmental records and ministerial records. Under the *Act*, documents held by a government department are accessible, while those "under the control" of a minister's office are exempt. The latter include both political records (*e.g.* constituency files) as well as records that are created and maintained as part of ministers' governance functions. As a result, some records dealing with government (but not necessarily departmental) business are inaccessible. For example, the expense records of ministers and their aides while on official business are not released under the *Access Act* and are considered to be confidential documents protected by the *Privacy Act*.[liv] The difficulty of discerning the distinctions among personal, political and public records has been the source of legal and other contention between political officials, access and privacy authorities, the media and members of the public seeking to know how elected and appointed officials conduct government business.

Personal privacy is a hallowed value of democracy, but related public attitudes and behaviours are complex. Citizens, for example, hold the government to a high standard in protecting their personal information. It is not uncommon for ministers of the Crown to be forced to step down because of highly public breaches of personal privacy (*e.g.* identifying individuals protected by the *Young Offenders Act*). At the same time, the public frequently provides personal information to commercial organizations either unknowingly or in return for some benefit, and with little or no consideration of its future uses. Such information

provides the basis for effective "customer relationship management" but also for other more invasive uses.

Most invasive of all is identity theft. More than 12,000 Canadians fall victim to identity theft each year[lv], perpetrated not by businesses but by other individuals and organizations that trade on the value of personal information, largely for criminal purposes. Our identity is defined by the information in records: signatures and photographs, Social Insurance Numbers, birth and death records, citizenship papers, credit cards, drivers' licenses and a multitude of other pieces of paper and plastic that describe and authenticate us and authorize our actions. Whoever holds such records possesses the *evidence* of identity, which may be used to withdraw funds, secure credit, pass bad cheques, rent vehicles, make purchases, gain employment and claim government entitlements. The public is increasingly aware of and concerned about these threats to personal privacy and identity. Aside from the steps that individuals can themselves take and the protection afforded by existing laws (*e.g.* fraud laws), there is growing pressure on governments to take stronger measures to ensure the protection of personal information in the private sector.

The advent of access and privacy laws in Canada in the early 1980's played a seminal role in raising consciousness inside and outside government of a variety of information management issues that are central to good governance and to the protection of citizens' and others' rights. As this understanding matured, the Government of Canada expanded its suite of laws and policies governing recorded information. From a concern about access and privacy came the realization that the government's information holdings needed better and more systematic management. The result was the *Management of Government Information Holdings Policy* and a variety of related records management policies. Another was the *Security Policy* which dealt with threats to government information and information systems. It was based on risk management wherein the level of protection afforded to information and related technology is intended to be commensurate with the damage that could result from breaches in their security. Later, a *Privacy Impact Assessment Policy* appeared. A separate and wider *Risk Management Policy* was also developed. Other policies included a *Communications Policy* (the duty to inform) and an *Essential Records Policy* (to identify and protect information critical to emergency preparedness and business resumption). The preceding were largely predicated on a paper-based information environment, but were in time adjusted to encompass computerized information. To these were added policies and laws specifically oriented to electronic records and systems, including a policy on the use of the Internet, a *Management of Information Technology Policy* and, most recently, the *Personal Information Protection and Electronic Documents Act*. The latter addresses, in part, public concerns about the protection of personal information held by the private sector.

Recordkeeping and Public Administration

Michael Turner, an Assistant Deputy Minister in Public Works and Government Services Canada, commented that the purpose of government was to "mitigate risk, maintain order and to create wealth".[lvi] A strong supporter of IM, he suggested that "records management" would become important only when it is shown to be essential to achieving these goals.

Other goals may be added to the above list, but good recordkeeping is essential to every sphere of public policy and the management of every program and service. Public policy goals such as a healthy society, an equitable justice system, security of person and property, a clean and sustainable environment, a progressive education system, and successful international relations are dependent on good records. Examples that illustrate essential recordkeeping dimensions in these areas include:

Health: Medical information is collected and maintained by government to identify health trends and to plan public health programs.[lvii] Patient treatment records are used to verify the provision of funded medical services and compensate practitioners and medical institutions. The testing and licensing of drugs requires careful recordkeeping by both government and pharmaceutical companies to verify medical effectiveness and validate the approval process. For a variety of medical, legal and administrative purposes, records must be properly maintained and the personal and confidential information in them must be protected from unauthorized access and disclosure. A failure to keep good records is likely to result in serious risks to health care programs and the well-being of individuals and communities.

Justice: Careful recordkeeping is essential to support criminal investigations, the prosecution of offenses, evidence for judicial decision-making and the implementation of those decisions. Comprehensive case files must be created to document and support these functions. Incomplete or inaccurate records can put public safety, individual rights and the justice process at risk if offenders remain at large, "fall between the cracks" or if persons are wrongly accused and prosecuted. The evidence in the files must sometimes be maintained for long periods of time to enable the re-opening of cases when new evidence comes to light (*e.g.* the prosecution of war criminals). The resolution of aboriginal land claims relies on the availability and integrity of the evidence contained in treaties and agreements, many dating back to early historical periods and requiring reference to carefully preserved archival records.

Records and International Relations

Trust and cooperation among nations depend, in large part, on effective communications supported by accurate and authoritative information. A variety of records support and document the conduct of international relations in an increasingly global environment. Treaties testify to political, economic and military and other agreements between nations. Joint or reciprocal actions between nations must be documented and related activities monitored and assessed. Peacekeeping activities require clear and documented understandings of roles and expectations to ensure their legitimacy. Various forms of aid depend on accurate and complete financial information and on records that accurately document activities undertaken and results achieved. International bodies such as the United Nations, the World Trade Organization and the World Bank must be able to rely on their own records and those of member states to accurately document political, economic, social, environmental and other conditions; determine compliance with loan provisions and trade agreements; and evaluate program outcomes. The development and maintenance of international standards, regulations and governance arrangements depend on the creation, protection and use of information in variety of official and unofficial forms.

Security: Public security policies and procedures must be documented and mandated. Information about internal and external threats must be gathered, validated, organized, combined, analyzed, assessed and safeguarded. Investigations are undertaken in which documentary evidence is assembled, organized and securely stored. Accurate and authoritative records are shared with other governments where cross-jurisdictional issues exist. Attention must be given to concerns about public

access to information about government security initiatives and to the protection of confidentiality and individual privacy. At issue is the balance between protecting security and safeguarding democratic values such as freedom of expression and association. Records explain and justify the actions taken to achieve these potentially conflicting goals.

Environment: Records are maintained by government, by NGOs and others on environmental conditions, trends and related factors. Industries need to keep accurate records of chemical and other discharges and the disposal of potential pollutants to satisfy both their own procedures and government regulations. Forestry companies must document cutting and reforestation. Both government and other bodies must be able to produce evidence that appropriate action was taken to protect the environment. Environment-related information often must be collected over long periods and protected against inadvertent or intended loss or alteration. Poor recordkeeping could place individuals, communities and the environment at serious risk.

Education: Student records, educational plans and school board administrative records provide examples of the recordkeeping environment in the educational sphere. Education-related financial, staffing, policy and program management issues in government, in school boards, community organizations and education-related suppliers depend on good records. Agreements, contracts, accounting records and other documents are used to enable each body to perform their roles and to hold themselves and others to account. The completeness and accuracy of the records can affect the quality of the education system as well as the careers of students, educators and administrators.

Good management could be defined as the effective generation and use of information and knowledge. Recordkeeping both supports the activities described above (and others) and provides the *evidence* that essential management functions were undertaken, *i.e.* goals and objectives were identified, necessary actions were taken, decisions were made and results were evaluated.

Recordkeeping and Air Quality – An Example

To ensure public health and a sustainable environment, governments at several levels must – among many other activities – monitor **air quality**. To do so, staff need to determine what types of information they will require to design and support program functions and activities (including documented consultation with specialists and the general public). In undertaking the program, they will need to conduct research into air quality issues and impacts and investigate existing air quality standards using authoritative records and publications from a variety of sources. They must file these materials for convenient reference. They need to record their findings and analyze the information in notes and reports. Based on these records, standards for air quality must be set, published in paper form and, if possible, distributed electronically. Testing procedures and penalties for polluters must be documented and distributed. The data from air monitoring equipment must be accurately recorded, filed and protected. Air quality data needs to be analyzed in studies and reports. Warnings in the form of letters or other notices must be issued and records kept of their issuance. Responses must be reviewed and filed. If necessary, further violations must be investigated and findings accurately documented. Offences must be prosecuted based on the recorded evidence in the case file and the outcome documented. The payment of a fine or imposition of some other penalty will need to be recorded. All of the air quality program records need to be carefully maintained and accessible to support regular program performance reviews. Portions of the collected records and data may also be archived and kept accessible for very long periods of time to support long-term trend analysis and other research, possibly shared with other jurisdictions and leading to international standards and joint action. And all of this information (within certain limits) must be accessible to the public and other bodies to provide evidence of these undertakings and demonstrate their value (*e.g.* in reducing risks to public health and the environment).

