

ELECTRONIC RECORDS & THE LAW:
CAUSING THE FEDERAL RECORDS PROGRAM TO IMplode?

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(Abstract)

Administrative programs that govern the day-to-day-management of agencies are founded in law and the federal records management program is no exception. This dissertation explores whether the existing legal framework accommodates the changes occurring in the federal records management program as a result of electronic records and whether the solutions proposed by the University of British Columbia and University of Pittsburgh are viable for the federal records officer. These two universities pioneered the research being done on electronic recordkeeping.

The record requirement established under the Federal Records Act is very difficult for agencies to maintain when it comes to electronic records. At the same time, agencies are being pressured to do more work electronically. Most federal records officers are not equipped to meet the dual challenge of maintaining accessibility while also ensuring the records remain authentic. The two approaches for dealing with electronic records, UBC's Diplomats as implemented with the Department of Defense standard and Pittsburgh's literary warrants, are too complex and difficult. Even if the records managers implemented either of these approaches, they require too much effort on behalf of the record creator for the implementations to be successful. The National Archives can provide advice and guidance to agencies on electronic recordkeeping requirements. However, the success of the records management program depends on the federal agencies because it is a decentralized administrative process. The ability of federal agencies to cope with electronic records is problematic. Therefore, the viability of the federal records management program is problematic.

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CHAPTER I

INTRODUCTION

“[T]he basic theory guiding governmental organization and management-structures, processes, and procedures-is to be found in public law”¹ Administrative programs that govern the day-to-day-management of agencies are founded in law and the federal records management program is no exception. The National Archives was established in the 1930s. Records management became its responsibility in 1950.² One section of the Federal Property and Administrative Services Act of 1949 expanded the National Archives’ authority into the records management area.³ This section is generally referred to as the Federal Records Act. This act also merged the National Archives with the General Services Administration based on a recommendation in the Hoover Commission Report No. 3.⁴ The records management section was amended in 1968 and again in 1976.⁵ In a concession to the increased use of computers, the term “record” was amended in the 1976 legislation by adding “machine-readable” to the definition.⁶ In 1984, the National Archives again became an independent agency, retaining some responsibility for the records management program.⁷ However, the General Services Administration also retained some records management responsibilities. In addition, the Paperwork Reduction Act of 1980 had given the Office of Management and Budget records management oversight authority.⁸

This dissertation explores whether the existing legal framework accommodates the changes that are occurring in the federal records management program as a result of electronic records and whether the University of British Columbia (UBC) and University of Pittsburgh (Pittsburgh) solutions are viable for the federal records officer. These two universities pioneered the research being done on electronic recordkeeping. By exploring the answers to these questions, this dissertation will examine the effect information technology has had on the federal records program, compare the research done by UBC

¹ Ronald S. Moe and Robert S. Gilmour. “Rediscovering Principles of Public Administration: The Neglected Foundations of Public Law.” *Public Administration Review* 55 no. 2 (1995), 136.

² The National Archives has changed its name three times. The National Archives has been known as the National Archives Establishment (1935-1949), National Archives and Records Service within the General Services Administration (1949-1985) and the National Archives and Records Administration (1985- Present). For simplicity, the reference will always be to the National Archives unless the context requires the full name or acronym be used.

³ H.R. Rep. No. 670 (1949) *reprinted in* U.S.C.A.A.N. 1475

⁴ Ibid.; 1982-1987 Committee on Authorities and Alternatives File, “NARA, GSA and OMB: Spheres of Interest in Records Management,” RG 64, National Archives

⁵ Public Printing and Documents, PL 90-620; Federal Records Management Amendments of 1976, PL 94-575.

⁶ Federal Records Management Amendments of 1976, PL 94-545; H.R. Rep. No. 1326 (1976) *reprinted in* U.S.C.A.A.N. 6150.

⁷ Archives and Records Act of 1984, PL 98-497; S. Rep. 373 (1984) *reprinted in* 1984 U.S.C.A.A.N. 3865.

⁸ 44 U.S.C. Chapter 35 (1998). The Paperwork Reduction Act of 1980 had two purposes. The first was to reduce the burden imposed by federal agencies on the public. The second was to encourage the use of information technology as a means to reduce that burden. The records management authority is part of this second purpose.

and Pittsburgh and determine its applicability to the federal records management program, and look at the Federal Records Act and other statutes that may affect the federal records program.

The records management process has remained relatively stable from its inception until recently. The widespread use of information technology has affected the way organizations conduct business. Therefore, it has affected the way organizations maintain documentation about their business. More and more work is being done electronically and being retained by the creator on a local computer or shared network drive established for that program office. As a result, the records being created are different from the traditional paper or microform records managed by the federal records management program. The records management principles have not changed. What is different is the additional information about the record that must be collected because it is an electronic record. Two universities have analyzed what information needs to be captured for electronic records. This dissertation examines the university research projects and considers whether the universities' proposed solutions are viable for the federal records management program.

In addition to the examination of the university research projects, this dissertation also examines the legal framework surrounding the records management program to determine whether the statutes, regulations and policies accommodate the changing records management program. The Federal Records Act is only one of several statutes that affect the federal records management program. Other related statutes are the Freedom of Information Act, Paperwork Reduction Act, and Government Paperwork Elimination Act. Some of the recent legislation appears to be causing agencies to do more of their work electronically. These statutes, two recent court cases, and related regulatory policy, such as OMB Circular A-130, are examined to determine their relationship with the Federal Records Act and their effect on the federal records management program.

Research Approach

Congressional intent literature was used to determine which portions of the legislative history are trustworthy. As a result, the committee reports published in connection with the Federal Records Act, its amendments, the Freedom of Information Act, including the Electronic Freedom of Information Act Amendments of 1996, the Paperwork Reduction Act, and the Government Paperwork Elimination Act were reviewed for any reference to electronic records and adequate and proper documentation. This information was supplemented by a review of the relevant regulations, studies and policy statements issued by the National Archives, the Office of Management and Budget, and the General Services Administration. Several courts cases were identified as pertaining to the research questions and reviewed. This information was used in conjunction with the data received from the federal records community to explore the research questions.

Members of the federal records community contributed to this dissertation through participation in either focus groups or interviews. As a result of the focus group meeting and interviews with the records officers, a secondary question arose. Are the records officers aware of the research projects done by the universities? The focus group participants were chosen based on their knowledge of the federal records program. The interviewed records officers were chosen through a stratified random selection process. The selection process for both the focus group and the interviewed records officers is discussed in further detail below. The focus group and interview methodologies were chosen because of their applicability to the research questions. Based on the literature, these two methodologies provided the best opportunity to gather the data needed to answer the research questions.

Chapter Summaries

The next chapter begins by defining records management terms, which will increase the reader's understanding of records management. It continues with a discussion of the two university research projects. UBC and Pittsburgh have been exploring ways to ensure that electronic records have evidential value. This requires that the records be authentic, trustworthy and accessible. The chapter also briefly explores Australian records management practices. Chapter II ends with a discussion relating this information to the federal records program.

Chapter III reviews the legislative, regulatory, and policy history of the administrative process known as federal records management. The Federal Records Act's legislative history suggests that records are created and maintained primarily for an agency's operational needs and not to serve history.⁹ Recent court cases may be altering this balance.¹⁰ In addition, the Freedom of Information Act, Paperwork Reduction Act, the Government Paperwork Elimination Act, related regulations, policy documents, and courts cases also are reviewed. The implications for the federal records program resulting from this review are explored in this chapter.

Chapter IV presents the information gathered through the focus group and the interviews. The analysis shows how well the federal records managers understand the federal records program, electronic records and their awareness of the legal framework and the electronic records research projects.

⁹ S. Rep. No. 2140 (1950) *reprinted in* U.S.C.A.A.N., 1475; S Rep. No. 1621 (1968) *reprinted in* U.S.C.A.A.N. 4438; H.R. Rep. No. 1326 (1976) *reprinted in* U.S.C.A.A.N., 6150.

¹⁰ *Armstrong, et al. v. Executive Office of the President et al.*, 1 F.3d 1274 (D.C. Cir. 1993). *Public Citizen, et al. v. Carlin, Archivist of the United States*, 2 F.Supp.2d 1 (D.D.C. 1997) *reversed* 184 F.3d 900 (D.C. Cir. 1999), *cert. denied*, 68 U.S.L.W. 3565.

Chapter V concludes that the Federal Records Act is flexible and allows agencies to respond to the electronic records challenge. However, other statutes and recent court cases are causing the federal records management program to falter because the solutions proposed by UBC and Pittsburgh are not viable at this time and agencies are being required to perform more work electronically.

CHAPTER II

RECORDS MANAGEMENT – CONCEPTS, RESEARCH, AND AUSTRALIAN PRACTICE

This chapter examines the research question of whether the UBC and Pittsburgh solutions for electronic records are viable for use by the federal records officer. Addressing this question requires that the solutions and their accompanying research be examined in detail. The records management terms used in the solutions are not specifically federal in nature. Therefore, these terms are defined initially at a global level. Where the federal records management definitions differ and the difference is important for this discussion, the federal definitions follow.

Records Management Concepts Defined

Records management is the process of ensuring that an organization's records are maintained and disposed of properly.¹ At the agency level, the federal records management program issues policies and procedures governing the creation, maintenance and use of records that document an agency's activities.² According to the Federal Records Act:

The term "records management" means 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 transactions of the Federal Government and effective and economical management of agency operations.³

Record: A record can be the recording of an action or decision taken or proposed to be taken, the recording of information, or the documenting of transactions. The purpose of recording is to serve as evidence of those transactions, decisions or actions.⁴ The term 'transaction,' as used in the record definition, is another term for an action or decision. Examples of transactions are the creating and issuing of a policy statement, the purchase of a computer, or the making of a job offer. The recording of the action can be as simple as writing on a piece of paper, or sending an e-mail message, or as complex as

¹ Milbourn D. Smith, III, *Information and Records Management: A Decision Maker's Guide to Systems Planning and Implementation*, (New York, Quorum Books 1986), 4.

² National Archives and Records Administration, *Disposition of Federal Records: A Records Management Handbook* (Washington, Government Printing Office, 1992). *Context for Electronic Records Management (ERM)*, Available at <http://www.nara.gov/records/fasttrak/prod1a.html>, Internet, accessed March 24, 2000.

³ 44 U.S.C. § 2901(2) (1998).

⁴ *Disposition of Federal Records*; Susan Z. Diamond, *Records Management: A Practical Approach* (3rd ed. Washington, AMACOM, 1995), 1; Ira A. Penn, Gail B. Pennix, and Jim Coulson, *Records Management Handbook*, 2nd ed. (Brookfield, Gower, 1994), 3; Betty R. Ricks, Ann J. Swafford, Kay F. Gow, *Information and Image Management: A Records Systems Approach*, (Cincinnati, South-Western Publishing Co., 1992), 14-15.

a lengthy document that details the reasoning behind the action. A federal record is defined by statute and

...includes all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications are not included.⁵

This all-encompassing definition can be interpreted to mean that almost every document created by a government agency is a record. For example, a document becomes a record because it serves as evidence of that agency's performance. It is the agency's responsibility to identify which of its documents accomplishes this. This is why access is such an issue for electronic records. If you cannot access the record, it no longer can serve as evidence for the agency. The medium used to create and maintain the record is irrelevant.

Retention: Retention refers to determining how long the organization needs to keep the record.⁶ The record's value is determined by its content, context and structure.⁷ A record has value because it is needed for ongoing operations or to protect the organization legally. Some organizations realize that there is a historical interest in their records due to the nature of the business or the longevity of the firm. These organizations may retain records for historical purposes. Establishing the record's retention means assessing the value of the record to the organization and answering the question: How long does the organization need to keep this record and what are the risks involved in maintaining the record?

In the federal records management program, the usual process for establishing retention is that the agency identifies its records and determines how long it needs to retain them, and, possibly, whether or not the agency believes the records have historical significance. The National Archives must approve this retention before an agency can implement its retention determinations.⁸ If a record has value to the organization for a limited period of time and no historical value, it is a temporary record. This does not mean that all temporary records have a short life span. For example, although federal personnel employee records are maintained for 65 years after the employee has left the

⁵ 44 U.S.C. § 3301 (1998)

⁶ *Disposition of Federal Records*; Diamond, *Records Management* Penn, Pennix, Colson, *Records Management Handbook*; Ricks, Swafford, Gow, *Information and Image Management*.

⁷ David Bearman, "Managing Electronic Mail," *Archives and Manuscripts: The Journal of Australian Society of Archivists* 22 no. 1 (1994): 36-37.

⁸ 36 C.F.R. § 1228.26 (1998)

government's employ, they are considered temporary records. Permanent records are documents that are considered to have "sufficient historical or other value to warrant their continued preservation by the United States Government."⁹ Once the agency no longer needs this type of record for operational or other purposes, it transfers legal custody of that record to the National Archives. Once the record is transferred to the National Archives, the agency is no longer responsible for the record.

Content: The information in the record is its content. It is the subject matter being discussed by the document. The content of a record is the same whether the record is on paper, videotape, or electronic. The medium is irrelevant.

Context: The context of a record refers to the relationship between one record and others that "share a unique activity or transaction as their source, and that therefore collectively tell the story of an event or activity."¹⁰ The record's context includes information about its creation, use, access and storage. Maintaining the context is important because a record can be judged trustworthy based on its context.¹¹ Context also reflects organizational information. This information places the record within the hierarchy of the organization. In addition, because individuals rarely act alone to complete a transaction, the recording of the transaction may, in fact, be distributed through several records.¹² For example, there may be a recommendation that a certain action be taken, a counter proposal, and the final decision. All these documents are records. The value of the decision document is enhanced by the presence of the other two, which give the decision document a context. For paper records, the context is available from the other records in the file folder, the other records in the recordkeeping system, and the organizational location of the file cabinet. This is not the case for electronic records. Therefore, it is important to ensure that the context is captured.

Structure: The structure of the record is important because it refers to the type of record, who wrote the document, to whom the document was sent, and when the document was created. For example, for a letter, the structure includes the fact that the document is a letter, the name of the addressee, the signatory, and the date of the letter. Charles Dollar, former head of the Machine-Readable Branch, National Archives and a participant in the UBC research project, indicates that structure has logical and physical attributes. The logical attributes pertain to the header information, the body of the document, and the signature. Examples of the physical attributes are the font type, spacing, and margins.¹³ With paper records, this information is recorded on the actual document and is an integral part of the record. For electronic records, this information exists as part of the record but is also part of the record's metadata.

⁹ 44 U.S.C. § 2107(1) (1998)

¹⁰ Charles M. Dollar, *Authentic Electronic Records: Strategies for Long-Term Access*. (Chicago, Cohasset Associates, Inc., 1999), 23-24.

¹¹ Ibid. 24.

¹² Luciana Duranti, *Diplomatics: New Uses for an Old Science*, (Lanham, The Scarecrow Press, 1998), 80.

¹³ Dollar, *Authentic Electronic Records*, 23.

Metadata: This is a term used to describe electronic information maintained about a record. The general definition is that it is information about information. Metadata forms an index about the record being saved including some of the contextual and structural information.¹⁴ This information is needed in order for the records to be located and retrieved because electronic records are usually retrieved at the document level. When individuals are looking for a specific paper record, the method of retrieval is to identify the relevant file folders that may contain the record and then look through the file folders. Before the early twentieth century, registry books recorded the metadata for paper records. This allowed paper records to be retrieved at the document level. The increase in volume of paper records made this system impractical and, at least in United States, the widespread use of registry systems has been discontinued.

Life Cycle of a Record: The life cycle is the last critical concept for records management.¹⁵ There are various configurations for the life cycle. One of the more common configurations holds that there are four records management stages to a record's life cycle and four archival stages.¹⁶ There are a number of versions of the life cycle that refer only to the records management stages and some of those divide the records management portion of the life cycle into more than four stages.¹⁷ The most common divisions of the records management stages are creation, use, maintenance/storage, and disposition. The records management phases occur in chronological order because the record's value to the organization decreases as it ages.

Creation Stage: The creation phase is fairly short in that records are created whenever an individual records information about a transaction. Some configurations of the life cycle divide this stage into two parts. The first part is where the information is gathered and recorded on paper or in an electronic format but remains only with the creator. The second part, when the creator shares this information with others, is referred to as distribution.¹⁸ Once the document is finalized, and sometimes even before depending on the type of record, it is declared to be a record and filed in the recordkeeping system. A federal record is created once it is determined that the document meets the criteria for a record established in 44 U.S.C. § 3101.

Use Stage: The use stage of the records management cycle refers to that period of time when the record is routinely consulted by staff.¹⁹ This stage has also been defined as that period of time when the organization actually uses the information. The record may be consulted for any reason. Some records managers combine the use stage with the maintenance stage although there are differences.²⁰

¹⁴ Ibid. 231.

¹⁵ *Disposition of Federal Records*, I-2. Smith, *Information and Records Management*, 6.

¹⁶ Jay Atherton, "From Life-Cycle to Continuum: Some Thoughts on the Records Management-Archives Relationship," *Archivaria* 21 (Winter, 1985-1986), 43-44. The author uses the term archival stages. However, the activities are not chronological and a better description may be archival functions.

¹⁷ Ricks, Swafford, and Gow, *Information and Image Management*, 14-15.

¹⁸ Ibid.

¹⁹ *Disposition of Federal Records* (1992): I-2; Smith, *Information and Records Management*, 6.

²⁰ Ricks, Swafford, and Gow, *Information and Image Management*, 14-15.

Maintenance/Storage Stage: The maintenance or storage stage is when the organization no longer needs to refer to the document on a regular basis but must maintain it for legal, regulatory, or other purposes.²¹ Another definition links maintenance to the filing, retrieving, and transferring of records.²² If one uses this definition, it is hard to distinguish between the use and maintenance stages. Because the record must be filed and retrievable before the organization can use the information. Generally, during this stage, the records are no longer stored in office space but have been moved to a warehouse facility.

Disposition Stage: During the disposition stage, records are either destroyed or, if the record has historical value, legal custody is transferred to an archival facility.²³ The archival functions (acquisition, description, preservation, and reference and use) only apply if the record is transferred to an archival facility.²⁴ For federal records with historical value, legal custody is transferred to the National Archives.

Archival Functions: The acquisition function refers to the acceptance by the archival facility of the records.²⁵ It is the process used to record the acceptance of the records. An archival mission is to provide access to researchers who are interested in the records. To accomplish this mission, the archives conducts the second archival function by describing the records in a manner that reflects the organizational context of the records and the general content of the records themselves.²⁶ The third function is preservation.²⁷ During this function the archives assesses whether the records need to undergo preservation work. Most paper records are, at minimum, refiled into acid free containers. The work required by electronic records depends on the quality and type of the media used for transferring the records to the archival facility. Ideally these three archival functions are completed prior to making the records available for research, which is the fourth function.²⁸ Unlike the records management life cycle stages, the archival functions are not chronologically driven. The functions are driven by the condition of the records and the amount of interest shown in the records by researchers.

Records Management Program: While the life cycle applies to the records generated by an organization, the records management program applies to how the records staff ensures the protection of the records throughout the first four stages of the life cycle.²⁹ In addition to creating policy on what records need to be maintained by the organization, conducting training and other management activities, records management programs conduct four activities that roughly equate to the records management life cycle stages. Each organization structures the records management activities to suit the organization's needs.

²¹ *Disposition of Federal Records*, I-2; Smith, *Information and Records Management*, (1986), 6.

²² Ricks, Swafford, and Gow, *Information and Image Management*, 14-15.

²³ *Disposition of Federal Records*, I-2; Smith, *Information and Records Management*, 6.

²⁴ Atherton, *Life-Cycle to Continuum*, 43-44

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid.

²⁹ *Disposition of Federal Records*, I-3.

Maintenance: The first activity of the program is designed to work with the creation and use stages of the life cycle. It involves developing the appropriate metadata for the records, establishing recordkeeping requirements, and developing a file plan. The metadata requirements ensure that the contextual information about the record is captured making the record trustworthy. The recordkeeping requirements ensure that staff knows what records must be created as documentation of the transactions. The file plan sets out in detail what records the organization creates, which offices within the organization create them, and how the records are used. A second purpose for a file plan is that the person creating the records can use it to determine where that record should be filed.³⁰ The records management staff work with the individual offices within the organization to create this file plan.

Records Scheduling: The second activity of a records management program is determining the value of the organization's records.³¹ This activity roughly equates to the use and maintenance/storage stages of the records life cycle. The records staff, with the help of the office creating the records, determines how long the office needs to keep the record for its day-to-day activity and then how long the organization needs to maintain this record for legal, regulatory, or other reasons. This information is captured in a records retention schedule describes the types of documents created by the organization, appraises those records for their operational value, and determines when the agency no longer needs to retain the records for business or legal reasons. In the case of a federal agency, the records are also appraised for any historical value. This information is incorporated into the records retention schedule. The proposed records retention schedule is sent to the National Archives for its approval. As mentioned above, the agency cannot implement the records retention schedule until it is approved by the National Archives.

Records Retirement: The third activity of the program, records retirement, is roughly equivalent to the maintenance/storage stage of the life cycle.³² This occurs when the organization must retain the records, but no longer uses the records routinely. The records management staff collect the record material from the offices and box the records. An index is created to ensure that the records can be retrieved if it becomes necessary. The box and the index of its contents are sent to an off-site storage facility. The records remain at this facility until the records reach the fourth stage of the life cycle. For federal records, this activity is governed by the National Archives approved records retention schedule.

Records Disposition: The last stage of the records management life cycle is disposition.³³ The records management program activity that it equates to is generally referred to by the same name. This activity pertains to the actual destruction of records or the transfer of legal custody to an archival facility. Each organization develops

³⁰ Smith, *Information and Records Management*, 17.

³¹ Ibid.

³² Ibid.

³³ Ibid.

procedures for handling records destruction. In some organizations, the records staff is authorized to dispose of the records without consulting the originating office. In other organizations, the records staff consults with the legal unit to ensure the records are not needed for known or potential litigation. In still other organizations, the records staff consults with the program and legal offices before destroying or authorizing the destruction or transfer of the eligible records. For federal records, the actual disposition is governed by the National Archives approved records retention schedule. Each agency develops the process it uses to accomplish this disposition is developed by the agency.

Records Management Research

Because technology is changing how organizations function, the traditional approaches to records management theory and practice are being challenged. The traditional approach to records management in the United States had been to focus not on the underlying theory but on the practice of records management and archives. Even the most prominent early writers in the field, T. R. Schellenberg and Margaret Cross Norton, touch on the theory and move rapidly to a description of how records management and archival professions should perform their duties.³⁴ The underlying theory appears to be taken for granted. Schellenberg summarizes this approach when he states “With respect to modern records, a study of methods and techniques of the file room is the modern counterpart of the study of diplomatics with respect to the medieval world.”³⁵ Schellenberg meant that the authenticity and reliability of an organization’s files could be determined by studying the organization’s policies and procedures for maintaining records and the organization’s file plan. He believed that an analysis of these policies, procedures, and file plan is equivalent to the diplomatic analysis that was conducted in medieval times on individual records. Because the file room and its governing procedures allow the records manager or archivist to judge the value, there was no need to delve further into the theory of what constitutes modern records.³⁶ A more recent scholar observed that records management textbooks still are not providing substantive knowledge of archival theory and practice.³⁷

The advent of electronic records is causing this to change. The reexamination of the theory and practice of records management is necessary because “archival and records management methods have been developed to manage physical things”³⁸ and electronic records are virtual, not physical, objects. Records managers and archivists have used the records’ physical characteristics and the physical placement of the records

³⁴ Margaret Cross Norton, *Norton on Archives: The Writings of Margaret Cross Norton on Archival and Records Management*, ed. Thorton W. Mitchell (Carbondale, Southern Illinois University Press, 1975); T. R. Schellenberg, *Modern Archives Principles and Techniques*, Midway Reprint ed. (Chicago, The University of Chicago Press, 1956), 27.

³⁵ Schellenberg, *Modern Archives*, 27.

³⁶ Ibid.

³⁷ Richard J. Cox, “What’s in a Name? Archives are a Multi-faceted Term in the Information Professions,” *The Records & Retrieval Report* 11 (March 1993). Available at www.sis.pitt.edu/~nhrpc/prog4.html, Internet, accessed September 2, 1998.

³⁸ David Bearman, *Draft Item Level Control; and Electronic Recordkeeping*, A paper delivered at the Society for American Archivists, San Diego, August 29, 1996, Available <http://www.sis.pitt.edu>, Internet, accessed September 2, 1998.

in the recordkeeping system to help them establish the value of a record. However, it is no longer necessary for a record to have a physical aspect.³⁹ Without the physical characteristics and the physical recordkeeping systems, the records manager and the archivist must find a process that ensures information about the record's characteristics is captured and that the record is associated with other related records. Because these characteristics add value to the record, the electronic record still needs to have the attributes of the physical record captured.⁴⁰ Determining how to capture that information as well as exactly what information must be captured is why records management is undergoing this reexamination.

Two universities are leading this effort. Their focus for managing electronic records is "the completeness of a records content."⁴¹ The studies at the UBC emphasize the theoretical roots of archives and, consequently, records management. This work has been used by the Department of Defense (DoD) in developing a standard for records management software applications. The standard has been used to certify records management applications for use by the DoD components and has been approved, with some caveats, by the National Archives.⁴²

Pittsburgh's work focuses on practical management and determining the functional requirements necessary for electronic record keeping systems.⁴³ State and municipal agencies have been testing the Pittsburgh project's findings. A comparison of the Pittsburgh findings with the DoD standard shows that the requirements are very similar as are the basic methods for achieving those requirements. An example of this is the software application TRIM produced by TOWER Software in Australia. It has been certified as meeting the DoD standard for records management applications. The National Archives of Australia (Australian Archives), which, as discussed below, has collaborated with Pittsburgh, has published electronic recordkeeping requirements that are similar to Pittsburgh's requirements.⁴⁴ Australian Commonwealth agencies are using the same application of TRIM that was certified under the DoD Standard to meet these requirements.

The UBC and Pittsburgh research projects form the basis for the ongoing electronic records dialogue. In addition, the research projects form a framework within which reliability and authenticity issues can be discussed. UBC provides the theoretical framework while Pittsburgh provides a more concrete framework. Authenticity and

³⁹ Richard J. Cox, "The Record Is It Evolving?," *The Records and Retrieval Report* 10 no. 3 (1994), 8.

⁴⁰ Cox, "The Record is it Evolving?," 8.

⁴¹ Richard J. Cox, *Re-Defining Electronic Records Management*, (1998) Available at <http://www.xnet.mb.ca/recmgt/articles/article1.htm>, Internet, accessed May 30, 1998.

⁴² Memorandum to Agency Records Officer and Information Resource Managers, NARA's Endorsement of DOD 5015.2-STD, dated November 19, 1998 (NWM 03.99).

⁴³ Paul Marsden, "When is the Future? Comparative Notes on the Electronic Recordkeeping Projects of the University of Pittsburgh and the University of British Columbia," *Archivaria* 43 (Spring 1997), 159.

⁴⁴ *Keeping Electronic Records - Policy for Electronic Recordkeeping in the Commonwealth Government*: National Archives of Australia; 1995, Available from <http://www.naa.gov.au>, Internet, accessed June 17, 1998. *Managing Electronic Records-A Shared Responsibility*; National Archives of Australia, 1995, Available from <http://www.naa.gov.au>, Internet, accessed June 17, 1998.

reliability issues are important for all records, not just electronic records. These issues are critical for electronic records because those records can be easily deleted or altered without any evidence of the deletion or alteration being maintained. For electronic records to be reliable and authentic, the ability to alter or destroy records must be minimized or eliminated. Technology also has made it possible to alter paper records without easy detection. However, there is a perception that the validity of electronic records and data are more suspect due to the ease of alteration and deletion. Bruno believes that this is unfortunate because,

Documents of electronic archives should benefit from the same presumption of authenticity as other institutional documents as soon as they are created and saved with the same care and precautions as other documents: access to the media, hardware, by authorized individuals who are responsible for the documents and who possess, for example, a password or electronic keys can furnish a security far superior to armoires and filing cabinets.⁴⁵

Another issue for electronic records is long-term preservation. This is an issue for two reasons. First, the medium used to record electronic records is fragile.⁴⁶ Second, the continued development of new technologies quickly makes the existing hardware and software obsolete. Other than the technology development issues, these issues exist for paper and microform records. While paper is very durable, it will slowly deteriorate over time and eventually need preservation. Electronic records will deteriorate or become inaccessible due to technology changes very quickly.

Bruno argues for a presumption of authenticity for electronic records because the medium in which a record is stored should not contribute to its authenticity. The UBC and Pittsburgh research suggest that answering the authenticity question requires that the concept of what constitutes a record needs to be reexamined.⁴⁷ A record, whether paper or electronic, is no longer the simple recording of a transaction because it is only one in a series of records that makes up a transaction. Without the records being maintained and somehow connected, the transaction record is incomplete. Each organization determines what constitutes complete documentation and establishes recordkeeping standards. Both research projects start from the premise that a record is evidence of an action or transaction and, therefore, information about the record's context, content, structure, and other organizational factors must be captured.⁴⁸ The two research projects also focus on ways to protect the electronic record from alteration and to ensure the electronic record contains sufficient information to be accepted as evidence. The UBC project looked to

⁴⁵ Delmas Bruno, "Manifesto for a Contemporary Diplomatics From Institutional Documents to Organic Information," *American Archivist* 59 (Fall 1996): 442.

⁴⁶ 36 C.F.R. § 1234.30 (1998)

⁴⁷ Luciana Duranti, Terry Eastwood and Heather MacNeil, *The Preservation of the Integrity of Electronic Records* (Vancouver, B.C.) Available at www.slais.ubc.ca/users/duranti, Internet, accessed September 4, 1998; Richard J. Cox, *Variables in the Satisfaction of Recordkeeping Requirements for Electronic Records Management* (rev. 1994), Available at www.sis.pitt.edu/~nhprc/lproposal.htm, Internet, accessed September 7, 1998.

⁴⁸ Duranti, Eastwood and MacNeil, *Preservation of Integrity*; Cox, *Variables*.

an underlying theory to explain the requirements and to identify why the requirements are necessary.⁴⁹ Pittsburgh concentrated only on identifying the requirements.⁵⁰ While both research projects agree that a record represents a transaction, there appears to be no clear consensus on what constitutes an electronic record. Is the record strictly the information it contains? Does it include the metadata? What information needs to be captured by the metadata? These are questions that UBC and Pittsburgh try to answer. Pittsburgh reexamines the records concept and establishes ways to incorporate the content, context, structure, and other organizational factors into the record or its metadata. UBC's focus is on a record being "reliable and complete, that is able to convey information, capable of being used in a transaction, and of reaching the purposes for which they have been produced."⁵¹ UBC has looked to the science of diplomatics as the theoretical foundation for records.

Diplomatics

History of Diplomatics

Diplomatics was first developed as a methodology for determining the validity and authenticity of charters and other medieval records. The problem of determining authentic documents from forgeries was not new but had existed since information was first recorded.⁵² Up until the sixth century no rules existed for determining whether or not a document was authentic. During the sixth century, Justinian's civil code established that if a document was kept in a special place like a "temple, public office, treasury or archives," it was assumed to be authentic.⁵³ The Vatican developed similar rules around this time.⁵⁴ Unfortunately, these rules were for contemporary documents, not ancient documents. In addition, the rules applied only to the external aspects of the document. There was no standard for the analysis of the document's contents.⁵⁵

In 1643, Jean Bolland, a Jesuit, published the *Acta Sanctorum* in which he examined the lives of the saints.⁵⁶ This was the first effort to separate the fact from fiction based on the analysis of the document's contents. In 1675, Daniel van Papenbrock published a treatise that contested the "authenticity of ancient documents in monastic archives."⁵⁷ One of the reasons that Papenbrock's treatise came about was the Renaissance Humanist Movement that "came to emphasize critical reading of primary sources" and the rise of skepticism "cast doubt on traditional and religious beliefs, including both the literary and documentary evidence upon which they were published."⁵⁸

⁴⁹ Duranti, Eastwood and MacNeil, *Preservation of Integrity*.

⁵⁰ Cox, *Variables*. .

⁵¹ Duranti, *New Uses for an Old Science*, 74

⁵² Ibid. 36.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Donald C. Skemer, "Diplomatics and Archives," *American Archivist* 52 (Summer 1989): 377.

⁵⁷ Skemer, "Diplomatics and Archives," 378; Duranti, *New Uses for an Old Science*, 37.

⁵⁸ Skemer, "Diplomatics and Archives," 377-378.

