The recent Open Government Initiative represents an unprecedented commitment to make the U.S. government more transparent, collaborative, and participatory. As the President recently suggested, “Proper records management is the backbone of open government.” This paper explores the interface of Open Government and records management, and examines some of the challenges and opportunities it engenders. Its central thesis proposes the Open Government movement may provide an opportunity for improved recordkeeping by shining a light on long-standing deficiencies. While federal agencies have been mandated to comply with specific policy provisions, there is a clear need to reform the recordkeeping practices of government agencies to preserve our nation’s valuable documentary history, and ensure transparent and accountable governance.
BUILDING OPEN GOVERNMENT: THE RECORDKEEPING PRACTICES OF FEDERAL AGENCIES

by

Kathleen A. Sullivan

A Master’s paper submitted to the faculty of the School of Information and Library Science of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Science in Library Science.

Chapel Hill, North Carolina
April 2013

Approved by

Arcot Rajasekar
# Table of Contents

**Introduction**

- Background 2
- Openness and democracy 5

**Records Management in Government**

- National Archives History 8
- Statutory and Policy provisions 9
- Federal Records Act 9
- Freedom of Information Act 13
- Paperwork Reduction Act 15

**Literature Review**

- Open Government 17
- Transparency & Accountability 19
- New Paradigm 21
- Authenticity and Reliability 24
- Preservation 26

**Discussion**

- Oversight and Assessment 30
- A Matter of Priority 33
- Open Government and Records Management 36
- Guidance 39
- Training 40

**Recommendations and Conclusion**

- 43

**Bibliography**

- 47
Introduction

Background

On January 21, 2009, his first full day as President of the United States, Barack Obama issued the Memorandum on Transparency and Open Government as part of a broader plan known as the Open Government Initiative. The effort is intended to create unprecedented levels of openness in government, and engender innovation through the use of technology. The core philosophy of the initiative is that government should be transparent, participatory, and collaborative, and these three principles form the cornerstones of open government. The memorandum asserts, “Openness will strengthen our democracy and promote efficiency and effectiveness in Government.”

The concept of open government originally was used as a rhetorical tool, to build trust in government and demonstrate public accountability. In a modern democracy, power must be employed, and seen to be employed, constitutionally and reliably. In the 1950s, this meant “open” government meetings, legislative sessions, and eventually the right to request and obtain government documents with the passing of the Freedom of Information Act in 1966. But those policies also reflected the limited technologies that were available at the time, namely paper records and firsthand witness of proceedings. The information technologies available today are dramatically different, and have

---


2 Ibid.
transformed the meaning of open government. But in fact, these new modes of communication are only novel platforms for delivering an ancient tradition. Citizen participation in government dates back to Ancient Greece, and the birth of democracy. The Athenian Assembly was the paragon of direct democracy, where any (male) citizen could speak and participate in the political life of the city. Similarly, the Internet appears to offer the means for a new kind of modern participatory democracy.

Coinciding with the growth of technology, citizens have raised their expectations about what information they expect their government to provide. They assume government will publish all of its public data online with unmitigated access, and allow citizens to partake in policy discussions. While those assumptions may be grossly overestimated, government too has something to gain from this public exchange. Collaboration is one of the pillars of the open government plan, and governments see opportunities to capitalize on the public’s knowledge and skills while advancing their goals of achieving greater openness.

Democratic governance is the process by which power and authority are exercised in a government that recognizes its legitimacy depends on the consent of the governed – its citizens and stakeholders. In a democracy, governments are directly answerable to the public, and transparency is crucial to foster trust in government. Creating and preserving evidence in the form of records can be seen as one way of achieving good governance and accountability.

---


Despite changes in technology and government leadership over time, the records management process has remained relatively unchanged until recently. Widespread use of information technology has affected the way organizations conduct and document their business. Increasingly more work is “born digital,” and retained on an individual creator’s computer, a shared network, or in the cloud. Consequently, the records being created are substantively different from paper records. The system, designed around paper records, is less able to ensure adequate legal and historical record of government decision-making. The volume of records, and the nature of those records pose significant challenges to federal agencies seeking to effectively manage their information.\(^5\)

As technology evolves, federal agencies are pressured to do more work electronically, and diverse technology causes organizations to work differently. Electronic records lack the contextual information inherent in the paper medium. They necessitate additional metadata that conveys this information and storage solutions that support authentication, access control, and long-term preservation. As new technology continues to develop and we move toward a paperless government, challenges to the federal records program will only increase. But without a viable method for maintaining records, records management programs will be ineffectual. The modern task is to link records management with contemporary technologies as a way of promoting accountability and democracy.

Open government’s emphasis on information sharing and transparency often mirror many of the values and principles that information professionals espouse, so it is

an area of particular interest to many who see their missions aligned. The nexus of
government and information studies is a unique place where technology, information
management, outreach, and policy merge, and may advance larger goals.

**Openness and Democracy**

Political rhetoric, as in many democratic nations, makes much of the need to
increase public participation in the political process, and improve the public’s
understanding of, and confidence in, the way government works. As Americans, we
widely accept the notion that access to information is at the core of how we view
democracy. We have long recognized that an informed citizenry is vital to the functioning
of society. It provides the necessary checks against corruption, and the opportunity to
uphold accountability.

Notions of openness are primarily articulated as being in opposition to something
that is “closed,” and this diametric construction can challenge the status quo to generate
change. Over the last decade, open government has gone from being a niche cause in a
few developed countries to becoming major policy in in governments around the world.
The online publication of government data sets is seen as playing a significant role in
driving transparency and accountability. It empowers new forms of civic participation,
stimulates economic growth and development, and breaks down barriers between citizens
and their government.

The United States is one of eight founding members of the global Open
Government Partnership.⁶ Launched in September 2011, the multilateral initiative seeks
to secure commitments from governments to promote transparency, engage citizens,

---

combat corruption, and leverage new technologies to strengthen governance.\textsuperscript{7} Today membership includes over 60 countries, including mostly African, Middle-Eastern and South American nations.\textsuperscript{8} Membership requires partner governments to make commitments to develop and implement plans that support that mission, and report on their progress; all of the same points the President’s Open Government Initiative supports.

Records management is only one component of President Obama’s Open Government Directive. The directive details specific steps required by agencies to achieve the goal of creating a more open government. To support Open Government, objectives, agencies are required to implement the following measures:

- Publish government information online
- Improve the quality of government information
- Create and institutionalize a culture of Open Government
- Create an enabling policy framework for Open Government\textsuperscript{9}

Agencies were given 120 days to formulate and submit their Open Government Plans, and a fair amount of latitude in how they interpreted and devised their programs. But, they were instructed to apply technological solutions and incorporate high-level values of open government whenever possible. It is important to see that records management is one part of a broader spectrum of Open Government programs. In its entirety, open government engenders a sea change in not only government activities, but also a new approach to the way government services are delivered.