Records and Government Restructuring

Aside from the important role records play in enabling the normal operational functions in these and other areas, good recordkeeping is essential in supporting government transformation and restructuring. Governments are eliminating unnecessary activities and re-engineering, re-inventing and re-positioning established functions and business processes. New alternative service delivery options are becoming available within government and through arrangements with other levels of government, non-government organizations and the private sector. These changes are in response to management priorities, financial pressures, technology imperatives, political realities and the pursuit of strategic opportunities. The success of these efforts depends on the innovative use of new technologies as well as on the availabity of reliable information and data on which to base the changes and through which their impacts can be measured.

Government, the public, the media and others expect new, restructured or collaborative services to be built upon and assessed according to the same standards they apply to more traditional arrangements. Are they effective? Are they transparent and accountable in the way they are organized and function? Are they financially responsible? Is there meaningful opportunity for stakeholder input? Is there clear understanding about roles and intended outcomes? Within the Government of Canada, these and similar issues are reflected in the guidelines for program review and alternative service delivery.

Business process re-engineering – real and potential – is stimulating increased attention to information management and recordkeeping issues. Business processes (developing policies and programs, reviewing and approving government spending, *etc.*) are largely *information* processes – collecting, analyzing, sharing and applying relevant information. "Workflow" is largely *information flow.* To succeed, business re-engineering demands a good understanding of information management and improved processes and controls for recordkeeping.

As an example, the transfer or sharing of responsibilities and powers with other bodies – for example, the operation of prisons by private sector companies – requires effective recordkeeping to ensure that expectations (based on documented policies and regulations) and subsequent performance are clearly documented, understood and verifiable. Contracts and agreements need to define the relationship among the parties, their authority and their accountability. Records of how programs and services are being performed are essential in order to determine effectiveness. Where good records are not kept or not accessible to participants and to the public, there is no trustworthy evidence to show that the arrangements are adding value and that they are satisfying expectations of openness and accountability. It is crucial that key recordkeeping and other information management issues be resolved when agreements and understandings are put into place. Agreements need to assign clear responsibility and authority for the creation, ownership, maintenance and disposal of business records so that they are available, accessible, secure and trustworthy for as long as they need to be.

Some of the information and recordkeeping questions that need to be resolved include:

- What kinds of records and reports will be required to demonstrate effectiveness and accountability?
- Who will own, control and be accountable for the information created and maintained in a shared governance environment? Whose laws and standards will apply?
- Will the participating bodies fully and accurately document important activities and decisions?
- Who will have access to the information and how will it be shared (*e.g.* for monitoring, reporting and public access)?
- Will privacy and confidentiality be protected where necessary?
- Are there assurances that the information held by non-government bodies will be used only for the purposes intended?
- Will the participants manage their records over their full life cycle to acceptable standards?

These information management issues are often neglected when alternative service arrangements are developed, and auditors have commented on their absence as evidence of a lack of accountability. As an example, the Auditor General of Canada has criticized the lack of information and spending controls on new quasi-governmental agencies that are not subject to explicit parliamentary funding approvals. Many of these bodies are subject neither to the Auditor General's authority nor to the *Access to Information Act* and *Privacy Act* or government records management policies. "They're still spending public money and they should receive the same scrutiny as government departments," then-Auditor General Denis Desautels told the Standing Committee on Public Accounts.[lviii]

Governance and Memory – The Archival Function

The records of governance typically serve multiple purposes. Their *primary* uses relate to the business or other purposes they were initially created to serve. As information is evaluated, applied and shared with others, *secondary* uses are often developed. Examples include using local air quality records to help prepare national standards or using basic staffing data to develop employment equity programs. Over time, however, the perceived value of the records diminishes – this may take minutes, days, months or years – and the vast majority are either destroyed or deleted. A small portion, however, is preserved to serve other and *ultimate* uses. These are the government's archival records.

Carefully preserved and conveniently accessible, archival records are the continuing evidence of important actions, transactions and decisions. Selected for their potential operational, legal, historical or other value, they document the development of key policies and programs, provide a record of past performance, testify to rights and obligations and clarify past accountability. They document and support the continuity of government, record changes in its structure and provide evidence of its achievements and its failures.

Archival records support a variety of specific functions. Government staff use them to learn about the development and effectiveness of previous programs and policies. The media examine them to determine if, in the past, government properly fulfilled the public trust. The police, courts and legal researchers use them to study and sometimes re-open old criminal cases. Lawyers consult them to settle long-standing land claims and to defend the government in court. Medical researchers use them to trace historical data related to the progress and treatment of diseases. Genealogists search them to uncover the roots and branches of families. The public asks for copies of them to secure entitlements based on evidence of birth, marriage, divorce and death. Historians research them as authoritative sources of information and evidence about the past. Communities use them as a basis for identifying and developing other heritage resources.

Collectively, archives represent the corporate memory of government and form an important part of the collective memory of society. The preservation and use of archival records exploit the value of societal, institutional and individual experience. The lessons of the past provide important knowledge to help government and society define, understand and address new problems. Comprehensive and well-maintained archives record and illuminate the development of society in all its diversity and complexity. They are essential to identifying and understanding the issues, events, individuals and influences that shape governance over time. Recorded memory is an essential component of governance and of national, regional and local identity.

Within government, "corporate memory" is often brief. Downsizing, restructuring, rapid staff turnover and a focus on the "here and now" often leave government departments with little shared knowledge of their collective experiences, achievements and organizational culture. Unless this knowledge is captured and preserved as a matter of course, departments are forced to re-invent wheels and duplicate the lessons – and often the failures – of the past.

The importance of archives is not universally recognized. In a technological environment focused on the future, the value of what is sometimes deprecatingly called "legacy" information is often neglected. As well, the volatile nature of information in electronic form presents huge challenges for archivists, historians, lawyers and others concerned about the need to preserve authentic and authoritative information about the past.

The fact that national archives also have corporate authority for records management in many countries testifies to their records-related expertise and to their concern for the long-term integrity of the public record. The prospect of identifying, selecting and preserving a comprehensive and credible record of important programs, policies and decisions depends on how well the records of government have been managed and protected over their life-cycle. A meaningful archival program cannot be sustained in the absence of an effective records management program.

Recordkeeping Activities and the Recordkeeping Infrastructure

In the conduct of the business of government – creating laws and policies, delivering and evaluating programs, protecting legal rights, assembling and managing resources, *etc.* – records are **created**, **used** and **preserved**. These three broad categories of recordkeeping activities consist of:

> **Creating** records: *generating, creating, collecting, capturing, receiving*
>
> **Using** records: *accessing, retrieving, transmitting, disseminating, exchanging, sharing, exploiting*
>
> **Preserving** records: *identifying, organizing, describing, classifying, storing, protecting, migrating, disposing*

The degree to which these activities are effectively performed depends on whether a strong underlying information management infrastructure is in place and effectively implemented. The infrastructure consists of:

- **laws** and **policies** that provide the mandate and direction for the creation, use and preservation of information and records, such as information access and privacy laws, information management and "public records" policies; this aspect provides *authority* and *overall direction*;
- a **governance and accountability framework** that integrates and embeds recordkeeping activities into business processes, identifies records management responsibilities, provides leadership for information management, assesses and manages records-related risks; and monitors and evaluates recordkeeping performance; this aspect of the infrastructure provides program *structure*, *ownership* and *accountability*;
- suitable **standards and practices** for the management of records over their complete life-cycle and in their many media and formats – creating, collecting, disseminating, identifying, organizing, protecting, retaining, disposing; this aspect provides *operational direction*;
- effective **technology-based systems** to support records management activities and which include business-centred information and technology architectures, applications and related systems standards and procedures; this aspect provides needed *tools*; and
- trained **staff and other resources** (*e.g.* adequate budget, equipment and space) to support records, information and knowledge management activities; staff include all public servants as well as specialists supporting information management functions, providing training, *etc.*; this aspect provides *capacity*.[lix]

The infrastructure must be supported by an information culture in which political leaders, public servants and citizens are **aware** of and **appreciate** the value of well-managed information and records in supporting government programs and governance generally.

The infrastructure must be based on a *vision* of information-enabled governance and a set of fundamental information *principles* that guide infrastructure development and implementation.

Information-enabled Governance – A Suggested Vision:

> Managing information to enhance citizen-centric services, decision-making and accountability for a knowledge-based society.

Information Principles:

1. **Availability:** Information and data must be created, acquired and maintained so as to document important activities and decision-making processes adequately;
2. **Accessibility:** Information should be accessible to, and shared with, those who need to access it and have a right to do so;
3. **Stewardship:** Departments should be accountable for ensuring the accuracy, authenticity, relevance and reliability of their information resources;
4. **Creation and Retention:** Government information should be created, acquired and retained only for valid business, legal, policy, accountability and archival needs;
5. **Privacy and Security:** The security of information should be protected to ensure privacy, confidentiality and information integrity, consistent with business, legal and policy requirements;
6. **Life-Cycle Management:** Information in all media and forms should be managed as a strategic resource throughout its life cycle (from creation or collection through storage, use, destruction or archival preservation).