Papenbrock's work established the "general principles for establishing the authenticity of old parchments."⁵⁹ One of the diplomas that Papenbrock's work declared to be a forgery was that of Dagobert I.⁶⁰ (A diploma is defined as an official or state document.)⁶¹ This finding was of great interest to the Saint Denis Monastery. If the Dagobert I diploma was a forgery, all of the Merovingian diplomas held in their archives would be.⁶² Mabillon, a Benedictine monk at Saint Denis, was in charge of the monastery's ancient artifacts and documents. He became the father of diplomatics when he answered Papenbrock's charges. In 1681, Mabillon published his *De Re Diplomatica Libri VI*. The purpose of the volumes was to "facilitate the unhesitating scholarly and administrative use of medieval charters found in archives."⁶³ More importantly, this treatise contained the "fundamental rules of textual criticism."⁶⁴

Mabillon looked at handwriting styles, language, punctuation, formulaic expressions, monograms, signatures, etc. He paid special attention to "variation in record-keeping practices over time and by place and to the historical and cultural context in which the documents were prepared."⁶⁵ The publication of the rules of textual criticism allowed other scholars to begin to assess other documents. Duranti notes that, "If the impetus for the articulation of a method for proving the authenticity of documents came from the doctrinal conflicts of the Reformation and Counter-Reformation, that is from a practical need, the development of the discipline so created soon rose above the religious fray."⁶⁶ Lawyers began using diplomatics in the courts to prove the authenticity of a claim for land or title.⁶⁷

Diplomatics continued to be applied to ancient documents and began to include seventeenth and eighteenth century materials. In 1821, the *École de Chartes* was founded to continue the Mabillon traditions for examining documents.⁶⁸ The school "received a legal monopoly on posts in national and provincial archives by the middle of the nineteenth century and came to exert a major influence on European and indirectly American historiography."⁶⁹ Because diplomatics was first designed for ancient documents, American archivists have considered it to be of little use.⁷⁰ Several European archivists have argued that diplomatics can be expanded and used more generally. In the

⁵⁹ Duranti, *New Uses for an Old Science*, 37.

⁶⁰ Ibid.

⁶¹ Webster's *New World Dictionary of the American Language*, 2nd College Edition, ed. David B. Guralnick (Cleveland, Williams Collins Publishers, Inc. 1979).

⁶² Duranti, *New Uses for an Old Science*, 37.

⁶³ Skemer, "Diplomatics and Archives," 378.

⁶⁴ Duranti, *New Uses for an Old Science*, 37.

⁶⁵ Skemer, "Diplomatics and Archives," 378.

⁶⁶ Duranti, *New Uses for an Old Science*, 38.

⁶⁷ Skemer, "Diplomatics and Archives," 377.

⁶⁸ Duranti, *New Uses for an Old Science*, 39; Skemer, *Diplomatics and Archives*, 379.

⁶⁹ Skemer, "Diplomatics and Archives," 379.

⁷⁰ Ibid. 370, 381.

1940s, Jenkinson argued that diplomatics could be used to judge the authenticity of more common records.⁷¹ Tessler took up this argument in the 1960s.⁷² He argued that diplomatics should be applied to modern records because the result would be an “understanding of modern record-keeping.” Finally, in the 1980s and 1990s, Duranti began her argument that “the establishment of records management and forms control in the mid-twentieth century has made diplomatics useful for the identification and description of contemporary records.”⁷³ The reference to the development of records management and forms control appears to reference the record registries kept by many organizations and the wide spread use of standardized forms for legal and business purposes.

UBC’s Vision of Diplomatics

The objective of UBC’s research was

...to establish what a record is in principle and how it can be recognized in an electronic environment; to determine what kind of electronic systems generate records; to formulate criteria that allow for the appropriate segregation of records from all other types of information; ...to define the conceptual requirements for guaranteeing the reliability and authenticity of records in an electronic system.⁷⁴

UBC used the science of diplomatics as the theoretical foundation of its research. The project’s findings support the use of diplomatics’ rules to establish the reliability and authenticity of electronic records.

The conceptual analysis of electronic records and the project’s findings have confirmed that diplomatics provides a powerful and internally consistent methodology for preserving the integrity of electronic records and is capable of constituting a reliable international standard for the design of record systems controlling electronic and nonelectronic in an integrated way.⁷⁵

UBC’s research results indicated that embedding the recordkeeping rules in the business process is the best method for ensuring reliability and authenticity.⁷⁶ It is also necessary to embed the recordkeeping rules into a recordkeeping system because the business process applications do not have the necessary recordkeeping requirements.

UBC’s research also determined that electronic records should be managed in conjunction with all other records whether those records are in paper, microform, or some

⁷¹ Ibid. 381

⁷² Ibid.

⁷³ Ibid. 380-381.

⁷⁴ Duranti, Eastwood, and MacNeil, *Preservation of Integrity*.

⁷⁵ Duranti, *New Uses for an Old Science*, 22

⁷⁶ Duranti, Eastwood, and MacNeil, *Preservation of Integrity*.

other media.⁷⁷ Electronic records are only one portion of the records maintained by an organization. The organization needs to treat all of its records in the same manner. The record policies and procedures should be the same regardless of whether the record is being created on paper, kept electronically or converted to microfiche. This finding supports UBC's underlying assumption that all records, regardless of media, should be managed in the same way.⁷⁸ Different aspects of the records may look different or different information may be collected about the record because of its medium but the underlying process for managing records must be the same.

A third finding is that, from the records manager's view, the life cycle of a record is reduced from four phases to two.⁷⁹ The first phase controls creation and use. The second phase ensures that the record is preserved. This covers the two life cycle stages of maintenance and disposition. These two phases delineate responsibility for authenticity and reliability between the user and the records manager. The reduction of the life cycle into two phases is important because UBC's research indicates that electronic records must be self-authenticating.⁸⁰ A self-authenticating record is one that can be copied or converted from one format to another without the record losing its reliability and authenticity. Self-authentication also supports the finding that the recordkeeping rules should be embedded in the business process.

The most important finding is that the record's creator is responsible for the record's authenticity and reliability and is best suited for establishing the integrity of the electronic record.⁸¹ When the creator no longer needs the record, the responsibility for maintaining the record is transferred to the records manager or other third party. This supports the UBC's two-phase life cycle. This transfer of responsibility coincides with the shift from the first phase of UBC's life cycle to the second. When the creator establishes integrity for the record, it makes it possible for the records manager to maintain that integrity. If the creator does not establish the record's integrity, the records manager may not be able to establish its integrity.

The methodology for the practical aspect of UBC's research project was to define the terms "reliability" and "authenticity" and then develop templates that showed what record elements are necessary for reliable and authentic records whether paper or electronic. These eight templates can be divided into two categories. The first category looks at the traditional environment of records (i.e., paper) and sets out a template for establishing: 1) What is a record? 2) What is a complete record? 3) What is a reliable record? and 4) What is an authentic record?⁸² These templates describe the various components necessary to make a record. Each element is defined and as the document progresses, the title question is answered. For instance, Template 2, "What is a complete

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Luciana Duranti and Heather MacNeil, "The Protection of the Integrity of Electronic Records: An Overview of the USC-MAS Research Project," *Archivaria* 42 (Fall 1996), 50

⁸¹ Ibid. 47.

⁸² See Templates in Appendix F.; Duranti, Eastwood, and MacNeil, *Preservation of Integrity*.

record in the traditional environment?,” defines a complete record.⁸³ It is followed by a definition of each of the elements required by the “complete record” definition. One of the defined elements is intellectual form. The template proceeds to describe 27 different elements that make up the intellectual form. However, only four of these elements are required to make the record complete.⁸⁴ The inclusion of all potential elements allows the organization to develop appropriate criteria for their records.

The second category of templates is divided similarly but asks the corollary questions: 1) When is a record created in an electronic environment; 2) When is an electronic record complete; 3) When is an electronic record reliable, and 4) When is an electronic record authentic.⁸⁵ Template 6 answers the corollary question to Template 2. It asks when a complete record is created in the electronic environment. This template starts by reciting the four required elements for a traditional record and then lists the necessary elements for an electronic record. It then asserts that these elements may not be sufficient and lists other elements, which may be required solely because the record is in an electronic format.⁸⁶

The research, which resulted in the templates, began with the assumption that all bureaucratic acts can be categorized as being either simple, contractual, collective, or compound.⁸⁷

- A simple act means that only one person is needed to perform this action.⁸⁸ The recordkeeping for this type of act would be a single document recording what action had been taken.
- A contractual act requires two or more interested parties to complete the act.⁸⁹ The recordkeeping for a contractual act requires that there be at least one document signed by all parties to the contract. More likely there will be multiple records relating to the development and execution of the contract.
- A collective act is produced through the collective will of a group.⁹⁰ An example of a collective act would be an agency rulemaking where, based on the comments received regarding the original proposal, the final regulation reflects the needs of both the agency and the

⁸³ Luciana Duranti, Terry Eastwood and Heather MacNeil, *Template 2 What is a Complete Record in the Traditional Environment?* (Vancouver, B.C.) Available at www.slais.ubc.ca/users/duranti/temp2.htm, Internet, accessed September 4, 1998

⁸⁴ Ibid.

⁸⁵ Duranti, Eastwood, and MacNeil, *Preservation of Integrity*.

⁸⁶ See Templates at Appendix F; Luciana Duranti, Terry Eastwood, Heather MacNeil, *Template 6 When is a complete Records created in an Electronic Environment*, Available from <http://slais.ubc.ca/users/duranti/temp6.htm>, Internet, accessed September 4, 1998.

⁸⁷ Duranti, *New Uses for an Old Science*, 80.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Ibid.

constituents subject to the regulation. The recordkeeping in this instance would include not only the internal deliberations for the proposed regulation, but also the comments received, internal consideration of the comments and the final regulation.

- A compound act requires that several different acts take place in order to accomplish the final act. These different acts may be
 - continuative in that the acts must be repeated in order to complete the overall act;
 - complex in that different people all have to accomplish the same act; or
 - procedural in that the final act is result of a series of smaller acts.⁹¹

An example of a continuative type of acts would be the payment of invoices. In order to pay the outstanding debts of the organization, all invoices must be paid. This act is performed over and over again as invoices are received. It is only after all invoices have been paid that the act of paying the debts is complete. A complex act is better illustrated by the payroll function in each organization. In order for payroll to be completed, all employees must fill out and submit their time and attendance sheets. All employees must accomplish this act within a specified time frame to ensure that the payroll can be processed. The actual running of payroll can be seen as a procedural act. It is the final act that can only be done after the submission of the time and attendance sheets have been submitted.

The concept that there are various kinds of acts helps explain modern recordkeeping.⁹² Most acts are not simple acts. Rarely does a record, by itself, represent an entire transaction. In the above description, each of the documents described is a record. Other than the record created by a simple act, each record represents only a portion of the transaction being documented. Unless the records relating to one transaction are captured and the relationship established, the evidence of that transaction will be incomplete. If the evidence is incomplete, the record and the system it is maintained in may not be considered reliable and authentic. For the record and the recordkeeping to be reliable and authentic, records relating each transaction must be captured.⁹³ This is why UBC maintains that making the recordkeeping requirements an integral part of the business process is important.

⁹¹ Ibid.

⁹² Ibid. 114.

⁹³ Ibid.

Diplomatics focuses on establishment of procedures and specific kinds of action (e.g., initiating an activity, inquiry, consultation) rather than on subjects and the creator.⁹⁴ It is more interested in the process by which an action is identified and completed than the individual action. Diplomatics does not look at whether the action is to issue a new regulation or policy statement or to pay the employees. It looks at the process used to accomplish the acts. Diplomatics is interested also in whether the person creating the record has the authority to take the action being documented. It “studies the fact and will originating it as they relate to purpose and consequences, the development of its genetic process, and the character of its physical and intellectual form.”⁹⁵ Diplomatics uses established rules to conduct this study.

Because it uses established rules to determine the authenticity of a record UBC looked to diplomatics for its theoretical foundation for its research. Diplomatics is “scholarly knowledge and rules applied to the critical examination of written acts, intended to test their authenticity or sincerity.”⁹⁶ The rules for internal and external criticism, which were first established in 1681, have been modified to accommodate changes to records and the way records are created. These rules relate to various extrinsic and intrinsic elements of the record. The rules are used to determine the authenticity of the document.⁹⁷ These elements are identified and discussed below.

Diplomatics’ principles or rules were developed from the laws, regulations, and various professional standards and can vary according the origin of the document being examined.⁹⁸ It determines that a record is authentic because the record has the required extrinsic and intrinsic elements. The result of this process for electronic records is the series of templates, mentioned above, that reflect the required elements for traditional records and electronic records. Because the analysis looks at whether the required elements are present and because diplomatics is not interested in the subject matter of the document, the truthfulness of the recorded information is not judged.⁹⁹ “The study of the content of the documents is extraneous to diplomatics because it is the authenticity, validity, authority, and full meaning of the content that diplomatics strives to ascertain by looking at various elements of the document.”¹⁰⁰ This means that a document may be authentic but untruthful. With paper records, the various elements needed to determine the records authenticity are embedded in the record itself or its location in the file folder. For electronic records, the various elements are not stored on the physical document but are stored separately and linked together when the document is accessed. This raises authenticity issues because the electronic links can be altered or broken.¹⁰¹

⁹⁴ Ibid. 129

⁹⁵ Luciana Duranti, “Diplomatics: New Uses for an Old Science,” *Archivaria* 28 (Summer 1989), 16.

⁹⁶ Oliver Guyotjeannin, “The Expansion of Diplomatics as a Discipline,” *American Archivist* 59 (Fall 1996): 414.

⁹⁷ Duranti, *New Uses for an Old Science*, 129.

⁹⁸ Duranti, “Diplomatics,” 10-11

⁹⁹ Duranti, *New uses for an Old Science*, 124, 128.

¹⁰⁰ Duranti, “Diplomatics,” 16.

¹⁰¹ Duranti and MacNeil, “Overview of the USC-MAS Project,” 49.

The elements examined by diplomatics are medium, form, person, action, context-juridical, archival bond and content.¹⁰² Duranti defines these terms as:

Medium	is what the record is recorded on, i.e., paper, microfilm, or electronic;
Action	is the act that uses the record as a means of acting;
Context-juridical	is the administrative framework within with the action occurs;
Archival bond	is the link between related documents;
Content	is the message being conveyed;
Form	is the structure of the document; and
Person	is the entity that acts through this record. ¹⁰³

The form of a document has two parts: physical form, which has specific extrinsic elements, and intellectual form, which has intrinsic elements. The extrinsic elements consist of the following:

Median	Identifies the document; how it was prepared, and looks at the shape and size of the document.
Script	Looks at how the document is laid out, including looking at whether the punctuation is appropriate for the time period or whether paragraphs are laid out in the correct manner. It provides information on standard layouts and the provenance of the documents, processes and procedures used and the record's authenticity. Duranti states that computer software can be considered a script for modern records. Computer codebooks function as the extrinsic element of language for electronic records. ¹⁰⁴
Annotations	Refers to a signature, notes made on the record, cross-references or other marks on the record. This makes this element the most relevant. "Annotations constitute the extrinsic element which most clearly reveals the formative process of a

¹⁰² Ibid.

¹⁰³ Ibid. 49

¹⁰⁴ Durnati, *New Uses for an Old Science*, 175.

Seal

document, the way in which it participates in a transaction or procedure, and its custodial history.”
Is the least relevant element. Most records do not have a seal.¹⁰⁵

The intrinsic elements “are considered to be the integral components of its intellectual articulation: the mode of presentation of the document’s content, or the parts determining the tenor of the whole.”¹⁰⁶ The intrinsic elements look at whether the action being taken and the individuals taking the action are appropriate for the time period in which the document was created. These elements answer the question whether the author or addressee was capable or had the authority to take the action being described and if the action is within the content of the times. The two intrinsic elements are protocol and eschatocol.¹⁰⁷ Protocol includes the letterhead, name and title of the author or person issuing the record along with the date, time, and place.¹⁰⁸ Eschatocol refers to the “documentation context of the action (i.e., enunciation of the means of validation, indication of the responsibilities for documentation of the act) and final formulae.”¹⁰⁹ Using these elements, diplomatics would look to see if the author was employed by the organization at the time the document was created and if the organization was engaged in the type of action described in the content at the time. For example, diplomatics would look to see if the author was (1) the director of an agency, (2) if the agency was looking at the issue of bank modernization at the time of the document’s date, and (3) the addressee was in fact a member of Congress.

The intrinsic elements emphasize the character, content, and organizational context of the document.¹¹⁰ The character of the record relates to the organization in which the record is created. Content does not refer to the actual meaning of the document but relates to the sentence structure and phraseology. The authenticity of a document is questioned when the terms used by the document are wrong for the alleged date of the document. The context of a document also has been called its organic information.¹¹¹ Diplomats has always been concerned with this element. “It seems evident today that the object of contemporary diplomatics is the organic information rather than the medium. The problem today is not so much that of authenticity of the document as the value of the information associated with it.”¹¹² The organizational context connects the record to the other records that document the transaction. For paper records, the context is the other records in the file folder and possibly the file folder’s placement in the recordkeeping system. For all records, the information contained in the

¹⁰⁵ Duranti, *New Uses for an Old Science*, 136-175, passim.

¹⁰⁶ Ibid. 141.

¹⁰⁷ Ibid. 141-143.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Bruno, “Manifesto,” 442.

¹¹² Bruno, “Manifesto,” 440.

record is more important than the medium. The medium is important not because it conveys meaning but because it must be neutral.¹¹³

In the past, the medium on which a record is made has contributed to determining its value. During the course of history the type of medium used for a record has assisted diplomats in determining its authenticity. The dates when parchment and various types of paper first began being used are known. Having these dates assists the records manager or archivist to determine the records' authenticity. This works for paper records and even records that have been microfilmed because the specific type of medium used for the original does not change during the record's movement through the life cycle. The original paper and microfilm last for a long period of time. It does not work for electronic records. The medium used to create electronic records is fragile. In addition, the rapidly changing information technology field would leave an electronic record inaccessible in a very short time. Therefore, unlike paper or microform records, electronic records cannot be bound to the medium. In order to meet the challenges presented by the electronic media, electronic records need to undergo continuous and repeated reproduction.¹¹⁴ Without each copy being identical to the original, the record will not be reliable and authentic. Duranti and MacNeil assert "because the medium of electronic records is not imbued with meaning, each record reproduction in which the only component that changes is the medium can be taken to be a complete and effective record identical to the one it reproduces."¹¹⁵

It is this need to continuously and repeatedly reproduce the records that generates UBC's requirement that records be self-authenticating. The process of self-authentication means that the record is preserved through the life cycle by converting it from the original to one of many generations of copies of the record. Each copy is authenticated as being a true and correct copy of the original or prior copy. Migration is the transformation of the record from one format to another.¹¹⁶ The only changes allowed to the record in this process are those that may occur because a new technology is in use and it may alter the underlying bit structure and look of the electronic file. The content is unchanged. For UBC this process means that the creator or a neutral third party converts the record to a new media as necessary.¹¹⁷ Once a record is converted, the creator or the third party reviews and authenticates the new version of the record. At this point the records are no longer originals but authenticated copies.¹¹⁸ Authentication means that the content of the record has been moved without alteration even though the look of the document may be altered. Given the state of current information technology software, it is possible to convert the existing document to a more generic form that will preserve the look and feel of the original document. For example, a record created in Microsoft Word 2000 and saved in a web format will look identical to the original Word file. If this document is moved to Word 2001, the changes resulting for the new software will not make the record unauthentic. Duranti and MacNeil argue

¹¹³ Duranti and MacNeil, "Overview of the USC-MAS Project," 49.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

¹¹⁶ Ibid. 58.; Dollar, *Authentic Electronic Records*, 30.

¹¹⁷ Duranti and MacNeil, "Overview of the USC-MAS Project," 58.

¹¹⁸ Ibid.

The authenticity of electronic records in the long term can only be ensured by self-authenticating processes of reproduction from one medium to another and of conversion from one digital technology to another, by reliability of the person or office entrusted with the authority and the capacity of carrying out the reproduction and conversion processes and by an uninterrupted line of physical custody.¹¹⁹

Without this uninterrupted line of physical custody, the authenticity of a document becomes suspect. The physical custody of the record means that one person or office is responsible for access to the record and is responsible for ensuring that the record remains reliable.¹²⁰ Duranti is careful to explain that even if the original record has proved to be unauthentic, the authenticated copy is still authentic in that it is an accurate copy of the original. The validity of the original is not considered when assessing the authenticity of the copy.¹²¹ Duranti and MacNeil believe that diplomatics provides a method for self-authentication, which allows electronic records to be maintained over time while ensuring accessibility to reliable and authentic records.¹²² UBC argues that the method to achieve self-authentication is to integrate the recordkeeping system's procedural rules with the business practices. This integration establishes the physical custody and the migration practices as part of the everyday work and enhances the reliability and authenticity of the record. The integration also establishes the context of the records contained in the recordkeeping system. By placing the records into the recordkeeping system automatically, related documents are kept together.¹²³ Finally, the integration ensures that the record being created is authentic and in a format that ensures that it remains reliable and authentic over the course of its life.¹²⁴ This approach is one solution to the electronic records question of how to ensure that the electronic record is authentic and reliable throughout its life. If the record is not reliable and authentic, there is no need to keep the record accessible.

The archival theory of diplomatics and its templates were used by the Department of Defense (DoD) in its business process reengineering of records management.¹²⁵ DoD established a series of core elements and functions that any electronic recordkeeping system must have. DoD then developed a method for testing software applications to ensure that the elements and functions did work according to the standard. If the software meet the standard, DoD certified it for use. The National Archives endorsed this standard as one way to accomplish electronic recordkeeping with one caveat.¹²⁶ The caveat is that two of the optional functionalities in the DoD standard need to be

¹¹⁹ Ibid. 57.

¹²⁰ Ibid. 58-60.

¹²¹ Duranti, *New Uses for an Old Science*, 53.

¹²² Duranti and MacNeil, "Overview of the USC-MAS Project," 58-60.

¹²³ Ibid. 58.

¹²⁴ Ibid. 58-60.

¹²⁵ Duranti, Eastwood and MacNeil, *Preservation of Integrity*.

¹²⁶ Memorandum to Agency Records Officers and Information Resource Managers: NARA endorsement of DoD 5015.2-STD, dated November 19, 1998 (NWM 03.99)

mandatory. This application of diplomatics is complex and difficult to read and comprehend. For example,

C2.2.13.2 **External E-mail**. Some organizations use separate E-mail systems for Internet E-mail or other wide area network E-mail. These records shall be handled as any other E-mail records. If the RMA being acquired does not provide the capabilities specified in paragraph 2.2.3 above, the user organization shall implement processes or procedures to enable these records to be managed by the RMA. **(36 CFR 1234.4, reference(s))**¹²⁷

While the DoD standard addresses all of the elements identified as being required for authentic electronic records, it does not address the viability of this solution. The DoD Standard may meet all of the legal and regulatory requirements but it does not address the electronic records management issues that surround those legal and regulatory requirements.

Functional Requirements/Literary Warrants

While UBC builds its practical application of diplomatics on the life cycle of records, Pittsburgh argues that a records continuum model is more appropriate for electronic records. The continuum model asserts that a record, particularly an electronic record, must be managed from the moment it is created.¹²⁸ According to Bearman, there are several dimensions to this continuum model.

The *first* dimension, to which I have given the name Event dimension, consist of the act, the trace, the instrument and the information. The *second* dimension, to which I give the name Documentation dimension, is likewise characterized by four attributes along the same dimensions: the act becomes the business transaction; the trace becomes the evidence; the instrument becomes the competence; the data becomes the records. In this dimension, the act is witnessed by the system and the transaction becomes evidence. The *third* dimension, to which I give the name Risk, is characterized by function, corporate memory, organization and recordkeeping system. In this dimension, the record is appraised by the organization and either kept or destroyed. The *fourth*, or Societal dimension, has the attributes of purpose, collective memory, domain, and archives. In this dimension the society gives meaning and institutional form to its record.¹²⁹

¹²⁷ Department of Defense, *Design Criteria Standard for Electronic Records Management Software Applications*, (DoD5015.2-STD), dated November 1997 issued by Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (Washington, DC, Department of Defense), 20 (emphasis in original).

¹²⁸ Bearman, *Draft Item Control*.

¹²⁹ *Ibid.*, emphasis in original.

These dimensions can be seen as roughly equivalent to the life cycle of a record. The main difference is that the dimensions are somewhat more nebulous in that a record can be in various dimensions at the same time. The Event dimension is the reason why the record is being created.¹³⁰ For Bearman this dimension encompasses only the act of gathering and analyzing the information. Recording that information is the Documentation dimension. It is where the act and related information become part of a larger business transaction. This dimension is comparable to the creation stage of the traditional life cycle. The third dimension is Risk. In this dimension, Bearman is assessing the value of the record.¹³¹ The record is reviewed, its information appraised, and the record retained in the recordkeeping system or destroyed. Those records that are retained move into the fourth dimension. Records move into this last phase because of their cultural or historical value.¹³²

Bearman believes that the records continuum provides a better explanation of the record's life than the traditional life cycle used by the National Archives and UBC.¹³³ Atherton, whose article compares the life cycle and the continuum approaches, agrees with Bearman because electronic data cannot be separated into the life cycle stages. For Atherton, "creation is an ongoing process rather than an event in time."¹³⁴ He continues to say that the life cycle concept ignores the inter-connectedness of archives and records management but has provided a sense of order and systematic approach to records management. The conclusion of his article implies that the life cycle concept should be replaced with the continuum.¹³⁵ The differences between the records life cycle and records continuum seem to be one of emphasis and not substance. While Atherton is correct that electronic information can be continually updated making creation an ongoing process, being able to continually create information may not be appropriate. For example, it is possible to create a document that is updated with new financial figures from a database every time you access it. If this document is never saved as a record, there is no record of the financial status as of a certain time period. The old data is deleted and the new information inserted. The usefulness of the records continuum model may be limited to databases and other non-textual records where information is gathered and appended to the existing information. As the information in the database ages, the information, not the database itself, moves through the continuum.

Bearman, who participated in the Pittsburgh functional requirements for electronic records research project, based his continuum on that work. The Pittsburgh research defined a functional requirement as a need to maintain certain information about a record that is needed for legal, professional, or other reasons.¹³⁶ The research gathered all the known recordkeeping requirements, categorized them by type of requirement, i.e.,

¹³⁰ Ibid.

¹³¹ Bearman, *Draft Item Control*.

¹³² Ibid.

¹³³ Atherton, "Life-Cycle to Continuum," 47.

¹³⁴ Ibid.

¹³⁵ Ibid.

¹³⁶ David Bearman and Ken Sochats, *Formalizing Functional Requirements for Recordkeeping* (Pittsburgh, University of Pittsburgh, 1994) Available from <http://www.sis.pitt.edu/~nhprc/Pub4.html>, Internet, accessed September 2, 1998.

the document must be signed, and then identified a software functionality that would achieve that requirement. In this instance, the recordkeeping software would have to be capable of storing an electronic signature. The research has entitled these results “literary warrants.” Each literary warrant links one required function for an electronic recordkeeping system to its related category of audit, legal, records management, information technology, managerial, or medical recordkeeping requirements.¹³⁷ There is one listing that shows all of the literary warrants. This listing is accompanied by six separate attachments. Each of these attachments contains a cross-reference to the literary warrants listing, provides the citation for the warrant and an explanation of the requirement. A separate attachment exists for the six areas reviewed by Pittsburgh.¹³⁸ An example of a literary warrant is:

Organization: Conscientious

1. (Warrant) **Compliant** : Organizations must comply with the legal and administrative requirements for recordkeeping within the jurisdictions in which they operate, and they must demonstrate awareness of best practices for the industry or business sector to which they belong and the business functions in which they are engaged. [Production Rules]¹³⁹

The accompanying citation for this warrant from the Records Management Literature document is:

Functional Requirement: 1

Citation Performance Guideline for the Legal Acceptance of Records Produced by Information Technology Systems: “Part III: Implementation of the Performance Guideline for Legal Acceptance of Records Produced by Information Technology Systems,” Technical Report ANSI/AIIMTR31-1994; Association for Information and Image Management.

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Extract With the aid of the organization’s legal counsel, the pertinent recordkeeping statutes, regulations, rules, and policies with which the organization must comply should be identified, compiled, and included with the system documentation. (Note: Regulations and rules also have the rule of law.) A review of these laws and policies should be conducted and a determination made as to which organizational unit is responsible for assuring compliance with their various provisions.¹⁴⁰

¹³⁷ Wendy Duff, “Increasing Acceptance of Functional Requirements for Electronic Evidence,” *Archives & Museum Informatics* 10 no. 4 (1996), 327.

¹³⁸ *Functional Requirements for Evidence in Recordkeeping*, (Pittsburgh, PA: University of Pittsburgh) Available from <http://www.sis.pitt.edu/~nhprc/prog1.html>, Internet, accessed September 2, 1998.

¹³⁹ Ibid.

¹⁴⁰ *Warrant taken from RECORDS MANAGEMENT Literature*, (Pittsburgh, University of Pittsburgh), Available from <http://www.sis.pitt.edu/~nhprc/audit3.html>, Internet, accessed September 2, 1998.

This example shows only one of the citations that exist for this literary warrant.

Pittsburgh pursued the record management functional requirements because the focus of earlier research had been on archival requirements.¹⁴¹ The archival research had focused on how to preserve the record and how to keep the record accessible and not on records creation. Pittsburgh began looking at the records management side of the life cycle because without the record being captured at the time of the transaction, the archival requirements are meaningless as there would be no record to archive.¹⁴² This research focused on determining the elements necessary to “guarantee that the integrity or substance of an archival record can be maintained.”¹⁴³ If the integrity of the record is not preserved while it is under the control of the creator or records manager, it cannot have integrity once it becomes an archival record.¹⁴⁴ The Pittsburgh research recognized, in the same way that diplomatics recognized, that the record’s creator establishes the record’s integrity best. Both Pittsburgh and UBC have tried to develop ways to maintain that integrity.

The Pittsburgh project’s major contribution to the reexamination of records management is the development of the literary warrants and their functional recordkeeping system requirements. These requirements are necessary to ensure electronic records are treated as evidence of a transaction in the same manner that paper records are considered evidence. If a record is the documentation of an action, that record must meet legal, professional, and other requirements to serve as valid representation of the action.¹⁴⁵ For instance, a record that records the purchase of a computer must include an acknowledgement that the purchaser has authorized the debit to the credit card. Without that acknowledgement, the store or the credit card issuer may not receive the payment. The purchaser can repudiate the debt and no proof exists that the purchaser had agreed to the debt. This example also illustrates the concept behind the functional requirements: A document must have sufficient metadata captured about its context, structure, content, and the business rules under which it was created to be evidence of a transaction.¹⁴⁶ “The formal statement of the functional requirements for recordkeeping make it clear that specific information about the record, its creator, the context of its creation and transmission, the version and other life cycle control data must be created, be maintained by the system, and be available for use to satisfy the requirements.” Bearman continues “Our concept of evidence makes it important to know when records were used and how, in what way they were filed, classified and restricted in

¹⁴¹ Cox, *Variables*.

¹⁴² The term life cycle is deliberately used here because where this aspect of the Pittsburgh research fits in the records continuum is unclear.

¹⁴³ Richard J. Cox and James Williams, *Re-Discovering the Archival Mission: The Recordkeeping Functional Requirements Projects at the University of Pittsburgh; A Progress Report*, (Pittsburgh, University of Pittsburgh, 1994) Available from <http://sis.pitt.edu/~nhrpc/Pub1.html>, Internet, accessed September 2, 1998.

¹⁴⁴ Cox, *Variables*.

¹⁴⁵ Bearman and Sochats, *Formalizing Functional Requirements*.

¹⁴⁶ David H. Thomas, *Business Functions Towards a Methodology; Electronic Records Project*; (Pittsburgh, PA: University of Pittsburgh, 1994) Available at <http://sis.pitt.edu/~nhrpc/Pub7.html>, Internet, accessed September 2, 1998.

the past, and, if they have been destroyed under proper disposition authority, when and by whom that act took place.”¹⁴⁷

The concepts of content, context, and structure are the same as for any record. Ensuring that this information is collected for electronic records is a challenge. It is important to know the when and how of records for all records and not just electronic records. The functional requirements are based on statutory and regulatory requirements as well as the best practices for the organizations.¹⁴⁸ These requirements exist for both paper and electronic records. However, paper records satisfy these needs through their placement in the file folder, the organizational of the filing system, established filing procedures and the organizational placement of the filing system. The Pittsburgh project essentially converts the physical arrangement of paper records to a logical arrangement for electronic recordkeeping.