\textsuperscript{7} Open Government Partnership, \textit{Declaration}. Available: \url{http://www.opengovpartnership.org/open-government-declaration}

\textsuperscript{8} See: \url{http://www.opengovpartnership.org/timeline-all-ogp-participating-countries}

To evaluate the Open Government project, the nation’s Chief Information Officer has created the “Open Government Dashboard,” a publicly available tool that tracks agency progress on the specific deliverables outlined by the President. The dashboard data is based on self-reported assessments completed by the agencies. Predictably, most agencies award themselves high marks, but actual degrees of compliance vary greatly. While no agency scored itself the lowest grade in any category, the fact that such a performance data exists is evidence of the commitment to transparency.

10 Available: http://www.whitehouse.gov/open/around
Records Management in Government

Before considering the various legal components that constitute the policy framework for records management, it is first necessary to address why agencies keep records. The obvious reasons are legal protection for the purposes of tax, auditing or litigation. The law also mandates certain types of financial or personnel records be maintained indefinitely. But, records are not just those documents that confer official status. Federal agencies create records because they need records to conduct their daily business, and they keep records because they need access to them. Orderly and efficient recordkeeping saves agency resources. The National Archives asserts that records management “contributes to the smooth operation of your agency’s programs by making the information needed for decision making and operations readily available.”\(^{11}\)

Additionally, records are a vital part of any organization’s institutional memory. It is that knowledge of the past and the decisions that were made that connect history to the present, and enable us to learn from the past.

National Archives History

The National Archives is unique among federal agencies in that it is charged with preserving and providing access to records from all three branches of government. This requires extensive collaboration with federal agencies and strong leadership. In order to understand the way federal agencies manage their records, it is appropriate to explore the

\(^{11}\) National Archives and Records Administration. *What are the benefits of records management?* Available: [http://www.archives.gov/records-mgmt/basics/#benefits](http://www.archives.gov/records-mgmt/basics/#benefits)
history of the National Archives as an institution, as well as statutory requirements and legislation that affect records management. These are historically significant policies because each directly, or indirectly, influenced the records program. This chapter will trace the development of the federal records program since its beginnings.

The National Archives was established in 1934 by President Roosevelt primarily as a depository for historical documents. Over time, it gained additional records management duties as the number of federal records created grew in the post-World War II era. In fact, the flood of records created by New Deal legislation and the various federal agencies it gave rise to, is precisely the reason the National Archives’ functions were expanded.

In 1946, President Truman issued an Executive Order requiring all federal agencies to establish and maintain a program to manage records.12 To reflect this new recordkeeping reality, the Federal Property and Administrative Services Act13 expanded the National Archives’ responsibilities to include records management for current and semi-active federal records, in addition to the archives. The purpose was to “provide that Government records may be utilized to maximum advantage and disposed of expeditiously when no longer needed and in the interest of more efficient internal management of the government.”


Federal Records Act

In 1949, the National Archives was merged with the General Services Administration. Congress directed a study to be undertaken to evaluate the state of

---

13 41 U.S.C. § 251 et seq.
records management in the government. As a result, the Federal Records Act was passed in 1950, which formalized the records management program. It outlined the chief responsibilities of the Archivist of the United States:

- Cooperation in applying standards, procedures, and techniques designed to improve the management of records
- Penalties provided by law for the unlawful removal or destruction of records
- The authority to establish records retention schedules

The Federal Records Act underwent several amendments that resulted in more well-defined concepts, and an understanding of changing technology. For example, the terms ‘records management,’ ‘records creation,’ ‘records maintenance,’ and ‘records disposition’ were not defined until the 1976 amendment. In addition, the 1976 amendment introduced new language, adding “machine readable materials” to the definition of records, to reflect the growing use of computers. It was thought to be necessary to stress that medium does not affect documentary status. But, in revising chapter 29 of title 44, the amendment deleted a section that explicitly stated, “The Administrator of General Services shall have final authority in matters involving the conduct of surveys of Government records, records creation, maintenance, management and disposal practices in Federal Agencies.” The framers of the amendment felt this clause was redundant, but NARA believed this language was a “crucial loss” that diminished its power. Consequently, each federal agency retained complete authority to establish recordkeeping policies and procedures. This provision may contribute to

---

14 44 U.S.C. § 2901 et seq.
15 S. Rep. No. 94-1326
16 44 U.S.C. § 3301
17 44 U.S.C. 2910; emphasis added
NARA’s reluctance to act as “enforcer,” and insert itself in day-to-day agency operations.\(^{19}\)

The 1978 amendment reiterated the principle Truman set forth thirty years prior on “the importance of having Government records which are not confidential made generally available to Government agencies and to the public.”\(^{20}\) Prior to these enactments the National Archives’ records program had not been officially defined, but was growing alongside government bureaucracy, trying to keep pace with burgeoning demands on its resources.

In 1979, a seemingly unrelated case was brought before the U.S. Supreme Court that had major implications for the role of the National Archives. In the case of Kissinger v. Reporters Committee for Freedom on the Press et al., the decision determined which government body has the authority to define records. During his tenure, former National Security Advisor and Secretary of State Henry Kissinger, had his secretaries monitor, and record or transcribe all of his telephone conversations. In 1976, near the end of his career, he moved the collection of notes to a private estate before donating them to the Library of Congress. The Reporters Committee sought access to the transcripts through FOIA request but was denied. The Supreme Court ruled that the State Department, and not the National Archives, had the authority to determine whether the records in question were personal papers or federal records.\(^{21}\)

Following the court’s decision, the Office of Legal Counsel (OLC) of the Department of Justice issued its own legal opinion on the determination of records status.


\(^{20}\) Executive Order 9784

In it the counsel argued that only the head of the agency originating the document could determine what is a record of that agency. Further, agencies should retain a measure of discretion in deciding whether materials are appropriate for preservation. Thus, the National Archives had no legal authority to determine the records status of the materials in this case. The OLC’s finding coupled with the decision in the Kissinger case, and the 1976 amendment to the Federal Records Act, severely limited the National Archives to an advisory role. In practice, it also meant each federal agency could effectively define its own interpretation of a record. The vagaries of such inconsistencies would make it impossible for archivists to identify and preserve records of historical value.