- Principles: Information Commissioner of Canada, *Report to Parliament, 2000-2001*

The IM infrastructure provides governance-related institutions and individuals with the mandate, direction, responsibility, tools and capacity to create, use and preserve information effectively in electronic as well as other forms. Where IM infrastructure is strong, recordkeeping functions are embedded in government policy, in fundamental business processes, in technology systems and applications, in departmental asset management priorities and in the work habits of public servants and political staff. A strong IM infrastructure reflects an environment in which the integrity of the public record is valued and a commensurate commitment is made to good recordkeeping as the foundation for evidence-based governance.

The ***information management*** infrastructure is an integral component of the overall government infrastructures for developing and delivering government programs and services (the ***business*** infrastructure), for designing and implementing technology systems and tools (the ***technology*** infrastructure) and for managing and developing human resources (the ***human resources*** infrastructure).

The Key Recordkeeping Problems

- Records are not created or acquired when needed;
- Records are not found or are not accessible;
- Records are unreliable (not accurate, timely, complete, relevant, authentic, *etc.*)
- Records creation, collection, storage are unnecessarily duplicated;
- Records are poorly and inconsistently identified, described and filed;
- Records are not shared when needed;
- Privacy and security are not protected;
- Low value records are kept too long;
- Important records are destroyed without authority;
- Valuable information is not preserved;
- Business, information management and technology needs are not coordinated.

Gaps and weaknesses in the records-related infrastructure of government are common in public sector organizations. There may be no clear policies and direction for documenting business transactions, protecting privacy or providing public access. Governance and responsibility for managing records and records management programs may be fragmented or unclear. There may be no consistent and effective filing system or records retention and disposal standards, or they may not be implemented. Basic computer applications for creating and controlling records may be missing or ineffective. As governments downsize, there may be few trained staff left to help workers manage their electronic, paper and other records. Other resources – space, equipment and money – may not be available. The organizational culture may not value the benefits of good recordkeeping or be concerned about its absence (except when a crisis arises). A host of other priorities may prevail.

Where these and similar conditions exist, the negative impacts on governance include:

- reduced program effectiveness and efficiency when program-related information is inaccurate, incomplete or out-of-date;
- weakened capacity for decision-making when information is not available and activities are not documented;
- reduced internal accountability when responsibilities for recordkeeping are fragmented or unclear;
- increased administrative costs when records collection and storage are duplicated, when records are kept too long or when they cannot be found and must be reconstructed;
- the inability to assess program impacts when performance-related records are not kept or are not accurate;
- increased legal, financial or political risk when the evidence contained in records is unavailable or is not credible;
- wasted investment in technology and alternative service delivery when government is unable to establish trustworthy electronic information environments;
- gaps in the government's corporate memory when records with long-term value have not been preserved or are not usable.

Recordkeeping Risks

Non-compliance risks – when citizens and public servants cannot comply with laws, requirements because of poor or missing records
Entitlement risks – when citizens cannot access entitlements (*e.g.* pensions) due to poor records
Legal risks – when records-based evidence to support government and citizen rights is not available or is not credible in legal and judicial settings
Financial risks – when unreliable data/information threaten program or technology investments; when poor records threaten comptrollership, audit
Security risks – when information about threats is not available; when sensitive records are not protected
Organizational risks – when corporate information is not shared and exploited limiting development
Operational risks – when efficiency and effectiveness are jeopardized by unavailable or unreliable records
Credibility risks – when confidence within and toward government is lost due to unavailable, inaccessible or untrustworthy records

For citizens and civil society, the impact of poor government recordkeeping includes:

- poor public services when program-related information is inaccessible, inaccurate or out-of-date;

- reduced access to entitlements and the erosion of basic rights when those rights and entitlements are not documented and cannot be verified;
- reduced transparency, accountability and trust when the evidence of government decisions and activities is unavailable, inaccessible or untrustworthy.

In the context of developing countries, the lack of reliable records and recordkeeping systems forms a major impediment to institutional, legal and regulatory reform; anti-corruption strategies; poverty reduction and economic development; and other goals of good governance. In any setting, poor recordkeeping reduces the effectiveness of programs and services; impedes the achievement of social, economic and other goals; and reduces the confidence that citizens and others have in their governance. As the Information Commissioner of Canada noted to Parliament, "Weak information management policies and practices can seriously erode government accountability and the public's right to know, to challenge, to participate in and, ultimately, to influence the governance process."[lx]

Poor records and information management entails huge financial costs in terms of wasted and inefficient work, duplicated effort, legal liability and lost opportunity. Since these costs are often hidden or anecdotal, however, they have been difficult to assess in any systematic way. In developing a "Case for Action" for information management, the National Archives of Canada estimated that, using conservative figures, the annual direct cost to the Government of Canada of time wasted through poor information management is currently more than $870 million.[lxi]

Avoiding these and other direct and indirect costs is a powerful incentive for paying attention to records and information management. Other important benefits include:

- reduced political, program, legal, and other risks;
- more efficient and effective policies, programs and services;
- better decisions;
- enhanced access to information, services and entitlements;
- better protection of personal privacy and government confidentiality;
- higher levels of trust, accountability and citizen engagement;
- more successful deployment of information technology; and
- better corporate memory.

To achieve these results, organizations need to assess their current IM strengths and weaknesses. This aspect is discussed in the research report, "The Financial Capability Model and the Records Management Function: An Assessment" and reflected in recently developed tools such as the National Archives' *IM Capacity Check* model. A strategy for improving the IM infrastructure is then needed that includes generating a shared vision for information management, a strong case for action and wide awareness and support from key stakeholders.

Managing Electronic Records

Digital technologies are dramatically altering every sphere of society and bringing huge changes to every facet of individual and organizational life. The Internet and other ICTs are transforming the economic, educational, scientific, health, environmental and other spheres. They are changing the speed, convenience and form of government services and of its internal processes. As discussed earlier, *they are making e-governance possible, essential* and *unavoidable.*

In the e-world, citizens want and expect the ability to access relevant and reliable information and services, interact with government and participate in their governance electronically. Government workers expect to be able to conduct their business functions and communicate electronically. Electronic information systems provide government with powerful tools for satisfying these expectations, for creating savings and efficiencies as well as for realizing the other benefits of e-governance. Such capabilities, however, must be integrated into new e-government business processes and into the organization's information management and technology infrastructures.

In an electronic information environment, the government IM infrastructure must enable the organization to:

- protect the integrity, authenticity and evidentiary value of electronic records and data as they move across organizations, networks, applications and media;
- enable the consistent identification, description, classification and retrieval of records using appropriate metadata and thesauri, formatting, and electronic filing schemes;
- ensure the capture into the corporate recordkeeping system of records created in electronic systems and applications;
- enable convenient access to electronic records and information sharing through interoperable systems;
- protect security, privacy and confidentiality in storage and transmission;
- ensure prompt deletion of redundant or transitory records and data;
- support systematic appraisal, retention and disposal requirements;
- link related electronic, paper and other records;
- ensure the integrity of electronic records over changes in technology platforms;
- preserve electronic records for very long term usability without loss of content, context or structure; and
- ensure that the above functions are integrated into the design and operation of electronic information systems, applications, procedures and tools.

These are substantial challenges. Electronic information systems are complex and fragile. Systems and standards change rapidly. E-records are easy to create, alter and delete. The volume and variety of electronic files on desktop computers and network servers can be overwhelming. Many electronic files are unnecessarily duplicated and multiple versions exist. Important electronic records may be maintained outside of the organization's formal recordkeeping system. Key documents and data are often stored on local hard drives,

unavailable to others in the organization. Huge volumes of obsolete data may be maintained in active systems, slowing the search and retrieval of current information. The casual proliferation of electronic files sometimes leads to the mistaken assumption that someone else will keep the "official" copy. Staff often have difficulty locating the most recent or most authoritative version of a file. Frequently, they are unable to assemble a complete record of transactions and decisions, especially if related files exist in both electronic and paper formats and in different locations. The authorship and origin of records created in a team-based work environment may be difficult to determine. Related records are often difficult or impossible to find across government departments because of inconsistent data management standards and practices (*e.g.* naming and filing) as well as frequent departmental restructuring. Also, important decisions and transactions often go undocumented among a confusing array of techniques and technologies.

Even the definition of a "document" is evolving in the electronic workplace. Although the majority of electronic records in government are straightforward text documents, spreadsheets and databases, the reliance on more complex document forms is increasing. Compound and multimedia documents consist of more than one information "object", medium or data type – such as text, image and audio – possibly created by more than one author. Web-based hypertext documents have codes embedded in them that link them to other documents or objects, without which they are incomplete. Distributed databases may be continually altered from different locations, by different people or automatically by the computers on which they run. Virtual documents consist of different data elements from one or more software programs that come together as a complete and functional record only temporarily, for a presentation viewed on screen, for example. Managing – and preserving – these types of records is a complex task. As well, the advent of the Internet has made obsolete traditional distinctions between published and unpublished documents that have been the basis for defining the role of libraries and archives.