According to the Pittsburgh research, four properties are needed for records to be evidential. The records need to be comprehensive, identifiable, complete, and authorized.¹⁴⁹ These properties are achieved through compliance with the functional requirements. The metadata collected about the records should ensure that these four properties are gathered. In addition, other elements may need to be captured as part of the metadata. These elements relate to controlling accessibility and applying retention, and future use of the record.¹⁵⁰ All of these non-property related elements can be inherited from the recordkeeping system and would not require input. In addition, the metadata for a record must allow the record to be migrated over time for continued accessibility.¹⁵¹ “Not only do we need to make sure to migrate the records to new structures before the old ones are no longer supported, we need to make good decisions about logical mappings in order not to introduce too much noise with every migration and ultimately lose the message in digital copying as surely as with multi-generational copying of analog messages.”¹⁵² For Pittsburgh, the electronic recordkeeping systems may require the access controls, retention information and other non-property related elements be entered into the system once. However, this information is copied and becomes part of the record and its metadata rather than being established through links or pointers.

As discussed above, the Pittsburgh literary warrants were developed through a process that first identified that a recordkeeping requirement exists, explored the various aspects of that requirement as most of the requirements existed for more than one profession with slight variations, and then developed a complete definition of the requirements.¹⁵³ Each record meets the requirements through its metadata elements. In

¹⁴⁷ Bearman, *Draft Item Control*; Bearman and Sochats, *Formalizing Functional Requirements*.

¹⁴⁸ Bearman and Sochats, *Formalizing Functional Requirements*.

¹⁴⁹ *Compliance with the Functional Requirements for Evidence in Recordkeeping*, (Pittsburgh, University of Pittsburgh) <http://www.sis.pitt.edu/~nhprc/BaCartic.html>, Internet, accessed September 2, 1998.

¹⁵⁰ Ibid.

¹⁵¹ Bearman, *Draft Item Control*.

¹⁵² Bearman, *Managing Electronic Mail*

¹⁵³ Bearman and Sochats, *Formalizing Functional Requirements*

this model, the Pittsburgh research group clustered the functional requirements into several concentric layers of metadata.¹⁵⁴ Some of the information in each of the layers is captured by the system, but some requires user input. The layers of metadata elements are handle, terms and conditions, structure, context, content, and history of use.¹⁵⁵

The *handle* layer captures the information about the record being created.¹⁵⁶ The elements consist of the unique information about the record including the declaration that this document is a record, transaction identification, and organizational unit. It also includes descriptions of the content that will allow staff to retrieve the record in the future.

The *terms and conditions* layer holds information about the disposition of the record.¹⁵⁷ This layer of metadata establishes the requirements for accessing and using the record and allows the creator or user to establish conditions that must be met before the record can be accessed or used. It also holds the disposition information for this record.

The *structural* layer saves information that is essential for keeping the record accessible over time without destroying its evidential value.¹⁵⁸ It contains information that relates the record to other records that are a part of the transaction. It stores information about the how the computer has stored the document, encoding information, the structure of the document itself, and provides information on the hardware and software used to create the record. It also has information on the document's source.

The *contextual* layer places the record in the context of who created the record, who received the record, whose copy of the record it is (i.e., sender or receiver), and other transaction-related information.¹⁵⁹ It also lists the organization responsible for the record including any subunits and the individuals. Lastly, it provides system accountability.

The *content* layer contains the actual content of the record. It includes the content "created by the transaction" and the identifiers for related records or data.¹⁶⁰

Finally, the *history of use* layer provides security for the document by recording information on who has accessed the record, when and how the record was used, and if anything has been done to change the record.¹⁶¹

¹⁵⁴ David Bearman and Ken Sochats, *Metadata Requirements for Evidence* (Pittsburgh, PA: University of Pittsburgh, 1994) Available from <http://www.sis.pitt.edu/~nhprc/BACartc.html>, Internet, accessed September 2, 1998.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid.

¹⁶¹ *Metadata Specification Derived from the Functional Requirements: A Reference Model for Acceptable Business Communications*. (Pittsburgh, University of Pittsburgh) Available from <http://www.sis.pitt.edu/~nhprc/meta96.html>, Internet, accessed September 2, 1998.

It is important to remember that while all layers of metadata must occur, not all elements within each layer are required.¹⁶² Because choices must be made regarding what metadata should be captured, organizations need to determine how much and what kind of metadata are needed to retrieve the record and to provide the level of assurance that the record is protected adequately from alteration or deletion. The metadata requirements established in the model reflect only those elements needed for evidentiary reasons.¹⁶³ Metadata can be captured for archival or other business needs as well. The Pittsburgh project chose to concentrate only on the evidential requirements for metadata because

[e]lectronic records are made available to users electronically, so they require information concerning the terms and condition for access to them. And since electronic records are easily manipulated, the environment must ensure that they are inviolate and new records must, of course, be created when their use transforms the original.¹⁶⁴

One essential requirement is that records must be created at the time of the transaction in order to be evidence of that transaction. Additionally, the record or its metadata must contain sufficient information to provide accountability for the action being recorded.¹⁶⁵ This is true whether the record is paper or electronic. Just having data within an electronic system that is used as part of the transaction does not constitute a record of the transaction because the data will not reflect who conducted the transaction. Therefore, it does not provide accountability. In addition, “information captured in the process of communication will only be evidence if the content, structure, and context metadata required to satisfy the functional requirements for recordkeeping is captured, maintained and usable.”¹⁶⁶ This means that unless the recordkeeping system, whether electronic or paper, collects sufficient information to relate the record to the related records of the transaction, the records within that system may not be evidential. If the recordkeeping system does collect sufficient information regarding the record, the records within the system will be evidential.

In 1996, Bearman, at a presentation to the Society of American Archivists, stated that both archival and records management methods were developed for physical records and that while some of those methods appear to apply only to physical records, they can be used for electronic records as well.¹⁶⁷ This is a departure from the general perception that electronic records are inherently different from traditional records and that methods used to control traditional records may not be applicable to electronic records.¹⁶⁸ The emphasis on the physical arrangement of the records in a file can also be seen as a logical arrangement. When viewed in this manner, the need for contextual information for

¹⁶² Bearman and Sochats, *Metadata*.

¹⁶³ Ibid.

¹⁶⁴ Bearman and Duff, “Grounding Archival Description in the Functional Requirements for Evidence,” *Archivaria* 41 (Spring 1997), 277.

¹⁶⁵ Ibid. 275.

¹⁶⁶ Bearman and Sochats, *Metadata*.

¹⁶⁷ Bearman, *Draft Item Control*.

¹⁶⁸ Ibid.

electronic records is no different than for paper records. What differs is the method and placement of that contextual information. Bearman essentially stated that the physical arrangement of paper records, i.e., the actual file folders in a filing cabinet arranged according to a specified arrangement would also work for electronic records.¹⁶⁹ This statement tries to minimize the difference between paper and electronic records. With electronic records there may not be a specific file plan and there certainly is no physical file folder but this information can be captured and stored with the individual record.

The reason that the functional requirements are necessary is that an electronic record has no physical form but only logical connections. This applies not only to the contextual information but also to the actual record itself. The electronic record is divided into blocks of information that are stored wherever there is room on the computer disk, with a link or pointer between the various blocks. These blocks of information are assembled when the record is accessed. The recordkeeping system takes this set of information blocks and adds links to the related records. This creates the context found in physical file folders of paper records. The recordkeeping system also links the record to the organizational context of the record that equates to the location of the paper file folders in the filing cabinet and the hierarchical nature of office files is recreated in the electronic system. “Thus the principle regarding original order is revealed to be that we must document the context of creation and use, including the logical associations of records in recordkeeping systems, in order to understand records as evidence, not that we literally ‘preserve’ the original order of the physical records.”¹⁷⁰ Bearman states that not all of the physical attributes of a paper recordkeeping system need to be associated with the electronic record because these attributes, such as access, use and retention, can be performed by the software application on a system-wide basis.¹⁷¹ The electronic recordkeeping software has access and processing controls that are an inherent part of the software. Access and processing controls must be developed for paper recordkeeping systems and enforced by staff.¹⁷² The software system will enforce the controls once the records staff has established them. “[W]e manage paper records collectively because it is too expensive to manage them individually. In the case of the electronic record, the reverse is true.”¹⁷³

In addition, to the development of the functional requirements, Pittsburgh research focused on the variables within organizations that affected recordkeeping, the technical capabilities of software to meet the functional requirements, and other non-technological tactics to assure recordkeeping takes place, (i.e., policy, standards, etc., and the effectiveness of technology and policy), in meeting the archival needs.¹⁷⁴ Underlying the Pittsburgh research was the belief that archivists and records managers when judging the record’s value had relied on the physical nature of the paper record to provide as much information about the record as the information contained in the record.¹⁷⁵ This

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ Cox and Williams, *Re-Discovering Archival Mission*.

¹⁷⁵ Bearman, *Draft Item Control*.

duality does not exist for electronic records. With paper records, the records manager and archivist could look at the physical placement of the file folder within the file plan and the organizational hierarchy when establishing the value of a record.¹⁷⁶ For instance, a letter sent from the agency director may have greater value than one sent from a program office. The assumption is that the addressee of the director's letter and the content will relate intimately to the agency's mission and that the program office's letter will relate to the agency's mission generally. This assumption would be made because of the location of the file folder and not necessarily the signature. It is possible that the same person would sign both letters. The value of the record may be different because of where it is filed. "Our concept of evidence makes it important to know when records were used and how, in what ways they were filed, classified and restricted in the past, and, if they have been destroyed under proper disposition authority, when and by whom."¹⁷⁷

Pittsburgh maintains that the record and as much of the metadata as possible must be captured at the same time. The simultaneous capturing of the record and the metadata improves the quality of the metadata, particularly if the system can capture the information automatically.¹⁷⁸ The metadata that Pittsburgh believes should be captured include structural information relating to the document, content information, contextual information, and business rules for access and retention purposes.¹⁷⁹ The method recommended by Pittsburgh for accomplishing this is to encapsulate the record with its metadata.¹⁸⁰ By encapsulation, Pittsburgh means to place the record and its metadata into one computer file. Encapsulation can be accomplished through the interaction of the business applications with the recordkeeping application. This protects the record from alteration. The metadata are clearly associated with its record and also protected from alteration. In addition, encapsulation prevents the record and its metadata from being separated over the course of time.¹⁸¹ Another advantage is that when the record is retrieved, the record is self-explanatory because all related information is retrieved with the record.¹⁸² The disadvantage is that encapsulation means that large amounts of metadata are kept for each record.¹⁸³ Most of the metadata is not unique to the individual record but applies to a series of records. This approach, therefore, results in large amounts of duplicative information being stored within the recordkeeping system.

The Pittsburgh research also examined cultural issues related to recordkeeping. The culture aspects indicated that four types of records are created in a bureaucratic culture.¹⁸⁴ The first are the transactional records that

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

¹⁷⁸ Thomas, *Business Functions*.

¹⁷⁹ Ibid.

¹⁸⁰ Bearman and Sochats, *Metadata*.

¹⁸¹ Ibid.

¹⁸² Ibid.

¹⁸³ Bearman, *Draft Item Control*.

¹⁸⁴ Francis Blouin, "A Framework for Consideration of Diplomats in the Electronic Environment," *American Archivist* 59 (Fall 1996), 475.

record the activities of the organization.¹⁸⁵ An example of this type of record would be the invoice and a cancelled check or notice of wire transfer. These records reflect a single transaction. The second are public accountability records.¹⁸⁶ These records are illustrated by the annual reports created by independent accountants and published by organizations. The public reviews these records to determine how well or poorly the organization is performing. Performance measures create a third kind of record.¹⁸⁷ Examples of these records are customer satisfaction reports or customer survey data. Lastly, the nature of the work and supervision create records.¹⁸⁸ An illustration of this last type of record is the performance evaluations or work assignments given by a supervisor to an employee.

In the past, both the records manager and the archivist relied on the relationship between the hierarchical organizational structure and its functions to provide context for the records. The four types of records were valued and identified not just by the information the record contained but also by what office was maintaining them. For instance, the performance measures records would reside in the offices that provided service to the organization's customers while the accounting activity records would only exist in the accounting department. Information technology has not changed the type of records being created by units of an organization. However, where the records are held and accessed may have changed. With paper records, staff went to the accounting department to see accounting records. With information technology, providing the staff has access, the information can be reviewed at their desks. The ability to share information across the organization can affect the organization's structure. Therefore, the record creators may not be in discrete organizational units as in the past but may be scattered throughout the organization.¹⁸⁹ The records manager cannot depend on the hierarchal information to provide an indication of the record's value.

As organizations develop e-mail communications and shared access to electronic documents, the connection between the organization structure and function can no longer be taken for granted.¹⁹⁰ "Simply identifying electronic records is complicated, since the same data may serve many different functions. Without understanding the context or purpose of the data, evaluating their enduring value is impossible."¹⁹¹ As information is shared throughout the organization, the information can be transformed and used in ways of which the creator of the information is unaware.¹⁹² The records manager is left trying to figure out the various locations where the information resides, the uses it has been put to, and the value of that information to the organization. This effort is complicated by the

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

¹⁸⁸ Ibid.

¹⁸⁹ Ibid.

¹⁹⁰ Thomas, *Business Functions*.

¹⁹¹ Ibid.

¹⁹² Cox, "Record is it Evolving?," 8.

fact that each use of the information can change its value.¹⁹³ Cox attempts to address this issue when he states

...in a particular organization we may find an individual with his or her personal files, collaborating electronically with others on the production of particular documents and groups of records, along with the institutional units' documents and external documents readily accessible through commercial vendors; the question can easily arise in such circumstances as to when and how a record appears and is used since versions readily appear and disappear.¹⁹⁴

The identification of "the functional provenance of records (e.g., the business purpose for which they are created), so as to be able to carry out an organizational retention policy" is one of the challenges in managing electronic records.¹⁹⁵ This functional provenance is captured in the data content, context, and structure of the records. Identifying the appropriate provenance is more difficult because information is dispersed throughout the organization where it takes on different values and uses.

Pittsburgh hypothesized that these five issues affect the way organizations create and maintain their records. These were 1) the recordkeeping functional requirements for electronic systems which became the literary warrants; 2) the variables in organizations that affect utilization of software and hardware; 3) the technical capabilities of the organizational software products; 4) the means used by organizations to meet the archival requirements; and 5) the effectiveness of technology and policy strategies to ensure compliance with archival interests.¹⁹⁶ The basic hypothesis stated

...the utility of recordkeeping functional requirements and their affect by various tactics and variety of variables, are as follows: functional requirements are the same whether records are paper or electronic, using four tactics individually or together all functional requirements can be met; different business applications will have different functional requirements and differing degrees of risk; software applications will not add requirements but will satisfy the existing requirements; functional requirements will not differ within a sector; and corporate culture determines best way to satisfy requirements.¹⁹⁷

This hypothesis stated that an organization would induce its staff to perform recordkeeping functions through one or more tactics. By using these tactics, which are discussed below, organizations will meet all of the functional requirements necessary for records. The tactics would apply whether the record was in paper or electronic format.

¹⁹³ Ibid.

¹⁹⁴ Ibid.

¹⁹⁵ David Bearman, "Diplomatics, Weberian Bureaucracy and the Management of Electronic Records," *American Archivists* 55 (Winter 1994), 173.

¹⁹⁶ Cox, *Variables*.

¹⁹⁷ Cox and Williams, *Re-Discovering the Archival Mission*.

The hypothesis stated that the chosen tactics by the organization depend on its culture.¹⁹⁸ It also argues that the existing business applications will have different recordkeeping requirements appropriate to the level of risk involved with the business but that the existing business software applications will not add any recordkeeping requirements. Finally, the hypothesis states that within a business sector the recordkeeping requirements will be the same.¹⁹⁹

The Pittsburgh project hypothesized that organizations could ensure proper recordkeeping and, therefore, the functional provenance of electronic records by using one of the four following tactics:

1. Promulgate policy,
2. Incorporate the requirements into the design of the electronic system,
3. Incorporate the requirements into the implementation of the system, or
4. Issue standards.²⁰⁰

Its research indicates that organizations do not use one tactic but use combinations of tactics to achieve the goal. None of the organizations used a single tactic to ensure compliance with the recordkeeping needs, as no one strategy worked for all records within an organization.²⁰¹ Pittsburgh's research had hypothesized that the organization's culture was related to the tactic chosen to ensure records were captured. The findings showed that the organizational culture did not seem to correlate to the tactics chosen by the organization.²⁰² The early results of Pittsburgh's research stated that the correlation seemed to be between a tactic and specific functional requirements.²⁰³ Some functional requirements seemed to lend themselves to certain tactics and certain occupational groups tended to choose the same tactics to ensure compliance.²⁰⁴ Pittsburgh had thought that entities within a business sector would use similar tactics to ensure recordkeeping took place. The results showed that the similarity existed but on a different scale. Certain professions preferred specific tactics.²⁰⁵ For example, the lawyers preferred one tactic while the accountants preferred another.

The Pittsburgh research examined organization culture because one of its goals was to develop a records management document that organizations could use to determine 1) the nature of their organizations, 2) the obstacles that may stand in the way

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

²⁰⁰ David A. Wallace, "Working Draft Satisfying Recordkeeping Functional Requirements: The Organizational Variable," Electronic Records Project (Pittsburgh, University of Pittsburgh, 1994) Available at <http://www.sis.pitt.edu/~nhrpc/Pub5.html>, Internet, accessed September 2, 1998.

²⁰¹ Bearman and Sochats, *Metadata*.

²⁰² Wendy Duff and Deborah Rhodes, *Organizational Culture as a Predictor of Tactic Preference* (Pittsburgh, University of Pittsburgh, 1995). Available at <http://www.sis.pitt.edu/~nhrpc/prog2.html>, Internet, accessed September 2, 1998.

²⁰³ Ibid.

²⁰⁴ Ibid.; Richard J. Cox, *Putting the Puzzle Together: The Recordkeeping Functional Requirements at the University of Pittsburgh; A Second Progress Report* (Pittsburgh: University of Pittsburgh, 1995) Available at: <http://www.sis.pitt.edu/~nhrpc/intro2.html>, Internet, accessed September 2, 1998.

²⁰⁵ Duff and Rhodes, *Organizational Culture*.

of producing records with evidential value, and 3) the mechanisms necessary for managing records.²⁰⁶ This approach is critical because if the recordkeeping requirements do not fit the organization's behavior, the recordkeeping function will not occur routinely.

In addition, Pittsburgh's literary warrant research and the organizational tactics research address the issues that surround the changing records management practice. It acknowledges that the organizations need to incorporate electronic recordkeeping into their culture and not just make it a part of their business practices. However, other than the preliminary findings on tactics, the main focus of the research was to establish a practical methodology for determining record elements an organization needs to meet their legal recordkeeping requirements. The literary warrants documents are applicable to federal agencies because the requirements of the Federal Records Act and the National Archives regulations are listed. The complexity of the documents and the need to use the literary warrants listing and all six supporting documents make it very difficult for an organization to figure out which elements are needed and why.

Records Management Practice

National Archives of Australia (Australian Archives) recognized, early on, that electronic records create problems within the records management and archival professions and began working with agencies to find solutions. In 1995, the Australian Archives issued guidance for electronic recordkeeping and electronic mail and standards for metadata. The basic premise underlying their guidance is that as more and more of government's business is conducted electronically, more and more records will exist in the electronic format.²⁰⁷ Records, regardless of media, are necessary to meet business needs, provide accountability, and serve a cultural function. The Australian Archives was uncertain if a paper record of an electronic transaction would be acceptable in court as evidence of the transaction.²⁰⁸ They foresaw a day when the paper record would not be acceptable in a court of law. The Australian Archives began studying electronic records' issues because "*the evidential status of a paper form of an electronic record is unclear*" and "*a paper record of an electronic transaction may not capture all aspects of the transaction.*"²⁰⁹ Its approach has differed from the National Archives in that the Australian Archives' policy is to leave the records with enduring or permanent value with the commonwealth agencies. This policy is possible because the Australian Archives, unlike the National Archives, does not receive legal custody of these records. The policy

²⁰⁶ Margaret Hedstrom, "Building Recordkeeping Systems: Archivists are not Alone on the Wild Frontier," *Archivaria* 44 (Fall 1997).

²⁰⁷ National Archives of Australia, *Keeping Electronic Records - Policy for Electronic Recordkeeping in the Commonwealth Government*, 1995. Available from <http://www.naa.gov.au>, Internet, accessed June 17, 1998. National Archives of Australia, *Managing Electronic Records-A Shared Responsibility*; Available from <http://www.naa.gov.au>, Internet, accessed June 17, 1998; *A Report on the Development of Documentation Standard for Commonwealth Agencies*. September 1995. Available from <http://www.naa.gov.au>, Internet, accessed June 17, 1998.

²⁰⁸ Jeanne Heazlewood and others, "Electronic Records: Problem Solved?" *Archives and Manuscripts* 27 (May 1999): 97.

²⁰⁹ Ibid. 97 (emphasis in original).

eliminates the need for a government-wide solution for software and hardware obsolescence. Each Australian commonwealth agency, like its American counterpart, has to define when information becomes a record and has to determine what metadata it needs to capture about the record.²¹⁰ This approach is required because each agency creates unique records relating to their mission and the value and use of those records is unique also.²¹¹ Because the records remain with the agencies, they are free to resolve their electronic records problem in a manner that suits their business processes. The Australian Archives works closely with the commonwealth agencies and provides guidance and assistance.²¹² This approach for records of enduring value was adopted because the Australian Archives maintains that it is more efficient, effective, and less costly for the originating agency to maintain the records and convert them to their new systems. This proactive approach by the Australian Archives to electronic records management is reflected in their publications that address electronic records and the need to maintain accessibility to these records. Their publications discuss the need to convert the records as systems (both hardware and software) change over time.²¹³ The Director-General of the Australian Archives states in the forward of *Managing Electronic Records - A Shared Responsibility* that

The Archives' role is to ensure that the archival records of the Commonwealth Government are identified, preserved and remain accessible to the Government and the public over time. In turn Commonwealth agencies are responsible for ensuring that records of enduring value are maintained in an accessible form and are not destroyed inadvertently.²¹⁴

The Australian Archives, together with the agencies, work to ensure continuing access through the use of an electronic recordkeeping system that meets the Australian Archives' requirements.²¹⁵

Sharing custody of the electronic records with the originating agencies has led the Australian Archives to abandon the traditional life cycle approach to records in favor of the continuum concept.²¹⁶ As discussed above, this concept maintains that the stages of the traditional life cycle are intertwined and cannot be separated. Australia's version of the continuum replaces the life cycle stages with four interconnected phases: creation/receipt, classification, scheduling and application of the schedule, and maintenance and use.²¹⁷ The phases are roughly equivalent to Bearman's dimensions mentioned above. The Australian Archives has worked with Bearman and Pittsburgh.²¹⁸

²¹⁰ National Archives of Australia, *Development of Documentation*.

²¹¹ Bearman, *Draft Item Control*.

²¹² National Archives of Australia, *Keeping Electronic Records*; National Archives of Australia, *Managing Electronic Records*; National Archives of Australia, *Development of Documentation*.

²¹³ National Archives of Australia, *Managing Electronic Records*.

²¹⁴ National Archives of Australia, *Keeping Electronic Records*.

²¹⁵ Ibid.

²¹⁶ Atherton, *Life-Cycle to Continuum*, 43.

²¹⁷ Ibid.

²¹⁸ Ibid.

Their adoption of the continuum and functional requirements for electronic recordkeeping reflects this collaboration. The adoption of the records continuum is almost necessitated by the policy of leaving the records of enduring value with the Australian agencies.

In addition, Australia has abandoned the concept of a record being a physical object.²¹⁹ While the United States' definition of records states documentary material may be a record regardless of medium, there seems to be an underlying assumption that there is a physical aspect to the record.²²⁰ The Australian definition not only states that the media of a record is irrelevant, it goes further by stating why a record is created and maintained and identifying the essential elements of a record. "*A record is that which is created and kept as evidence of agency or individual functions, activities and transactions. To be considered evidence, a record must possess content, structure and context and be part of a recordkeeping system.*"²²¹ The Australian archival and records management communities took this approach because

The concept that the physical characteristics of a 'record' are essential to its 'record' status can no longer be sustained in an electronic environment. In an environment where the 'information' of the record is no longer 'human readable' and a variety of technology is required to make the record 'human readable; and comprehensible (i.e., hardware and software) that physical link is broken. Further to this in computerised environments the 'bits and bytes' and the elements that can be configured through software to make up 'records' are located randomly. 'Records' can only be made logical to the human mind through the introduction of the correct software, hardware and sufficient contextual details. The contextual details include information about the administrative function and activities through which the 'records' were generated.²²²

The Australian argument maintains that if medium is irrelevant, the physical characteristics are irrelevant. While the United States' statute states that media is irrelevant, the focus has continued to be on paper.

²¹⁹ National Archives of Australia, *Managing Electronic Records*.

²²⁰ 44 U.S.C. § 3301 (1998)

²²¹ National Archives of Australia, *Keeping Electronic Records*, (emphasis in original)

²²² Ibid.

Discussion

University	Research Project	Practical Application
UBC	Diplomatics	DoD Standard
Pittsburgh	Literary Warrants/Functional Requirements	Australian records management/state and local government pilots.

Table 1. Summary of Research Projects and Their Practical Applications

Both the UBC and Pittsburgh projects address records management as a global program. The projects are not looking specifically at requirements for federal, state, or local government or private sector records but at records management generally. Both research projects have similar objectives: to establish a methodology that will ensure electronic records can serve as evidence. Pittsburgh and UBC arrive at similar methodologies from very divergent paths. However, some of the requirements for electronic records are virtually identical, others appear to differ but in essence are the same, and still others are completely different.

An example of this is DoD's records management standard. DoD used the results of the UBC project to develop an electronic records management standard. However, the DoD standard does not capture the rationale developed by UBC. It only identifies those elements necessary for electronic records to be considered authentic and reliable. To some extent the DoD standard also complies with the literary warrants established by Pittsburgh. However, no in-depth analyses of the DoD standard and literary warrants have been found. Most of the pilots developed as a result of the Pittsburgh project are at the state and local government level. If a federal agency is implementing an electronic record management system, it will use a DoD certified records management application because the National Archives has indicated that this approach is acceptable.²²³

An example of a requirement in the DoD standard that would meet the Pittsburgh Literary Warrants is

C2.1.1 Managing Records. RMAs shall manage records regardless of storage media or other characteristics. (44 U.S.C. 3103, 41 C.F.R. 201-9, and 36 C.F.R 1222.10, references (b), (c), and (d))²²⁴

This requirement clearly meets the following literary warrant:

²²³ Memorandum to Agency Records Officers and Information Resource Managers: NARA endorsement of DoD 5015.2-STD, dated November 19, 1998 (NWM 03.99)

²²⁴ Department of Defense, *Design Criteria Standard for Electronic Records Management Software Applications*, (DoD5015.2-STD), 8 (emphasis in original).

Organization: Conscientious

1. (Warrant) **Compliant** : Organizations must comply with the legal and administrative requirements for recordkeeping within the jurisdictions in which they operate, and they must demonstrate awareness of best practices for the industry or business sector to which they belong and the business functions in which they are engaged. [Production Rules]²²⁵

There are a number of common themes between the Pittsburgh and UBC research projects. The first is that both projects have the common goal of creating authentic and reliable electronic records. Both projects advocate making the recordkeeping part of the business process as the best way for this goal to be achieved. The projects also agree that the responsibility for making the records authentic and reliable lies with the creator. Finally, UBC and Pittsburgh state that it is necessary to capture records relating to a transaction. UBC is clearer on this issue because it discusses the various types of acts that occur in organizations and how the acts are documented. It explains why one document rarely reflects an entire transaction. Pittsburgh addresses this concept at a more practical level. Pittsburgh simply states that all records relating to a transaction must be captured and related to each other in order to provide authentic and reliable evidence of the transaction.

The adequate and proper documentation requirement in the Federal Records Act requires agencies to document more than simple transactions.²²⁶ The statute requires agencies to keep documentation necessary to support their actions and protect the rights of the government and the public. This requirement is to provide accountability for agencies' actions. Pittsburgh and UBC look at collecting all records relating to each transaction. The federal records program looks at capturing a much broader group of records that not only document the transactions but document the agency's mission. The difference is a matter of focus. It is more important in the federal program to capture at least some of the records documenting all of the transactions and mission than all of the records documenting only a few transactions.

There is one area of research where Pittsburgh and UBC appear to have different approaches to one requirement. In fact, however, their interpretation of the requirement may be similar if not the same. UBC's use of diplomatics means that the record is examined to see if the person creating the document had the authority to take the action. Pittsburgh does not look at the person taking the action but where the action takes place within the organizational structure. These approaches appear to be different. However, one of the tools diplomatics uses to determine the authority for the action is the creator's place in the organizational hierarchy. Therefore, both are using the organizational hierarchy to validate the authenticity of the record.

Another difference is that the Pittsburgh project emphasizes managing records electronically while UBC takes a broader view. UBC provides a methodology that

²²⁵ *Functional Requirements for Evidence in Recordkeeping*, (Pittsburgh, University Pittsburgh), <http://www.sis.pitt.edu/~nhprc/prog1.html>, Internet, accessed September 2, 1998.

²²⁶ 44 U.S.C. Chapters 21, 29, 31 and 33 (1998)

allows organizations to manage the entire records program electronically, not just the electronic records. As a result this methodology can be used to track paper, videos, and microfilm as well as electronic records. This is useful because one problem that exists for all records, not just electronic records, is determining which document is the record and which is the copy and which the draft. With the advent of electrostatic copying machines, determining which was the original and which is the copy became more difficult for paper records. This difficulty has increased with the advent of electronic records and the ability to e-mail the records to numerous offices.²²⁷ The tissue copy for the official file no longer exists and the record copy is not routinely marked as such. “It is more appropriate to say that electronic records are all made as drafts and received as originals, in consideration of the fact that records received contain elements automatically added by the system which are not included in the documents sent and which make them complete and effective.”²²⁸

There is one clear area of disagreement: The format in which electronic records should be maintained. Pittsburgh argues for encapsulating the record and its metadata, including all of the organization and other information needed to provide the appropriate level of context. UBC, on the other hand, advocates self-authentication for records. This allows the record to remain in its original format. It is copied or converted over time to ensure that an authentic copy of the original record remains accessible. The creator or records manager carefully documents the changing from one format to another.²²⁹ This documentation is stored with the electronic record and it is what makes the record authentic and reliable.

A DoD certified records management software application could be used to produce self-authenticated copies of originals in the recordkeeping system. Currently this function cannot be done automatically. The process would be labor intensive and costly. The records officer or other authorized staff would have to:

- Copy the record,
- Convert it to the new format,
- Verify that the content of the document has not changed,
- Enter the new verified copy in the recordkeeping systems,
- Link it to the original, and
- Update the metadata for the original record and the copy to indicate when the authenticated copy was made and by whom.

This process would have to be repeated for each document that had to be converted. This process is not practical and a simpler method of ensuring access while keeping the records authentic needs to be found.

²²⁷ Duranti, *New Uses for an Old Science*, 168

²²⁸ Duranti (1998): 167.

²²⁹ According to Charles Dollar, migration is the transferring of records from one technology platform to another. He prefers the terms copying or conversion when the record is being moved from one format to another but remaining on the same technology platform. Dollar, *Authentic Electronic Records*, 30.

The Office of Thrift Supervision (OTS) has been attempting to implement a DoD certified records management application since 1997. The software arrives as a shell and information about the records maintained by the agency, the records retention schedules, access controls, and employee information must be imported or entered manually. In addition, the metadata needed for the records must be identified and data entry forms created. With a staff of three working on several administrative programs and attempting to configure the software to OTS' requirements, the task took two years before offices within OTS could experiment with filing electronic records into an electronic recordkeeping system. The software automatically pulled information from the record and the creators' profile within the application. The information required from the creator was limited to three fields of data. Creators were uninterested in adding these three fields. The program staff and their immediate managers refused to be responsible for determining what is a record and what is not. As a result, the testing was cancelled.

OTS is now looking at ways to simplify the process for the program staff. Some of the ideas for simplification include collecting all information produced by the program staff. This eliminates the need for the program staff to make a record determination. The information would be automatically transferred to the electronic recordkeeping system once the creator decided the information was no longer needed. The records determination would be made when it became time to transfer the permanent records to the National Archives. If the records were not to be transferred, they would be destroyed without review. An alternative would be to present the creator a series of simple rules to be used when determining if a document is a record. Once that choice had been made, an automated process would file the record into the appropriate area in the electronic recordkeeping system. In either scenario, the program staff would be required to save the final version of the record as a web page. It is hoped that this might lessen the need for migration in the future.