In 1984, the National Archives once again became an independent agency. While it retained many of its records management duties, it shared portions of its responsibilities with the General Services Administration (GSA) and the Office of Management and Budget (OMB). This action codified the primary responsibility of NARA as one of “policy and guidance,” further limiting their effective oversight abilities.

As the result of a series of actions affecting its governing ability, the National Archives experienced something of an existential crisis, unsure of its authority. Subsequently, the National Archives formed a task force in 1987 to explore what their role should be. The task force focused on the interpretation of the definition of federal records. The organization believed it did not, but should, play a more active role in

---

22 Office of Legal Counsel, Department of Justice, January 13, 1981.
23 Archives and Records Administration Act, 1984
24 44 U.S.C. § 3506
25 Ibid
defining “records” for federal agencies. NARA sought solutions that could be accomplished without additional legislation through the issuance of regulations, standards, and guidance, and regular reporting to Congress and the President. Additionally, the report concluded NARA should utilize its surveying power, but that “adversarial” inspections should be avoided.27

**Freedom of Information Act**

There is a long history of access to public records in the United States. Some states have laws providing access to records dating back the 19th century. Court records and legislative materials have long been open to the public. The *Federal Register*, which prints rules and regulations, began publishing in 1936. In 1946, Congress enacted the Administrative Procedures Act (APA), which mandated government bodies publish and make available information about their structures, policies and procedures.28 Prior to the passage of FOIA, Section 3 of the APA governed public access to records.29 But, those public records were difficult to access and agencies granted such requests at their own discretion. Finding information often involved in-person visits to various repositories. The methods of searching and file sharing, ubiquitous in the age of the Internet and electronic records, did not exist. In the 1950s, members of the public began calling for efforts to amend the system.30

As such, the United States adopted legislation in 1966 that enables citizens to request and obtain government records and documents. The Freedom of Information Act

---

28 5 U.S.C. § 500 et seq.
29 5 U.S.C. § 552 (a)
(FOIA) allows any person or organization to ask for records held by federal agencies, but did not provide any definition for the term “record.”\(^{31}\) The FOIA was amended in 1996 to include a provision for electronic records and a definition of “agency records.”\(^{32}\) The amendment stressed that records are media-neutral, and include “any information maintained by an agency in any format, including an electronic format.”\(^{33}\) The E-FOIA also required agencies to provide information electronically when requested, and create “electronic reading rooms” where members of the public could view electronic documents.\(^{34}\)

FOIA and its various amendments are relevant to this discussion because the legislation forms the foundational basis for the Open Government movement. These laws are instruments of trust and serve as proof of government’s commitment to transparent and accountable practices. The Freedom of Information Act establishes the statutory rights of citizens to obtain records. With the Open Government initiative, agencies have been directed to apply the presumption of openness. Open Government builds on these efforts by providing the platform for delivering these services and establishes communication channels with the public.

There is an important relationship between effective records management and effective freedom of information. For FOIA to work as it was intended, there must be a recordkeeping system in place that allows for easy collection, indexing, storage, and disposal of records. If records are not properly maintained, and cannot be located, then

\(^{31}\) 5 U.S.C. § 552  
\(^{32}\) Commonly referred to as E-FOIA  
\(^{33}\) 5 U.S.C. § 552 (f)(2)  
the right of access is meaningless. This threatens the nation’s ability to preserve, celebrate and learn from its history, and undermines the democratic values of government.

**Paperwork Reduction Act**

Since its inception, the federal government has required paperwork for a variety of purposes. The Constitution mandates undertaking of the decennial census, a massive paperwork requirement. In the early 20th century, the growth of government social programs and the introduction of income taxes made paperwork a regular activity in the daily lives of Americans. In addition, the burden of recordkeeping on the public grew more acute as government expanded, instituted new recordkeeping and reporting requirements, and data collection methods.³⁵

To address the onerous nature of paperwork, Congress responded by creating the Commission on Federal Paperwork in 1977. The panel would analyze and report on the policies that contributed to the problems, and make recommendations to better manage them.³⁶ The result of the commission was the Paperwork Reduction Act (PRA). It was enacted in 1980 in recognition of the growing use of computers and the need for a broad policy on their use. It was intended to create the statutory framework for organizational and management methods that would reduce duplication, and therefore costs, associated

---


with information sharing. It gave the Office of Management and Budget (OMB) a broad range of responsibilities concerning information resources management.

The PRA identified a number of high-level goals related to records management: to reduce the paperwork burden federal agencies imposed on the public; to maximize the utility of the collected data; to encourage the use of technology as the means of streamlining work and achieving agency missions; and improve the use of federal information to strengthen decision-making, accountability, and openness in government. It is worth emphasizing that many of these same objectives are restated in the Open Government Plan nearly 30 years later.

This chapter discussed some of the major statutory and policy issues involved in the creation and organization of government records. It is clear that the size of government and distributed nature of federal agencies makes managing records very complex. The regulations discussed all have implications for the realm of records management and this was a pervasive problem in government until recently. The statutes above rarely consider recordkeeping systems or records management responsibilities, and lack basic definitional terms that are essential to the system functionality. Agencies created and received massive quantities of records, but had little understanding of what a record was, what was valuable, and how to properly preserve or dispose of them.

---

38 44 U.S.C. § 3502 defines “burden” as “time, effort, or financial resources expended by persons to generate, maintain, or provide information to or for a Federal agency.”
39 44 U.S.C. § 3501
Literature Review

Over the past few decades, governments have recognized that effective and efficient management of documents, records, data and information constitutes a fundamental component of successful public administration. This chapter establishes the relative relationship of records management to foundational principles of openness, accountability, and good governance. However, it is important to note good recordkeeping does not necessarily equate with open government, and vice versa.

Open Government

The “open” label has come to signify an ethos of collaboration that utilizes the power of information technologies to enhance knowledge. The open government concept goes beyond innovation and usage of new forms of information and communication technologies. It is a foundational principle for good governance, and it supports transparent, accountable decision-making that manifests as effective and efficient delivery of government programs and services. In its most basic sense, open government refers to the rights of citizen to access government documents and proceedings. The root of the term is influenced by the “open source” software movement of the 1970s. Like that movement, open government incorporates participation. It invites citizens to harness government information and data, and develop and transform it in ways that are useful and valuable to the public.

---

Over the last decade, the meaning of “open government” has become nearly synonymous with open technology. Open technologies normally involve sharing data over the Internet, and this moniker has been used to refer to any public sector use of these technologies. The “open” label now broadly refers to any data or information access that makes government processes more open.