The management of electronic records requires a strong infrastructure of laws, policies, standards, practices, systems and people (described earlier). Adequate governance, accountability and staff support arrangements are of particular importance. Responsibilities related to managing and disposing of electronic records are often poorly understood and frequently fragmented among program, records management and information systems staff; across program areas; or across jurisdictions and sectors (where programs and information are shared). Corporate arrangements for managing information systems and for managing recorded information (records) are often separate and uncoordinated. Chief Information Officers often function only as Chief Information Technology Officers. As well, IT systems, records management and other specialist staff often have different vocabularies, perspectives and skills. Many records management staff are poorly equipped to deal with electronic records issues. While systems-related staffing and budgets have often increased, records management programs and training have frequently been reduced.

Government staff often do not have the necessary skills to deal with the overwhelming volume and complexity of electronic records in e-mail systems, the Internet and intranets, distributed databases, geographic information systems, data warehouses and in a variety of files and folders of uncertain origin and over which little ownership and control have been exercised. Moreover, workers are often unsure of when and how they should create a record to document a business activity or decision adequately. "Help Desks" focused on IT

systems and applications are of limited value in dealing with basic records and information management problems. With a decline in records management programs and often weak electronic records skills among records management staff, workers are often left to fend for themselves with little or no training in managing either their electronic or paper records.

The result often is an inability to cope with a deluge of poorly organized information of uncertain value. A KPMG study found that two-thirds of business managers in North America suffered from information overload and half had difficulty locating information.[lxii] A Reuters survey indicated that 55 percent of workers were worried about making poor decisions in spite of the abundance of information from the Internet and other sources. Eighty-four percent felt that many of these problems could be eliminated or reduced if their organizations offered training courses to help them *gather*, *manage* and *use information.* Information management training would enable more informed decision-making, better productivity, higher levels of job satisfaction and reduced stress levels.[lxiii]

Electronic mail provides a good example of both the benefits and challenges of the electronic information environment. E-mail is probably the most common form of business communication today. North American studies indicate that workers receive an average of 30 e-mails daily and spend an average of 2 hours or more per day reading and responding to e-mails.[lxiv] Almost 50 percent of an e-mail user's time is spent dealing with "junk" e-mail[lxv] with 86 percent of employees using business e-mail for personal reasons[lxvi]. Important e-mails are frequently printed out and kept in paper files for "safekeeping" as there is often little confidence in the electronic alternatives. Many workers arbitrarily delete e-mails with little regard for their informational or evidential value.

A host of basic recordkeeping questions need to be answered regarding the use and management of e-mail:

- For what types of communications and purposes should e-mail be used?
- What e-mails are "official records" and which can be deleted (and when)?;
- Should e-mails be stored electronically or should they be printed out and filed?;
- How should they be organized?;
- What should be done with e-mail attachments?;
- How long should e-mails be kept (and where)?;
- Which e-mails are confidential and which may be shared?;
- What should be done with existing e-mails when new software or hardware is introduced?

The use of government websites to communicate with and serve the public provides another example of the need to address information management issues. Relevant questions for both program / information managers and webmasters include:

- Is the information on the government website relevant, accurate and timely?;
- Is information on the site easy to search and retrieve (through effective website design and navigation tools)?;

- Is information consistently structured and described within a site and across the organization (using appropriate formatting and metadata)?;
- Is related information conveniently linked and integrated to offer "one stop" access?;
- Can the user easily comment on the information and service and otherwise interact with government in a meaningful way?;
- Have key web documents been captured within the organization's corporate recordkeeping system?; and
- Are the web-based documents retained in usable and accessible form for as long as they are needed?

If the answers to these questions are negative, electronic systems will do little to further citizen and public servant engagement, participation and choice. Positive answers depend on a mixture of business needs, basic records management principles and practices, and the use of technology-based tools and techniques.

New tools are coming into use that assist organizations to manage and control both their electronic and paper records. Electronic document and records management systems (EDRMS) are enterprise-wide software applications that assist in managing the various forms of records and data found across an organization, regardless of media, application or location. In North America, many are based on the U.S. government-developed standard (*Department of Defense -- 5015.2*[lxvii]) or the Canadian government standard (RDIMS[lxviii]). *MoReq*[lxix] is the name given to the European Union standard and a similar standard exists for the United Kingdom. Given the volume and complexity of electronic and other documents being created and maintained manually and within discrete government systems, it will be essential for government departments to incorporate these powerful information management tools into their information and technology environments.

The benefits of these and similar electronic tools have usually been described in terms of improved organizational efficiency and control. The ultimate benefits, however, lie in improving *access* to a confusing array of documents and files and helping to satisfy citizens' expectations that government is able to produce, manage and provide the evidence of governance programs and activities.

The volatile nature of electronic records presents a particular problem for archivists and for others who depend on the long-term usability of electronic information. Among the greatest information management challenges of e-government is that of preserving important electronic information over very long periods of time. Although most IT systems are focused on relatively short term benefits, some government records must be maintained in usable forms for many years. As an example, major criminal investigation case files may be kept active for fifty years by Canadian federal and provincial police services. Key prosecution case files and many criminal court records are maintained for twenty-five years or more. Even for electronic records and data that are needed for shorter periods, the *system* life cycle is often much shorter than the *information* life cycle.

Unfortunately, electronic media deteriorate, software changes and hardware becomes obsolete. Much valuable data is stored in such environments and is no longer retrievable after a few years. Encryption systems add further complications. Data conversion and

migration and transfer to new media must be undertaken, but this is often difficult, costly and unreliable, especially for newer and more complex data formats. Even if a conscientious and continuing effort is made to migrate data, will we really be able to assure, after multiple software and hardware upgrades, that the content, context and structure of the information are still intact? Will the record still be complete, authentic and reliable? This is a problem for all government jurisdictions and for the non-government sector as well (*e.g.* for e-commerce and the legal profession). In the short term, organizations must utilize a variety of approaches to protect the long-term integrity of vital records: converting and migrating important files, transferring to new media, maintaining or emulating original hardware and software environments, printing and storing paper versions. Effective, practical and affordable long-term solutions are needed but still remain out of reach. As a former Information and Privacy Commissioner of Ontario warned, "It would be the ultimate irony if the 'information age' turned out to be one of the most poorly documented periods in human history, simply because the chronicle of our own era became irretrievable."[lxx]

Although electronic systems have become the primary medium of information creation and exchange in commerce and in many governments, the paperless office remains unachieved. Governments and their clients continue to rely on paper in numerous situations because of its convenience and familiarity. To borrow an information systems term, paper is "robust". Examples of the persistence of paper can be found in the fact that printing volume increases by 40 percent or more when e-mail is introduced to an office[lxxi], and by the fact that the offices of information technology staff are often crowded with paper. As well, many citizens still do not have access to or feel comfortable with computers and the Internet. They depend on more traditional channels and media (in person, the telephone, mail) for accessing government information and services. Even in highly computerized environments, government must be able to provide service through traditional as well as electronic channels and to manage its information and records in multiple media and forms.

Electronic Document and Record Management Software Systems:

- Provide for systematic maintenance and retrieval of documents / data irrespective of media, systems platforms, applications and locations;
- Simplify classification and filing of documents based on program function, activity or transaction;
- Enable easy searching and retrieval of documents using a variety of software-supported techniques;
- Support version control, track access and changes to documents;
- Automate implementation of and support for records retention, transfer and disposal decisions;
- Allow document location and tracking across and between departments and records centres;
- Enable development of a comprehensive electroni8c catalogue of government information holdings ("government information locator systems") for convenient public access; and
- Support security measures confining access, where necessary, to records and systems functions to authorized persons.

To support the shift from *paper mountain* to *data stream*, traditional records management principles are needed but matched to new policies, standards, structures, systems, tools and skills. As the electronic work environment changes the way government conducts business, staff will need to shift attention:

> from technology management to information resource management; from physical documents to logical documents; from analogue to digital; from

> location specific to location neutral; from software dependent to software independent; from media preservation to information preservation.[lxxii]

A new breed of information professional is needed in the electronic information environment. Professional silos must disappear as program managers, records managers, technology specialists, information systems architects, website managers, access and privacy administrators, auditors, archivists, librarians, lawyers and others recognize their shared interests in maintaining the integrity and exploiting the value of information. As professional and organizational linkages grow, skills and abilities begin to converge. "Records management" will not remain a discrete and distinct profession. In time, it will be absorbed into a more mature multi-media information systems environment in which business, accountability and related information management needs drive technology deployment. Records and document specialists will be advisors, trainers, risk assessors and planners. Technology experts will become more IM-aware as collaboration with information specialists and business managers grows and new records and document management tools appear. A team environment will gradually take hold with the common purpose of integrating the business, information management and technology-centred processes of governance.