In this chapter, the electronic records solutions developed by UBC and Pittsburgh were examined to determine if the solutions were viable for the federal records officer. As the OTS example indicates, the UBC solution is not viable at this time because of its complexity. The Pittsburgh requirements do not appear to be a viable solution because of their complexity. While the current records management solutions are too complex for most agencies to use, technology continues to evolve and it is hoped that these potential solutions will become more practical in the future. This is critical because the technology that allows agencies to do more work electronically will continue to evolve as well. As the potential

for working electronically increases, the pressure on agencies to take advantage of this technology will increase. The legal, regulatory, and policy review in the next chapter shows how the pressure on agencies to conduct their business electronically is increasing.

CHAPTER III

RECORDS MANAGEMENT

STATUTORY, REGULATORY, AND POLICY ASPECTS

This chapter traces the statutory, regulatory, and policy development of records management through the legislative history of several statutes, court cases, the history of certain regulations, policy documents and studies. The federal records program has become more complex since its beginnings in 1946. While each change to the Federal Records Act did not complicate the program, several related statutes have added complexity by requiring agencies to begin functioning electronically. The pace of change in the federal records program has increased also. It took fifty years (1934-1984) for the first twelve events that affect the federal records program to take place. In the last ten years, there have been seven statutory or court decisions affecting the federal records management program. The first fifty years were not as concerned with changes in technology and its effect on records management. The concern was to define and develop the program. The recent changes relate to information technology and encourage agencies to do more electronically. The following timeline reflects the increased interest in conducting the government's business electronically.

Timeline

1934	National Archives Establishment
1946	President Truman issues Executive Order 9784 on Government Records
1949	National Archives merged with General Services Administration
1950	Responsibility for Records Management assigned to National Archives and General Services Administration
1966	Freedom of Information Act passed
1968	Federal Records Act amended
1974	Presidential Records Act passed
1977	OMB Study on Government Reorganization
1978	Federal Records Act amended
1980	Paperwork Reduction Act passed
1984	National Archives Independence Legislation passed
1993	<u>Armstrong v. EOP</u> decided
1995	Paperwork Reduction Act renewed
1995	Information Technology Management Reform Act (Clinger-Cohen) passed
1996	Electronic Freedom of Information Act passed
1997	<u>Public Citizen v. Carlin</u> decided
1998	Government Paperwork Elimination Act of 1998 passed
1999	<u>Public Citizen v. Carlin</u> reversed on Appeal

Table 2. Timeline

The regulatory and policy files at the National Archives were reviewed in addition to records of the Office of Management and Budget and the General Services Administration. The research on the statutes was limited to the published committee reports, clarifying court decisions, if any, and the actual statute. This approach was taken for two reasons. First, in the Armstrong and Public Citizen cases, both the Federal District Court for the District of Columbia (District Court) and the Federal Appeals Court for the District of Columbia Circuit (Appeals Court) reviewed the congressional committee reports of the Federal Records Act and used them to support their decisions.¹ This reliance indicates the continuing relevance of congressional intent found in the legislative history of the Federal Records Act and the act's current implementation. Second, the congressional intent literature was examined to establish which portions of the legislative history are reliable. As a result of this review the legislative history review was limited to the committee reports and court decisions.

Finding Congressional Intent

The literature on congressional intent is divided about its use. Most of the literature argues against using legislative history to interpret statutes and yet, as illustrated in Armstrong and Public Citizen, judges continue to rely on it. Associate Justice Scalia's view that "[s]ince there are no rules as to how much weight an element of legislative history is entitled, it can usually be either relied upon or dismissed with equal plausibility" is not unique.² He continues by arguing that the concept of congressional intent exists only because the courts consult it and not the reverse. Others argue that it exists because a statute cannot be passed without intent.³ As a result, judges look at the statutes and base their decisions on what they think the intent of the legislature was. Judges look for legislative or congressional intent in the committee reports, testimony, or floor debates as representing the legislature's intent.⁴ The Supreme Court, in Zuber v. Allen, stated that "[l]egislative silence is a poor beacon to follow in discerning the proper statutory route."⁵

As indicated above, there is very little agreement in the congressional intent literature over what is intent and whether the courts should use it. There is also

¹ Armstrong et al. v. Executive Office of the President, et al., 1 F.3d 1274 (D.C. Cir. 1993); Public Citizen et al. v. John Carlin, Archivist of the United States, 2 F.Supp.2d 1 (D.D.C. 1997), *reversed* 184 F.3d 900 (D.C. Cir. 1999), *cert. denied* 68 U.S.L.W. 3565.

² Antonin Scalia, *A Matter of Interpretation*, ed. Amy Gutmann (Princeton: Princeton University Press, 1997), 36.

³ Reed Dickerson, "Statutory Interpretations: A Peek into the Mind and Will of a Legislature," *Indiana Law Journal* 50 (1975), 210; Ronald Dworkin, *A Matter of Principle*, (Cambridge, MA: Harvard University Press, 1985), 148; Ronald Dworkin, *Law's Empire*, (Cambridge, MA: The Belknap Press, 1986), 313; Gwendolyn Folsom, *Legislative History: Research for the Interpretation of Laws* (Charlottesville, University of Virginia, 1975), 13-14; Harry Wilmer James, "Extrinsic Aids in the Federal Courts," *Iowa Law Review* 25 (1940), 740; Richard A. Posner, *The Federal Courts: Crisis and Reform*, (Cambridge, MA: Harvard University Press, 1985), 269.

⁴ James, "Extrinsic Aids," 743. Peter C. Schanck, "An Essay on the Role of Legislative Histories in Statutory Interpretations," *Law Library Journal* 80 (1988), 400.

⁵ Zuber v. Allen, 396 U.S. 168, 195 (1968)

controversy over which extrinsic aids are reliable. Scholars do seem to agree on the following: 1) congressional intent must be used very carefully as the judge's duty is to interpret the legislative history, not create it; and 2) the purpose of consulting the extrinsic aids is to confirm the statute's meaning.⁶

The plain-meaning rule established when a court could or could not use legislative histories in its decision-making process. A court could use legislative histories if the language in the statute is not clear. If the statute is clear, the legislative history is not consulted.⁷ This plain-meaning rule allowed the judge to decide the case at hand in a way that ensured the statute would be internally consistent and compatible with any related statutes. The rule acknowledged that some statutes might contradict one another and the judge could use legislative intent to resolve those inconsistencies in a reasonable manner. In addition, some statutes can be internally inconsistent because of the imprecise nature of language.⁸ While courts use the plain-meaning rule as the reason for consulting the legislation's history, the legislative histories seem to be consulted regardless of the statute's clarity.⁹ One reason for this is that "judges often disagree whether a word is unambiguous."¹⁰ Dworkin argues that legislative histories should be used like precedential cases. He argues that judges look at precedential cases, analyze the applicability of the findings in those cases to the case before them, and use the precedents in their decisions. Dworkin calls this the chain of law.¹¹ For Dworkin, judges need to interpret the laws the way legislatures meant them to be interpreted. This act should be no different than the procedure used by judges in interpreting precedential case law.¹²

The congressional intent literature generally stated that the published committee reports are the most reliable source of intent.¹³ Therefore, the committee reports for the legislative initiatives regarding the Federal Records Act and its amendments, the Freedom of Information Act, (including the Electronic Freedom of Information Act), the Paperwork Reduction Act, and the Government Paperwork Elimination Act, were reviewed.¹⁴ Each of these acts directly or indirectly influences the federal records program. The published committee reports for these acts were reviewed for discussion of electronic records and adequate and proper documentation. This information was supplemented by a review of the relevant regulations, studies, and policy statements

⁶ Reed Dickerson, "Statutory Interpretations: Dipping into Legislative History," *Hofstra Law Review* 11 (1983), 1128; Dworkin, *Law's Empire*, 343.

⁷ Folsom, *Legislative History*, 15; Leigh Ann McDonald, "The Role of Legislative History in Statutory Interpretation: A New Era After the Resignation of Justice William Brennan? *Public Citizen v. Department of Justice*," *Missouri Law Review* 56 (Winter 1991), 125.

⁸ Jack Davies, *Legislative Law and Process in a Nutshell* (St. Paul, MN: West Publishing Co., 1975), 255; Folsom, *Legislative History*, 15; McDonald, "Legislative History in Statutory Interpretation," 125; Scalia, *Matter of Interpretation*, 16.

⁹ Schanck, "Role of Legislative Histories," 399.

¹⁰ McDonald, "Legislative History in Statutory Interpretation," 126.

¹¹ Dworkin, *Law's Empire*, 313.

¹² *Ibid.*

¹³ Jones, "Extrinsic Aids," 743; Folsom, *Legislative History*, 37-39; Schanck, "Role of Legislative Histories," 403.

¹⁴ 44 U.S.C. Chapters 21, 29, 31, and 33; 5 U.S.C. 552a, 44 U.S.C. Chapter 35; 44 U.S.C. Chapter 17 (1998)

issued by the National Archives, the Office of Management and Budget (OMB) and the General Services Administration (GSA). In addition, several court cases were identified as pertaining to the definition of a record, electronic records and adequate and proper documentation.

Federal Records Act

In 1946, President Truman signed an executive order that required agencies to establish and maintain a program to manage their records effectively.¹⁵ Executive order 9784 was issued in response to the large amount of records that had been created as a result of the Roosevelt economic recovery programs and the Second World War. This need for a federal records management program coincided with development of records management as a separate discipline from archives. The purpose of the executive order 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.”¹⁶ Under the Executive Order, the Bureau of the Budget was responsible for authorizing the transfer of records between agencies, and the Civil Service Commission was charged with developing policies and regulations.

In 1949, Congress merged the National Archives into the newly created General Services Administration and directed that a study be undertaken to determine the state of records management in the government.¹⁷ In 1950, the Federal Records Act was passed as a result of this study.¹⁸ Under this act, the Archivist of the United States (Archivist):

- 1) Is responsible for records management.
- 2) Is to set standards for agencies to use in identifying records.
- 3) Has authority to establish records retentions.

In addition, the act made the agencies responsible for establishing records programs and safeguarding records.¹⁹

As stated earlier, the records management sections were amended in 1968 and again in 1976 and 1978.²⁰ Each of these amendments reflects the changes that had been occurring in the records management discipline. The terms ‘records management,’ ‘records creation,’ ‘records maintenance,’ and ‘records disposition’ were not defined until the 1976 amendments.²¹ Until the 1976 amendments were passed, the National Archives was responsible for a program that had not been defined. In addition, the 1976 legislation

¹⁵ Executive Order 9784, signed September 25, 1946, published at 11 FR 10909.

¹⁶ Ibid.

¹⁷ H.R. Rep. No. 670 (1949) *reprinted in* U.S.C.A.A.N. 1475.

¹⁸ 44 U.S.C. Chapters, 22, 29, 31 and 33 (1998); S Rep. No. 2140, (1950) *reprinted in* U.S.C.A.A.N. 3457.

¹⁹ S Rep. No. 2140, (1950) *reprinted in* U.S.C.A.A.N. 3457.

²⁰ S Rep. No. 1621 (1968) *reprinted in* U.S.C.A.A.N. 4438; S Rep. No. 1326 (1976) *reprinted in* U.S.C.A.A.N. 6150.

²¹ S Rep. No. 1326 (1976) *reprinted in* U.S.C.A.A.N. 6150, 6152-6153.

added “machine-readable” to the definition of a record.²² A machine-readable record is one that cannot be read without the use of a machine. A machine could be a computer, film projector, or microfilm reader. These definitions were added to accommodate the rise in computer use by the federal government.²³ In 1978, the act was amended again.²⁴ The general purpose for each of the 1968, 1976, and 1978 amendments was to strengthen the National Archives’ role in records management and to promote the efficient and effective use of records.²⁵ In addition, the 1978 law reiterated one of the principles first expressed in Truman’s Executive Order, which was that the Government’s records should be available to the public.²⁶ The standard for not releasing a record to the public was “sufficient prospect of actual harm” would result if the information was released.²⁷

The Presidential Records Act also was passed in 1978.²⁸ This act designated a standard for determining whether the records created by the Office of the President were federal records, Presidential records, or personal papers.²⁹ It was passed as a result of the Watergate scandal. Up until that time, when a president left office, he took all the records generated by his administration with him. The records were considered to be his personal papers and not the property of the federal government. The Presidential Records Act created three categories of records for the president.³⁰ The first category, presidential papers, relates to the President as a political leader. The second category of record is personal papers. These papers consist of diaries, materials relating to private political associations, and other non-government activities that do not qualify as presidential record. The last category is federal records. This category includes any record that documents the policies and actions of the federal government.³¹ This act had little impact on the administration of the Federal Records Act.

In 1984, the National Archives again became an independent agency. It retained some records management responsibilities.³² However, GSA and OMB remained responsible for various portions of the records management program.³³ These responsibilities are

²² Ibid. at 6151.

²³ Ibid.

²⁴ General Services Administration – Records Transferred, PL 95-416.

²⁵ S Rep. No. 1621 (1968) *reprinted in* U.S.C.A.A.N. 4438; S Rep. No. 1326, (1976) *reprinted in* U.S.C.A.A.N. 6150; H.R. Rep. 1522 (1978) *reprinted in* U.S.C.A.A.N. 2288.

²⁶ Executive Order 9784, signed September 25, 1946, published at 11 FR 10909; and H.R. Rep. 1487 (1966) *reprinted in* U.S.C.A.A.N. 2418.

²⁷ H.R. Rep. 1487 (1966) *reprinted in* U.S.C.A.A.N. 2418.

²⁸ Presidential Records Act, PL 95-591.

²⁹ H.R. Rep. 1487 (1978) *reprinted in* 1978 U.S.C.A.A.N. 5732.

³⁰ Ibid. 5733.

³¹ Ibid.; 44 U.S.C. § 2201 (1998).

³² Archives and Records Act, PL 98-497.

³³ 44 U.S.C. Chapter 35 (1998)

Agency:	Records Management Responsibilities:
General Services Administration	Policy and guidance on the life cycle of records. This responsibility remained with GSA because of its information technology responsibilities.
National Archives	Policy and Guidance on the disposition of records including adequate and proper documentation.
Office of Management and Budget	Oversight of the program and GSA and National Archives administration of the program.

Under the existing statutory structure established in 1950, each federal agency establishes its own policies and procedures for a records management program, including electronic records.³⁴ Because the agencies have this responsibility, Perritt feels that the National Archives has been reluctant to interfere with day-to-day operations of an agency's programs.³⁵ This reluctance existed even though, until 1976, one provision of the Federal Records Act gave the Administrator of GSA final authority to determine what constituted a record.³⁶ In the 1976 legislation, Congress removed this provision because they felt the language was redundant.³⁷ The National Archives and GSA felt this language was necessary. In Kissinger v. Reporters Committee for Freedom of the Press, et al., the Supreme Court confirmed GSA's and National Archives' position when it ruled that the State Department and not the National Archives had the authority to determine whether summaries and transcripts of Kissinger's recorded telephone conversations were personal papers and not federal records.³⁸ This decision, when coupled with a legal opinion issued by the Department of Justice authorizing the donation of Kissinger's papers to the Library of Congress, limits the National Archives' role to one of guidance.³⁹

The National Archives' ability to influence records management was reduced further by GSA's transfer of the records management function from the National Archives to its Automated Data and Telecommunications Systems unit (ADT) in the

³⁴ 44 U.S.C. § 3301- and § 3302 (1998)

³⁵ Henry H. Perritt, "Electronic Records Management and Archives," *University of Pittsburgh Law Review* 53 (1992), 1007.

³⁶ 1982-1987 Committee on Authorities and Alternatives, file on "NARA, GSA and OMB: Spheres of Interest in Records Management," RG 64 National Archives, 9.

³⁷ S. Rep. 1326 (1976) *reprinted in* 1976 U.S.C.A.A.N. 6150, 6159.

³⁸ Kissinger v. Reporters Committee for Freedom of the Press, et al., 445 U.S. 136 (1980) The facts of this case are discussed below under the Freedom of Information Act.

³⁹ 1982-1987 Committee on Authorities and Alternatives, file "Papers on nature of federal records," RG 64, National Archives.

1980s.⁴⁰ The move was in response to the Paperwork Commission's recommendation that records management and data processing should be united. The National Archives did not fight the transfer of this authority in part because of the Kissinger decision.⁴¹ Under the National Archives' independence legislation, this records management authority remained with GSA. The transfer did highlight the following:

Issues concerning nature, scope and the proper placement of records management in the federal government have been a matter of continuing concern and dispute since records management programs were first instituted. At the time of the passage of the Federal Records Act, even without electronic recordkeeping, information resources management, or even paperwork management to muddy the waters, there were already disputes over how to parcel out records management functions between the Archives, GSA, and OMB's predecessor, the Bureau of the Budget. Disputes continued, complicated by difficulties and differences in defining what constitutes records management, and what, if anything, distinguished it from paperwork management, and later, information management. In addition, some in the Archives and the archival community showed a continuing ambivalence towards records management.⁴²

Unfortunately, after the transfer of records management program to ADT, GSA did not step into the records management arena but concentrated on the acquisition and deployment of information technology.⁴³ Eventually, the National Archives realized that it needed to have a role in the records management arena and began exploring what their role should be.⁴⁴ The National Archives saw records management through a historical lens and its approach to records management tends to reflect this perspective.

Because the National Archives felt that agencies were not maintaining records needed to create a historical record, it created a task force to look at this issue.⁴⁵ The task force was asked to review National Archives' records appraisal and disposition function, assess the impact of changing organizational structures and new record types and recommend improvements to the appraisal and disposition programs. The Archivist specifically requested the task force look at "[m]odern problems that may affect records appraisal in the Federal Government including new recordkeeping techniques...."⁴⁶

National Archives used this task force, which later became a standing committee, to develop guidelines on adequate and proper documentation because it found that agencies' records tended to reflect neither evidence of the process of high-level decision-

⁴⁰ "Spheres of Interest in Records Management," 27-28.

⁴¹ Ibid.; "Papers on nature of federal records."

⁴² "Spheres of Interest in Records Management," 21.

⁴³ "Spheres of Interest in Records Management," 9.

⁴⁴ Ibid.

⁴⁵ Memorandum from Robert M. Warner, Archivist of the United States to Richard Jacobs, Bruce Ambacher, Maygene Daniels, Michael Goldman, Robert Krauskopf, Raymond Moseley, John Scroggins, and Adrienne Thomas, dated July 30, 1987, re: Creation of Task Force.

⁴⁶ Ibid.

making or the differing opinions that might exist prior to the decision being made.⁴⁷ While the idea of adequate and proper documentation was not new, the National Archives saw it as a way to reestablish its role in records management. Adequate and proper documentation was a methodology for determining how well the records management program functioned.⁴⁸ The 1982 task force issued a report that concluded that agencies create three types of records: policy-making, program operating, and administrative. Their report also found three reasons why adequate and proper documentation must be maintained. These were

1. Administration of the agency by the agency head and his/her successors,
2. Oversight by Congress and the public, and
3. Protection of the legal rights of the government and the citizens who are affected by government actions.⁴⁹

More importantly, the task force concluded that the National Archives could not force agencies to create good records, i.e., records that contain the information needed for historical purposes.⁵⁰ “Assuring adequacy of documentation is complicated by the organic quality of records and the impossibility of forcing agencies to create a non-self-conscious record.... Nonetheless, we have interest in promoting good recordkeeping, and responsibility for standards and guidelines.”⁵¹ Good recordkeeping is more important for electronic records because, according to Dollar, the life cycle of electronic records can be very short.⁵² The critical conclusion reached by the task force was that the National Archives authority to enforce adequate and proper documentation was weak. The task force’s assessment of the Federal Record Act and the Kissinger decision was the basis for this conclusion.⁵³ The independence statute codified the concept of adequate and proper documentation transforming it from a methodology to a statutory requirement.⁵⁴ While the authority over adequate and proper documentation has been codified in the statute, the National Archives still lacks the ability to enforce its guidance. The missing enforcement capability and the decentralized nature of the federal records program limits the National Archives ability to enforce this requirement.

Throughout this time period the National Archives provided guidance to the agencies through its regulations. In 1976, the National Archives added a requirement to

⁴⁷ “Spheres of Interest in Records Management,” 9.

⁴⁸ 1982 Adequacy of Documentation Task Force, file “Charles Dollar file,” RG 64, National Archives.

⁴⁹ 1982-1987 Committee on Authorities and Alternatives, file “Final report,” RG 64, National Archives.

⁵⁰ Ibid.

⁵¹ “Charles Dollar’s File.”

⁵² Ibid.

⁵³ “Spheres of Interest in Records Management,” 27-28 ; 1982-1987 Committee on Authorities and Alternatives, file “Papers on nature of federal records,” RG 64, National Archives.

⁵⁴ National Archives and Records Administration Act, PL 98-497.

GSA's regulation on Automated Data Processing to include the concept that federal records exist in machine-readable form.⁵⁵ That fact, and the relatively short life of

[a] computerized record, makes it a matter of concern that the National Archives has received very few unsolicited offers of machine-readable records. The proper management of these costly and important records demand that they be carefully preserved while in agency custody and that their disposition be placed on a regular schedule.⁵⁶

This regulation and its predecessor, published in 1967, talk about the need for agencies to reexamine their records disposition schedules, as the existing schedules may not be appropriate for the records being created by automated data processing.⁵⁷ The regulation looks at data being stored electronically and not textual records. In 1983, GSA issued a bulletin regarding electronic records. This bulletin clearly states that the statutory definition of a record applies to electronic information.⁵⁸ It goes on to state,

In recent years, technological advances in records and information creation, maintenance, and transmission equipment have resulted in new machine-readable record forms. The proliferation of personal computers in many Federal agencies and the implementation of sophisticated electronic filing and/or mail systems has created a need for adaptation of traditional records management techniques for the control and disposal of records and information.⁵⁹

The bulletin directs agencies to ensure that adequate and proper documentation is being kept and that the National Archives is available to provide the agency with advice.⁶⁰ Upon becoming independent of GSA in 1984, the National Archives began reworking its regulations. The first comprehensive regulation on electronic records was proposed in 1988.⁶¹ It was to mirror the GSA regulation on electronic records. It proposed standards for electronic databases as well as electronic textual records. The requirements were that electronic records need to be assessable, retrievable, securable, convertible to standards for permanent records and movable between software/operating systems or could be transferable to another system or software application.⁶² The regulation also proposed certain information be collected about each document (metadata). The National Archives internal files indicate a split in philosophy or approach to records management.⁶³ This

⁵⁵ Office of the Archivist, Policy and Planning, 1976 Regulations file FPMR Amendment B-31, Records Management Machine-Readable Records (101-11)

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Office of the Archivist, Policy and Planning, GSA Bulletin FPMR B-127 Disposition of Electronic Records. (1983)

⁶⁰ Ibid.

⁶¹ 36 C.F.R. Part 1234 Electronic Records Management, Notice of Proposed Rulemaking published December 5, 1988 at 53 FR 48936.

⁶² Ibid.

⁶³ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Memo from NIA to NAA re: Comments on FIRMR in Electronic Records dated August 25, 1986.

discussion started two years before the proposed regulation was published. The appraisal staff was interested in several items:

Establishing an environment in which Federal Employees think about and handle electronic information produced on office automation equipment as record material regardless of whether that information is eventually transferred to hard copy. In the first place, for the period of time from creation to its output as hard copy, the electronic information is a record and its disposition requires the approval of the Archivist of the United States. Secondly, even after it is converted to hard copy, it cannot be considered non-record material as that term is defined in 44 USC 3301. It is not a duplicate copy.⁶⁴

The Policy and Program Analysis Division in forwarding the comments from the appraisal office disagrees with their assessment.

We take a different view of the status of the electronic copy of a paper copy than NI [Office of Records Administration], who believes that from the moment of creation at a word processor or computer terminal, an electronic draft is a record whose disposition requires the approval of the Archivist of the United States. While this may be true in some cases, we believe that the electronic copy is usually the equivalent of the penciled [sic] or typed draft that is discarded when the corrected or final version is completed. Generally such paper drafts are considered non-record and National Archives does not place any inventorying or indexing requirements on them.⁶⁵

The discussion expanded to encompass the question of whether the National Archives had the authority to tell agencies what formats to use for keeping records.⁶⁶ This argument was based on the Kissinger decision discussed above. Dollar indicated that he did not support this proposed regulation because there were too many areas that needed more thought and analysis.⁶⁷ At one point Dollar says, “In summary, this proposed rule is both good and bad with the latter outweighing the former. Publication of this proposed regulation without major revision and reorientation would confirm what many people already suspect – that National Archives knows very little about electronic records and how they should be handled.”⁶⁸ This proposed regulation was finally

⁶⁴ Ibid.

⁶⁵ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Memo from NAA to NA re: Comments on FIRMR in Electronic Records not dated. At the time this record was created NA was the symbol for the Office of Management and Administration; NI the Office of Records Administration; and NAA the Policy and Program Analysis Division.

⁶⁶ Office of the Archivist, Policy and Planning, Memo from NIA to NAA re: Comments on FIRMR in Electronic Records dated August 25, 1986.

⁶⁷ “Charles Dollar File.”

⁶⁸ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Memo from Charles Dollar to Bill Holmes, dated March 5, 1987.

published on December 5, 1988.⁶⁹ The National Archives received comment letters from thirteen federal agencies and two members of the public.⁷⁰ The agencies argued that the regulation needed to require responsibility for electronic records management be assigned to the records management program and that the textual section be expanded to include all electronic textual records. The Federal Bureau of Investigation suggested that the “[r]equirements for designating an electronic record, the record copy, should be clearly written into the regulations.” The FBI made this suggestion because it felt that agencies tended to see all electronic records as temporary items.⁷¹ One public comment was concerned about the application of Freedom of Information Act to electronic records and the other was concerned that the regulation did not reflect the complexities that exist regarding electronic records.⁷² Lastly, the National Labor Relations Board provided a comment echoed in the Public Citizen litigation. This regulation leaves unanswered “the manner in which agencies should treat electronic images in such systems when the official file copy is maintained on a more stable medium such as microfilm or paper. General Records Schedule 23, Item 2, confers non-record status on electronic images when the official version is captured on hard copy. The item, however, is limited to records documenting “routine internal administrative and housekeeping activities.”⁷³ During 1989, the National Archives and GSA continued to work on crafting the final rule. The final rule was published May 8, 1990.⁷⁴

In 1989 and continuing through 1990, the National Archives in conjunction with its task force on adequate and proper documentation worked on developing regulations relating the creation and maintenance of records.⁷⁵ The task force’s comment on a draft of the proposed regulation was that it assumed that agencies were creating and maintaining records. The task force felt that this assumption could not be made. The proposed regulation was amended to require agencies to create adequate and proper documentation.⁷⁶ The final regulation defined adequate and proper documentation as “a record of the conduct of Government business that is complete and accurate to the extent required to document the organization, functions, policies, and decisions, procedures, and essential transactions of the agency and that is designed to furnish the information

⁶⁹ 53 FR 48936, December 8, 1988, GSA version was published 53 FR 48947, December 8, 1988.

⁷⁰ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Comments on the Proposed Rule, 1989.

⁷¹ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Comment Letter from the FBI, dated January 18, 1989.

⁷² Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Comment Letter from the reporters for Freedom of the Press, dated February 4, 1989 and Comment Letter from Glenn English, Chairman of Government Information, Justice and Agriculture Subcommittee of Government Operations, House of Representatives, dated December 21, 1988.

⁷³ Office of the Archivist, Policy and Planning, file 102-1 Electronic Records Management, Internal Drafts. Comment letter from NLRB, dated January 26, 1989.

⁷⁴ 55 FR 19216, May 8, 1990. Correction published 55 FR 23730, June 12, 1990.

⁷⁵ Office of the Archivist, Policy and Planning, file 101-2 NARA Regulation Case File FY 89 Creation and Maintenance of Records; Adequate and Proper Documentation Part 1222, 1224

⁷⁶ Office of the Archivist, Policy and Planning, file 101-2 NARA Regulation Case File FY 89 Creation and Maintenance of Records.

necessary to protect the legal and financial rights of the Government and of persons directly affected by the agency's activities.”⁷⁷

The concept of adequate and proper documentation for historical purposes is one part of the argument used by plaintiffs in two recent court cases. These cases focus on the need to preserve the electronic version of a record because it provides additional information that a paper copy of the same record cannot.⁷⁸ The additional information results from the inherent properties of word processing and electronic mail software applications.⁷⁹ In the Armstrong and Public Citizen cases, the litigants successfully argued that electronic records have value that is different from the paper copy of the same record.⁸⁰

The initial court case, Armstrong et al. v. Executive Office of the President et al. (EOP) began at the end of President Reagan's second term, when the National Security Archive, Public Citizen, and other historical associations sued the EOP and the National Archives to prevent the EOP from deleting the electronic versions of the Reagan Administration's e-mail upon George Bush's inauguration. The complaint also alleged that the National Archives had not provided proper guidance in this area. When George Bush lost the subsequent presidential election, the complaint was amended to include the electronic versions of the Bush Administration's e-mail. The Armstrong plaintiffs argued before the District Court that an electronic record has a value that is different from the paper copy of the same record. The plaintiffs stated that the e-mail messages stored on the White House computer tapes were records. The paper versions of those records did not adequately reflect the information available in the electronic version. The District Court agreed.⁸¹ It stated that the electronic versions of e-mail are records and not just copies of the paper print-outs and that the defendants, EOP and the National Archives had not provided adequate guidance to staff or agencies, respectively, on electronic records.⁸² The U.S. Court of Appeals upheld the District Court and stated that the electronic version of the record has a value for the researcher that is unavailable in the paper version of the record and that this case presents “important questions of federal agencies' statutory obligations to manage electronic records.” It continued “[t]he government's basic position is flawed because the hard-copy printout that the agencies preserve may omit fundamental pieces of information which are part of the electronic records, such as the identity of the sender and/or recipient and the time of receipt.”⁸³ For these reasons, printing out the e-mail is insufficient because not all of the information can be printed. The Appeals Court concluded e-mail is a record and the Federal Records Act

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ These software applications automatically record information on the dates a document was created, modified, accessed, etc. None of this information appears on the printed copy of the document. With e-mail applications, the date a message was sent will appear on the printed copy, the name of the addressee may not.

⁸⁰ Armstrong et al. v. EOP, 1 F.3d 1274 (D.C. Cir. 1993); Public Citizen, et al. v. Carlin, 2 F.Supp.2d (D.D.C. Cir. 1997), *reversed* 184 F.3d 900 (D.C. Cir. 1999), *cert. denied* 68 U.S.L.W.3565.

⁸¹ Armstrong v EOP, F.3d at 1278

⁸² Ibid. 1277.

⁸³ Ibid.

does not allow agencies to keep portions of a record but requires a complete record.⁸⁴ Because e-mail is a record, routine destruction of e-mail can only occur if it is an extra copy of the record as defined in 44 U.S.C. § 3301. Because e-mail contains information not present in the printed copy, it cannot be designated as an extra copy. Therefore, e-mail retains its record status. As a result of this decision, agencies, for the first time, had to begin managing e-mail in its electronic form.

The Appeals Court, on the question of whether the staff had been provided adequate guidance, determined that the staff had not been given sufficient guidance and directed the National Archives to revise its guidance on electronic records and, in particular, e-mail.⁸⁵ To comply with the guidance portion of the Armstrong decision, the Archivist of the United States, John Carlin, revised the General Records Schedule relating to electronic records. Items 13 and 14 of that schedule authorized the destruction of electronic word processing and e-mail records when its paper equivalent is filed in a valid recordkeeping system (i.e., office files) and a records retention schedule approved by the National Archives exists for these office files.⁸⁶ These General Records Schedule provisions did not differentiate between program and administrative electronic records.

Public Citizen, a public advocacy group that monitors the government's actions in several areas including the environment, health care, global trade, and open and democratic government, and other historical associations sued the National Archives alleging that the Archivist exceeded his statutory authority to issue general records schedules because the authorization applies only to administrative records.⁸⁷ The statutory provision in question, 44 U.S.C. § 3303a(d), gives the Archivist the authority to issue schedules authorizing the disposal of "records of a specified form or character common to several or all agencies." Public Citizen argued that the Archivist had exceeded his authority because the schedule applies to both program and administrative records. They argued that the authority in § 3303a(d) is limited to housekeeping records. In addition, Public Citizen argued that because certain items in the General Records Schedule do not have specific time frames, the schedules are invalid. The District Court agreed with the plaintiffs' reasoning and declared the General Records Schedule items, which covered e-mail and word processing records, null and void. The decision followed the earlier Armstrong ruling by holding that both the electronic and paper versions of a record have unique characteristics and are records. The District Court also established a requirement that the agencies justify why the record will be kept in paper form rather than electronically.⁸⁸ The Archivist appealed. The Appeals Court applied Chevron's two-step process to the questions raised in this case.⁸⁹ Chevron step one requires the court looks to the statute to see if the statute speaks directly to the question. If the statute is unclear or silent, the court moves to step two and examines whether the agency's interpretation is reasonable.