The issue of government openness is not a new concern for archivists. In 1977, historian Howard Zinn challenged archivists to reflect on the social and political consequences of their work, and how aspects of recordkeeping relate to traditional forms of power and control. Zinn argued,

“One of the ways in which information is controlled and democracy denied, is by the government withholding important documents from the public, or keeping secret their existence altogether, or censoring them... [T]he actual purpose is almost always the political security of those who run the nation.”

He made two recommendations for archivists, “that they engage in a campaign to open all government documents to the public” and “that they take the trouble to compile a whole new world of documentary material, about the lives, desires, and needs, of ordinary people.”

In the recent decade, archivists have once again revisited the notion of government secrecy and its implications for archives and records management. In the wake of the September 2001 terrorist attacks and subsequent wars, the government increasingly engaged in general policies of restricting access to information. In 2005,

---

42 Ibid, 25.
then-president of the Society of American Archivists, Tim Ericson, argued that archivists and records managers need to educate themselves and strive to make maximum access to government records a professional responsibility.  

The current recordkeeping system, in its modern state of disorder, is a result of uncoordinated efforts of the past, and has largely remained unchanged. As an illustrative example of how record systems manifest, Ericson explores the history of Presidential executive orders. These documents have existed since nation’s inception, and can be used to communicate important policy declarations as well as mundane trivia. Over time, executive orders have been called a variety of names: “directives,” “administrative orders,” “presidential regulations,” or “proclamations” (such as the Emancipation Proclamation). This variance in nomenclature and casual attitude toward recordkeeping resulted in untold challenges in identifying, and classifying these historic documents. Further, it was not until 1907 that the State Department sought to locate and number past executive orders. The retroactive effort do so has never been completed, and as many and fifty thousand executive orders are thought to be undocumented and lost to history.

Transparency & Accountability

In the academic literature, the two dimensions of openness, transparency and accountability, are often considered in unison. Accountability and transparency both depend upon accurate, secure, and complete records. In the context of government,
agencies keep records because they need to be accountable to themselves and external bodies for how they conduct business. Citizens need to know that they can trust the information their government provides, and that it protects their rights. Explaining why access to reliable records is fundamental, the International Records Management Trust (IRMT) states,

“When records are authentic and reliable, open data and access to information become powerful means of ensuring government transparency and enabling citizens to take ownership of and participate more fully in their governments.”

Openness ultimately rests with the government’s ability to create and maintain reliable and accurate records as evidence of its policies, actions and decisions.

Definitions of accountability abound, and vary greatly depending upon the context. Sue McKemmish, a leading figure in archives and records management academia, embraces a dual definition of accountability. In her view, accountability encompasses “historical and cultural accountability as they relate to memory and identity, as well as democratic accountability.” In the broadest terms, it is the obligation of anyone handing resources to report on the intended use of those resources. Individuals cannot be held accountable unless evidence of their actions is collected, organized and made accessible. It follows that records are the foundation of the accountability process. As IRMT states, “trustworthy, accurate, accessible public records are the basis for transparency and accountability; they are the foundation upon which openness is built.”

---

48 International Records Management Trust, October 2012.
New Paradigm

The recent progress in the sphere of open government has advanced so rapidly that there is a dearth of literature exploring the relationship between open government and records management in federal agencies. The emphasis has largely been on open data, use of social media, and freedom of information, which are methods of delivery and access to information, not the recordkeeping practices that underpin those services. The process is still in transition, but as the nation careens toward 2019 and complete e-government, the role of records management and how it is defined, is worth closer examination. The pace at which these changes are occurring may seem unnecessarily protracted, but considering the relatively unchanged system we have experienced for nearly 250 years, the rapid shift is quite dramatic.

In the mid-90s a new paradigm emerged for dealing with and managing electronic records. Proponents of this shift insisted the nature of electronic records was so distinct it would require archivists to “adopt new ideas that would change or overturn traditional archival principles.” Those supporters argued archivists should shift their focus from the intellectual content of records to the real-world context of their use, process of creation, and the record’s functionality.

Records are an inevitable product of living in a democratic state. The value of records management is very difficult to be measured in economic terms, and most people do not pay attention to how they use records in their daily lives, but records are often

52 Ibid.
cited as evidence for the protection of rights. The National Archives defines records management as:

“The planning, controlling, directing, organizing, training, promoting, and other managerial activities involved with respect to records creation, records maintenance and use, and records disposition in order to achieve adequate and proper documentation of the policies and transaction of the Federal Government and effective and economical management of agency operations.”

In the new technological age, good electronic records management is at the core of e-government. These practices strengthen government services by supporting accountability and compliance, assuring public trust and demonstrating evidenced-based decision-making.

These changes are coming as federal agencies are still navigating the terrain of digital recordkeeping, and have not overcome obstacles engendered by the transition from paper to electronic records. Information professionals in federal agencies are struggling with new forms of digital recordkeeping just as archivists and records managers.

Technology is challenging the traditional approach to records management theory, causing a necessary reexamination of the field’s fundamental principles and practices. Long ago, archival and records management professionals coalesced around a set of high-level principles that form the core of archival activities: the evidential importance of the record; maintaining original order and provenance; authenticity and reliability; custodial stewardship; and a commitment to preservation. The traditional practice of organizing discrete recordkeeping systems, arranging records, administering records schedules, and

54 National Archives and Records Administration, definitions as written in 44 U.S.C. § 2901. Available at: [http://www.archives.gov/about/laws/records-management.html](http://www.archives.gov/about/laws/records-management.html).

storage is a valuable method of managing paper records. While it is neither necessary nor desirable in an electronic environment, archivists and records managers cling to their physical notions. As David Bearman points out, “the essential difference between electronic and paper records is that the former are only logical things while paper records are usually thought of only as physical things.” Logical things can be stored in many places and only through their representation in retrieval systems does that ordering become manifest. Bearman argues, “Records management methods have been developed to manage physical things,” but that need not be the case. Even without the physical attributes of records, archivists and records managers can capture and represent those meaningful aspects of records. This *archival bond* is the context and relationships that link all the records in a collection together. The profession has long assumed an arrangement of physical records, and records managers must now translate that paradigm to electronic environments whilst maintaining those logical connections.

The nature of electronic records is quite different from the fixed nature of paper records. In a digital context, records are dynamic, and can be created by multiple people in multiple locations, with multiple versions existing. Historically, records managers and archivists have focused on the records’ physical characteristics and location within a recordkeeping system to attest to the record’s authenticity, reliability, and value. Archival materials are inextricably linked to their value. In fact, the SAA glossary of terms lists 25

---

56 Bearman, “Item Level Control,” 196.
57 Ibid, 196.
discrete types of value. Almost all of the definitions relate directly or indirectly to the materiality of records, such as intrinsic value, monetary value, and associational value. Richard Cox offered an apposite comment when he questioned if it was no longer necessary for records to have a physical aspect.