Enhanced records, information and knowledge management skills are important for all public servants. As "records management" moves to the desktop (supported by effective system protocols and tools), all staff will be records managers, information managers and, ideally, *knowledge* managers. To support these functions, a *learning culture* must be developed based on the development of key information-centred skills, including:

- knowing what information is needed to support the development, delivery and evaluation of policies, programs and services (*information planning*);
- determining whether it exists, where it is available and how it can be accessed, within the organization or externally (*information searching and retrieval*);
- understanding how to assess information in terms of relevancy, accuracy, authenticity, authoritativeness and other characteristics (*information evaluation*);
- knowing how to document activities, decisions and transactions adequately for business, legal and accountability needs (*documentation standards*);
- protecting the integrity and accessibility of information during its life-cycle (*records management*);
- learning how to capture and share the knowledge of co-workers (gained through individual and collective experience) to enhance collaborative problem solving and the application of this knowledge in new and innovative ways (*knowledge management*).[lxxiii]

At present, there is a great need for these information-handling skills, but little demand that they be developed as part of government human resources training strategies. Ironically, it may be that growing interest in knowledge management will lead to the awareness that it is impossible to manage knowledge unless staff are able to deal with the records and information that are the sources of knowledge.

Issues related to the development of appropriate IM training programs (for both public servants and information professionals) are largely matters beyond the scope of this study. In the Canadian federal government, they are being explored by institutions with a training function such as the National Archives and the Institute for Government Information Professionals in Public Works and Government Services Canada. Considerable work has already been undertaken to identify IM core competencies as well as training options.[lxxiv] More detailed planning is needed, however, to identify the most appropriate training roles for each body and to develop specific programs. A high-level strategy to support this objective might be based on the following:

- Understanding IM roles, functions and related competencies, developing a conceptual framework for skills development (linking IM, IT and other training);
- Defining categories of training needs (by audience and subject), identifying priorities and planning programs (*e.g.* IM / recordkeeping fundamentals, electronic records management (e-mail, *etc.*), knowledge management, *etc.*);
- Determining how courses should be delivered (including on-line and other distance options), by whom, for how long and how they should be funded; and
- Promoting training (*e.g.* distributing course information, promoting/requiring participation, recognizing achievement, *etc.*).

IM training will strengthen awareness by public servants of their responsibilities for the stewardship of information and provide improved ability to develop, manage and use information and knowledge resources to support good governance.

Changing the Information Management Environment

Within and across public sector institutions and jurisdictions, the strength of the IM infrastructure and the subsequent quality of recordkeeping vary widely. Where serious gaps exist, public sector organizations need to make changes in appropriate areas of the infrastructure – in laws, policies, standards, practices, systems and people – and in the political and professional culture. Some of these key shifts are identified below:

Where Many Organizations Are:	***Where They Need to Be:***
The Culture	
• Competing institutions; poor communication; information "stovepipes"; focus on rules and red tape; hierarchical management; low accountability	• High levels of collaboration and information sharing; focus on citizen and user needs; team-based work environments; accountability a priority
Information Awareness/Value	
• Records treated as a waste product of government administration	• Information recognized as an operational and strategic resource of governance
• Records management as minor administrative process	• Records management as essential to government goals, services (i.e., *results*)
Law and Policy	
• Weak information laws (access, privacy, preservation, etc.); weak, informal and inconsistent recordkeeping policies	• Strong information rights; effective and consistent records policies
Governance/Accountability	
• Fragmented, unclear responsibilities for keeping records and for records management programs; weak links with business processes and technology	• Responsibilities and leadership clearly defined, measured at every level; IM, IT and business planning and systems closely integrated
Records Practices	
• Complex, paper-based work processes	• Simplified IT-enabled processes/workflow with paper files for convenience and special needs
• Crisis-driven records management	• Planned, policy-driven, risk-based life-cycle asset management approach
• Create, collect information haphazardly	• Create, collect information as required for business, legal and accountability purposes
• Manual filing, storage and retrieval at workstation	• EDRMS-assisted filing, storage, retrieval on network
• Arbitrary and overlong records retention	• Systematic, automated retention/disposal based on information value, risk
• Unconnected paper and electronic files	• Linked paper and electronic files based on related functions, uses
• Archival records as an afterthought	• Archival records identified, protected at beginning of records and system life cycle
Technology	
• Limited use of new technologies	• Organization-wide technology-enabled communications and business processes
• Technology-driven work processes	• Business and accountability-driven processes enabled by IT
• IM and IT issues considered separately	• Records management requirements designed into IT systems

People	
• Low records skills for public servants	• Records and information management training for all public servants, political staff and governance partners
• Isolated records specialists and traditional professional communities (archivists, records managers, systems personnel, etc.)	• Close collaboration among information specialists, systems staff and program staff; converging professional communities and strong partnerships

In each of the above areas, governments need to evaluate where they are between the above "beginning" and "end" states. As well, they need a "road map" to help them move to greater capacity and a more mature IM infrastructure. These efforts should be part of a strategic approach to enhancing records and information management within individual organizations and across the governance environment. A high-level strategy for infrastructure development is suggested below. Records management assessment tools and road maps are discussed more fully in the earlier research report, "The Financial Capability Model and the Records Management Function: An Assessment"

Developing the IM Infrastructure – A Suggested Strategy

Generate Interest and Support

1. Articulate a shared vision for evidence-based governance.
2. Develop a strong and compelling case for action to improve recordkeeping, linked to the achievement of the government goals, objectives.
3. Generate wide awareness and support among key stakeholders for implementing the vision; identify champions; secure commitments for strengthening IM.

Identify Needs, Priorities and Resources

1. Identify and assess gaps, weaknesses in the IM infrastructure and recordkeeping practices, measured against international standards, best practices and identified maturity levels.
2. Set short, medium and long-term priorities based on needs, impacts, resources.
3. Identify participants; develop project plans; secure resources.

Build the Infrastructure

1. Develop the legal framework for creating, using, protecting, preserving government information.
2. Develop a strong governance and accountability framework for IM with links to IT development.
3. Develop a corporate recordkeeping policy, standards and best practices for life-cycle records management.
4. Develop needed recordkeeping systems and tools linking business, IM and IT processes.
5. Develop information-centered skills, competencies and networks for public servants, IM specialists through collaboration, training, performance measurement, rewards/recognition.

CHAPTER III – Managing Information for Good Governance – Canadian and International Experiences and Trends

Information Management and the Government of Canada

In Canada and other countries, the close relationship between democratic governance and information management issues is being increasingly recognized, explored and developed. Stimulated by the significant challenges and potential benefits of e-government, various jurisdictions are reviewing their information infrastructure and developing strategies to improve IM/records management capacity.

Within Canada, there is increasing awareness that the achievement of the government's policy and management goals and the preservation of fundamental values depend on the creation, management and use of information. The relationship between information and good governance is at the centre of *Results for Canadians*[lxxv], the Government of Canada's management framework. It describes the basic values of a responsive and effective public service, defines the government's commitments with regard to how it manages, and describes how central agencies and departments need to work together to provide citizen-centric services. All of these objectives depend on the creation, use and preservation of high-quality information to support a fundamental set of governance values within the Government of Canada:

- *Democratic values*: these values include the rule of law, openness, transparency and accountability and the related expectation that public servants will provide ministers, Parliament and the public with full and accurate information on the results of their work.;
- *Professional values*: these include excellence, effectiveness, efficiency, innovation, and teamwork; public servants serve the public trust, observing neutrality and non-partisanship and providing high quality, impartial information and advice to government leaders; professional values include stewardship of information as a valuable public resource;
- *Ethical values*: public servants serve Canadians and the government with integrity, honesty, equity, fairness, openness, respect and inclusiveness;
- *People values*: a civil, caring and fair public service has to be supported by an environment of continuous learning based on the sharing of information and knowledge.

The implementation of this framework, however, requires improvements in the current IM capacity of the Government of Canada. A number of authorities have noted that the

government's capacity to manage its information resources (especially those in electronic form) needs major strengthening. In June 2000, Treasury Board Secretariat and the National Archives of Canada produced a comprehensive *"Situation Analysis"* report on information management in the federal government.[lxxvi] It found that concerns were being raised across the government about the quality and integrity of the government's information management infrastructure. Citizen-centred and business-driven, the report identified key barriers to good information management including the following:

- There is a lack of understanding of information management and limited awareness of its importance in government departments;
- Departmental business, information management and technology requirements are not integrated or well aligned;
- The accountability framework for information management is weak and fragmented within the government;
- The infrastructure of policies, standards, practices, systems and people needed to support IM is insufficiently developed.
- Government departments have not assessed their IM capacity and lack the knowledge and tools to be able to do so effectively.[lxxvii]

The Information Commissioner of Canada, John Reid has also criticized the lack of access to government records and pointed to weaknesses in the underlying recordkeeping infrastructure. In his 2000-2001 report to Parliament, he said:

> …in the midst of the Information Age, the ability of the Government of Canada to manage and provide access to its information resources is at serious risk. The impact can range far beyond administrative inefficiency or inconvenience. The absence or inadequacy of information management policies and practices… threaten the public's right of access to accurate and reliable information, jeopardize program effectiveness and efficiency and undermine government integrity and accountability.[lxxviii]

The Auditor General of Canada has frequently commented on the absence of strong records-based control and accountability frameworks in departments. In his final report to Parliament, then-Auditor General Denis Desautels criticized the "poor quality of records kept in departments", the "reluctance of senior public servants to keep [certain types of] records" and threats to the "institutional memory" of departments.[lxxix] Current Auditor General Sheila Fraser has expressed similar concerns. Privacy Commissioner George Radwanski has also described numerous circumstances where poor recordkeeping has led to breaches in privacy protection for citizens.