⁸⁴ Ibid. 1284.

⁸⁵ Ibid. 1296.

⁸⁶ General Records Schedule 20, issued August 1995, 60 FR 44,643.

⁸⁷ *Public Citizen v Carlin*, 2 F.Supp.2d (D.D.C. Cir. 1997) at 10, *reversed* 184 F.3d 900 (D.C. Cir. 1999), *cert. denied* 68 U.S.L.W.3565.

⁸⁸ Ibid. 17.

⁸⁹ *Chevron U.S.A., Inc. v NRDC*, 467 U.S. 837 (1984)

Under Chevron step one, the Appeals Court determined that the Federal Records Act and its amendment, the Records Disposition Act, did not limit the Archivist's ability to issue General Records Schedules to administrative or housekeeping records.⁹⁰ For the court, the word "form" in 44 U.S.C. § 3303a(d) can be read as giving the Archivist the authority to schedule records in the form of word processing and e-mail files.⁹¹ The Archivist argued that the word "form" relates to physical attributes of a record and not its content. The Appeals Court agreed and stated that Public Citizen's interpretation of the legislative history as limiting the authority to housekeeping records was incorrect.⁹²

Because the statute refers to the form and characteristics of records and does not refer directly to administrative records, the Appeals Court moved to Chevron step two. In this step the Appeals Court looked at whether the Archivist's issuance of the General Records Schedule for electronic word processing or e-mail records was reasonable. For a General Records Schedule to be created for a class of records, there must be a commonality of purpose among the records. Creating the records in the same medium does not create a commonality of purpose.⁹³ Therefore, Public Citizen asserted that applying a general records schedule to all records created in a particular medium exceeded the Archivist's authority. The District Court agreed. However, the Appeals Court found that the General Records Schedule relating to e-mail and word processing records is different from the other general records schedules in that it does not authorize the destruction of the official record. It provides for the deletion of an electronic copy only after a paper copy has been placed in an approved recordkeeping system.⁹⁴ The Appeals Court found the powers given the Archivist in 44 U.S.C. § 3303(1) analogous to the actions taken by the Archivist in adopting the electronic information general records schedule. This section provides that an agency can request permission to routinely destroy paper records after they have been photographed or microfilmed. The powers are not limited to administrative records but apply to all records.⁹⁵ The Appeals Court reversed the District Court and held that the Archivist had not exceeded his authority and that the General Records Schedule for electronic records is valid. Despite the Appeals Court decision, the National Archives is still encouraging agencies to begin treating electronic versions as records or develop rationales for not keeping them.⁹⁶

Between the issuance of the Armstrong and Public Citizen decisions, articles argued electronic versions of records are more useful to scholars and should be maintained for historical reasons. The electronic version of a record increases accessibility by researchers because the ability to search for information increases.⁹⁷ The

⁹⁰ Public Citizen v Carlin, 184 F3rd at 904

⁹¹ 44 U.S.C. § 3303a(d) (1998)

⁹² Public Citizen v Carlin, 184 F3rd at 906

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ NARA Bulletin 2000-02, Disposition of electronic copies; Suspension of NARA Bulletin 99-04, dated December 27, 1999.

⁹⁷ Catherine Sheehan, "Opening the Government's Electronic Mail: Public Access to the National Security Council Records," 35 *Boston College Law Review* (September, 1994), 1200.

articles are concerned that changing technology may result in the record being lost, i.e., not being captured in a recordkeeping system, rather than more accessible.⁹⁸

Schrag and Lewis each asserted history is being lost through the agencies' use of e-mail and other electronic means.⁹⁹ Lewis focuses on how the Armstrong litigation reflects the inadequate recordkeeping practices that exist for electronic records. Schrag argues that there is an "anti-preservation tendenc[y]" which is fueled by the easy destruction of electronic records.¹⁰⁰ Both authors feel that agencies need to retain electronic versions of records in order to ensure that adequate and proper documentation is being created by the agencies. These conclusions are based on their analysis of the Federal Records Act and the Armstrong decision.¹⁰¹

Over the years, the federal records program has remained focused on preserving the operational records of the agency. Information technology, until the Armstrong and Public Citizen cases, was a tool. E-mail and word processing programs did not contain records. E-mail in particular was seen as an informal method of communication and, as such, the contents did not meet the standards for being a record. Until the Armstrong decision, e-mail systems were not considered to contain records. The determination that the electronic version of a record meets the standard and is a record itself has complicated the federal records program. The focus of the federal records program has changed as a result of the court cases. It has changed not only because the records manager has even less control over electronic records than paper records but also because there is a presumption that the electronic versions of all record are at least as valuable as the paper version. This may be true for e-mail records because some of the relevant information cannot be printed. It is not true for word processing documents at this time. In addition to being unable to print out critical information regarding who read or modified the document, most word processing software applications do not provide a complete history of access. It will show the original author and the name of the person who last accessed the record. Even if the software did track this information, it would not be helpful. Senior agency officials typically review and comment on the paper version of the record. Someone else inputs the changes. This fact, which the plaintiffs in Public Citizen seem not to understand, argues against the importance of electronic recordkeeping. Added to this is the fact that these electronic records are not in a recordkeeping system but are maintained by the creator or the creator's organizational unit. The records officer is responsible for the management of those electronic records but has no idea whether or not these records exist and may not see a need to be concerned about finding them.

⁹⁸ Philip G. Schrag, "Working Papers as Federal Records: The Need for New Legislation to Preserve History of National Policy," *Administrative Law Review* 46 (1994), 133.

⁹⁹ James D. Lewis, "White House Electronic Mail and Federal Recordkeeping Law: Press 'D' to Delete History," *Michigan Law Review* 93 (1993): 27.

¹⁰⁰ Schrag, "Working Papers," 108, quoting a letter from Edward D. Berkowitz, Chairman, Department of History, George Washington University, dated July 6, 1993.

¹⁰¹ Lewis, "Press 'D' to Delete," 27; Schrag, "Working Papers," 108, quoting letter from Edward D. Berkowitz, Chairman, Department of History, George Washington University, dated July 6, 1993.

Freedom of Information Act

While the Federal Records Act was undergoing several amendments that clarified the purpose and application of the act, another statute was passed which influences the federal records program. The Freedom of Information Act (FOIA) was initially passed in 1966.¹⁰² Its purpose was to amend what was referred to as the ‘housekeeping statute.’¹⁰³ This early statute required that agencies make information available. The loopholes under which agencies could exempt information from disclosure were wide and broadly applied.¹⁰⁴ Congress decided to tighten those loopholes and the result is the FOIA. This act did not define the term ‘record.’ The courts when interpreting the FOIA have established a different definition for an ‘agency record’ than contained in the Federal Records Act.¹⁰⁵ When the FOIA statute was amended in 1974, the purpose of these amendments was to strengthen the procedural requirements.¹⁰⁶ Congress’ intent was to make it easier for the public to obtain copies of agency records. Congress did not add any definition of the term ‘agency record’ as part of these amendments.¹⁰⁷

In 1996, Congress amended the FOIA to specifically include electronic records.¹⁰⁸ It saw information technology as enabling agencies to make information available to the public more efficiently. The Committee Report states

The volume of Federal agency records created and retained in electronic formats is growing at a rapid pace. Agency records are now created not just on pieces of paper and placed in filing cabinets. Personal computers and digital storage media, such as CD-ROM (compact disk read-only memory) are becoming more common place at Federal agencies. Information technology makes the management of information collected, stored, and used by the Government more efficient.¹⁰⁹

The report continues by saying that all government records are subject to the FOIA regardless of the media used for storing the records.¹¹⁰ Under these amendments, if the requester would like to receive the information in an electronic format, the agency must convert the responsive material to that format if it is reasonably practical.¹¹¹ In addition, once an agency has received three requests for the same information, it is required to make a copy of this information available through an electronic reading room.¹¹²

¹⁰² 5 U.S.C. 552a (1998)

¹⁰³ H.R. Rep. No. 1487 (1966) *reprinted in* U.S.C.A.N.N. 2418 at 2419.

¹⁰⁴ *Ibid.*

¹⁰⁵ *Bureau of National Affairs v. U.S. Department of Justice*, 742 F.2d 1484 (D.C. Cir. 1984); *Forsham v. Harris, Secretary of Health, Education, and Welfare, et al.*, 445 U.S. 445 (1980); *Kissinger v. Reporters Committee for Freedom of the Press, et al.*, 445 U.S. 169 (1980); *Wolfe v. Department of Health and Human Services*, 711 F.2d 1077 (D.C. Cir. 1983).

¹⁰⁶ H.R. Rep. No. 876 (1978) *reprinted in* U.S.C.A.A.N. 6217.

¹⁰⁷ Freedom of Information Act, PL 93-502.

¹⁰⁸ Electronic Freedom of Information Act Amendments of 1996, PL 104-795.

¹⁰⁹ H. R. Rep. No. 795 (1996), available from Lexis, accessed December 21, 1999.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² *Ibid.*

Because the FOIA did not define the term ‘agency records’ until the 1996 amendments, two Supreme Court cases established standards for determining if a document is an agency record. Agencies had urged unsuccessfully that the Supreme Court use the definition of a federal record contained in the Federal Records Act.¹¹³ In Forsham et al. v. Harris, Secretary of Health, Education and Welfare, et al., the Supreme Court stated that Congress modified the term ‘record’ with agency for a reason.¹¹⁴ At issue in this case was whether HEW should have obtained the raw data generated under a grant to the University Group Diabetes Program. The funding agency, National Institute of Arthritis, Metabolism and Digestive Diseases, left the day-to-day management of the grant to the grantee and had never requested access to the data. HEW had used the results of this study in a labeling and drug use rulemaking. Forsham requested the data under FOIA and HEW denied access to the underlying data because the data was not an agency record. The District Court and the Appeals Court upheld the agency decision. Forsham appealed to the Supreme Court who held that the data was not an agency record under FOIA because HEW had not obtained it. It also held that HEW had no statutory requirement to obtain the data from the grantee.¹¹⁵ At this time, the statute did not define the term “agency record” but it did define “agency.” The Supreme Court indicated that the definition of “agency record” reveals a “great deal” about Congress’ intent with regard to the availability of records.¹¹⁶ The term “agency” specifically excluded grant recipients. This decision carefully delineates between records that an agency has made or received from records that an agency could have made or received. The Supreme Court ruled that the FOIA does not require agencies to obtain records from contractors or others in order to respond to a FOIA request.¹¹⁷

In Kissinger v. Reporters Committee for Freedom of the Press, et al., decided on the same day as Forsham, the Supreme Court established standards for determining if a document is an agency record.¹¹⁸ While Kissinger was an Advisor to the President on National Security and later Secretary of State, his secretaries either taped or listened to his telephone conversations and made transcripts or summaries of these conversations. These transcripts included private conversations as well as conversations about

¹¹³ Under that act, the definition of a Federal record “includes all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications are not included.” 44 U.S.C. § 3301 (1998).

¹¹⁴ Forsham et al. v. Harris, Secretary of Health, Education and Welfare, et al., 445 US 169, 178 (1980).

¹¹⁵ *Ibid.* 169.

¹¹⁶ *Ibid.* 178-179.

¹¹⁷ *Ibid.* 180. Congress has since amended the FOIA statute to make contractor records subject to FOIA. This decision is still relevant for its distinctions regarding agency records.

¹¹⁸ Kissinger v. Reporters Committee for Freedom of the Press, et al., 445 U.S. 136 (1980).

government business. Kissinger removed the transcripts based on an opinion from the Legal Advisor at the State Department, who, in turn, had requested an opinion from the Department of Justice.¹¹⁹ These documents were transferred to a private residence and later, under two deeds of gift, given to the Library of Congress. The deeds restricted access to the documents. The State Department received three Freedom of Information Act requests for the transcripts. The first was from a newspaper reporter and requested the documents created while Kissinger was the National Security Advisor. The second and third requests were for all the transcripts. The District Court upheld the State Department's denial under FOIA of the documents created while Kissinger was the National Security Advisor. These documents were not agency records and, therefore, not subject to FOIA because Kissinger was an advisor to the President.¹²⁰ The District Court did find that the State Department, under the improper removal section of the Federal Records Act, should have sought the return of the transcripts from the Library of Congress. The Appeals Court upheld the District Court's decision. The Supreme Court decision addresses both the Federal Records Act and FOIA.

The Supreme Court determined that there is no private right of action under the Federal Records Act with regard to whether records had been improperly removed. The Federal Records Act provides the Archivist and the Attorney General with the authority to redress the improper removal of records. No action had been instituted for these records.

The State Department's denial of the FOIA requests was upheld because the Supreme Court rejected the argument that the FOIA created a private right of action under the Federal Records Act. It stated that FOIA requesters could sue only when agency records have been improperly withheld.¹²¹ A document must be in the "custody or control" of an agency for an agency to improperly withhold the document.

The conclusion that possession or control is a prerequisite to FOIA disclosure duties is reinforced by an examination of the purpose of the Act. The Act does not obligate agencies to create or retain documents, it only obligates them to provide access to those which it in fact has created and retained.¹²²

The Supreme Court continued that only the Federal Records Act, not the FOIA, could require agencies to create records.¹²³ This theme was expanded in Wolfe v. Department of Health and Human Services and Bureau of National Affairs v. United States Department of Justice.¹²⁴ These two cases reiterated the standard established in Forsham

¹¹⁹ The Supreme Court decision only mentions the opinion from the State Department. A copy of this opinion with a copy of the Department of Justice opinion attached can be found in the National Archives, RG64, 1982-1987 Committee on Authorities and Alternatives, file "Papers on nature of federal records."

¹²⁰ Kissinger v. Reporters Committee for Freedom of the Press, 445 U.S. at 143.

¹²¹ Ibid. 150.

¹²² Ibid. 153.

¹²³ Ibid. 154.

¹²⁴ Bureau of National Affairs v. United States Department of Justice, 742 F.2d 1484 (D.C. Cir. 1984); Wolfe v. Department of Health and Human Services, 711 F.2d 1077 (D.C. Cir. 1983)

and Kissinger and went on to say that mere possession of the document does not make it an agency record. “There has to be some ‘nexus’ between the agency and the documents other than mere incidence of location.”¹²⁵ In the Wolfe case, a member of President Reagan’s transition team brought into the Department of Health and Human Services a copy of the transition binders relating to the Department but created by the transition team. Throughout Wolfe’s tenure at the Department these binders sat on his bookshelf and were never used by him or anyone else in the Department. The Court found that these binders were never in the agency’s control, as the binders were never made part of the Department’s recordkeeping system.¹²⁶ The Bureau of National Affairs case followed Wolfe in its decision. It defined agency control as the “extent to which that agency exercised control over it” with the “ultimate focus [being] on the function or use of the document within the agency.”¹²⁷

The impact of the FOIA on the records management program is twofold. The first is that the standard set by the Supreme Court for an agency record is broader than the statutory definition of a record.¹²⁸ Once a document has been determined to be responsive to a FOIA request, it becomes a record. It does not become a record of the original transaction. It becomes part of the record created by the FOIA response. This complicates the simple question of when does a document become a record. Records managers are generally not the individuals responsible for FOIA. The impact of FOIA is not felt by the records management staff but by the program staff who are responsible for supplying to the FOIA officer the pertinent documents in response to a request. Because the FOIA staff when soliciting documents responsive to the request tends to use the term ‘record,’ the program staff sees two standards being applied to their documents.

FOIA’s electronic amendments specifically require agencies to provide information electronically when requested. If the agency does not have the document in an electronic format, it must determine if it can reasonably make the document electronic before providing it to the requester in paper. The electronic amendments also require an electronic reading room for frequently requested documents. Complying with these requirements may create an electronic record that was created solely to respond to a request. In the past, the agency had only to produce records or documents that already existed that related to the request. It did not have to create an electronic version of a record in order to respond.

Paperwork Reduction Act

In 1980, the Paperwork Reduction Act was passed.¹²⁹ The statute recognized the usefulness of computers and the need for a government-wide policy on information technology. This statute was partially the result of a reorganization study undertaken during the Carter Administration, which looked at the recordkeeping burden placed on

¹²⁵ Wolfe v HHS, 711 F.2d at 1080.

¹²⁶ Ibid.

¹²⁷ Bureau of National Affairs v. DOJ, 742 F.2d at 1490

¹²⁸ Forsham v. Harris, Secretary of Health, Education, and Welfare, et al., 445 U.S. 169 (1980); Kissinger v. Reporters Committee for Freedom of the Press, et al., 445 U.S. 136 (1980).

¹²⁹ 44 U.S.C. Chapter 35 (1998).

the public by federal agencies.¹³⁰ The OMB conducted this study in 1977 in conjunction with the GSA.¹³¹ The purpose was to assess the state of administrative services including records management. This study looked at a number of National Archives related issues, including, but not limited to, whether the Archives had implemented its authorities effectively; whether it had identified levels of agency compliance and determined how agencies should be managing their information, and what connection information management had to records management.¹³²

This study determined that the National Archives was unable to ensure that agencies fulfill their basic responsibilities regarding records management. It also determined that a government-wide approach was necessary for dealing with information management and control.¹³³ Most of the recordkeeping discussed in this report relates to how agencies need to improve the management of information received from the public in order to reduce the recordkeeping burden on the public. It suggested that agencies develop databases to track this information but never suggests that these databases may be records. The report did not address adequate and proper documentation or any electronic records issues.

Under the Paperwork Reduction Act, OMB was given responsibility for developing and issuing integrated policies on records management and information technology.¹³⁴ The act also tasked OMB with coordinating the efforts to reduce the paperwork burden imposed on the public by the federal government.¹³⁵ OMB's primary focus has been on the paperwork reduction responsibilities and the development of information technology policy. There is some evidence to suggest that National Archives staff believed OMB would have welcomed the National Archives assistance in the records management policy arena, but the National Archives' senior staff did not seize the opportunity.¹³⁶

The Paperwork Reduction Act was reauthorized in 1995 with the emphasis remaining on the management of information.¹³⁷ During the reauthorization process, Congress acknowledged that electronic records make records management even more important. "Unless information created in these formats [electronic] is properly managed to insure its integrity and archival preservation, much of the Government's record will be lost."¹³⁸ Section 3504(f) of the act specifically references the need for policies on archiving records in their electronic format and that this archiving needs to be part of

¹³⁰ 1977-1978 President's Reorganization Project, file IV A 1 Draft Study Memorandum, May 2, 1978, RG 51 Records of the Office of Management and Budget.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Paperwork Reduction Act of 1980, PL 98-511

¹³⁵ Ibid.

¹³⁶ Spheres of Interest in Records Management," 40-41.

¹³⁷ Paperwork Reduction Act of 1995, PL 104-13.

¹³⁸ H.R. Report 37 1995 *reprinted in* U.S.C.A.A.N. 164.

automated information system planning and design.¹³⁹ However, no enforcement mechanisms were incorporated in this statute or the Federal Records Act.

The one element in the Paperwork Reduction Act that refers to records management is the Government Information Locator Service (GILS). This provision requires that each agency electronically publish a listing of the publicly available information and all electronic information systems.¹⁴⁰ GILS allows the public to be able to determine what information the agency is collecting.¹⁴¹ The National Archives issued the implementation guidelines for GILS.¹⁴² When implementing GILS, one of the mandatory requirements was the records retention reference for the electronic systems. This was to enable the National Archives to identify those electronic systems for which it had not received a records retention schedule.¹⁴³

OMB has implemented the information management requirements of the Paperwork Act through its Circular A-130.¹⁴⁴ The 1996 version of the circular begins by defining a number of terms, including the life cycle of information.¹⁴⁵ These stages look remarkably like the record life cycle. The stages are “creation or collection, processing, dissemination, use, storage and disposition.”¹⁴⁶ The records life cycle would combine the second, third, and fourth stages into its use stage. Storage is similar to the maintenance stage in the life cycle with creation and disposition matching up exactly.

The Circular also defines information management as the “process of managing information resources to accomplish agency missions. The term encompasses both information itself and the related resources.”¹⁴⁷ OMB specifically chose not to include records in this definition insofar as separate definition is provided for the terms ‘record’ and ‘records management.’¹⁴⁸ OMB uses the statutory definitions for these terms but does not link records management with information management in any meaningful way. One assumption, as stated by OMB in the Circular, is that records management provides accountability and must be done systematically.¹⁴⁹ The Circular states that, as a policy matter, agencies will do integrated planning to manage their information throughout the life cycle.¹⁵⁰ Information must be accessible to ensure accountability and to protect the government and the public’s legal and financial rights. Therefore, records management must be incorporated into the information systems. The Circular goes on to recite the standards for a records management program found in the Federal Records Act and the National Archives’ regulations. The last portion of the policy section requires that

¹³⁹ 44 U.S.C. § 3504(f) (1998).

¹⁴⁰ 44 U.S.C. § 3511 (1998).

¹⁴¹ Ibid.

¹⁴² Guidelines for the Preparation of GILS Core Entries, issued by the National Archives and Records Administration, February 1995.

¹⁴³ Ibid.

¹⁴⁴ OMB Circular A-130, dated June 1996.

¹⁴⁵ OMB Circular A-130, Section 6(o).

¹⁴⁶ OMB Circular A-130, Section 6(o).

¹⁴⁷ OMB Circular A-130, Section 6(j).

¹⁴⁸ OMB Circular A-130, Sections 6(r) and 6(s).

¹⁴⁹ OMB Circular A-130 Section 7(h).

¹⁵⁰ OMB Circular A-130, Section 8.

agencies make information available to the public and encourages agencies to disseminate information electronically while safeguarding private and confidential information.¹⁵¹

OMB's assignment of responsibilities to the heads of agencies is a recitation of the National Archives' regulations and the Federal Records Act.¹⁵² It directs the National Archives to administer the program according to the Federal Records Act and to assist OMB in developing its records management guidelines. The Circular also states that the Director of OMB will review agency compliance with the records management program requirements.¹⁵³

It is only in Appendix IV of the Circular where OMB begins to talk about the inter-relationship of information management and records management.¹⁵⁴ In two brief paragraphs OMB acknowledges the inter-relationship and the difficulty of accessing information in the face of rapidly changing technology.¹⁵⁵

The main impact of the Paperwork Reduction Act has been on the collection of information from the public and not on records management. There are no reporting requirements for the records management elements of this Act. As a result, agencies do not think of OMB when thinking and talking about records management.

In summary, OMB Circular A-130 encourages agencies to manage their information more efficiently, i.e., electronically.¹⁵⁶ The guidance is aimed at reducing the burden on the public. Agencies are encouraged to share information with other agencies and allow the public to use information technology to reduce their reporting and recordkeeping burden. Agencies, themselves, are encouraged to include records management components in their electronic information systems. However, the guidance does not state that records management is an essential component of information management. It does not require the integration of records management into information management systems.

Government Paperwork Elimination Act

The Government Paperwork Elimination Act was passed in 1996.¹⁵⁷ Its purpose is to encourage/mandate that Federal agencies begin accepting reports from the public electronically.¹⁵⁸ This act sets a deadline by which all agencies will either allow their constituents to file reports electronically or have obtained an exception from OMB. It also established a deadline for creation of a digital signature standard.¹⁵⁹ In 1999, OMB

¹⁵¹ OMB Circular A-130, Section 8.

¹⁵² OMB Circular A-130, Section 9(a) and 9(g).

¹⁵³ OMB Circular A-130, Section 10.

¹⁵⁴ OMB Circular A-130, Appendix IV.

¹⁵⁵ OMB Circular A-130, Appendix IV.

¹⁵⁶ OMB Circular A-130.

¹⁵⁷ 44 U.S.C. Chapter 17 (1998)

¹⁵⁸ 44 U.S.C. § 1703 (1998)

¹⁵⁹ 44 U.S.C. § 1704 (1998)

issued draft guidelines for compliance with this statute. This guidance did not mention the National Archives in any capacity.¹⁶⁰ Final OMB guidance is expected spring of 2000 and will reference the National Archives.

The provisions of this statute are concerned with allowing the public easier access to government assistance.¹⁶¹ The act will result in the biggest change to the federal records management program. This statute requires agencies to accept information from the public electronically. The information the agency receives from the public is usually considered to be a record. This presents innumerable challenges because agencies will need to accept electronic information in a variety of formats. Electronic filing presents authentication issues for the agencies. At the moment, there is no acceptable standard for electronic signatures. Without this standard in place, agencies will need to find some way to ensure that the information being received is authentic and reliable. A regulatory agency may be able to accomplish this through the use of known addresses. The electronic address from which the record was sent is known to be an authentic address for that regulated entity. This approach does not address the problem of someone using that address without authorization. Another problem results when the agency does accept a digital signature on an incoming document. If an organization files a report with an agency that has been signed using a digital signature, any change to the document will invalidate the signature. Even if the agency is willing to insist that the information received by the public will be accepted in specific formats only, the agencies will have to find a way to convert information to a format that its electronic systems can read without destroying the validity of the submission.

Another challenge is the number of types of records that an agency could receive between required regulatory filings, records created as part of e-commerce, or even internal electronic records used to govern administrative actions. These records can be text documents, spreadsheets, images, web pages, or maps. Each of these record types will require different recordkeeping strategies, as the formats are unique to each record type.

Discussion

In this chapter the legal, regulatory, and policy issues relating to records management have been examined. This review shows the increasing complexity of the records management environment because each of these statutes affects the federal records management program. It is no longer a simple matter to figure out what makes a document a record. The proliferation of various media, statutes requiring that agencies accept electronic records from the public, and court rulings on e-mail and word processing documents complicate the program further. Managing the various aspects of the program has become extremely difficult.

¹⁶⁰ OMB Proposed Guidance on Implementing the Government Paperwork Elimination Act, published 64 FR 10895, March 5, 1999

¹⁶¹ 44 U.S.C. Chapter 17 (1998)

The Government Paperwork Elimination Act, the Paperwork Reduction Act and the FOIA all cause electronic records to be created. However, none of these statutes change the definition of a record under the Federal Records Act. Automating the federal records management program is becoming necessary, as it will assist agencies to manage the records created under these statutes. Until the Armstrong and Public Citizen cases, the legal framework did not specify that records had to be maintained in a specific medium. Information technology was simply a tool that staff used to create records.¹⁶² In addition, the requirements under the Paperwork Reduction Act to begin maintaining and managing information electronically and the Government Paperwork Elimination Act's requirement to accept information in an electronic format from the public mean that more and more agency records will be electronic. Without a simple method for moving these electronic records into a recordkeeping system, the agency's ability to conduct its business electronically may collapse because of the agency's inability to access those records. As agencies struggle to figure out ways to maintain their electronic records adequately, Congress and the President are urging that more activity be done electronically.¹⁶³

¹⁶² *Armstrong, et al. v. EOP, et al.*, 1 F.3d 1274 (D.C. Cir. 1993); *Public Citizen, et al. v. Carlin*, 2 F.Supp.2d 1 (D.D.C. 1997) *reversed* 184 F.3d 900 (D.C. Cir. 1999), *cert. denied* 68 U.S.L.W. 3565.

¹⁶³ 44 U.S.C. § 1701, et seq. (1998); Memorandum to Head of Executive Departments and Agencies from President Clinton, issued December 17, 1999, Electronic Government; Memorandum to Head of Executive Departments and Agencies from President Clinton, issued December 17, 1999, Information Technology to Improve Our Society.

CHAPTER IV

RECORDS MANAGEMENT DATA

How Focus Group and Interview Participants Were Chosen

The focus of this chapter is the data gathered from the federal records managers on the effect information technology is having on the federal records management program. Members of the federal records community contributed to this dissertation through either by participating in a focus group or by being interviewed. The focus group participants were chosen based on their knowledge of the federal records program. The interviewed records officers were chosen through a stratified random selection process. The focus group methodology and interviews were used to collect data because these two methodologies provided the best opportunity to gather the data needed to answer the research questions.

Focus Groups

Focus groups are useful if the researcher is looking for general background information, wants to uncover previously unknown information, to bridge a communication gap, or to verify findings or the validity of the survey instrument.¹ Focus groups are useful because they provide a “rich body of data expressed in the respondents’ own words and context.”² As the discussion moves forward, participants can identify any contingencies that affect their answers. This is not available in structured interviews. In addition, a homogenous group results in better interaction and better data.³

How the researcher intends to use the focus group is the main consideration when selecting participants. While random selection can be used, it may not be appropriate if the researcher wants to discuss the topic with experts.⁴ Krueger sets out specific selection rules for participants. These are 1) develop exact specifications, 2) maintain control of the selection process, 3) take advantage of available resources, 4) beware of bias in the selection process, 5) be wary of individuals who have expressed an interest in your research, 6) avoid clones of the supervisors or the non-productive staff, 7) random selection has its place, and 8) remember to balance the cost of the research with the quality.⁵ The focus group methodology requires careful selection of the participants.

¹ Richard A. Krueger, *Focus Groups: A Practical Guide for Applied Research*, 2nd ed., (Thousand Oaks, CA: Sage Publications, 1994): 30; David Stewart and Prem N. Shamdasani, “Focus Group Research: Exploratory and Discovery,” in *Handbook of Applied Social Research Methods* ed. Leonard Bickman and Debra J. Roj (Thousand Oaks, CA: Sage Publications): 506-507.

² Stewart and Shamdasani, *Focus Group Research*, 506.

³ Krueger *Focus Groups*, 77.

⁴ Stewart and Shamdasani, *Focus Group Research*, 511.

⁵ Krueger, *Focus Groups*, 76-77.

The value of the data gathered in the focus group depends on the moderator's abilities. An experienced moderator guides the discussion without leading it.⁶ The exact role for the moderator depends on the intent of the research. "The moderator may be more or less directive with respect to the discussion, and often is non-directive, letting the discussion flow naturally as long as it remains on the topic of discussion."⁷

The strength of focus groups is that it allows the researcher to gather data more efficiently through the direct interaction with and between the participants. This is also a weakness in that the interaction means that the participants are independent in their answers. Flexibility is another strength of focus groups because a focus group can react to the information being discussed. Other weaknesses of focus groups are that the researcher has a tendency to place more value on the data than is warranted and that an unskilled moderator can skew the results.⁸

The moderator conducts the focus group by stating the objectives of the meeting, identifying the participants, providing rules for the discussion, and asking the questions. At the end of the meeting, the moderator summarizes the discussion.⁹ Generally the moderator has an interview guide, which is used to ensure that all topics are covered during the discussion.

Prior to conducting the interviews, a focus group for current and former records managers from the federal government was held. The focus group discussed two main topics: Whether information technology has changed the idea of a record and whether information technology has changed our understanding of adequate and proper documentation. The group also discussed the related information technology preservation and access issues and the flexibility of the Federal Records Act. This information verified the interview questions. The focus group data also provides a different perspective than that received from the interviewed records officers.

The participants were selected based on their experience with the Federal records program. Ten individuals were invited to attend the focus group. Five of the individuals had worked for the National Archives at some point in their career. Six individuals actually participated in the focus group, which was held on October 6, 1999 from 6:00 until 7:00 p.m. at the Northern Virginia Campus of Virginia Polytechnic Institute and State University. The only who invitee currently works for the National Archives was unable to attend. All of the proposed participants either work or have worked with electronic records, electronic recordkeeping systems, and/or participated in the electronic records working group (ERWG) established by the National Archives in response to the initial Public Citizen decision.¹⁰

⁶ Thomas L. Greenbaum, *The Practical Handbook and Guide to Focus Groups*, (Lexington, KY: Lexington Books, 1988): 51, 58.

⁷ Stewart and Shamdasani, *Focus Group Research*, 513.

⁸ Ibid. 509.

⁹ Greenbaum, *The Practical Handbook*, 77-78.

¹⁰ National Archives and Records Administration Press Release, "New Steps on Electronic Records," Announced by NARA, November 20, 1997.

The process used to select these individuals was based on their reputation within the records management community. The names were approved by Michael L. Miller, Director, Modern Records, National Archives. The individuals were contacted by e-mail, given a general description of the dissertation topic, and invited to participate in the focus group followed by dinner. Three assistants took notes of the focus group discussion. One used a flip chart so the participants could see a visual representation of what was being said. After a general introduction to the four issues to be discussed, the moderator let the conversation continue and only interrupted to steer the conversation towards another concept that needed to be covered by the focus group. One participant tended to lead the discussion. However, because the other participants did not hesitate to speak up and disagree with him, he was able to steer the conversation but not dominate it.