**Authenticity and Reliability**

Authenticity and reliability are concerns for all types of records, not only electronic records. Traditionally, the circumstances of the record’s creation and maintenance have been relied on to convey trustworthiness. But these issues are much more complicated in an electronic environment because the standard assurances associated with records may not be available (e.g. the type of paper, or inscribed date). The ease with which records can be deleted or altered has major implications for how electronic records are handled, and how their integrity is verified and maintained. Much of a record’s trustworthiness, normally embedded within the document itself, is now located externally and must be verified through its provenance. There are two qualitative dimensions of trustworthy records, reliability and authenticity.

Reliability and authenticity are concepts that are relevant to the discussion of how records will be preserved for the long-term. As we increasingly rely on information technologies to create and maintain records, the question that emerges is whether traditional mechanisms of control can be used to verify the reliability and authenticity of electronic records. In 1995, Luciana Duranti broached this topic in her article,

---


“Reliability and Authenticity: The Concepts and Their Implications.” According to Duranti’s definition, reliability is “the authority and trustworthiness of the records as evidence, the ability to stand for the facts they are about.” Duranti suggests that reliability is achieved through the “procedure of creation,” which is a set of rules that structure the record’s creation, filing and handling. When these rules are rigorously adhered to the resulting records have a high degree of reliability. For government records, these procedural controls ensure their trustworthiness. The record is considered reliable when “it can be treated as the fact of which it is evidence.” Closely related to the concept of reliability, the record is authentic when it is what it purports to be. In other words, authenticity affirms the record has not been altered or falsified, and remains intact.

Records that are both reliable and authentic are considered to be genuine, or trustworthy records. Archivists and records managers who want to secure and preserve the records’ longevity must consider both these measures. Duranti concludes by commenting on the state of electronic recordkeeping. She warns that the ease and autonomy of records creation has led to the “sloppiest records creation ever in the history of record making,” and that “electronic records, as presently generated, might be authentic but they are certainly not reliable.” This observation underscores the importance of reliable and trusted repositories and recordkeeping systems as the artifactual aspect of records is shed.

---

63 Ibid.
64 Ibid, 7.
65 Ibid, 8.
66 Ibid, 9.
Preservation

One of the key issues surrounding the durability of electronic records is the requirement for their long-term preservation. There are several reasons preservation of electronic records place new types of demands on government systems. As discussed earlier, electronic records are fragile. They have no physical presence, and can easily be corrupted or deleted. Unlike paper records, which may last hundreds of years with little or no human intervention, electronic records are inherently impermanent and require routine care and maintenance. Electronic records a functionally unstable, and without maintenance in a relatively short period, may degrade to a point beyond usability.

Electronic records are not bound to a specific medium. Over their lifetime, they must undergo numerous reproductions and migrations to assure their continued accessibility, at the risk of loss of information or authority with each successive transformation. In addition to short life spans, problems with authenticity, access controls and technological obsolescence may also interfere with the records’ long-term viability.

Currently, NARA is working on an ambitious project to manage its electronic records. The Electronic Records Archive (ERA) has the potential to be a transformative tool for federal agencies performing records management transactions. It is designed to support lifecycle management for all NARA’s electronic records, including records retention schedules and accessioning agency records. Since 2001, NARA has been working to develop the ERA. It has been partially unveiled within the past year, albeit

with reduced functionality.\textsuperscript{69} Current projections place project completion in March 2017 at a cost more than $1.2 billion.\textsuperscript{70} The project has faced massive delays and cost overruns, of which the GAO has been very critical, and for good reason. At full operational capability, the program will be likely be nearly six years behind schedule and triple NARA’s initial cost estimates.\textsuperscript{71} Nonetheless, the ERA represents a new type of solution that will vastly expand NARA capabilities.

Clearly, the digital age poses a number of challenges for agencies creating and preserving born-digital government records. These challenges need to be addressed swiftly in order to ensure long-term transparency and maintain an accurate and continuous historical record.

\textsuperscript{69} National Archives and Records Administration, \textit{ERA Roll-out Plan}. Available: http://www.archives.gov/records-mgmt/era/rollout-plan.html
\textsuperscript{71} Ibid, 23.
Discussion

The challenges associated with electronic records management have been widely acknowledged in archival and records management communities. Pioneering research projects linking the management of electronic records and archival practice were undertaken in the 90s to address these issues. But the challenges posed by electronic records management of government records are rarely investigated in detail. The prevailing approach tends to regard the endeavor as a technical and management problem, not one that is, in fact, more systemic in nature. Despite the belief that records play a vital role in accountability mechanisms and the perception of transparency in government, the contribution of the records management community has not been widely acknowledged.

A leading problem with electronic records management in federal agencies is that recordkeeping in general has for too long been overlooked, or merely treated as an afterthought. Previous systems either lack the capacity to handle electronic records, or simply do not take records into account. In order to build robust systems that accommodate electronic records, records management needs be included as part of information technology (IT) planning and systems development. This requires the input of records professionals and understanding the imperative for this collaboration on the

---

part of IT managers. Electronic records originate from a variety of sources and may take the form of databases, spreadsheets, word processing documents, forms, and email. Newly developed systems need to integrate electronic records management with these functions to meet agency needs. This is a complicated challenge with substantial costs.

In addition to infrastructure and software, policy is the underlying substrate that can affect the course of change. Good records management policies are the basis of open government. If the government cannot find or properly preserve records, it cannot effective respond to requests for information from the public, congressional overseers, or agency heads. NARA’s mission is to safeguard and preserve government records, ensuring continued access to records that document the rights of citizens, and the actions of their government.\(^\text{73}\) It is therefore, a natural partner with open government, which shares many common values of information accessibility and preservation in its vision.

Under the Federal Records Act, NARA has a wide range of authority to inspect and evaluate federal agencies records management programs.\(^\text{74}\) Until recently however, NARA’s own record on oversight activities has been somewhat lackluster. In 2000, it suspended agency evaluations altogether. It concluded its sampling method enabled it to reach only a few agencies. It left those agencies with a list of problems to correct, and insufficient resources to assist in resolving those issues, and it was generally perceived negatively.\(^\text{75}\) A 2010 the Government Accountability Office (GAO) report on NARA’s performance also noted NARA ignored 2002 GAO recommendations to gather

\(^{73}\) National Archives and Records Administration, Our Vision and Mission. Available at: [http://www.archives.gov/about/info/mission.html](http://www.archives.gov/about/info/mission.html).