There is considerable evidence that attention to information management and recordkeeping issues is increasing and that Canada is taking a strong leadership position in some areas. At the central government level and in many departments, managers are realizing that greater attention to information management will help them plan and deliver their programs more effectively. Central agencies and institutions such as the National Archives of Canada are playing a leadership role in promoting information management and in building a stronger government-wide IM infrastructure. Political leaders are also becoming more aware that

demands for better information access and privacy protection are increasing in the age of the Internet, that citizens want to be more involved in their governance and that ignoring these demands increases their political and other risks.

An important stimulus is the determination of the government to meet the 2005 target for Government On-Line (GOL). There is growing awareness that the success of GOL and other aspects of e-government depend on good information management, not just establishing an on-line presence.

The evidence of increased attention to information management and recordkeeping issues can be found in a number of initiatives in the Government of Canada:

The Treasury Board committee of Cabinet has policy responsibility for the management of government information and information technology, linked to its overall responsibility for all corporate resources and processes (people, finances, program budgeting, *etc.*). It has the strategic lead for Government On-Line. Following receipt of the IM *"Situation Analysis"* report, Treasury Board Secretariat, through its Chief Information Officer (CIO) Branch, strengthened its existing information policy capacity and established an information management unit. The unit is defining and developing an overarching *Framework for the Management of Information.* The *Framework* is intended to provide authoritative, comprehensive and integrated guidance on IM for all Government of Canada staff. It will integrate the information management requirements included in legislation, regulations and policies, and reflect best practices to meet the evolving needs of electronic service delivery. The CIO Branch is also raising awareness of IM within federal departments and agencies. Treasury Board Secretariat is providing support for department-centred and collaborative IM projects.

In consultation with other agencies and departments, the CIO Branch is developing a new policy on the *Management of Government Information (MGI)*. Its objective is to "ensure that information under the control of the Government of Canada is effectively and efficiently managed throughout its life-cycle." It identifies the value of IM in supporting "informed policy and decision-making and the delivery of high-quality programs, services, and information through a variety of channels." The policy requires government institutions to:

- implement governance structures for cost-effective IM;
- foster supportive environments for IM and inform employees of their responsibilities for managing information;
- manage information, regardless of medium or format, to ensure its authenticity for as long as it is required;
- manage information to facilitate its universal access in a manner that promotes public trust and optimizes its sharing and re-use;
- dispose of information no longer required for operational purposes and preserve information of enduring value;
- use electronic channels as the preferred means of IM[lxxx]

MGI defines the life-cycle operational requirements for information management, provides information about the legal framework for recordkeeping, gives direction on departmental and agency responsibilities, governance and accountability for IM and defines the

requirements for monitoring and evaluating information management. Other IM-related policies for which Treasury Board is responsible were identified in **Chapter II**.

Effective information management requires a public service with appropriate IM skills and vigorous and capable community of information specialists. An Organizational Readiness Office (ORO) has been established within the CIO Branch to develop "the appropriate tools, business practices and approaches to ensure that public servants are prepared to meet the goals of Government-on-Line and Improving Service for Canadians."[lxxxi] An important focus is on human resources development, including renewing the IM and IT communities by defining needed IM competencies and building capacity within the IM "community of practice" by identifying effective training and other professional development strategies. To this end, a detailed survey of departmental senior IM directors will enable the CIO Branch to capture and analyze current and projected IM community demographics, skill requirements, and issues, develop an IM job repository, and integrate IM into an overall competency model for IM, IT, and service delivery.

To assist in assessing IM capabilities across the government, Treasury Board Secretariat undertook a survey of federal departments to help departments determine if they were "*IM-Ready*"[lxxxii]. The survey asked departments about four key issue areas (IM Strategic Direction and Governance, IM Infrastructure, IM Management and IM Procedures and Practices). Information management was defined as including records management, library services, web site management, access and privacy administration, and network infrastructure. Although the results of the survey identified major gaps, the survey provided departments and the Secretariat with useful information helpful in developing strategies and priorities for enhancing capacity.

Treasury Board Secretariat also developed a tool for assessing a department's capacity to participate in aspects of e-government ("*e-Government Capacity Check*"[lxxxiii]). The tool explores capacity in five areas: e-strategy; risk and program management; organizational capabilities; "value chain" management; and IM/IT architecture (which includes questions related to business process architecture, data architecture, data sharing and technology architecture).

In earlier sections, the close relationship between good recordkeeping and information access was explored. A Review of the *Access to Information Act* was completed in June, 2002 and argued strongly for major efforts to erase the government's "information management deficit".[lxxxiv] Many submissions to the Review pointed to poor records management (and a related lack of training) in departments as a serious impediment to providing access to government-held information under the *Act*. Among other IM-centred issues were concerns about the long-term availability of electronic files and that government-held information is collected, organized and stored in ways that makes it difficult to find and expensive to obtain.

The Personal Information Protection and Electronic Documents Act[lxxxv], passed in 2000, represents an important step in recognizing the critical importance of electronic information in government and commerce. The *Act* authorizes an electronic alternative for doing business with the federal government and clarifies how the courts should assess the reliability of electronic records used as evidence. The *Act* also includes measures to protect personal information acquired by the private sector. Viewed in the context of fundamental

governance objectives, the legislation tells both Canadians and the international community that commercial activities will be subject to clear and consistent privacy provisions reflecting international standards and trends to protect citizens in this important area.

Among the central institutions of the government, the National Archives of Canada plays the most active role in developing and supporting effective operational practices and standards for recordkeeping. Based on the *National Archives Act*, it has responsibility to facilitate the management of government records in addition to its central role in selecting, preserving and providing access to archival records of national significance. In consultation with other stakeholders, it develops corporate records management standards and practices for paper and electronic records and provides advice to government departments on recordkeeping, information management and related technology issues. It also operates a national network of records centres to store and manage semi-active departmental records. The National Archives works closely with the CIO Branch of government, with related federal institutions such as the National Library of Canada and with Canadian and international archival and information management bodies. *(Note: on October 2, 2002 it was announced that the National Archives of Canada and the National Library of Canada were joining to form a new institution, the Library and Archives of Canada.)*

The National Archives is currently reviewing and strengthening its corporate information management role. To stimulate greater attention to the importance of IM, it developed and distributed a "Case for Action" for enhancing the federal IM infrastructure through a collaborative government-wide strategy. The Case concisely and persuasively identifies the arguments for improving IM, including: the impact of IM on the government's policy and management goals, the benefits of good IM, the risks of not taking action, the financial and other costs of poor management, the current state of federal government recordkeeping, and positive action being taken by other governments and the private sector. The Archives is undertaking a related communications and engagement strategy focused on federal departments and central agencies. It is working with several departments to dispose of their "paper mountains" and to establish simpler and more effective records disposition procedures for all departments. To reduce the need for federal institutions to act on their own, the Archives is developing government-wide retention periods for common administrative records and is creating a standard for the classification of the records serving other common business functions. Other current initiatives include the development of a strategy for preserving archival electronic records and for enhancing the federal records centres program. These activities are in addition to supporting a wide range of existing records management standards, guidelines and activities.

Of particular importance is the development of tools for assessing and improving departmental records and information management capacity. Building on earlier assessment models and approaches, the National Archives has developed an *IM and Records Management Capacity Check* tool. The tool identifies six aspects of information management (Organizational Context, Organizational Capabilities, Management of IM, Compliance and Quality, Information Life Cycle and User Perspective) and for each describes the characteristics of five "maturity levels" ranging from "Non-existent/Undeveloped" to "Industry Best Practices".[lxxxvi]

Other IM initiatives and plans involving the National Archives, the CIO Branch and others include:

- Implementation of a Government of Canada metadata standard and a core subject thesaurus; development of metadata standards and guidelines for such areas as recordkeeping, e-learning, and the Government of Canada's on-line gateways and clusters;
- Development of a handbook for government staff that describes IM obligations, roles, and responsibilities as well as practical approaches, criteria, and checklists;
- Development of a Management of Information Guide for Business Delivery for program managers, including governance and accountability models and guidelines to help managers reflect IM requirements in business cases, assess information quality, incorporate metadata elements, and manage content in portals, gateways, and web-sites;
- Development of guidelines for the management of electronic records, e-mail, and encrypted and digitally-signed documents;
- Design and implementation of a survey on the management of government publications, particularly in the transition to electronic publishing, to inform the development of guidance and best practices in this area; revisions to the *National Library Act* to require legal deposit of electronic publications;
- Development of an audit and evaluation guide for use by departmental internal auditors to determine areas of risk and institutional compliance with the *MGI* policy.