A list of invited participants follows:

Edward Barrese (EB) is the records officer for the Federal Deposit Insurance Corporation and has a doctorate in American History. Early in his career, he worked for the National Archives in records appraisal and has served as the records officer in other federal agencies prior to his current position. In his current position he is also responsible for the library and other information services. He was a participant in the ERWG.

Fynette Eaton (FE) is an archivist with the Smithsonian Institution and a former National Archives employee in its Center for Electronic Records. She is currently looking at implementing an electronic recordkeeping system within the Smithsonian Institution Archives. She is a member of the InterPARES research group. This is an international group that is exploring ways to maintain records electronically and sharing their experiences with electronic records.

Frank McGovern (FMcG) is a former Air Force Officer who participated in the business process reengineering of the federal records program for the Department of Defense. This reengineering process resulted in the creation of a standard for electronic recordkeeping systems. The Department of Defense has certified that several software products meet that standard. He has retired from the Air Force and taken a position at TOWER Software US, one of the companies that produced a DoD certified product.

Nancy Miller (NM) is the records officer for the National Labor Relations Board. She is a former employee of the National Archives in the records appraisal area. Her reputation in the records community is that her records management knowledge is complete and thorough. In her current position, she is beginning to explore implementing an electronic recordkeeping system.

Catherine Teti (CT) is the former records officer for the Office of Thrift Supervision (OTS) and is currently the Assistant Director for Administrative Services for the Department of Commerce. Her current position does not include records management responsibilities. Her work at OTS included responsibility for compliance with the Freedom of Information Act, Privacy Act, and Paperwork Reduction Act as well

as the library, OTS web site and records program. She was responsible for OTS beginning to implement an electronic recordkeeping system and was a member of ERWG.

Jeanne Young (JY) is the records officer at the Federal Reserve Board and is a former National Archives employee in the appraisal area. She is working to re-establish the records program for the Federal Reserve Board.

Richard Marcus is the current records officer at the National Archives. When he worked in the records appraisal unit at the National Archives, he frequently taught the electronic records management course. In addition, he participated in the development of the National Archives response to the Armstrong decision. He was unable to attend the focus group.

Adria Lipka is the records officer for the Internal Revenue Service (IRS). The IRS records program has been scrutinized by Congress as part of its review of the ongoing IRS information technology investments that have not resulted in the efficiencies promised. She was unable to attend the focus group. When her name turned up as part of the random selection for interviews, she was interviewed.

Kathy Schultz is the records officer for the Patent and Trademark Office (PTO). The PTO has installed a comprehensive imaging system, which she is responsible for maintaining. Her experience with electronic records resulted in her invitation. She was scheduled to be at the focus group meeting but at the last minute was unable to attend.

John Vasko is a records manager at the Central Intelligence Agency. He is the secretary for the Federal Information and Records Council Board. He has been active in the records arena for a number of years. He did not respond to the invitation.

Interviews

After the focus group session was held, ten individuals were interviewed. These individuals were selected using a stratified random sample. Dexter defines elite interviews as those interviews that are not conducted in a standard manner. The people being interviewed are given the opportunity to express their views on the issue being studied and state what they believe to be relevant.¹¹ While the purpose of the elite interviews is to discover “[w]hat is in and on someone else’s mind,” Greenbaum warns that the researcher must be aware “[w]hen analyzing data it becomes difficult to be certain how the findings are influenced by these qualitative differences in depth and breadth of information received from different people.” The researcher must weigh the information received from the interviewee and judge the credibility of the interviewee.¹² This type of interview technique was chosen because it allowed the researcher to maximize the time available with the interviewee.

¹¹ Lewis Anthony Dexter, *elite and specialized interviewing*, (Evanston, IL: Northwestern University Press, 1970): 5.

¹² Greenbaum, *The Practical Handbook*, 196-203, passim.

The interviews were conducted using a general interview guide that allowed the interviewee free range to discuss a series of topics without being bound to a static list of questions.¹³ This approach was chosen for two reasons. First, the interview subjects were assumed to be knowledgeable about these issues and the interview's purpose was to elicit their views and understanding of the electronic records issues and underlying legal framework. The second is that this method seems to be the most efficient for collecting this type of information. Greenbaum describes two other interview approaches that are not appropriate for this subject. The first inappropriate interview style is the informal conversation. This style allows the interviewer and interviewee to talk about a range of topics, which may elicit a great deal of irrelevant information as well as some very pertinent and, perhaps unthought of, avenues to pursue. However, this type of interview works best when the two individuals can talk at length on several occasions over a period of time.¹⁴ This requires that multiple interviews take place with each interviewee. Therefore, this method was not appropriate for this research project.

The second of Greenbaum's approaches not chosen for this research project is the standardized open-ended interview. This entails developing a series of standard questions, which are asked in a specific order. The questions must be answered in the same order and, according to Greenbaum, the list of questions includes alternative descriptions of the question if the interviewee requests clarification. This approach does not allow the interviewer to probe the answers given for clarification. The tight structure of this approach makes it unsuitable for this research topic. Exploring electronic records issues using this rigid approach would not result in better data being gathered. These intertwined issues not lend themselves to this type of linear questioning.

The interviews were with individuals who work in the records management area on a daily basis. The individuals were chosen randomly from the list of federal records officers maintained by National Archives. A records officer is the individual in each agency who is responsible for developing records policy, implementation, and training.

Based on the procedures set out in the second edition of *An Expanded Sourcebook: Qualitative Analysis*, a stratified random sample process was used to select ten individuals from the National Archives records officer listing. One individual from every third page was chosen. The procedure was to move consecutively down the list. The person chosen from page 3 was the first person with a complete address on page 3. The person chosen from page 6 was the second complete address on that page. This procedure was followed until the last person on the page had been chosen. The procedure was then reversed and the selection began to move up the page. If an alternate was needed, the first person directly below or directly above the initial choice became the alternate choice for the interview.

A preliminary telephone call requesting the interview was made with follow-up phone calls two days later when a voice mail message was left and a return telephone call

¹³ Ibid. 197.

¹⁴ Ibid. 198, 200.

had not been received. The alternate choice was called for an interview if the initial participant had not responded to repeated requests. Four individuals declined to be interviewed.

The interview questionnaire consisted of 15 questions that were grouped into seven areas of interest. The first set of questions asked about whether the federal records program had changed because of information technology and how. The second group asked about the relationship of the Federal Records Act with other statutes, particularly the Freedom of Information Act. The third area of interest related to the impact of the Armstrong decision. The next series of questions pertained to the initial Public Citizen decision and the recent appellate decision. The fifth and sixth sets of questions related to the definition of adequate and proper documentation and the term 'record.' The last group of questions dealt with the two university research projects and the DoD standard for records management applications. Because of the variety of responses received from the records officers, their names have not been used but will be referred to as RO1, RO2, etc.

The information received from the focus group and the interviews was imported into a database and coded. The Non-numeric Unstructured Data * Indexing, Searching, Theorizing (NUD*IST), qualitative analytic software application was used initially for the analysis. This program allows the researcher to enter the raw interview data, apply a standardized set of codes, and conduct searches based on an individual code, combination of codes, or full text search. The reports generated by the search provide the raw data satisfying the search criteria, its citation, and general statistics about the findings.

The coding scheme was developed based on the literature review. The codes were applied to the research notes to test their relevance. Additional codes were added during that process. The coding of the focus group notes also required that three or four codes be added. In addition, a second database was created with the same coding scheme for the focus group and interview data. This allowed the focus group and interview data to be analyzed separately from the literature review. Codes were applied to the notes if the note contained a direct reference to the code's topic or the general content of the note indicated that the code was appropriate. Generally, the coding was found to be useful for the literature notes but too specific for the interview and focus groups notes. The breadth of the primary research was not as broad as the literature review. The answers to each question that was received from the interviewed records officers and the focus group tended to fit into one code. For the most part, the answers did not require multiple coding. Because of this, the queries resulted in the entire answer being shown rather than a relevant portion of the response. Therefore, the format of the reports generated by NUD*IST was difficult to read. To resolve this problem, the answers to the interview questions were grouped into the seven areas of interest and assembled into simple tables. The analysis was done using these tables rather than the NUD*IST reports. The information was the same, however, the tables made it easier to read the data. A complete listing of the records officer data is contained in Appendix C. The information gathered from the focus group data is in Appendix D.

Information Technology and Records Management

The interviewed records officers were specifically asked about the effect of information technology on the federal records program. Several different answers were received. This aspect of the research was not directly addressed by the focus group. However, it is clear from the focus group discussion that the participants agreed that electronic records have changed the records program. An example of the focus group's discussion is JY's statement that "Automation has given us three different applications, which are incompatible." She continued, "Electronics is an access issue. We have no filing nomenclature or architecture. In the past we could look in file cabinets. Now there is some structure beginning to take hold with central files. We still have paper case files; we have not lost memory because of this. We do have to manage several mediums now--film, paper, databases, electronic mail."

All records officers interviewed agreed that there has been an effect but there was little agreement on what that effect may be.¹⁵ The answers ranged from acknowledging that records exist in an electronic format to expressions of concern about the ability of the federal records program to adapt to the new environment. For example, RO2 indicated, "The use of information technology is requiring records managers to rethink how they schedule and manage records. The records management requirements will also be changing information technology. Government is [the] only entity that has [a] requirement to keep records [over] long period of time. The need to preserve electronic records over long periods of time, and provide legal sufficiency requires [the] information technology industry to develop solutions to this problem."

RO7 did not feel that the records program was responding to the impact of electronic records fast enough "The federal records program is changing less than it should. The government doesn't have a lot of money to spend on records. The way records were setup originally was around paper, file custodians, and file stations. [We] need to change this to manage electronic records. Electronic records need to be managed electronically and should be built into the system generating the records."

Three of the records officer mentioned the problems created by electronic records. The problems mentioned were the inability of the records officer to manage the electronic records and the accessibility problems associated with electronic records. RO8 stated, "Generally, information technology means more electronic records, less control, and greater lack of understanding in both information technology and records management areas." RO8 sees information technology as making "more negative changes than positive changes. If you don't have [a] good understanding of records management before information technology, than it only gets worse." RO10 felt that the "ability to manage and archive electronic records for number of years now and in [the] future is problematical. [The] program is becoming more and more complex [and with] e-mail how do you archive for future retrieval? The ability to read electronic records in [the] future is [one] challenge. The other challenge is the hybrid of paper and electronic

¹⁵ See Appendix C, Table I for a complete listing of the records officers responses.

systems that need to be managed. [We] need to ensure [we] have access to the dual environments.”

The variety of answers received on this question reflects the various levels of knowledge in the federal records management community. The perceived impact that information technology has had on the federal records management program appears to be a direct result of how the agencies are using information technology to conduct the agency’s mission. The more work is done electronically, the more aware the record officer is of the impact on records management. The focus group, as discussed below, sees the program emphasis as changing from managing records to managing information.

What is a record?

The Federal Records Act provides a comprehensive list of what constitutes a record:

...includes all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications are not included.¹⁶

This extraordinarily complex definition makes it difficult for program staff to determine what documents need to be kept. This is made more difficult because information can have multiple uses. Therefore, it may be appropriate to begin to emphasize managing information in a manner contemplated by the Paperwork Reduction Act rather than managing records in accordance with the Federal Records Act.

The focus group agreed that it has become too difficult to discriminate between what is a record and what is not a record. They postulated that one of the reasons is that it is very hard to determine today which documents will be needed in the future or which documents will have historical value. Litigation has helped cloud the records issue further because the standard for litigation discovery applies to all documents not just records. This is further complicated because litigants frequently use the words “document” and “record” interchangeably. The primary focus, therefore, needs to be on managing information and not just on managing records. The focus group felt that the concept of a record is appropriate only in the FOIA context. The decision on what needs to be kept must be left up to the program or mission-related offices as they are the only ones who know the contents of the files.

¹⁶ 44 U.S.C. § 3301 (1998)

The focus group participants agreed that the federal records officers should concentrate on maintaining the records needed for audit or businesses purposes and disseminating the information contained in those records. Agencies need to maintain their records in the format that makes good business sense for the agency. The National Archives needs to tell the agencies in which format, whether paper, microfilm, or electronic, it will accept permanent records. According to the focus group, the agencies should worry about getting those records into that format at the time the record will be transferred and not before. For records of temporary value, agencies should maintain the information in the format that makes the most sense for the individual agency.

The records officers did not take as broad a view as the focus group participants when asked to define the term “record” and whether information technology has changed the idea of a record.¹⁷ Five records officers stayed very close to the statutory definition. An example of those answers is RO2’s definition: “Information, which documents the conduct of Government business and provides evidence of its organization, functions, processes, decisions and protects the rights and interests of the Government and its citizens.” Information technology “must not [change the definition]. The fact that we can communicate in different formats and media should not change the fact of which information is worthy of being saved. We may need to review just what information has been scheduled in light of how it can be combined with other data once isolated from it, and we may find that technology changes how we can describe the important information, but the concept of records being selected subsets of all our information, which has been deemed to be worthy of preservation as it [the record] meets the definition of a record, has not been shown to be invalid.” His comments illustrate the complexity that is emerging as a result of electronic records.

The remaining five records officers interviewed used a slightly different definition of a record from the statutory one. Three of them described a record in terms of evidence. For instance RO8 defined, “a record [as] an element of information recorded about something. It is evidentiary in nature, used for the intent it was created for, reliable, trustworthy and has intellectual value.” Information technology should not change the definition. Information technology “adds a new piece to the puzzle. It relates or touches on the intent of the record, which can get screwed up if it is electronic.” This records officer is not sure if the definition of a record should be changed. She tends to think it should “because the idea of a record was created with paper in mind. The concept has developed and evolved into a mixture of what we know today. It may need to be modified to include some of the things we have come to think of as encompassing record.”

Based on the evidence received from the focus group and the interviewees, the concept of a record is understood by almost everyone in the records community. It does appear that some have interpreted the definition and rely on that interpretation to administer the federal records management program. None of the interpretations is completely wrong. Some are merely incomplete. Because of the lack of interest by

¹⁷ See Appendix C, Table VI for a complete listing of the records officers’ responses.

program offices in records, it is necessary for a records officer to be able to interpret it in order to explain the program offices' responsibilities under the statute. Three of the ROs described records as being evidence of a transaction in a manner similar to the definitions used by Pittsburgh and UBC.

What's Adequate and Proper Documentation

In order to consider records as evidence, records relating to transactions must be captured. This concept in the federal records management program is called adequate and proper documentation. Under the National Archives regulations, adequate and proper documentation is defined as follows:

...a record of the conduct of Government business that is complete and accurate to the extent required to document the organization, functions, policies, decisions, procedures, and essential transactions of the agency and is designed to furnish information necessary to protect the legal and financial rights of the Government and of persons directly affected by the agency's activities.¹⁸

The Federal records Act's requirement for adequate and proper documentation is found under the objectives of records management section. It is a much simpler definition in that it states "[a]ccurate and complete documentation of the policies and transactions of the Federal Government."¹⁹

As with the definition of a record, the focus group had very different views of adequate and proper documentation than the interviewed records officers. Several of the records officers recited the regulatory definition of this term while one was unaware of the concept. One records officer expressed concern about the effect of information technology on the concept of adequate and proper documentation.²⁰ RO5 defined it as "taking appropriate measures to ensure records created and preserved to document activities of the organization and official acts of employees and people associated with the agency. [We] need to be able to show what the job is and that employees are doing or not doing their jobs."

Another records officer defined adequate and proper documentation as having an adequate inventory of the agency's records, which is not what this term means. RO4 stated a "Good inventory is one of the things" for adequate and proper documentation. "Need to update disposition schedule." The records officer did understand part of the concept when she mentioned "anything that relates to a case."

The focus group felt that the program offices were responsible for determining what constitutes adequate and proper documentation. The records staff can give guidance but they do not have the knowledge necessary to dictate to the offices. The

¹⁸ 36 CFR § 1220.14. (1999)

¹⁹ 44 USC § 2902(1) (1998)

²⁰ See Appendix C, Table V for a complete listing of the records officers' responses.

focus group indicated that the records officer cannot determine adequate and proper documentation and agreed with EB's statement, "programs [offices] are the ones who should say what records are and indicate how long they should be archived." The group also agreed when CT added, "The keepers don't want to decide how to dispose of documents. They are shocked now that they are required to do this."

For the focus group adequate and proper documentation equates to the reason why records are kept. Records are kept for accountability and institutional memory. It appears from the cross-section of agencies represented at the focus group, those regulatory agencies or agencies with a legal orientation, such as Federal Deposit Insurance Corporation or the National Labor Relations Board, will produce adequate and proper documentation as a direct result of their mission. Agencies with a more general focus, such as the Smithsonian or the Department of Commerce, may do a poorer job in creating adequate and proper documentation.

The following dialogue illustrates these differences between agencies:

JY - "There still needs to be a context [for records]. What people are doing in work groups are collecting what they need and extra interesting stuff. Will this sort itself out? We run focus groups to discuss what we need to do."

EB - "I don't think you need to be concerned. Workers will keep a file because they are 'accountable.' The paper file is available. Auditors seem to be drawing conclusions so no evidence is there to say we are losing institutional memory."

FE - "We are different. We have poor records."

JY - "We vary in my organization. We can get our hands on information."

CT - "A lot depends on training too. In a new position I went into, there were no records. There were old time sheets and motor pool forms but no policy records. There was nothing to explain the authority delegation."

There was general agreement that most records officers and program staff were not sure what constituted adequate and proper documentation when all records were on paper. Now that much of the work has moved to e-mail, electronic work groups, and video-conferencing, it is even more difficult to understand the concept and provide guidance to the program offices. The fact that most of the records officers interviewed recited the regulatory definition supports this conclusion by the focus group.

Lastly, RO2 maintained that only history could tell whether an agency had maintained adequate and proper documentation. He stated, "Only a historical perspective can pronounce documentation as adequate and proper. And then only from the issues causing that documentation to be reviewed. We are only using educated guesses to decide what documentation is the 'essential evidence' of any particular program or government process and how long we should keep it. Future issues may address information, which was, or was not considered important or essential. The cost to save everything is too dear, even considering the consistent decline in electronic storage and processing power." This records officer feels that information technology has not

changed the definition of adequate and proper documentation yet. “The lure of expanding the scope of what should be saved is tempting, but the volume of data lying behind each decision is largely unknown, and in the case of e-mail, could bury the important information.”

Records officers are not sure what constitutes adequate and proper documentation. Reciting the regulatory definition does not mean you understand the term. In fact, it argues that an insufficient understanding of the term. Those records officers that do interpret the definition seem to either have grasped the concept or missed it completely. Complete inventories do not constitute adequate and proper documentation. Inventories are used to describe the various types of records created by the organization and do not document agency actions. During the focus group session, it was suggested by the moderator and agreed to by the group that perhaps records officers do not understand what adequate and proper documentation really means and never have. Information technology does not affect their understanding of the term. Information technology makes it more difficult to ensure that adequate and proper documentation is being created and maintained.

Budget and Staffing Problems

One records officer talked about how the records management function has not been given the money to deal with the new formats for records adequately.²¹ The accessibility issues, the downsizing of the agencies, and the general lack of control over what documents are being created is exacerbated by the lack of money and staff. RO7 indicated, “No one has the money to do this. I know what I need to be doing but does not have the money to do it.” RO7 thinks this is the same throughout government. She continued by saying that there is a “need to rearrange what records managers are supposed to be doing but no money to do so.” She has one FTE dedicated to records management and the rest have records as a collateral duty. RO6 believes that there is a need to completely redo the entire system for keeping records. She knows what she is doing is inadequate and people should not be allowed to think that the old system is all we need.

As staff is downsized, the clerks who traditionally have been the gatekeepers for the files have disappeared. This downsizing of clerical staff is possible because more and more of the professional staff are creating their work on personal computers. Without the gatekeepers, it is up to the professional staff, which is uninterested for the most part, to maintain records. In addition, most offices will have dual systems (paper and electronic) for a long time into the future. Paper is easier to read and, unless all documents received in paper are scanned into the computer, staff will have at least two places to look for the information. Accessing information scattered across individual computers, file rooms and various computer networks was the biggest concern for the focus group.

The records officer who expressed this concern the best indicated, “Currently the shift on decision-making re status of records is to [program] staff from secretaries and

²¹ See Appendix C, Table I for a complete listing of the records officers’ responses.

records management staff. Staff needs to be able to properly identify [sic] and know value of records and distinguish between temporary and permanent records. Agriculture has no new employee training in this. The whole burden will be on employees and [they] need to show them how to do this. Secretaries knew what to do with the paper. People don't even recognize what a copy is anymore. [The employees] cannot recognize the difference between a copy and record. There are no organizational files whether paper or electronic.” RO9 finds this frightening. “It is even more terrifying as you go up the chain. One manager [now] purges everything whenever [the office] needs space. The future is even more frightening because [of the] dynamic of changing software and hardware.”

As the federal records management program becomes more complex, it is less successful not only because of the increased complexity, but because the downsizing of agencies has eliminated a number of the program office experts and money is not available to institute new procedures.

Access and Long-Term Preservation Issues

Most of the records officers interviewed did not identify any access or preservation issues that are associated with electronic records.²² RO9, however, in his discussion on adequate and proper documentation does talk about access issues. For RO9 the “difficult obstacle (if people are even aware of it) is the migration of documents. Most IT [information technology] folks are not interested in migrating - no money [is budgeted] so they are saving everything but it is impossible to sort through all the things that have been saved. From [an] archival standpoint, [the] worst scenario is: records piled on records with no retrievability. Paper quality has declined over the years but [its durability is] still longer than bits and bytes. NARA is shortsighted in that they have not set standards [for keeping electronic textual records] and industry has been allowed go in their own direction because these standards are not out there.” This echoes what the focus group said about the need to have access to information after the technology used to generate the record is obsolete and the problems of migration. Three focus group members addressed this issue:

FMcG - “There are a lot of unanswered questions out there. We can say we'll dump documents on CD ROM but don't know how long those will last. If you think about this, you won't sleep at night. Paper has advantages; in storms we could recover paper but even greasy fingers will destroy a CD ROM.”

FE - “I don't know if we migrate data if we can capture everything [when migrating the record]. We need at least ten more years of research. People don't think electronic records will be used in the future although this is beginning to change.”

JY - “Electronics is an access issue. We have no filing nomenclature or architecture. In the past we could look in file cabinets. Now there is some structure beginning to take hold with central files. We still have paper case files; we have not lost memory because of this. We do have to manage several mediums now--film, paper,

²² See Appendix C, Table V for a complete listing of the records officers' responses.

databases, electronic mail.”

The conversation reflects the fact that agencies will have records in multiple formats for years to come and that the formats are becoming more varied rather than less.

At least one records officer agreed with the focus group. RO10 worried about the records program’s “ability to manage and archive electronic records for a number of years now and in future [being] problematical. The program is becoming more and more complex. [With] e-mail, how do you archive for future retrieval? The ability to read the electronic records in future is [a] challenge. The other challenge is the hybrid of paper and electronic systems that need to be managed. [We] need to ensure [we] have access to the dual environments.” The records officers were not asked directly about access issues. RO10 is the only records officer who stated that this is a problem for electronic records.

Relationship of Federal Records Act to other statutes

Some of the records officer indirectly addressed the access issue through the questions that asked them to identify which other statutes affect the federal records program.²³ The focus group was not asked about the relationship of the Federal Records Act to other statutes. The general discussion in the focus group did include references to FOIA, the electronic amendments to FOIA (E-FOIA) and other statutes. Some, but not all, of the records officers were aware that the Federal Records Act was not the only statute that affected records created by an agency. There were a variety of statutes mentioned. While the interview questions had a specific reference to FOIA, almost the entire group mentioned FOIA including its electronic amendments prior to that question being asked. The relationship between statutes is important because, while the Federal Records Act may not require certain actions, compliance with the other statutes may create problems within the federal records program.

With respect to FOIA, some of the records officers indicated that the relationship between this statute and the Federal Records Act was that the response to the FOIA request would turn information that was not a record into a record because it responds to the request. RO5’s response illustrates this. “In terms of FOIA once you receive a request and respond to it, the response can change the disposition of the records. [You] need to be able to produce the documents and records. It is same with E-FOIA plus you have the need to post frequently requested documents and records.” The electronic amendments to FOIA (E-FOIA) are possible because of new technology according to RO1. Lastly, RO7 stated, “FOIA and Privacy Acts also affect the Federal Records Act. Most things are not records in that they are not the documentation you take to court to defend a transaction. FOIA statute does not define records only case law. Under FOIA everything could be [an] ‘agency record.’ It mainly relates to the disposition of the document. If [its] not a record, [you] can get rid of it when you no longer need it; but if you get FOIA request on it, you have to keep it because it has become an agency record. If you have these non-records [but] not other similar materials, you will need to be able to defend why you have these documents and not others. The same is true with records, if

²³ See Appendix C, Table II for a complete listing of the records officers’ responses.

you have not retained them for the length of the retention schedule, then you will need to explain why.” She uses “FOIA as a club to make people manage their records. [We] need a consistent approach to all documents whether records or not.”

Two records officers did not mention a relationship between FOIA and the Federal Records Act. RO4 stated that, “FOIA retentions are longer than general records. FOIA [is a] completely separate group in her organization and she relies on them.” Lastly, one records officer thought there was a relationship between the Federal Records Act and FOIA but could not explain it.

The Paperwork Reduction Act and Government Paperwork Elimination Act were mentioned by some of the records officers. More records officers mentioned the Government Paperwork Elimination Act (GPEA) than the Paperwork Reduction Act. For example, RO6 states, “GPEA, which requires making forms available electronically will have impact.” RO8 felt, “There is a relationship between these two statutes [Paperwork Reduction Act and Federal Records Act] and GPEA as well. The reporting requirements within the Paperwork Reduction Act screw up records management as well.” Finally, RO9 (who has a bias towards paper) indicated, the “Paperwork Act encourages you to stop using paper in the interest of being state of the art, offices often want to look like they are using sophisticated tools. Electronic data is [sic] not always as valuable as it [sic] seems.... New information security laws will impact how agencies need to keep electronic records in the future. The backup systems and data are becoming more important and there is more focus on vital records.”

One other statute was identified by two of the records officers as having an effect on the federal records program. RO5 believed, “Clinger-Cohen... impact[s] on the Federal Records Act. Clinger-Cohen is important “because the CIO [Chief Information Officer] has responsibilities for managing information technology and information management. Collaboration is required. The information technologists and records managers don't speak the same languages. It makes working together tenuous at best. This is getting better as more records management people have information technology training and some information technology folks are genuinely interested in records. It is becoming easier to work with each other. Information technology is finally seeing records managers as professionals.”²⁴ The second records officer, RO10, mentioned the Clinger–Cohen Act as having an impact on the federal records management program.²⁵ His reasoning was “because [Clinger-Cohen] puts more emphasis on [the] business case for information technology and requires performance-based evaluations of investments. The automation used to be there to support administrative functions. Now it is doing a lot more for the business side of the operations because [its] knowledge based rather than production based.”

²⁴ Government Paperwork Elimination Act, 44 U.S.C Chapter 17 (1998) and the Clinger-Cohen Act also known as Information Technology Management Reform Act of 1996, 40 U.S.C. § 1401 et seq. (1998)

²⁵ 40 U.S.C. § 1401 et seq. (1998)

Under Clinger-Cohen, each agency is required to appoint a Chief Information Officer (CIO).²⁶ It also created a government-wide CIO Council. The council is charged with overseeing the development and management of the government's information technology investments. The Executive Order implementing Clinger-Cohen does not include the National Archives as a member of the council.²⁷ The National Archives does attend the council meetings. The charter does not mention records management as part its purpose.²⁸ The requirements of Clinger-Cohen should result in records and information management becoming more of a united discipline within agencies. This has not happened and will not until the CIOs are more aware of the relationship between information management and records management.

It is clear from the data that these statutes affect the federal records program. The exact impact cannot be drawn from this data. As with other elements of the federal records program, the impact depends on the agencies. For example, if an agency processes large numbers of FOIA requests, the impact of the FOIA on the federal records program will be greater than on an agency that receives few requests.

Armstrong and Public Citizen Cases

The records officers were asked to explain what effect the Armstrong and Public Citizen decisions had on the federal records program.²⁹ If the records officers were aware of the decisions, and two were not, there was general agreement that Armstrong made agencies aware that e-mail systems could contain records and that the initial Public Citizen decision created an urgency relating to electronic records.³⁰ The general consensus was that the Armstrong decision forced agencies to begin treating e-mail as a record. Two examples of the records officer response to the questions on Armstrong follows:

RO1 stated, "Before this case [Armstrong] no one thought e-mail was a record. [It] raised notion that e-mail had to be preserved and scheduled. [It created a] new awareness of a new format for records."

RO5 agreed, the "Armstrong decision was a "wake -up call for one. There is still some debate on record status of e-mail. This decision made it clear that e-mail can be a record depending on content. Physical properties of the record do govern its record status."

The records officers who were aware of the court decision all agreed that the federal records program has been changed because of the Armstrong decision. They also agreed that Public Citizen broadened the Armstrong decision. RO1's opinion on Public

²⁶ Ibid.

²⁷ Executive Order 13011 of July 16, 1996, Federal Information Technology.

²⁸ CIO Council Charter, dated February 20, 1997.

²⁹ Armstrong, et al. v. EOP, et al., 1 F.3d 1274 (D.C. Cir. 1993); Public Citizen, et al. v. Carlin, 2 F.Supp.2d 1 (D.D.C. 1997) *reversed*, 184 F.3d 900 (D.C. Cir. 1999), *cert. denied*, 68 U.S.L.W. 3565.

³⁰ See Appendix C Tables III and IV for as complete listing of the records officers' responses.

Citizen is that the decision is “similar to Armstrong, it broadens Armstrong to all electronic records. The need to schedule [electronic records] cannot be ignored. [It] also includes electronic recordkeeping as something we need to do in order to allow people to search the records.” RO8 felt, “Public Citizen has had more of an effect [on the records program]. The initial decision-making GRS 20 null and void originally had great influence. It brought a lot of attention and created management concern, but management has lost interest as it has dragged on. Because 99-04 has been extended, the effects of the initial decision are gone.³¹ Agencies are complacent. NARA has other regulations out there that apply to electronic records. Agencies will continue to schedule electronic records but there is no push or shove to get it done.”

A number of records officers indicated that they believed these two court decisions complicate the federal records program because electronic messages and word processing documents are hard to manage.

RO3 indicated, “Court of Appeals [decision in Public Citizen] leaves one with the question “where do we go from here?” The affect of [the] court case is that it makes you take notice of electronic records.” For instance, RO4 mentioned, “The main effect is that records managers find it hard to manage it. Some e-mails are not records so [they] delete [them]. [There are] no easy answers. If it relates to specific work, it is a record and if it is just information, [it] may be not. [We] try to educate managers but cannot stop them from doing their thing.”

One records officer expressed concern that there will be continued challenges regarding the status of electronic information and there will be attempts to appease people making the challenges. Public Citizen, through its lawsuits, “is attacking the National Archives and it [the National Archives] should be focusing on other issues relating to electronic records.” He does not “think NARA is focusing on the issues either.”

Another records officer felt that these decisions confuse records requirements with litigation discovery standards. RO2 argued that Armstrong has “misled many to confuse the process of identifying and preserving essential evidence of government operations (official records) with the legal process of discovery.” His argument is that the decision is more applicable to litigation than records management. He had a negative reaction to the Public Citizen decision as well. The main argument is that electronic information needs to be retained and scheduled as records and not systems. “NARA was forced [by the litigation] into a reactionary posture in electronic records identification which started down the wrong road. Agencies were tasked to perform work [i.e., schedule electronic records]; which would have been costly and ineffective. Fortunately, we have been advised that due to the successful appeal, it will be overturned. [Agencies] need to schedule records not by system but rather by information content...the basic concept of records management is to identify the important information, and preserve it,

³¹ RO 8 is referring to NARA Bulletin 99-04, Scheduling of electronic copies of program records and administrative records not covered by the General Records Schedule 20; NARA Bulletin 2000-02, Disposition of electronic copies; suspension of NARA Bulletin 99-04.

regardless of its format or medium. The record information must be clearly identified, and the retention linked to it. As technology changes shape, and record information migrates through various systems and forms, it still must be preserved. To schedule by system, and not by information, will ensure the schedules will always be lagging reality and experiencing considerable turmoil. This creates a needless risk of losing record Material.” RO2’s comments on the two cases hark back to the focus group’s assertion that information needs to be managed and not records.