\(^{74}\) 44 U.S.C. § 2904

government-wide data on electronic records management capabilities and implementation issues.\textsuperscript{76} In addition, NARA’s reporting to Congress and the Office of Management and Budget (OMB), with which it shares oversight responsibilities, did not consistently provide details on records management problems, or its recommendations.\textsuperscript{77}

In the decade since 2000, we have seen an explosion of electronic advances and exponentially greater use of the Internet, particularly as a means of carrying out business functions and communication. Electronic records became the standard for office transactions, and government increasingly utilized electronic documents as well. NARA’s hiatus from agency inspections and the absence of government-wide reporting data was an unfortunate missed opportunity for the organization. Had NARA taken a more active role in planning and providing guidance in the early stages of electronic records use, federal agencies might have adapted more substantive policies on the management of electronic records, rather than the ad hoc approach many agencies have assumed.

\textbf{Oversight and Assessment}

In 2008, at the urging on the GAO, NARA agreed to a new oversight plan that included annual government-wide self-assessment surveys, inspections, and increased reporting.\textsuperscript{78} In the interim, NARA preferred persuasion as it main tool for gaining agency cooperation. In 2009, NARA conducted its first government-wide records management self-assessment survey. The mandatory survey was administered to 242 cabinet level and independent agencies. Based on the results of the self-reporting web-based questionnaire,

\textsuperscript{76} Ibid, 15.
\textsuperscript{77} Ibid.
\textsuperscript{78} Ibid.
each agency’s overall score determined its risk category: low, moderate, or high risk.\textsuperscript{79}

The goal was to gather data to determine how effectively federal agencies were fulfilling the statutory and regulatory requirements for records management. Agencies could use the data to determine if their programs were performing at a level that ensures the records it creates maintain their authenticity, reliability and integrity. The alarming results indicated 79 percent of federal agencies were at moderate to high risk of information loss.\textsuperscript{80}

In the process of conducting the survey, NARA encountered several complications that are typical of complex, hierarchical organizations like government. Federal regulation requires agencies to have records officers, but it does not stipulate what level agencies must designate records officers, and agencies may appoint those officers at their discretion.\textsuperscript{81} Larger organizations may have multiple records officers, and it is not clear who should complete the survey on its behalf, or which level of the organization should respond. The survey showed respondents may or may not have records management responsibilities as their primary job duties. Nearly a third of respondents also reported they had not received formal records management training, and their recordkeeping duties had not been clearly defined.\textsuperscript{82} This disparity among respondents is an indication of the current state of many agencies’ recordkeeping programs, and may have lead to

\textsuperscript{79} Risk is not explicitly defined in the report. It references the “mishandling of important documentation,” and “records-related risk.” High-risk correlates to low scores on the five components of the questionnaire: program management, records disposition, vital records, electronic records, and e-mail management.

\textsuperscript{80} National Archives and Records Administration, \textit{2009 Records Management Self-Assessment} (2010).

\textsuperscript{81} 36 C.F.R. 1220.34(a)

\textsuperscript{82} National Archives and Records Administration, \textit{2010 Records Management Self-Assessment} (2011): 14.
inconsistent reporting across agencies. NARA also noted that it could not verify or validate agency responses due to time constraints and staff resources.\textsuperscript{83}

More recent surveys conducted by the National Archives and Records Administration demonstrates continued weakness of the current records management program. Training, compliance monitoring, and electronic records management continue to present serious challenges. NARA’s 2011 Records Management Self Assessment\textsuperscript{84} yielded three key findings that echoed earlier results:

- Most agencies do not have adequate controls for major activities of their records management programs
- Many records management staff have insufficient knowledge and understanding of electronic records, which leads to the continued implementation of poor recordkeeping practices
- Nearly a quarter of the respondent agencies do not conduct records management training for senior officials\textsuperscript{85}

Nonetheless, the 2011 self-assessment shared a few encouraging points of light. It indicates some agencies are using the results of previous self-assessments to improve their records management programs by incorporating those areas of weakness into their strategic planning. Many agencies are also building performance metrics to evaluate their own records management programs. The data also revealed agencies are increasingly using the Electronic Records Archives (ERA), NARA’s long-in-the-making electronic records repository, for storage of permanent records.\textsuperscript{86}

\textsuperscript{83} NARA, 2009 \textit{Self-Assessment}, 7.
\textsuperscript{84} It is important to note this most recent self-assessment was conducted prior to the November 28, 2011 Presidential Memorandum on Managing Government Records. This directive requires, among other guidelines, federal agencies to designate a senior official to supervise and evaluate the agency’s records management program.
\textsuperscript{86} Ibid, 2.
On the whole, however, the results of annual self-assessments and agency inspects are a cause for great concern. Analysis of the three assessments conducted in 2009-2011 indicate an average 88 percent of agencies have moderate to high risk associated with their records management programs. Our government acknowledges it has certain legal and ethical responsibilities to save and protect records that document its history, and the experiences of its citizens. Yet, findings of NARA’s Records Management Self Assessment, and numerous other government reports indicate, the day-to-day critical functions of records management are persistently deficient. The question is: how can it be done better?

**A Matter of Priority**

Perhaps the most pervasive issue hindering improvement is the historically low priority agencies place on records management functions. Addressing this issue is not just a simple matter of revisiting agency priorities and rebranding the same policies. Resources will always be finite and the ultimate determinant of action on any program. A fundamental culture shift in the way many federal agencies currently operate is necessary. Agencies must develop policies that incorporate records management functions at every level of the organization, provide the necessary training and education, and support those ongoing activities with adequate resources. Senior managers need to be convinced of the importance of recordkeeping, and that information management should

---

be a more central part of their agency missions. According to the records management lifecycle model, records managers should be involved in the creation, use, maintenance, disposition, and preservation of records. This requires full integration in the everyday work functions for all staff who create, use, or manage records.

Raising the visibility of records management in federal government continues to be an uphill battle. Records management is often considered a “support activity,” not an essential component of regular business procedure. Because of this second-rate status, its functions are often perceived as the most dispensable, especially in times of budgetary cutbacks. But more generally, resources for recordkeeping functions are often very limited. Additionally, records management is technically difficult, time-consuming and tedious work. It is an investment in the future. Many organizations lack the resources, and others may not see the benefit when the value is not readily apparent and the payoff will not be for years to come.