Although Canadian federal departments and agencies are at varying levels in terms of information management capacity, there are a number of positive directions. Some departments are developing new internal records and information management policies, standards and practices based on Treasury Board's draft *Management of Government Information* policy and the new ISO international records management standard. Numerous departments have adopted or are planning electronic records and document management systems such as RDIMS. Some federal institutions are developing sophisticated web-based "knowledge portals" that translate Government On-Line into an exciting opportunity to engage citizens and other users. Government-wide training in IM and IT topics is offered by the Institute for Government Information Professionals in Public Works and Government Services Canada. The Canadian International Development Agency (CIDA) sponsors an annual Strategic Information Management Program for representatives of developing countries.

Supporting and coordinating information management in the Government of Canada are a group of senior consultative bodies that are increasing the government's focus on information management. These groups include TIMS (Treasury Board Secretariat Advisory Committee on Information Management Sub-committee), the Government On-Line IM Sub-committee, the Information Management Policies Advisory Committee, the IM Champions Committee and the inter-departmental Information Management Forum.

On another level, Canadian government departments are forming partnerships with key non-government organizations to explore the issues and impacts of e-government and to guide its direction. One of these is the alliance of government, NGO, academic and private sector groups under the leadership of the Public Policy Forum. The Forum is a neutral, non-profit

organization dedicated to improving the quality of public policy and public sector management in Canada. It has been involved in a number of IM-centred initiatives to explore and understand the impact of ICTs on government policies and programs and on governance generally.

The *Crossing Boundaries*[lxxxvii] initiative provides another examples of collaborative efforts to understand and deal with the issues and challenges related to e-government, including its information dimensions. It provides opportunities for research and information exchange involving departments of the Government of Canada, the Ottawa-based Centre for Collaborative Government and international authorities. A key facet is the need to understand and promote the availability, accessibility and effective use of information and knowledge using the Internet and other ICTs.

International Initiatives

As governance becomes increasingly defined in terms of inter-jurisdictional (and inter-sector) dimensions, attention to information management and related information technology issues is increasing. A number of progressive initiatives in other jurisdiction provide useful reference points for improving governance-related recordkeeping.

Leaders of the G8 nations have recognized the importance of information, information technologies and governance in the Okinawa Charter on Global Information Society.[lxxxviii] The Charter commits the G8 nations to promote the use of ICTs to increase the flow of information and knowledge that is needed to create sustainable economic growth and to "strengthen democracy, increase transparency and accountability in governance [and] promote human rights"[lxxxix]. The G8 established a "Digital Opportunity Task Force (DOT Force) to implement specific projects related to these goals and to measure and promote government *e-readiness*. Italy and Canada, respectively Chairs of the G8 in 2001 and 2002, were asked to oversee initiatives focusing on the development of policy options to narrow the digital divide between developed and developing countries. In 2001, G8 leaders accepted the Genoa Plan of Action[xc] which proposes nine action points to be undertaken by governments, NGOs, international organizations and the private sector.

The G8 nations realize that economic development must be based on and accompanied by improvements in governance in developing countries. This principle underlies the New Partnership for Africa's Development (NEPAD)[xci] developed by African states in 2001. In summary, NEPAD makes commitments to improve conditions in key areas of national development, including maintaining minimum standards of governance and democracy. In the area of *political governance*, participating states commit to strengthen "the political and administrative framework … in line with the principles of democracy, transparency, accountability, integrity, respect for human rights and promotion of the rule of law."[xcii] Improving *economic governance* means raising standards of accounting, auditing and economic policy making. Strengthening *corporate governance* refers to changes that create a stable environment for investment such as licensing, tax rules and regulations. NEPAD recognizes

that ICT-enabled access to information and knowledge is essential to good governance and the democratization process. The G8 nations will be considering NEPAD commitments and achievements as a foundation for basing future aid to African countries. As its contribution to the G8 Africa Action Plan, Canada has pledged $420 Million over three years, including $35 Million dedicated to ICT development in Africa.

Other international bodies are focusing on the relationship between governance and recordkeeping. The World Bank makes loans and provides other types of assistance to developing countries to reduce poverty, encourage public sector reform, improve health and environmental conditions, stimulate economic development and fight corruption. The Bank recognizes the direct link between these objectives and democratic governance and the close connection between good governance and recordkeeping. It has supported a number of initiatives to improve records management in developing and transition countries and to enhance the skills of records managers, archivists and others. A major partner in these efforts is the International Records Management Trust.[xciii] The London-based Trust offers records management training and other support to government officials in a variety of countries with the support of the World Bank and other sponsors. A major project of the Trust and the World Bank (and other partners), *Evidence-Based Governance in the Electronic Age*, is a multi-year effort to:

- sensitize governments, development institutions, international organizations, NGOs, and civil society on the value of records for public sector reform;
- develop records management tools to assess the quality, reliability and accessibility of records management;
- provide a global electronic forum (electronic discussions, video conferences, *etc.*) to identify and share potential solutions for records management;
- hold a high-level face-to-face working meeting to build global consensus on international strategies for records management in the electronic age;
- undertake capacity-building initiatives in developing countries to remedy records management skill gaps.[xciv]

The Trust has close ties to agencies and departments in the Government of Canada based on Canadian leadership in records and information management and the joint desire to contribute to international records management capacity building.

Recordkeeping, information access and archival objectives provide the basis for UNESCO's "Information For All" and "Memory of the World" programs. The "Information For All" program supports the development of common strategies, methods and tools for building a free and equitable information and knowledge-based society and for narrowing the gap between the information rich and the information poor. It is a key element of UNESCO's mandate to contribute to the "free exchange of ideas and knowledge" and "to increase the means of communication between peoples"[xcv]. The "Memory of the World" program is aimed at the protection and preservation of the documentary heritage of mankind (books, manuscripts and audio-visual media in libraries and archives).[xcvi]

In Europe, the European Commission is contending with barriers to the exploitation of information held within the individual states that form the European Union. Based on its

draft report, *Creating a EU Framework for the Exploitation of Public Sector Information*[xcvii], strategies are being proposed that will harmonize laws and policies for the re-use of such public sector information. Through this initiative the Commission is recognizing information as a rich resource to support new and innovative governance initiatives.

At the individual country level, promising plans and projects are being undertaken in other jurisdictions to strengthen information and records management in the context of national governance. As brief examples:

- In the United Kingdom, the Government's white paper, *Modernising Government*[xcviii], provided a vision for government programs in which the effective management of information was recognized as an important element. It has declared that, "by 2004, all central government organizations must be able to store and retrieve their records electronically." The Public Record Office has already developed "route maps" and "toolkits" to help the UK government meet this target. Complementing this initiative, the Office of the Lord Chancellor issued a draft *Code of Practice on the Management of Records under Freedom of Information*[xcix] which sets out the practices public authorities must follow in relation to creating, keeping, managing and disposing of their records. It was developed to support the recent passage of freedom of information legislation.

- Another important international initiative is the development of the Commonwealth Centre for Electronic Governance, an associate organization of the Commonwealth Secretariat, the administrative body for the Commonwealth countries. The Centre has close ties with Canadian and other organizations interested in information management and is serving as "a focal point in the use of the new information and communication technologies as a tool for reinventing good governance".[c]

- The Commonwealth Government of Australia recognized the importance of information management in 1997 when it issued its report *Management of Government Information as a National Strategic Resource*[ci]. The report was the foundation for the actions the Australian government is currently taking to integrate a comprehensive information management framework into its e-government plans.

- In the United States**,** the Office of Management and the Budget has issued the federal government's *E-Government Strategy*[cii] which sets out an ambitious agenda that includes a range of high profile initiatives covering the life cycle management of information. Among the initiatives is the development of electronic recordkeeping requirements that can be included in the design of information systems. In nearly all of the other initiatives described in the strategy, IM is recognized inherently as a critical component.

New international standards are available to support these and other information management strategies. The International Organization for Standardization (ISO) adopted a standard for records management in 2001 (*ISO 15489*), developed through lengthy consultation with records and information management specialists in many countries including Canada. It is based on the highly regarded Australian standard (*AS 4390*).

Countries, including Canada, are in the process of formally adopting the ISO standard. ISO 15489 comprises requirements (and supportive guidelines) related to: the legal and regulatory environment; overall policy objectives and responsibility for records management; records management strategies, design and implementation of a records system; records processes and controls (*e.g.* classification, storage and handling, access, tracking, retention, disposition); program monitoring and auditing; and training. The ISO standard is important as a consistent and shared basis for establishing and maintaining effective recordkeeping programs on which governance depends.

In the area of archival preservation, there are numerous international, multi-disciplinary efforts underway to develop theoretical and practical approaches to the problem of preserving electronic records over very long periods of time. The most important of these is the Vancouver-based InterPARES project[ciii]. InterPARES brings together records managers, archivists, librarians, lawyers, information technology experts and others from the public and private sectors to share perspectives and possible solutions for preserving the authenticity and integrity of electronic information across time and continuing changes in the technology environment.