Adequacy of Federal Records Act

In concluding the focus group discussion, the moderator asked about the adequacy of the statute. EB immediately answered that the statute was “marvelously elastic.” The groups’ consensus was that the current statute is adequate for today. There were three reasons given for the adequacy. JY stated, “The statute is media neutral.” EB added, “It has also been successfully modified.” JY replied, “Interpretation remains elastic in spite of its modification.” RO5 agreed with the focus group and specifically stated that the statute should remain unchanged. Most of the interviewed records officer did not want to see any substantial change to the definitions of a record or adequate and proper documentation. One may be able to extrapolate from the discussion that the records officers would not want other portions of the statute changed.

Literary Warrants, Diplomats and DoD Standard 5015.2

The focus group was not asked about their awareness of diplomats and literary warrants. This inquiry was considered to be unnecessary because of their extensive involvement with electronic records. All of the interviewed records officers, except one, were unfamiliar with the literary warrants and diplomats projects.³² One records officer was familiar with diplomats but not the literary warrants. Several were familiar with the DoD standard but none was aware of its connection to diplomats. Their answers regarding the DoD standard reflect the complicated nature of the standard. For instance, RO2 states, “It attempts to establish the definition of the metadata needed to facilitate identification and retrieval of electronic records. It is a start. It does not appear, however, to consider the costs associated with employing it to any collection of reasonable size. The focus is on having sufficient information to place an individual document, or item of structured information, into context of the creating program in order to properly link it to its retention and to facilitate identification and retrieval.”

Another records officer, RO9, indicated, “The standard is much too complicated to figure out. There are too many details needed to decide the basics. Electronic records are in a category of complexity where people do not want to deal with it. Vendors have grandiose systems but what do you do with the employee who doesn't want to do it. How do you tell what they are doing? [We] need simple solutions, everything is too complex. Given the volume of metadata people do not want to complete that information, and they will find a way around it.”

³² See Appendix C Tables III and IV for a complete listing of the records officers’ responses.

Only one records officer was aware of the diplomatics research. RO8 indicated that she is aware of diplomatics but was unsure that she can describe it. She has “looked at it because it uses the concept of proving reliability and authenticity of documents along with the legal status. Duranti uses diplomatics to link these elements and as a method for dealing with records over time, specifically electronic records.”

Internet and Intranet

Another complication not mentioned by the record officers or the focus group is the Internet and Intranet. Are the web pages and their content records? The web pages certainly are. The web pages do not exist anywhere else in the agency’s recordkeeping system and the pages show what information was available through the web site and when. The content of those web pages is more difficult. If the information posted on the web pages is the only copy of that information and the information meets the definition of a record, the content of the web site is a record. If the content is a copy of information that is maintained in the agency’s recordkeeping system, the content may be a reference copy and not a record. However, even this delineation does not work if the information when placed on the web site can be used differently than the original information in the recordkeeping system.³³ In addition, the organization needs to track when the information was available on the web site and when it was removed. It is standard practice to remove older data from the web pages.

The other record problem created by web pages is the information gathered on web site usage. While the web site does not have to gather information on the personal information about each user, it does gather information on the frequency that the web site and particular portions of the web site are accessed. This information is used to establish when information is no longer needed on the web site. It also helps agencies determine peak periods of usage and other administrative details about the web site. This information is stored in a database that may automatically delete data after a certain length of time. The information in the database is clearly a record as the agency is using it as a method of determining what information the public is interested in and basing changes to its web site on that information. Records officers need to understand the workings of a web site, the agency policy for posting information on the web site, and the information it gathers in order to ensure compliance with the federal records program.

Discussion

This data indicates that the knowledge level of the records officers is extremely varied. They do understand that electronic records are creating problems in the records management program and that solutions need to be found. However, understanding of the electronic issues seems to be minimal for the majority of the records officers interviewed. The perceived impact that information technology has had on the federal

³³ Charles McClure and J. Timothy Sprehe, *Guidelines for Electronic Records Management of State and Federal Agency Websites*, Available at <http://istweb.syr.edu/~mcclure/guidelines.html>, Internet, Accessed February 9, 2000.

records management program appears to be a direct result of how the agencies are using information technology to conduct their agencies' missions. The more work is done electronically, the more aware the record officers are of the impact on records management. In addition neither the focus group participants nor the interviewed records officers have an in-depth knowledge of information technology. The records officers, for the most part, are not aware of the research being done in electronic recordkeeping. What the records officers do know about the existing electronic recordkeeping systems available is that they are too complicated and difficult to use.

Records officers made two comments during their interviews that summarize the plight of records officers. RO5 used a football analogy to explain the importance of records management in an agency. He stated, "The center on the offensive line is the most important but overlooked player on the team. He is not noticed until a bad snap. Records management is the same way. It is a critical component of the organization but only noticed when something goes wrong." Finally, RO7, the records officer for GSA, stated that, "[There is] no such thing as creation and use side for government wide records management. There is only guidance from NARA on the back end. NARA is beginning to try to get to the front end but is not there. Media counts only when you have to transfer the records to NARA." This comment is interesting because it is GSA that is responsible for the creation and use side of records management under the Federal Records Act.

Based on the evidence received from the focus group and the interviewees, almost everyone in the records community understands the concept of a record. It does appear that some have interpreted the definition and rely on that interpretation to administer the federal records management program. Because of the lack of interest by program offices in records, it is necessary for a records officer to be able to interpret the definition in order to explain the program offices' responsibilities under the statute. Two of the ROs described records as being evidence of a transaction in a manner similar to the definitions used by Pittsburgh and UBC.

Records officers are not sure what constitutes adequate and proper documentation. Reciting the statutory definition does not mean you understand the term. It argues the opposite. During the focus group session, it was suggested by the moderator and agreed to by the group that perhaps records officers do not understand what adequate and proper documentation really means and never have. The data received from the records officers support this conclusion. Information technology does not affect their understanding of the term. Information technology makes it more difficult to ensure that adequate and proper documentation is being created and maintained.

This data indicate that information technology is changing the federal records program. It supports the idea that it has become too difficult for most federal employees to figure out what documents rise to the level of a record and need to be maintained. The data also reflect the general feeling by records officers that the DoD certified programs are too complex for them to implement. A common complaint by both the focus group

participants and the interviewed records officers was that the federal records program is inadequately funded and does not have sufficient staff to conduct the program. Lastly, the various levels of knowledge by the federal records officers make it more difficult for the program to succeed in all federal agencies. The success depends on the records officer's ability to explain the program and to figure ways to make the program work for the agency.

CHAPTER V

CONCLUSION

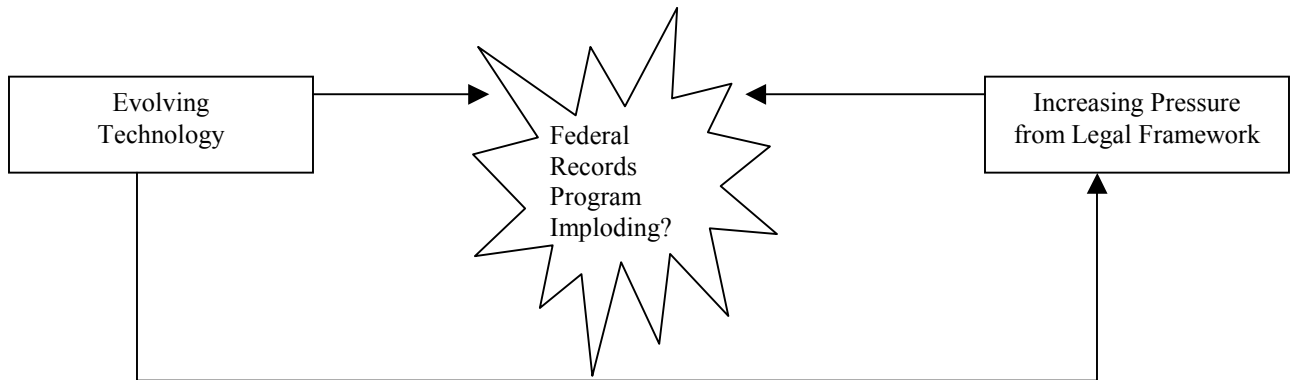


Figure 1. Graphic representation of conclusion.

The first research question addressed whether the existing legal framework accommodates the changes that are occurring in the federal records management program as a result of electronic records. Figure 1 illustrates this research question, AS technology evolves, pressure on the agencies to do more work electronically increases as a result of court decisions and new statutes. The ability of the federal records management program to adapt to these changes is questionable. The second research question asked whether the proposed UBC and Pittsburgh solutions are viable for the federal records officer. This question looked at whether the electronic recordkeeping research conducted by these two universities provides a useful solution to the electronic records problem.

Evolving Technology

These research questions are important because technology is causing organizations to work differently. More and more work is being done electronically by the document creator and being retained by the creator on a local computer or a shared network drive established for that program office. As a result the records being created are different from the traditional records normally managed by a federal records management program. These electronic records require that content, context, and structure information be recorded about each record. This was unnecessary for paper records as this information was contained in the paper record itself or its file folder. Paper is also a stable medium. The medium used for electronic records is damaged easily, which causes accessibility issues. The evolving technology also means that even if the electronic medium is readable, the information may be lost because the technology has changed. The current software and hardware may not be compatible with the original format of the record preventing access to the information.

UBC's and Pittsburgh's research projects are focused on resolving these problems. These projects provide a framework for developing electronic recordkeeping systems. While both UBC and Pittsburgh speak only about managing records, any software product that meets their standards can be used to manage information and not just records. The focus group data indicate that managing information should become the records officers' focus, not just managing records.

Even without this change in focus, records officers cannot manage electronic records in the same manner as paper records have been managed. Control over the electronic records resides not with the records officer but with the creator and/or user. Without control, the records officer has no mechanism to ensure that the proper information about a record or even the record itself is being captured. The focus group's belief that the record decision is up to the program office is partially a result of the records officer having no control over the records. The program office is the only entity that knows whether the information has record value. This is true even if the information is recorded on paper. Unfortunately, the program staff is uninterested in maintaining records. Therefore, electronic recordkeeping will work only if the process can be made invisible or painless to the creator. The focus group's contention that the record decision is up to the program office is reflected in the argument made by both Pittsburgh and UBC that the all of the recordkeeping requirements must be built into the business process. This means that as the staff completes a transaction, the record and its metadata are generated and saved. However, any electronic recordkeeping system that meets the Pittsburgh or UBC requirements does not provide a process simple enough for the record's creator. These requirements do not produce a simple painless or invisible method for capturing records. Finding a viable method to manage electronic records is imperative because the evolving legal framework is requiring agencies to conduct more of their activities electronically.

As technology develops, the challenges to the federal records management program will change as well. As agencies take advantage of these new technologies, the need for the federal records program to manage these records in their native formats will increase. Without a viable method for maintaining these records, the federal records management program will become increasingly ineffectual.

Legal Requirements

The Federal Records Act is sufficient to meet the needs of the federal records management program. This act's vagueness allows agencies and the National Archives to structure their records management programs to meet their business needs. It is the more recent statutes, e.g., EFOIA amendments, Paperwork Act, and the Government Paperwork Elimination Act, and the recent court cases that are creating stress fractures in the program. The EFOIA amendments, Paperwork Act, and Government Paperwork Elimination Act directly or indirectly emphasize the need to manage records electronically. Armstrong and Public Citizen forced agencies to realize that the e-mail

messages and the word processing version of a record are also records, respectively, and, therefore, they need to be managed as records. Presidential memoranda on e-commerce and electronic government create more pressure on the federal records program. The pressure exerted by this framework is illustrated in Table 4 and discussed below:

Statute/Court Cases	Determination
Federal Records Act	No. Statute is elastic. Allows agencies to structure program to fit business needs
Freedom of Information Act	Yes. In particular the electronic amendments can cause agencies to create an electronic record where none exist before
Paperwork Reduction Act	Yes. Encourages agencies to maintain information electronically but does not mandate that electronic systems have record functionality.
Government Paperwork Elimination Act	Yes. Requires agencies to begin receiving information from the public electronically.
<u>Armstrong and Public Citizen</u>	Yes. For first time records must be kept in a specified medium.

Table 3. Summary of whether or not the statutes or court cases have increased the pressure on the federal records management program.

EFOIA -- FOIA's electronic amendments specifically require agencies to provide information electronically when requested. The amendments also require agencies to create an electronic reading room to provide access to frequently requested materials. Complying with these requirements could result in an electronic record being created solely to respond to a request. In the past, the agency had only to produce records or documents that already existed that related to the request. It did not have to create an electronic version of a record in order to respond.

Paperwork Reduction Act -- OMB's Circular A-130 implementing this act encourages agencies to manage their information more efficiently, i.e., electronically.¹ The guidance is aimed at reducing the reporting and recordkeeping burden on the public by allowing the public to use information technology to reduce their reporting and recordkeeping burden. Agencies, themselves, are encouraged to include records management components in their electronic information systems. However, this guidance does not state that records management is an essential component of information management. It does not require the integration of records management into information management systems. The main focus of the Paperwork Act and OMB's guidance is not on records management but on managing and disseminating information.

Government Paperwork Elimination Act -- The Government Paperwork Elimination Act basically amends the Paperwork Reduction Act to require, rather than encourage, agencies to begin accepting information electronically from the public. This

¹ OMB Circular A-130.

act is putting the most stress on the federal records management program.² Accepting electronic information from the public creates problems of authenticity and access. The agency needs to be confident that the information submitted is indeed from the person sending it. In addition, this act results in the agencies having to manage those records in their native electronic formats. A digital signature creates maintenance problems because any alteration, including migration, invalidates the signature. Even without the digital signature issue, agencies face questions of which word processing formats they will accept and whether they can limit the formats without seeming to endorse one product over another. President Clinton's two memoranda, issued last December, encouraging agencies to accelerate the deadline established in the Government Paperwork Elimination Act and to begin to do more through e-commerce has increased the pressure.

Armstrong and Public Citizen -- The Armstrong decision forced agencies to realize that e-mail systems may contain records. Public Citizen broadened this finding to word processing records. The requirement that agencies begin maintaining the electronic version of a record as a record itself means that agencies can no longer simply declare the paper version, even of an e-mail, to be the record copy. The federal records management program must deal with records in their electronic format. At the same time, the records officer cannot be sure that the electronic record is being preserved because the record is within the control of the creator and not the records officer. Even when the records officer receives custody of the electronic record, without an electronic recordkeeping system the records officer has no method of managing these records effectively or efficiently.

Imploding?

The Government Paperwork Elimination Act, the Paperwork Reduction Act and the FOIA cause electronic records to be created. However, none of these statutes change the definition of a record under the Federal Records Act. Because UBC's and Pittsburgh's standards are not feasible for agencies to implement at this time, there are no viable solutions that the agencies can use to automate the federal records program. The longer agencies are unable or unwilling to implement automated records management systems, the more unstable the records management program becomes. When agencies have no methodology or system for managing the records created from the move to e-commerce and electronic filing by the public, the result could be the implosion of the federal records management program. It will collapse in on itself under its own weight because it cannot handle the stress created by the ever-increasing complexity of the electronic records problems.

Even if a viable electronic recordkeeping solution were available, agencies would have to voluntarily implement the solutions. The National Archives, GSA, and OMB have oversight of the federal records program, but no enforcement authority. These institutions can publish regulations and encourage agencies to follow their guidance but there is no mechanism to require that agencies do so. The National Archives can do inspections of programs and establish corrective actions but does not have the authority

² 44 U.S.C. § 1701, et seq. (1998).

to require agencies to actually perform any agreed-upon corrective actions. In addition, there are no formal reporting requirements for this program; which means that agencies can “do their thing.”

Neither the original Federal Records Act, its amendments, nor any of the more recent statutes give enforcement powers to the National Archives, OMB, or GSA. It is doubtful that a new records statute would change this. The elasticity of the Federal Records Act and the decentralized structure of the program allow the agencies and the National Archives to tailor the records management program to fit each agency’s business needs by maintaining records in the medium that are appropriate for that agency. Until Armstrong and the initial Public Citizen decision, there were no requirements that agencies keep records in a specific medium.³

Recommendations

The records officers interviewed were aware that electronic records create problems for the federal records program but were unaware of UBC’s or Pittsburgh’s research projects. More troubling is the fact that some were not even aware of the Armstrong or Public Citizen cases or the inter-relationship of the Federal Records Act with the FOIA, the Paperwork Reduction Act, or the Government Paperwork Elimination Act. As indicated above, the legal requirements of these statutes and the court cases profoundly affect the records received by an agency and, therefore, create additional recordkeeping problems. One is left with the conclusion that, based on the information gathered in the interviews, a number of the records officers need to be educated about the relationship between information management and records management.

The National Archives has been attempting to find various means for educating the records officers about the developments in electronic records management. It has asked two agency records managers, three-information technology specialists, and four of its own staff to develop guidance on electronic recordkeeping for federal agencies. The National Archives emphasis is on identifying and maintaining electronic records. Electronic records are one small part of the information revolution. As at least one records officer pointed out, the information that is valuable tomorrow may not be the information that is valuable today. By managing information, records officers will simplify the program office’s role and will ensure that the records officer has access to the records. In addition to the National Archives web site, the research projects of Pittsburgh and UBC are good starting places for records officers to begin developing an understanding of the issues involved in electronic records. This is particularly important because the National Archives, in response to the Appeals Court decision in Public Citizen, issued guidance to the agencies that encourage agencies to develop electronic recordkeeping capabilities.⁴ This makes it essential that records officers begin to understand the recordkeeping requirements for electronic records.

³ Armstrong, et al. v. EOP, et al., 1 F.3d 1274 (D.C. Cir. 1993); Public Citizen, et al. v. Carlin, 2 F.Supp.2d 1 (D.D.C. 1997) *reversed*, 184 F.3d 900 (D.C. Cir. 1999), *cert. denied*, 68 U.S.L.W. 3565.

⁴ NARA Bulletin 2000-02, Disposition of electronic copies; suspension of NARA Bulletin 99-04, dated December 27, 1999.

Two activities need to occur. The first activity is that agencies need to begin to take the federal records management program seriously. Agencies are doing more and more work electronically. As information technology evolves, the need to control electronic records increases because the risk increases those agencies will not be able to access their electronic records.

The second is to find simple approaches to keeping electronic records. Records officers and program staff need to learn about the reasons why electronic records need to be protected, how it can be done, and the benefits for the organization. The electronic recordkeeping system will have to enable the records officer to conduct records management activities on the records contained in the system. However, for the creator, the system must have a painless method for identifying electronic records and filing them into an electronic recordkeeping system.

Neither of these activities requires any change in the statute but a change in emphasis for the National Archives and OMB. The National Archives should work with agencies to find a simpler approach to maintaining electronic records and OMB needs to raise the importance of records management through its budget review process.

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Appendix A

Glossary of Records Management Terms¹

ACCESS - The availability of, or the permission to consult records.

ACCESSION - (1) The transfer of legal and physical custody of permanent records to the National Archives. (2) The transfer of agency records to a Federal records center for temporary storage. The agency retains legal custody of the records.

ACTION COPY - The copy of a document sent to the agency, office, or individual responsible for taking action.

ADEQUACY OF DOCUMENTATION - A standard of sufficiently and properly recording actions and/or decisions.

ADEQUATE AND PROPER DOCUMENTATION - A record of the conduct of U.S. Government business that is complete and accurate to the extent required to document the organization, functions, policies, decisions, procedures, and essential transactions of the agency and that is designed to furnish the information necessary to protect the legal and financial rights of the Government and of persons directly affected by the agency's activities.

ADMINISTRATIVE RECORDS - Records relating to budget, personnel, supply, and similar housekeeping, or facilitative, functions common to most agencies, in contrast to program records.

AGENCY RECORDS - (1) See Records. (2) Documentary materials of an executive agency that, based on Federal case law, are subject to the Freedom of Information Act.

APPRAISAL - The process of determining the value and thus the final disposition of records, making them either temporary or permanent.

ARCHIVES - (1) The noncurrent records of an organization preserved because of their continuing, or enduring, value. (2) The organization or agency responsible for appraising, accessioning, preserving, and making available permanent records.

ARCHIVING - In electronic records, the process of creating a backup copy of computer files, especially long-term storage.

ARRANGEMENT - In files management, the act or result of placing records in a particular order or sequence.

ASCII – American Standard Code for Information Interchange. A binary code representing each letter, number, or other symbol with a unique 7-bit code.

¹ *A Federal Records Management Glossary*, (Washington, DC: National Archives and Records Administration) 2d ed., 1993.

CASE FILES - Records, regardless of media, documenting a specific action, event, person, place, project, or other matter.

CLOSED FILE/INACTIVE – (1) A file unit or series containing documents on which action has been completed and to which more documents are not likely to be added. (2) A file unit or series to which access is limited or denied.

COPY – (1) A reproduction of the contents of an original document, prepared simultaneously or separately and usually identified by function or by method of creation. Copies identified by function include action copy, information or reference copy, reading or chronological file copy, suspense or tickler file copy, and stock copy. Copies identified by method of creation include electrostatic copy, mimeograph copy and ribbon copy. (2) In electronic records, action or result of reading data from source, leaving source data unchanged, and writing the same data elsewhere on a medium that may differ from the source.

CUTOFF – Breaking, or ending, files at regular intervals, usually at the close of a fiscal or calendar year, to permit their disposal or transfer in complete blocks and, for correspondence files, to permit establishment of new files. Case files are generally cut off at the end of the year in which case is closed.

DISPOSITION – (1) The actions taken regarding records no longer needed for current Government business. These actions include transfer to agency storage facilities or Federal records centers, transfer of permanent records to the National Archives, and disposal of temporary records. Disposition is the third stage of records life cycle. (2) The actions taken regarding nonrecord materials when no longer needed, including screening and destruction.

DOCUMENT – (1) Records information regardless of physical form or characteristics. Often used interchangeably with record. (2) An individual record or an item of nonrecord materials or personal papers.

ELECTRONIC RECORDKEEPING – The creation, maintenance and use and disposition of records created and stored using a computer.

ELECTRONIC RECORDS – Records stored in a form that only a computer can process, Also called machine-readable records or ADP records.

EVIDENTIAL VALUE – The usefulness of records in documenting the organization, functions, and activities of the agency creating or receiving them. Considered by NARA in appraising records for permanent retention.

FILE – (1) Usually an accumulation of records or nonrecords materials arranged according to a plan. (2) A unite, such as a folder, microform, or electronic medium, containing such records or nonrecords. (3) Storage equipment, such as a filing cabinet.

FUNCTIONAL CLASSIFICATION – The division of records into categories and subcategories to reflect the programs, activities, and transactions carried out by the organization accumulating records.

INFORMATION MANAGEMENT – The administration, use, and transmission of information and the application of theories and techniques of information science to create, modify, or improve information handling systems.

INTRINSIC VALUE – In archives administration, the value of those permanent records that should be preserved in their original form rather than as copies.

LEGAL VALUE – The usefulness of records in documenting legally enforceable rights or obligations, both those of the Federal Government and those of persons directly affected by the agencies' activities.

LOGICAL RECORD – In electronic records, a collection of related data elements, referring to one person, place, thing, or event, that are treated as a unit and have either a fixed or variable length.

MEDIUM – The physical form of recorded information. Includes paper, film, disk, magnetic tape, CD ROM, and other materials on which information can be recorded.

NONRECORD MATERIAL – U.S. Government-owned documentary materials excluded from the legal definition of records or not meeting the requirements of that definition.

PERMANENT RECORDS – Records appraised by NARA as having sufficient historical or other value to warrant continued preservation by the Federal Government beyond the time they are needed for administrative, legal, or fiscal purposes.

PRESIDENTIAL RECORDS – According to 44 U.S.C. 2201, the term 'means documentary materials, or any reasonably segregable portion thereof, created or received by the President, his immediate staff, or a unit or individual of the Executive Office of the President whose function is to advise and assist the President, in the course of conducting activities which relate to or have an effect upon the carrying out of the constitutional, statutory, or other official or ceremonial duties of the President.' Excluded are Federal records, personal papers, stocks of publications and stationary, and extra copies of documents produced only for convenience of reference and clearly identified as such.

PROGRAM RECORDS – Records documenting the unique, substantive functions for which an agency is responsible.

RECORDKEEPING REQUIREMENTS – Statements in statutes, regulations or agency directives providing general and specific guidance on particular records to be created and maintained by an agency. Since each agency is legally obligated to create and maintain

adequate and proper documentation of its organization, functions, and activities, it needs to issue recordkeeping requirements for all activities at all levels and for all media and to distinguish records from nonrecords and personal papers.

RECORDS – According to 44 U.S.C. 3301, the term “includes all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications are not included.”

RECORDS CREATION – The first stage of the records life cycle in which records are made or received by an office.

RECORDS DISPOSITION OR RETENTION SCHEDULE – A document providing mandatory instructions for what to do with records (and nonrecords materials) no longer needed for current Government business, with provision of authority for the final disposition of recurring and nonrecurring records.

TEMPORARY RECORDS – Records approved by NARA for disposal, either immediately or after a specified retention period.

WORKING FILES – Background or support files, such as worksheets, questionnaires, rough notes, calculations, or drafts, used to prepare or analyze file documents.

Appendix B

Interview questions

Question investigating is whether the legal framework accommodates the changes in the federal records program as a result of information technology.

1. Do you agree that the federal records program is changing as a result of IT?
2. Generally describe the changes you see occurring in the federal records program.
3. While the Federal Records Act is the main statute underlying the program, other statutes affect the program as well. Which statutes do you see as having an affect on the program and why?
4. Is there a relationship between the FOIA statutes, particularly E-FOIA and the FRA?
5. In your opinion has the Armstrong decision had an influence on the program?
6. In your opinion has the initial Public Citizen decision had an influence on the program?
7. Do you expect further changes as a result of the appeals court decision?
8. Define adequate and proper documentation?
9. Has this definition changed as a result of electronic records?
10. Describe for me what a record is.
11. Do electronic records change the idea of what a record is?
12. Should the idea of what is a record be changed?
13. Are you familiar with David Bearman's functional requirements for electronic recordkeeping? Can you explain your understanding of his work?
14. Are you familiar with Luciana Duranti's use of diplomatics as a theoretical foundation for electronic recordkeeping? Can you explain your understanding of her work?
15. Are you familiar with DOD's 5015.2 standard for records management recordkeeping applications? Can you explain your understanding of that standard and NARA's adoption of it?

Appendix C

The answers contained in this table are my transcriptions of notes taken during the interview. They have not been edited in any way. One records officer submitted additional information in writing and that has been included in the table as well.

Table I - Changes seen in Records Management Program due to Information Technology by Records Officers

Interview Question 1: Do you agree that the federal records program is changing as a result of IT?
Interview Question 2: Generally describe the changes you see occurring in the federal records program?

Person Interviewed

Answer

Records Officer 1	Yes. I think it will just because of electronic records. The scheduling of electronic records. Priorities have changed over the last year or so and records people are working with IT more. Electronic is becoming part of the program and we are developing electronic recordkeeping systems.
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Table 1 - Changes seen in Records Management Program due to Information Technology by Records Officers

Interview Question 1:
Interview Question 2:

Do you agree that the federal records program is changing as a result of IT?
Generally describe the changes you see occurring in the federal records program?

Person Interviewed

Answer

Records Officer 2	Yes, and the use of IT is requiring records managers to rethink how they schedule and manage records. The records management requirements will also be changing IT. Government is only entity that has requirement to keep records long period of time. The need to preserve electronic records over long periods of time, and provide legal sufficiency requires IT industry to develop solutions to this problem. San Diego Study funded by NARA is looking at migration - decided it was hard because each migration has to be tailored to the type of data. We have more visibility with our senior leaders. This gains their support to make needed improvements to the program. Recent attempts to use Army records to answer important health questions for soldiers serving in Desert Storm spotlighted deficiencies in the program. These problems were with hard-copy records--we weren't saving all we should have, and we had poor methods to find and retrieve those records. A check into electronic records showed we were preserving even less of those, and more and more information was migrating away from hard-copy. We had made records management a bill payer during the computer and communication upgrades in the 1980's. Our existing program would work if adequately funded and trained, but we could see that we would not be able to restore those lost resources. We have to change the program to be more effective and to run with less cost to both the Army and use less of the fighting force (soldiers), for they too are in tight supply. We will not simply automate the old procedures, for that would not correct the inefficiencies. We are redesigning the basic concepts to achieve four goals--Ensure all important records are preserved, The process is simple to use, All records are retrievable, and The recordkeeping process is integrated into doing the Army business. Need to integrate recordkeeping with the normal course of business which means functionally. 4th Battalion (?) manages their information in electronic format only. Millions of packets of information are linked and summarized as the information follows from field commander to senior staff. The underlying information is retained and is there but not visible. Redesign to go to functional components for explanation of the information needed for long term and why.
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Table 1 - Changes seen in Records Management Program due to Information Technology by Records Officers

Interview Question 1:
Interview Question 2:

Do you agree that the federal records program is changing as a result of IT?
Generally describe the changes you see occurring in the federal records program?

Person Interviewed

Answer

Records Officer 3	I think so definitely. It is evolving so quickly we have to change along with it. One thing is done at NCUA Don't have program. From stone age. It has not changed since 1976. Recommended that NCUA hire archivist who knows what is going on and get program off the ground. Announcement will appear in next couple of weeks. Big change for NCUA. Revamp program. They know they need help but don't have knowledge of what needs to be done. It is evolving so quickly we have to change along with it. One thing is done at NCUA Don't have program. From stone age. It has not changed since 1976. Recommended that NCUA hire archivist who knows what is going on and get program off the ground. Announcement will appear in next couple of weeks. Big change for NCUA. Revamp program. They know they need help but don't have knowledge of what needs to be done. Changes on what is a record because of technology. Changing in new and different ways.
Records Officer 4	I think it is. Changing how we look at records, maintain, schedule, and inventory. Changing how we look at records, maintain, schedule, and inventory. Problem is trying to find out what people are putting on their systems.
Records Officer 5	Yes Absolutely Lot of changes. Biggest is that there are a lot more records from lot more sources. It used to be clearer what was a record. Now you have e-mail, voice mail, web, faxes. So much information is being poured out that is a record. Makes challenges that more daunting.

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Person Interviewed

Answer

Records Officer 6	Everything is changing because of IT why should records be any different. Questions surround electronic records. Doesn't believe that the paperless office will ever be. There may be reduction in paper as accountable records move to electronic. This is a major impact.
Records Officer 7	The federal records program is changing less than it should. The government doesn't have a lot of money to spend on records. The way records were setup originally was around paper, file custodians and file stations. Need to change this to manage electronic records. Electronic records need to be managed electronically and should be built into the system generating the records. No one has the money to do this. She knows what she needs to be doing but does not have the money to do it. Thinks this is the same through our government. Need to rearrange what records managers are supposed to be doing and no money to do so. She has one FTE dedicated to records management and the rest have records as a collateral duty. Need to completely redo the entire system for keeping records. She knows what she is doing is inadequate and people should not be allowed to think that the old system is all we need. No such thing as creation and use side for government wide records management. There is only guidance from NARA on the back end. NARA is beginning to try to get to the front end but is not there. Media counts only when you have to transfer the records to NARA.
Records Officer 8	Yes Generally, IT means more electronic records, less control and greater lack of understanding in both IT and records management areas. She sees IT as making more negative changes than positive changes. If you don't have good understanding of records management before IT than it only gets worse.

Table 1 - Changes seen in Records Management Program due to Information Technology by Records Officers

Interview Question 1:
Interview Question 2:

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Generally describe the changes you see occurring in the federal records program?

Person Interviewed

Answer

Records Officer 9	Absolutely. Changing more dramatically everyday. He finds what he is learning about metadata frightening. Burden on program employees is incredible. Employees are responsible and more education is needed as to why they have to accurately describe and manage their records. Managers need this education as well. Currently the shift on decision-making re status of records is to staff from secretaries and records management staff. Staff need to be able to properly identify and know value of records - distinguish between temporary and permanent records. Agriculture has no new employee training in this. The whole burden will be on employees and need to show them how to do this. Secretaries knew what to do with the paper. People don't even recognize what a copy is anymore. Cannot recognize the difference between a copy and record. There are no organizational files whether paper or electronic. He finds this frightening. It is even more terrifying as you go up the chain, One manager he knows purges everything whenever they need space. The future is even more frightening because dynamic of changing software and hardware, Difficult obstacle (if people are even aware of it) is the migration of documents. Most IT folks are not interested in migrating - no money so they are saving everything but it is impossible to sort through all the things that have been saved, From archival standpoint, worst scenario is records piled on records with no retrievability. Paper quality has declined over the years but still longer than bits and bytes. NARA is shortsighted in that they have not set standards and industry has been allowed go in their own direction because these standards are not out there.
Records Officer 10	Yes Ability to manage and archive electronic records for number of years now and in future is problematical. Program is becoming more and more complex. E-mail how do you archive for future retrieval. The ability to read electronic records in future is challenge. The other challenge is the hybrid of paper and electronic systems that need to be managed. Need to ensure have access to the dual environments.