However, there are several recent developments that may lead to increased attention on records management issues. One of those is NARA’s annual self-assessment and public ratings of compliance and progress. This publicly available data may motivate agencies to focus on correcting unsatisfactory ratings to restore faith in its functions and services, and to demonstrate its records are reliable. NARA can influence the situation by providing critical guidance and assistance to agencies, and through its authority as an oversight agency. In addition, there is a growing recognition of risks associated with poor records management. The negative attention and very public undoing of many large organizations illustrates the potentially damaging costs of non-compliance, or lost

89 Cook, Past is Prologue, 26.
records. Increasingly, organizations are required to disclose electronic documents in response to litigation or audit.91 The records lost by the Federal Bureau of Investigation in the Timothy McVeigh case is one high-profile example of the deficiencies in government recordkeeping that has intensified awareness of the liabilities inherent in poor records management.92 Unfortunately, risk management alone is insufficient rationale for agency compliance. The recognition of risk coupled with increased awareness of the value of organizational information assets, and the growing interest in and knowledge about technology, may cast attention on these long ignored issues.

One of the ways archivists and records managers are seeking to raise the priority level of records management is by connecting its functions with the open government movement. By capitalizing on this historical moment, and capturing the momentum associated with open government, records management concerns might rise to the fore in the national discussion on government functions and public accountability. In many regards, the two concepts are coterminous. In both government and institutional repositories, records professionals organize and preserve information so it can be used. The values records professionals most esteem preserve the documentation of historical memory, protect “the authentic,” and produce knowledge. These principles link the objectives of open government and records management theory to the same doctrine.

Open Government and Records Management

The requirements and emphasis of the Open Government Directive on accountable and public information may spur agency action on matters of records management, or at the very least bring a greater awareness to these issues. Open government initiatives, which emphasize the importance of making information available to the public for transparency and accountability, could be an additional impetus to address electronic records management challenges. The Open Government Directive serves as a direct link between open government principles and records management. The directive requires federal agencies to provide detailed Open Government Plans that indicate how the agency is meeting records management requirements. More generally, the directive encourages agencies to use technology as a mode of conveying useful information whenever possible. Making records publicly available may compel agencies to adhere to proper documentation and management procedures, and thus support accountable recordkeeping.

Considering the view that “records management is the backbone of open government,” it is essential that a holistic approach, one that involves all stakeholders, be adopted. Functional managers need to understand and be trained on the records management process as a foundation for information management. Records management should be work that is done be all government employees as an integrated and consistent part of their job.

The U.S. National Action Plan takes a reformist position on issues of records management. Decrying the continued reliance on outdated systems and policies, it

---

94 White House Presidential Memorandum, Managing Government Records 1, November 28, 2011.
suggests the use of digital technologies to provide new opportunities for government. The plan suggests the Executive Branch will launch an investigation of current practices, and issue policy recommendations. It “will consider making changes to existing laws and ask how technology can be leveraged to improve records management while making it cost-effective.” It goes on to recommend implementation of a “government-wide records management framework that promotes accountability and performance.”

President Obama has made very clear his goal of developing a 21st century approach to managing government records. The November 28, 2011 Presidential Memorandum further reinforced the link between open government and records management, “Improving records management will improve performance and promote openness and accountability by better documenting agency actions and decision.” The memo directed agency heads to submit reports to NARA detailing each agency’s plan for: improving and maintaining its records management program; identifying any practices, or regulatory provisions that impede its ability to enact records management policies; and identify any policies or programs that would assist agency efforts toward progress. The derived data were compiled and analyzed to assess potential weaknesses and strengths in the current system. NARA drew on the resulting feedback in drafting the Managing Government Records Directive. This document, issued in August 2012, outlines specific steps agencies must take to reform and improve their records management policies and practices. It defines two overarching agency goals: electronic recordkeeping to ensure transparency, efficiency, and accountability; and demonstrated

96 Managing Government Records Memorandum, 1
97 Managing Government Records Memorandum, 2(b)(i)
compliance with federal records management statutes and regulations.\textsuperscript{98} To support those goals federal agencies were asked to commit to the transition to digital government by electronically managing all permanent records by 2019, and better manage email records. In addition, it advised that agency recordkeeping programs must be administered more consistently, and in greater accordance with the law. Specifically, agencies must designate a Senior Agency Official (SAO) with records management responsibilities, and focus on training and educating all employees on their legal and organizational obligations with respect to recordkeeping.\textsuperscript{99}

The directive also identifies actions NARA, along with the Office of Management and Budget (OMB) and the Office of Personnel Management (OPM) will take to assist agencies in meeting the goals outlined. NARA’s goals are long-term, and they indicate a strong commitment to collaboration, and investing in programs that will have enduring value. Some of the more specific objectives include: creating new email guidance, using automation to reduce the burden of records management responsibilities; developing a Community of Interest to bring together leaders in records management, the law, and information technology to examine problems and propose solutions; and, OPM will establish a formal records management training series for agency records officers. The most ambitious of the goals is the overhaul of the General Records Schedules, to make them more usable and reduce the need for agencies to submit unique records schedules for approval.\textsuperscript{100}

\textsuperscript{99} Ibid, 3-4.
\textsuperscript{100} Ibid, 5-7.
Guidance

Any effort to implement a comprehensive records management program will undoubtedly be complex, and involve systems development, infrastructure and technology support, and must include sufficient user training. At present, a complete overhaul of government systems and operations is unlikely. But there are ways federal agencies can improve their recordkeeping performance working within the existing framework, particularly with the help of NARA.

As a matter of law, the Archivist of the United States is instructed to “provide guidance and assistance to federal agencies with respect to ensuring adequate and proper documentation of the policies and transaction of the Federal Government and ensuring proper records disposition.” And NARA has promulgated regulations that provide guidance to agencies on the specific management of electronic records. In terms of policy however, the assistance NARA provides, and the means of delivering that guidance, are not codified and are carried out at NARA’s discretion, in a variety of ways.

Currently, NARA guidance is disseminated and publicly available on its website in various locations. The organization has prepared voluminous documentation for agency use in the form of regularly issued bulletins, handbooks, reports, webinars, YouTube videos, and the Records Express Blog. This is the official blog of the NARA’s Chief Records Officer, and often reflects the most current issues facing agencies. It provides updates for agency records officers on NARA’s oversight and guidance, details

---

101 The Archivist of the United States is the chief official overseeing NARA operations. This position is appointed by the President, and currently held by David Ferriero.
102 44 U.S.C § 2904(a)
103 36 C.F.R. Part 1234
of how it works with agency partners to strengthen government recordkeeping, and administrative notes, such as reminders for agency heads to submit reports.\textsuperscript{104}

One of the most robust and informative resources NARA makes available is its Toolkit for Managing Electronic Records.\textsuperscript{105} It features a number of tools developed by NARA and other organizations to guide in the creation and transfer of records. It also includes an aggregated list of best practices on handling specific media formats, managing content on shared drives, standards, cloud computing, records scheduling, and email management, among many other useful tools. There certainly is no lack of documentation, but the degree to which these tools are accessed and used by agency records officers is unknown.