CHAPTER IV– Conclusions

An intimate and interdependent relationship exists between recordkeeping and governance. Records, when well managed, are *instruments* for achieving accountability, transparency and trust; *evidence* of that achievement (or lack thereof); and authoritative *sources of information* that can be used to support decision-making and the delivery of government programs and services. The effective creation, use, and preservation of records are integral and essential components of a government's ability to provide good governance. The relationship between society and its government is based on trust. Citizens and a variety of bodies expect their governments to manage "in trust" the records that document their interactions with government and the full range of government activities, decisions and transactions.

Good governance based on transparency, accountability and trust (and similar values) is becoming a shared goal among governments at all stages of development. Achieving this goal requires a common approach to the establishment of strong recordkeeping programs – programs that ensure the availability, accessibility and integrity of the records essential to effective democratic governance. This need is all the more critical in the *e-world* where new and complex information technologies are providing major benefits as well as huge challenges.

Although governments are increasingly recognizing the relationship between governance and recordkeeping, they are struggling to ensure that the related infrastructure of policies, standards and practices, systems, technologies and people is complete, effective, and relevant, especially in an electronic environment. The struggle has been exacerbated by the absence of frameworks and tools (e.g., assessment tools, model policies and standards, etc.) to help them measure the adequacy of their existing recordkeeping infrastructures and to provide them with a road map to help guide them in enhancing records management

capacity. This road map would respect their need to take steps that fit their resources, capabilities and conditions.

Those steps need to reflect an IM development strategy that includes the basic components identified in Chapter II:

- Generating awareness, partnerships and support among key stakeholders through a strong vision and compelling case for action;
- Identifying gaps, priorities, resources and participants for needed IM initiatives; and
- Planning and building elements of the IM infrastructure – legislation, policies, processes, training, etc. – to address critical needs.

To support such a strategy, new tools and methodologies are being developed in Canada and other jurisdictions. As well, a number of international organizations promoting effective *e-governance* are actively working to improve records and information management in developing countries. For organizations like the International Records Management Trust, the emphasis is on practical initiatives that enhance records management policies, practices and skills while raising awareness of their value in supporting public services, citizens' rights and the rule of law.

These collaborative efforts must continue and increase. Based on its own experience and expertise, Canada can play a leading role in developing and sharing effective strategies, methodologies and tools that can benefit its own public sector as well as other governments. New and promising initiatives testify to Canada's willingness to play this role and build momentum.

In conclusion, this report is intended to contribute to a better understanding of the inter-relationship between governance and recordkeeping, and to encourage further study in this area. Even more important, it is hoped that the discussion of these issues will help stimulate strategies that permit governments to develop and implement recordkeeping infrastructures that respond to the imperatives of the emerging *e-world.* While Canada is playing a leadership role in these and related areas, there is a rich opportunity for more collaboration to develop international models for the management of information to support democratic governance.

Appendix A - Project Sponsors and Project-Related Organizations

The **Public Policy Forum** is an independent agency involved in studying and interpreting a wide range of issues that affects how the public sector in Canada functions and how it addresses challenges in both traditional and e-government settings. The Forum maintains a strong interest in developing and promoting new and more effective approaches to governance in the Information Age.

The **National Archives of Canada** is concerned about the capacity of the Government of Canada to manage its electronic information holdings, a percentage of which will be expected to have archival value. Under its role in facilitating the management of government records, it is also concerned about the lack of effective standards and practices for managing electronic information. Finally, through its active participation in the International Council on Archives, it is concerned about the capacity of governments around the world to manage their information holdings, a growing proportion of which will be in electronic form.

Public Works and Government Services Canada (PWGSC) is concerned about ensuring that information management is reflected adequately within the overall infrastructure supporting Government On-line. The absence of effective policies and tools for managing information could threaten the Government's on-line agenda and its ability to provide Canadians with the trustworthy environment they should be able to expect in a democratic society. PWGSC is also interested in using the results of this study as the basis for possible courses developed and managed by its Institute for Government Information Professionals. Given the growing ability of governments to interact electronically, the PWGSC is interested in exploring how the Institute can play a more active role in enhancing the IM skills of workers in the federal government and beyond.

The **Chief Information Officer Branch**, Treasury Board Secretariat (TBS)**,** has concern for information management, accountability, and the supporting information technology infrastructure. The first concern is in the context of management of the government's information holdings in all forms, including in the electronic environment. The second is linked to TBS efforts to promote modern comptrollership and effective management of all government's assets. The third is related to the design of an IM/IT framework to support the first two areas in the Government of Canada. These three sets of concerns have not, however, traditionally been linked. These links need to be clearer to help TBS to achieve its goals and to devise an effective framework for information management and related corporate policies and standards. The Chief Information Officer Branch is actively engaged in this effort.

Other Canadian agencies also have an intense interest in these issues, including the Office of the Auditor General and the Office of the Information Commissioner of Canada. The Auditor General of Canada has long worked to improve comptrollership and other dimensions of financial management in Canadian government departments. In 1999, this Office developed the *Financial Management Capability Model (FMCM)* as a basis for assessing

the capacity of Canadian government departments to manage their financial resources. That model provides a promising basis for adaptation to a records management environment, a topic addressed in an earlier research report related to the present project. For his part, the Information Commissioner of Canada investigates and attempts to resolve complaints by members of the public and non-government bodies that their right of access to government-held information (under the *Access to Information Act)* has been improperly denied, restricted or unreasonably delayed. The Commissioner has frequently found that requested information cannot be provided because it does not exist, because it cannot be found, or if found, it is incomplete, inaccurate or otherwise unreliable.

While the primary interest of the organizations above (and others interviewed as part of the study) is in the Canadian environment and experience, they all maintain a strong interest in the international dimensions of these issues. They wish to learn from experiences in other jurisdictions and, in turn, hope to contribute to the strengthening of democratic institutions abroad. As an example, the Canadian International Development Agency (CIDA) plays a substantial role in improving economic and social conditions in developing countries. In this context, it has an interest in promoting responsible and effective governance based on democratic values and supported by effective recordkeeping.

Supportive international bodies include the International Records Management Trust which has worked with developing countries since 1989 to improve records management skills and capabilities in support of democratic governance. With the support of the World Bank and others, it has launched a multi-year project entitled *Evidence-Based Governance in the Electronic Age*. The first phases of this project, now underway, are involved in developing tools to identify national records management needs and capabilities, develop professional networking opportunities and to formulate strategies for the management of electronic and other records in developing and transition countries. Later stages will involve new initiatives to improve the skills, influence and effectiveness of records management professionals.

Another important organization is the Commonwealth Centre for Electronic Governance, an associate organization of the Commonwealth Secretariat. The Centre has close ties with Canadian and other bodies interested in information management and is serving as "a focal point in the use of the new information and communication technologies as a tool for reinventing good governance".

Appendix B - Individuals and Organizations Interviewed

Name	Association
M. Alain Jolicoeur	Canada Customs and Revenue Agency
M. Roger Dumelie	Canadian International Development Agency – International NGOs Program
Mr. David Hughes	Canadian International Development Agency – International NGOs Program
Mr. Peter Fiori	Canadian International Development Agency – Policy Planning and Analysis
Mr. John Riddle	Health Canada – CIO and Information Management Services
M. Pierre Gauvin	Indian & Northern Affairs Canada – Corporate Information Management Directorate
Mr. Brian Hill	Indian & Northern Affairs Canada – Information Management Branch
Ms. Claudette Pepper	Indian & Northern Affairs Canada – Records and Electronic Documents Management
Ms. Mary Dawson	Justice Canada
Mr. Denis C. Kratchanov	Justice Canada – Department of Information Law and Privacy Section
Ms. Marilyn Osborne	National Archives of Canada
Ms. Julia Ginley	National Archives of Canada – Government IM Infrastructure Initiative
Mr. Greg Eamon	National Archives of Canada – Strategic Management Office
Mr. Paul McCormick	National Library of Canada – Strategic Policy and Planning
Ms. Maria Barrados	Office of the Auditor General of Canada
Mr. Eric Anttila	Office of the Auditor General – Attest and Consulting

Mr. Bruce Sloan	Office of the Auditor General – FMC / Internal Audit
Ms. Julia Lelik	Office of the Auditor General – Knowledge Management
Mr. Larry Kearley	Office of the Information Commissioner of Canada
Mr. Alan Leadbeater	Office of the Information Commissioner of Canada
M. Julien Delisle	Office of the Privacy Commissioner of Canada
Mr. Gerald Neary	Office of the Privacy Commissioner of Canada – Investigations and Inquiries
Mr. David C. Elder	Privy Council Office – Machinery of Government
Mr. Alan Beaton	Privy Council Office – Management Priorities
Mr. Michael Turner	Public Works and Government Services Canada – Government Telecommunications & Informatics Services
Mr. Dave Dobson	Public Works and Government Services Canada – Management Services
Mr. Ivan Blake	Treasury Board of Canada, Secretariat – Comptrollership Branch
Mr. Niall Sinclair	Treasury Board of Canada, Secretariat – Information Management
Mr. Ian Sinclair	Treasury Board of Canada, Secretariat – Information Policy
M. Denis Desautels	University of Ottawa – Centre for Governance
M. Luc Juillet	University of Ottawa – Centre for Governance

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