Results of the NARA self-assessments and other government performance metrics indicate a persistent need for training for government employees who handle records. No matter what policy and guidance is provided by NARA, federal agencies must assume the responsibility of translating that guidance into robust recordkeeping policies and procedures that work for their organizations. NARA has oversight abilities, but no enforcement authority so they cannot require federal agencies to comply. It is doubtful any ensuing legislation will grant such powers, so perhaps more comprehensive training is needed to translate NARA’s prolific guidance into action.

**Training**

Unfortunately, very little literature exists on the nature and extent of NARA’s involvement in training agency employees on records management. While training is a


statutorily mandated NARA function, multiple government reports cite “insufficient” or “inadequate training” as a factor contributing to poorly managed records. Most literature documenting the federal government’s records management crisis comments on the need for proper training. But, most pay no more than a passing reference to the issue, or offer any practicable solutions on effective training modules. Nonetheless, NARA does maintain a training portal on its website, and offers on-site and virtual training sessions as well as a “Certificate of Federal Records Management Training.” But, it emphasizes, “Participation is voluntary; NARA does not require any Federal records officer or liaison to complete the program.”

The best approach to training may be to mandate senior agency officials receive NARA certification and equip them with materials and information they can disseminate in a meaningful way within their agencies. This may be one of the examples of Open Government’s ability to effect change in agency recordkeeping practices. The Open Government Plan specifies agencies must nominate a Senior Agency Official (SAO) to oversee their records management program, and the Archivist of the U.S. will convene regular meetings with SAOs. This individual can act as advocate and educator on issues related to records management, and tailor the program to meet agency needs.

---

106 The requirements for informing and training staff are given in 36 C.F.R. § 1222.20.
It is worth stating that NARA’s primary role is to preserve and provide access to records. Recently, they have come to the fore in developing technology and policy for archiving and preserving digital content,\footnote{See: National Digital Information Infrastructure and Preservation Program (NDIIPP), available \url{http://www.digitalpreservation.gov/}} and partnering with universities and archives on innovative projects. Agency inspections and other oversight activities are secondary functions, and it would be inappropriate and unrealistic to expect NARA to single-handedly “fix” the government’s records management problem. Those responsibilities lie with each agency for good reason. They are the entities best suited to determine their needs and the most responsive course of action.
Recommendations and Conclusion

This paper has presented the case for reformation of the federal government’s records management program in accordance with the recent Open Government Initiative. Significant claims could be made that open government provides the opportune historical moment for this. As a result of the research undertaken in this paper, seven recommendations have been identified:

- Develop an awareness of the importance of records management and embed this in the organizational outlook and culture
- Expand records management training
- Integrate good recordkeeping practices into routine business processes
- Information technology and records managers collaborate on systems and applications development to support recordkeeping functions
- Establish best practices with respect to electronic records management and transfer of agency records to NARA
- Develop a more robust legal framework for designating oversight and enforcement responsibilities
- Further research exploring the relationship between records management and open government principles, and collect data on agency compliance as a result of open government policies

At present, agencies have adopted open government provisions to varying degrees, but many changes are underway that may positively influence the future of the records management program. The directive for Managing Government Records is less than a year old, and it will likely take time for agencies to respond, but improvements should follow. In the coming years, the National Archives’ Annual Self-Assessments will serve as a barometer that may reflect changes occurring as a response to the directive.
A stark conclusion gleaned from the research indicates there is an acute need for increased training and education for all levels of agency employees. Methods should be developed for transferring knowledge from top Senior Agency Officials to the employees who handle and identify records daily. SAOs should be required to receive NARA training and share that knowledge across the organization, so that information is not solely available to designated records officers. In addition, good recordkeeping practices should be embedded in routine business processes to ensure consistency. Records management as a separate function will not be effective. This speaks to the need for organizational culture to recognize the strategic value of records management.

In an ideal world, electronic records management would not need human intervention. Solutions would need to be massively scalable, and work seamlessly in the background, automatically classifying data, attaching metadata, and transferring or disposing of records with proven accuracy. While this technology may not be a reality yet, it is not far off. But this model is instructive because it highlights the need for a simple approach to electronic records management. Systems that unduly impose upon users, or necessitate advanced skills do not encourage usage and compliance. Future systems should account for records functions, but strive to minimize complexity.

Underlying the challenges presented in this paper is a growing awareness that federal information management and technology are beginning to come together as a result of the Open Government Initiative. The focus on records management and the broader management of government information resources signal a growing interdependence of information technology and information management. Unlike the traditional approach to paper records, electronic records management is a constantly
moving target. They require ongoing maintenance, and agile systems that can adapt to changing technological environments. This means NARA and agency heads must anticipate future trends to remain informed and current.

This is a tectonic shift from the centuries-old practice of file boxes and vast shelving units, and it requires a new response. On the whole, the federal government has been slow to bring policy to meet the level of technology. But the recent emphasis on Open Government is an attempt to align their objectives and demonstrate that records management is central to good governance. Through recent initiatives, such as the Electronic Records Archives program, NARA has taken steps toward building the needed technical capabilities for archiving and preserving the federal government’s electronic records. In order to ensure agencies are making progress in their recordkeeping programs, NARA or another federal agency should take the lead on oversight responsibilities, and call for extended enforcement authority.

The digital threshold was passed long ago. Going forward, the electronic records issue will create mounting challenges for agencies to organize their data as volume continues to grow. Federal agencies need to take steps now to reform their recordkeeping practices. Agencies should recognize effective information management enhances efficiency, the ability to respond to novel challenges, and provides the information needed for transparency, collaboration, and participation in government. The hope is that the Open Government movement, the actions it mandates, and the unprecedented attention it brings to this issue, will be an opportunity for action.
Bibliography


Marsden, Paul. "When is the Future? Comparative notes on the electronic record-keeping projects of the University of Pittsburgh and the University of British Columbia." Archivaria 1, No. 43 (1997).


“Records Management by the Archivist of the United States and by the Administrator of General Services,” Title 44 *U.S. Code*, Section 2901 et seq.