Table II - Relationship of federal Records Act to Other Statutes, especially FOIA as seen by Records Officers

Question 3

While the Federal Records Act is the main statute underlying the program, other statutes affect the program as well. Which statute do you see as having an affect on the program and why?

Question 4

Is there a relationship between the FOIA statutes, particularly E-FOIA and the FRA?

Person Interviewed:

Answer:

Records Manager 1	E-FOIA, GPEA are possible because of new technology and because statutes are providing for stuff to be done electronically. Yes
Records Manager 2	I'm not sure which statutes are considered the Federal Records Act--We work under 36 CFR Chapter XII, Subchapter B, and are responsive to 44 USC, Chap 21, 29, 31, 33 and 35, and 18 USC Chap 101. When GSA publishes it, 41 USC, 201 will also apply. These all spell out what the records mgmt program includes, and must do. The Army also uses some General Records Schedules as appropriate, but they are not mandatory as the military mission varies from civilian agencies. Yes, requests for information may include information which is being managed as record material. The more effective the indexing and retrieval process for records, the easier it is to complete the FOIA requests. E-FOIA has not fully met its intended benefits. While the Army has met the requirements to establish an electronic reading room, the cost to convert existing hardcopy records into electronic format has served as a roadblock to putting more frequently requested old record information into it. New records are being created electronically and do not require costly conversion. As Web technology facilitates searches and winnowing the hits, the benefits of the E-FOIA will improve. FOIA is not in driving seat for Army. Other unit ensures requests get to the right person. Army is not there to answer public inquiries but is there to protect rights and interests. Main drain on Army in terms of money is finding records. FOIA requests enter at Army office level not the program level. Believes that Army spends \$10 mil on responded to FOIA requests and Treasury gets \$300K from fees allowed to charge.

Table II - Relationship of federal Records Act to Other Statutes, especially FOIA as seen by Records Officers

- Question 3 While the Federal Records Act is the main statute underlying the program, other statutes affect the program as well. Which statute do you see as having an affect on the program and why?
- Question 4 Is there a relationship between the FOIA statutes, particularly E-FOIA and the FRA?

Person Interviewed: Answer:

Records Manager 3	FOIA Was not aware of the Paperwork Elimination Act Yes
Records Manager 4	No. No. FOIA retentions are longer than general records. FOIA completely separate group in her organization and she relies on them.
Records Manager 5	FOIA, E-FOIA, Clinger Cohen. Clinger Cohen because CIO has responsibilities for managing IT and information management. Collaboration is requires and the IT and RM don't speak the same languages Makes working together tenuous at best, Getting better as more RM people have IT training and some IT folks are genuinely interested in records. Its becoming easier to work with each other. IT is finally seeing RM as professionals. He uses analogy to football when explaining RM. The center is the most important but overlooked player on the team. Not noticed until bad snap. RM is same way. Critical component of organization but only noticed when something goes wrong. In terms of FOIA once you receive a request and responds to it, the response can change the disposition of the records. Need to be able to produce the documents and records. It is same with E-FOIA plus you have the need to post frequently requested documents and records.

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Person Interviewed:

Answer:

Records Manager 6	GPEA which requires making forms available electronically will have impact, he suspects. This may not occur as ATF has some forms that they will always want in paper. There will be exceptions to the act. Going to be a relationship. His only role in FOIA has been to gather documents responsive to a request. The connection is there because agencies will have to give information to requesters electronically if it is requested in that format.
Records Manager 7	PWRA supposedly reorganized records management into information management. FOIA and Privacy Acts also affect the Federal Records Act. Yes because FRA defines records. Most things are not records in that they are not the documentation you take to court to defend a transaction. FOIA statute does not define records only case law. Under FOIA everything could be "agency record." It mainly relates to the disposition of the document. If not a record can get rid of it when you no longer need it but if you get FOIA request on it, you have to keep it because it has become an agency record. If you have these non-records not other similar materials, you will need to be able to defend why you have these documents and not others. The same is true with records, if you have not retained them for the length of the retention schedule, then you will need to explain why. She uses FOIA as club to make people manage their records. Need consistent approach to all documents whether records or not.

Table II - Relationship of federal Records Act to Other Statutes, especially FOIA as seen by Records Officers

Question 3

While the Federal Records Act is the main statute underlying the program, other statutes affect the program as well. Which statute do you see as having an affect on the program and why?

Question 4

Is there a relationship between the FOIA statutes, particularly E-FOIA and the FRA?

Person Interviewed:

Answer:

Records Manager 8	Privacy/FOIA combination along with GPEA and EFOIA all have impact. Electronic signatures and electronic commerce statutes, Declassification statutes and for IRS the recordkeeping requirements that exist within the tax code. They have records that Congress has said are permanent but NARA has said that they are not. IRS is required to keep them under the statute and can never transfer them to NARA. There is a relationship between these two statutes and GEPA as well. The reporting requirements within the PWRA screws up records management as well.
Records Manager 9	Quite a number. PWRA encourages you to stop using paper (He has a bias towards paper) in the interest of being state of the art, offices often want to look like they are using sophisticated tools. If people not so egocentric, they would say paper is better, microfilm is good but not as practical. Electronic data is not always as valuable as it seems. Value is in the ability to exchange the information (E-FOIA, etc.) in multiple forms. Long-term retention materials should be emphasized. New information security laws will impact how agencies need to keep electronic records in the future. The backup systems and data are becoming more important and there is more focus on vital records. FOIA. Value is in the ability to exchange the information (E-FOIA, etc.) in multiple forms.

Table II - Relationship of federal Records Act to Other Statutes, especially FOIA as seen by Records Officers

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While the Federal Records Act is the main statute underlying the program, other statutes affect the program as well. Which statute do you see as having an affect on the program and why?

Question 4

Is there a relationship between the FOIA statutes, particularly E-FOIA and the FRA?

Person Interviewed:

Answer:

Records Manager 10

Clinger – Cohen because it outs more emphasis on business case for information technology and requires performance based evaluations of investments. The automation used to be there to support administrative functions. Now it is doing a lot more for the business side of the operations because knowledge based rather than production based.

Not sure of the relationship.

Table III - Changes seen in Records Management Program resulting from Armstrong Decision by Records Officers

Interview Question 5:

In your opinion has the Armstrong decision had an influence on the program?

Person Interviewed

Answer

Records Manager 1	Yes. Before this case no one thought e-mail was a record. Raised notion that e-mail had to be preserved and scheduled. New awareness of new format for records.
Records Manager 2	Yes, it has misled many to confuse the process of identifying and preserving essential evidence of government operations (official records) with the legal process of discovery.
Records Manager 3	Wasn't sure which case this was. NCUA's viewpoint - effect was to make them take notice that they have to do something. Maybe not everything is a record but enough is that they should be kept. May be everything will be a record but agencies will have discretion to trash immediately.
Records Manager 4	Hard to manage it. Some e-mail are not records so delete. No easy answers. If relates to specific work, it is record and if it is just information may be not. Try to educate managers but cannot stop them from doing their thing.
Records Manager 5	E-mail - wake -up call fro one. There is still some debate on record status of e-mail. This decision made it clear that e-mail can be a record depending on content. Physical properties of the record does govern its record status.
Records Manager 6	Was not sure what this case was. Maintaining any electronic records as permanent will create tremendous problems Seems very unenforceable. They have had discussions about it at ATF.

Table III - Changes seen in Records Management Program resulting from Armstrong Decision by Records Officers

Interview Question 5:

In your opinion has the Armstrong decision had an influence on the program?

Person Interviewed

Answer

Records Manager 7	It caused GSA to define what e-mail is a record. This is a moving target and how your e-mail package works makes a difference. Main result is people had to think about e-mail. Most is not a record under records act. GSA always has defined records in media neutral way. If record in paper, then it's a record no matter what media you received it in. If you have an e-mail that is a record you need to put a copy into a scheduled series whether its paper or electronic. Newer e-mail packages have archiving capabilities that make it easier to store e-mails. Agrees with the idea of the decision but does not agree with the assumption that everything in e-mail is a record.
Records Manager 8	She doesn't see any real effect on IRS. The agency which was sued was affected but that is all. Public Citizen has had more of an effect.
Records Manager 9	It made the public aware that there is a great deal more information available from the government than the government acknowledged. Nixon's tapes where they began automatically and couldn't be turned off, created an atmosphere that government has something to hide. The case required the saving of electronic information and identified electronic as records. It made agencies reconsider what uses they were making of electronic systems. Most agencies, including NARA, hadn't formulated a position on this.
Records Manager 10	Yes. This goes back to the first and second questions and relates to system capacity and capability to archive and access e-mail.

Table IV - Influence of Public Citizen on Records Management Program as seen by Records Officers

Question 6	In your opinion has the initial Public Citizen decision had an influence on the program?
Question 7	Do you expect further changes as a result of the appeals court decision?
<u>Person Interviewed:</u>	<u>Answer:</u>
Records Manager 1	Similar to Armstrong in that it broadens Armstrong to all electronic records. Need to schedule cannot be ignored. Also includes electronic recordkeeping as something we need to do in order to allow people to search the records. Don't know. It may slow down the process. No big changes in that still need to comply with 99-04 but it may be slower - deadline may be extended. Skeptical that much will be different.

Table IV - Influence of Public Citizen on Records Management Program as seen by Records Officers

Question 6
Question 7

In your opinion has the initial Public Citizen decision had an influence on the program?
Do you expect further changes as a result of the appeals court decision?

Person Interviewed:

Answer:

Records Manager 2	Most certainly, it has caused delays in preserving electronic records. NARA was forced into a reactionary posture in electronic records identification which started down the wrong road. Agencies were tasked (99-04) to perform work which would have been costly and ineffective. Fortunately, we have been advised that due to the successful appeal, it will be overturned. Need to schedule records not by system but rather by information content. NARA's approach by system is not appropriate. By the time they (NARA) finished approving a system schedule, system has changed. Army has 1200 different information systems. The repeal of 99-04. The concept of trying to schedule electronic records by the systems creating them is ineffective, at best. The basic concept of records management is to identify the important information, and preserve it, regardless of its format or medium. The record information must be clearly identified, and the retention linked to it. As technology changes shape, and that record information migrates through various systems and forms, it still must be preserved. To schedule by system, and not by information, will ensure the schedules will always be lagging reality and experiencing considerable turmoil. This creates needless risk to losing record material.
Records Manager 3	Court of Appeals - leaves one with the question where do we go from here. Effect of court cases is that it makes you take notices. NCUA living in 19th century while moving into 21st century. Yes

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Question 6
Question 7

In your opinion has the initial Public Citizen decision had an influence on the program?
Do you expect further changes as a result of the appeals court decision?

Person Interviewed:

Answer:

Records Manager 4	Hard to manage. Fighting uphill battle,. Emphasize that electronic versions may be records. Paper-less society will -never work. Not schedule electronic records. Resources are a problem.
Records Manager 5	No This decision forced a lot of folks to do a lot of things that weren't totally necessary. He believes there was adequate instructions in the GRS and the appeals court was correct. The case served notice that agencies have to think carefully of what we do with records and their formats. Agencies looked at their practice of scheduling records in response to the decision. It brings attention to the discipline of records management and the fact that other issues need to be considered than just paper. Agencies will take a wait and see attitude, Need to look at what they are doing and are they doing the right thing to protect records. May look at what they are doing with these records before going back to GRS 20. Agencies will wait for additional guidance from NARA which is due out shortly. Need to do what is best for agency.
Records Manager 6	Was unfamiliar with this case N/A
Records Manager 7	Initial decision was absolutely bizarre. Everything electronic is a record. Records Act doesn't intend you to keep everything no matter the media. Original wanted to take everything including all copies (even if more than 1 electronic copy) and make you keep it. Now only need to save record in one place. Taking reasonable approach. Managers need to decide what they need to keep and what format is best for them. Need to be able to explain why they have what they have and why they don't have other items.

Table IV - Influence of Public Citizen on Records Management Program as seen by Records Officers

Question 6
Question 7

In your opinion has the initial Public Citizen decision had an influence on the program?
Do you expect further changes as a result of the appeals court decision?

Person Interviewed:

Answer:

Records Manager 8	The initial decision-making GRS 20 null and void originally had great influence. It brought a lot of attention and created management concern but management has lost interest as it has dragged on. Because 99-04 has been extended, the effects of the initial decision are gone. Agencies are complacent. NARA has other regulations out there that apply to electronic records. Agencies will continue to schedule electronic records but there is no push or shove to get it done.
Records Manager 9	This case confirmed that electronic information was record material. He believes there will be continued challenges and there will be attempts to appease people like Tankersly. Public Citizen is attacking the National Archives in this process and they should be focusing on other issues relating to electronic records. Don't think NARA is focusing on the issues either. It endorsed the DoD standard but that standard is much too complicated to figure out. There are too many details when need to decide the basics. Electronic records are in a category of complexity where people do not want to deal with it. Vendors have grandiose systems but what do you do with the employee who doesn't want to do it. How do you tell what they are doing. Need simple solutions everything is too complex. Given the volume of metadata people do not want o complete that information and they will find a way around it.
Records Manager 10	Not familiar with his case. N/A

Table V - Adequate and Proper Documentation as seen by Records Officers

Question 8	Define Adequate and proper documentation.
Question 9	Has this definition changed as a result of electronic records?
<u>Person Interviewed:</u>	<u>Answer:</u>
Records Manager 1	Agency is required to create and maintain accurate records which document organization, functions and policies and to protect legal and financial rights and institutional memory and it hold people accountable. Only in format it does not change what is adequate and proper documentation.

Table V - Adequate and Proper Documentation as seen by Records Officers

Question 8
Question 9

Define Adequate and proper documentation.
Has this definition changed as a result of electronic records?

Person Interviewed:

Answer:

Records Manager 2	Only a historical perspective can pronounce documentation as adequate and proper. And then only from the issues causing that documentation to be reviewed. We are only using educated guesses to decide what documentation is the "essential evidence" of any particular program or government process and how long we should keep it. Future issues may address information which was, or was not considered important or essential. The cost to save everything is too dear, even considering the consistent decline in electronic storage and processing power. Not so far. The lure of expanding the scope of what should be saved is tempting, but the volume of data lying behind each decision is largely unknown, and in the case of email, could bury the important information. Even with foreseeable technology, at this time, we would be risking costs which out reach the benefits if we tried to save it all. We can focus our resources on saving the important, long-term records. We should be able to allow business processes, which create information, deal with preserving those records which have a short retention, for in most cases (not all), the only requirement to save them is to meet the needs of the business which is creating them. When interests outside of the creating business have a requirement for the information, that information is usually long-term records. With limited resources, records management programs, at least in the Army, will be more effective and successful if they focus on collecting and preserving the long-term records. There is the ever-present exception, which are short-term records which are needed for interests outside of the business process, like for legal appeal rights, and these records should be under records management control. This approach allows us to then tell each business process which types of information are long-term records and must be turned into the records management program. All other business information is then cleared to be kept as long as they need it for doing business, then destroyed. We want to put a cap on how long the businesses can keep information, to prevent pack rats from saving un-needed information and consuming resources.
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Table V - Adequate and Proper Documentation as seen by Records Officers

Question 8
Question 9

Define Adequate and proper documentation.
Has this definition changed as a result of electronic records?

Person Interviewed:

Answer:

Records Manager 3	No His background is examination of financial institutions. When he talked with Board of directors he described this as clear and verifiable support for decide to use it for decisions. Need to be able to use it for future reference.
Records Manager 4	Good inventory is one of the things. Need to update disposition schedule. Anything that relates to a case. General Information not part of a case. Haven't explored this question. It may be the same thing.
Records Manager 5	Taking appropriate measures to ensure records created and preserved that document activities of the organization and official acts of employees and people associated with the agency. Need to be able to show what the job is and that employees are doing or not doing their jobs. Definition has not changed. What is covered by the definition is larger because there is so much more information out there. Danger - authentication can be an issue because e-records are so easily changed. May need additional steps to ensure that the information is accurate and valid.
Records Manager 6	He was not sure what this term meant. N/A
Records Manager 7	Complete and accurate records to protect financial, legal rights of agency and people. Shows continuity and consistency in administration. Assist current and future official in making decisions and to be able to supply Congress and other information they request. No Electronic is just a matter of media.

Table V - Adequate and Proper Documentation as seen by Records Officers

Question 8
Question 9

Define Adequate and proper documentation.
Has this definition changed as a result of electronic records?

Person Interviewed:

Answer:

Records Manager 8	You have complete information that covers/describes information and records that demonstrates how an agency functions, something works, decision making. What you have addresses everything that relates to a particular event or activity. This definition has changed because you cannot always get a hold of the electronic pieces. Because information can be used in different ways, electronic information may exist or relate to a file that would not have happened in paper.
Records Manager 9	It is evidence that meets legal and audit standards in recording a transaction. No. It is simply a different media.
Records Manager 10	Provides system integrity and completeness in event need to retrieve information related to a specific subject matter or individual. The definition will change because electronic makes it easier to find records.

Table VI What a record is as seen by Records Officers

Question 10
Question 11
Question 12

Describe for me what a record is.
Do electronic records change the idea of what a record is??
Should the idea of what a record is change?

Person Interviewed:

Answer:

Records Manager 1	Any document created or received by Federal government in course of business regardless of format. Statute has stated any format. Maybe needs to more specific - don't know if electronic changes it that much. It needs to be stated more simply. Idea is the same but it is not clearly stated and is hard for people to understand.
Records Manager 2	Information which documents the conduct of Government business and provides evidence of its organization, functions, processes, decisions and protects the rights and interests of the Government and its citizens. No. It must not. The fact that we can communicate in different formats and media, does not change the fact of which information is worthy of being saved. No. We may need to review just what information has been scheduled in light of how it can be combined with other data once isolated from it, and we may find that technology changes how we can describe the important information, but the concept of records being selected subsets of all our information, which has been deemed to be worthy of preservation as it meets the definition of a record, has not been shown to be invalid.

Table VI What a record is as seen by Records Officers

Question 10
Question 11
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Describe for me what a record is.
Do electronic records change the idea of what a record is??
Should the idea of what a record is change?

Person Interviewed:

Answer:

Records Manager 3	A record is information in 'permanent' form. Comment in Table III that everything may be record but agencies have discretion to discard almost immediately. Only in that it needs to include information in electronic format. No.
Records Manager 4	It is anything this agency received or creates relating to what this agency does. Anything mission-related is a record. Electronic records is a format change only for record material. Don't need both for same length of time. No.
Records Manager 5	Record is anything I need to do my job, help others to do their job, and prove that I have done my job. It is evidence. No. The long convoluted definition in the statute is fine. The idea is the same, the information is in different format. No

Table VI What a record is as seen by Records Officers

Question 10
Question 11
Question 12

Describe for me what a record is.
Do electronic records change the idea of what a record is??
Should the idea of what a record is change?

Person Interviewed:

Answer:

Records Manager 6	A record is anything that is accountable. For ATF this means - financial management, investigative and compliance records. Changes in format more than anything. If everything that is e-mail or word processing copy is record. Yes. Need to keep looking at this issue. Because it is easier to store and retrieve electronic records need to rethink what is a record.
Records Manager 7	Records are the documentation you take to court to defend a transaction. Idea stays the same. It can make things simpler in that with paper you needed a procedure to accounting for every copy of a record including which one is the official copy etc. With electronic you can get multiple copies as well but only need to state which one if the official and all the others can be discarded. No. The idea of what a record is should not change. Only how we manage it.
Records Manager 8	A record is an element of information recorded about something. It is evidentiary in nature, used for the intent it was created for, reliable, trustworthy and has intellectual value. No. It adds a new piece to the puzzle. It related or touches on the intent of the record which can get screwed up if it is electronic. Not sure about this one. She tends to believe yes because the idea of a record was created with paper in mind. The concept has developed and evolved into a mixture of what we know today. It may need to be modified to include some of the things we have come to think of as encompassing record.

Table VI What a record is as seen by Records Officers

Question 11
Question 12

Do electronic records change the idea of what a record is??
Should the idea of what a record is change?

Person Interviewed:

Answer:

Records Manager 9	A record captures all the elements in the statute. Changing it would complicate it further No. only expands the idea. No. At least not in terms of the formal definition. Needs to be simplified for educational purposes. If expect program person to do this work, need to make it very simple. Statute is fine. A record is anything that constitutes or represents business practices of the organization.
Records Manager 10	Only that more people can create records. PC on desk means that person can create records. There used to be a process for creating record. Nee discipline to your records policy to ensure that record is recorded and retained. Yes. Used to informal or draft communications were not really records only the final was. With e-mail and ability to access you can get the various versions and drafts of a record. Court cases and FOIA extends the definition of a record to these drafts and versions.

Table VII - Records Officers' Awareness of Bearman, Duranti or DoD Standard 5015.2

- Question 13 Are you familiar with David Bearman's functional requirements for electronic recordkeeping? Can you explain your understanding of his work?
- Question 14 Are you familiar with Luciana Duranti's use of diplomatics as a theoretical foundation for electronic recordkeeping? Can you explain your understanding of her work?
- Question 15 Are you familiar with DoD's 5015.2 standard for records management recordkeeping applications? Can you explain your understanding of it and NARA's adoption of it?

Person Interviewed:

Answer:

Records Officer 1	No. No. Yes. It is the standard used for RMAs.
Records Officer 2	No. No. Yes. It attempts to establish the definition of the metadata needed to facilitate identification and retrieval of electronic records. It is a start. It does not appear, however, to consider the costs associated with employing it to any collection of reasonable size. The focus is on having sufficient information to place an individual document, or item of structured information, into context of the creating program in order to properly link it to its retention and to facilitate identification and retrieval. The current guidance is that any existing records management application meet the standard by this November. Since the Army's old recordkeeping program is nearly impossible to automate under a records management application, we do not have an issue at this time. Our new redesigned program will facilitate the use of automation to identify record information and link it to the correct retention.
Records Officer 3	No. No. No.

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Person Interviewed:

Answer:

Records Officer 4	No. No. No. Just found out about it last week.
Records Officer 5	No. No. Yes. It is a design criteria for records management applications that can be used to manage records. It allows you to categorize records, identify records and where they are stored and retrieve records. The whole idea is to identify functional requirements that software must have. If software has these requirements, then empowered to use it.
Records Officer 6	No. No. No.
Records Officer 7	No. No. DoD standard set up criteria for managing records electronically. They have selected one as the GSA standard.

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- Question 15 Are you familiar with DoD's 5015.2 standard for records management recordkeeping applications? Can you explain your understanding of it and NARA's adoption of it?

Person Interviewed:

Answer:

Records Officer 8	No She is aware of it but unsure that she can describe it. She has looked at it because it uses the concept of proving reliability and authenticity of documents along with the legal status. Duranti uses diplomatics to link these elements and as a method for dealing with records over time, specifically electronic records. Yes. She has read it. She sees it as a template or guideline that provides criteria for determining compliance. It is a starting place, a template. NARA's endorsement is really statement that if you have a system that has these criteria, NARA might consider it acceptable.
Records Officer 9	No. But since receiving a copy of the interview guide, he is looking t them. No. Has looked at this as well since receiving the interview guide but found it difficult to follow. Yes. The standard is much too complicated to figure out. There are too many details when need to decide the basics. Electronic records are in a category of complexity where people do not want to deal with it. Vendors have grandiose systems but what do you do with the employee who doesn't want to do it. How do you tell what they are doing, Need simple solutions everything is too complex. Given the volume of metadata people do not want o complete that information and they will find a way around it.

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- Question 15 Are you familiar with DoD’s 5015.2 standard for records management recordkeeping applications? Can you explain your understanding of it and NARA’s adoption of it?

Person Interviewed: Answer:

Records Officer 10	No. No. No.
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APPENDIX D

NOTES FROM FOCUS GROUP

Virginia Tech

Falls Church, VA

Tuesday, October 5, 1999

6:00 p.m.

Mary	Introductory Remarks. Question: What is a record?
Fayette	What do the courts say?
Nancy	The FOIA lawyers in my office say that electronic records are records.
Ed	What constitutes a record is not something that is appropriate to discuss any longer. "Records" are only appropriate in a FOIA context. It is no longer possible to discriminate between what is and what isn't a record. When whatever we have is no longer needed, we will dispose of it. The statute is marvelously elastic about that. The courts differ in their opinion of records. The fault is with the industry.
Nancy	Electronics records are a "pipeline."
Catherine	There is historic importance versus what the document actually is.
Ed	Programs are the ones who should say what records are and indicate how long they should be archived. On the documents I handle, I ask for a records requirements section.
Catherine	The keepers don't want to decide how to dispose of documents. They are shocked now that they are required to do this.
Jeanne	Automation has given us three different applications which are incompatible. Attorneys or researchers see precedent as paramount so nothing can be destroyed. It's a question of how much do you want to spend to keep records viable. There are access costs involved. This is a whole Brave New World.
Nancy	We put stuff on CD ROM but these may be outdated after a few years.
Ed	You can always migrate the data.
Jeanne	But there is a need to keep the integrity of data intact.

Frank My view, coming from an Air Force background, is that the "record" was essential. I saw this in the Air Force when people applied for benefits. You just can't know the value of information out five-ten years. You can't make a decision today about the value of data in the future. The public needs records.

Nancy Yes, we also had strict rules for civilian records.

Ed Motivation is for "control"--like when to send things to Archives. The relative costs of storing information overtime are small compared to collecting and disseminating the information when it is needed. Scheduling retention periods is inadequate. We are locked into the process--the cart is before the horse.

Jeanne Adequate and proper documentation--what's in Archives? What do we need now? If we need it now, we'll need it then. How do we remain accountable between different records, i.e., litigation and email?

Ed Two ways. One is to pass the ball to programs because they intuit what they need. Two, so we can be held accountable. Thus we need to review reports that said documentation was insufficient--such as in IGO and GAO reports--and see what more could have been provided to help report writers reach a valid conclusion.

Fynnette I don't know if we migrate data if we can capture everything. We need at least 10 more years of research. People don't think electronic records will be used in the future although this is beginning to change.

Frank There are a lot of unanswered questions out there. We can say we'll dump documents on CD ROM but don't know how long those will last. If you think about this, you won't sleep at night. Paper has advantages; in storms we could recover paper but even greasy fingers will destroy a CD ROM.

Ed Is long-term preservation an issue?

Mary Yes, to have it.

Ed I recommend Alan Comus (?)--NSA study on paper, film and disks. Film will last forever--1000 years. It was a compelling study.

Jeanne Electronics is an access issue. We have no filing nomenclature or architecture. In the past we could look in file cabinets. Now there is some structure beginning to take hold with central files. We still have paper case files; we have not lost memory because of these. We do have to manage several mediums now--film, paper, databases, electronic mail.

Fynnette How do you capture context? When I looked for something in the past, everything was there in the file. Now I have to look in several places.

Ed	I don't think you need to be concerned. Workers will keep a file because they are "accountable." The paper file is available. Auditors seem to be drawing conclusions so no evidence is there to say we are losing institutional memory.
Fynnette	We are different. We have poor records.
Jeanne	We vary in my organization. We can get our hands on information.
Catherine	A lot depends on training too. In a new position I went into, there were no records. There were old time sheets and motor pool forms but no policy records. There was nothing to explain the authority delegation.
Mary	Perhaps in paper we weren't sure what "adequate and proper" was.
Jeanne	Our attorneys run a dual system.
Nancy	Many agencies need dual systems.
Ed	People prefer paper.
Jeanne	You can read faster on paper.
Ed	[something about when adequacy fails and call Ken Rossman (?) in Arizona who had something to do with Indian tribal funds]
Frank	Downsizing caused the downfall of records maintenance in the Air Force. The administrative staff was reduced; administrative staff is the first on the hit list for reductions.
Catherine	There is nobody to take the secretaries' places.
Mary	Is this part of IT?
Frank	Relayed a story about late Commerce Secretary Brown and a missing email message concerning permission to utilize the airport in writing. The authorization was in the form of an email, the existence of which was denied until it was later retrieved. He also added that electronic documents can be more qualitative.
Catherine	Voice mail will soon be captured and have attributes.
Frank	Voice boxes in planes are records too.
Nancy	As a privacy act officer, I can tell you there is no privacy.

Jeanne	It's useful to talk to people and tell them why and for how long you must keep records and then let the program people decide [retirement schedules].
Ed and Catherine	[Both agreed that the current statute is adequate for today.]
Jeanne	The statute is media neutral.
Ed	It has also been successfully modified.
Jeanne	Yes, but interpretation remains elastic.
Mary	So it not a question of debate over what a record is but how we manage documents in files and that programs have them as long as they are needed for business. What about at a later date--do we turn them over to Archives?
Ed	That's Archives problem. It's not my people's job to know what the government will need 50 years from now. I figure if we can support the audit function then we are home free. Archives can tell me what it wants and in what medium. When use diminishes, costs go up in retrieval. We need to spend more up front in dissemination.
Fynnette	There is debate at the state level. There is a custodial question.
Ed	You can spend more up front to promote access when the document is really needed.
Jeanne	There still needs to be a context. What people are doing in work groups are collecting what they need and extra interesting stuff. Will this sort itself out. We run focus groups to discuss what we need to do.
Nancy	Do you have an automated business process?
Jeanne	We print out documents and provide statistics electronically.
Nancy	The appeals cases in the field were a problem but now we use an intranet. In three-four years all cases can be handled electronically. We need to figure out if we keep the sacrosanct legal file or whether the electronic file will be a legal file.
Catherine	That brings up the issues of electronic signatures. How do you manage that? How can you capture signatures over time.
Nancy	Signature cards can go in the computer, but if you so much as change one space, the signature disappears.

Jeanne	Signatures also take up space.
Ed	How often are signatures "certified?" To me these are more reliable documents than paper ones.
Nancy	People who are going to do bad things are going to do them anyway.
Mary	Concluding remarks.

APPENDIX E
Codes sorted by Themes

<u>Name</u>	<u>Abbreviation</u>	<u>Location</u>
Adequate and Proper Documentation	AP	(1)
Definition	AP:D	(1 1)
Need For	AP:N	(1 2)
Requirements	AP:R	(1 3)
Idea of Record	IR	(2)
Effect of Electronic on	IR:E	(2 1)
Paper Record	IR:PR	(2 2)
Electronic Record	IR:ER	(2 3)
Metadata	IR:M	(2 4)
Definition	IR:D	(2 5)
Preservation	P	(3)
Electronic Issues	P:EI	(3 1)
Media	P:M	(3 2)
Accessibility	P:A	(3 3)
Armstrong	A	(4)
Effect on Program	A:EP	(4 1)
Meaning for NARA	A:MN	(4 2)
Meaning for Agencies	A:MA	(4 3)
Public Citizen	PC	(5)
Effect on Program	PC:EP	(5 1)
Meaning for NARA	PC:MN	(5 2)
Meaning for Agencies	PC:MA	(5 3)
Statutes	S	(6)
Federal Records Act	S:FRA	(6 1)
E-FOIA	S:EFOIA	(6 2)
FOIA	S:FOIA	(6 3)
Definitions	S:DEF	(6 4)
Relationship to Armstrong	S:A	(6 5)
Relationship to Public Citizen	S:PC	(6 6)
Paperwork Reduction Act	S:P	(6 7)
Legislative Intent	S:LI	(6 8)
Legislative History	S:LH	(6 9)
OMB	S:OMB	(6 10)
GSA	S:GSA	(6 11)

<u>Name</u>	<u>Abbreviation</u>	<u>Location</u>
Universities	U	(7)
UBC	U:BC	(7 1)
U Pitt	U:PITT	(7 2)
Functional Requirements	U:FUNC	(7 3)
Diplomatics	U:DIP	(7 4)
DoD 5015.2	U:DOD	(7 5)
Bearman	U:B	(7 6)
Dollar	U:D	(7 7)
Records Management	RM	(8)
Encapsulate	RM:E	(8 1)
Life Cycle	RM:LC	(8 2)
Continuum	RM:Cont	(8 3)
Context	RM:Context	(8 4)
Content	RM:Conent	(8 5)
Structure	RM:Struc	(8 6)
Temporary	RM:T	(8 7)
Records Management Program	RM:RM	(8 8)
Traditional Records Management	RM:TRM	(8 9)
Creation	RM:Creat	(8 10)
Use	RM:U	(8 11)
Maintenance	RM:M	(8 12)
Integrity	RM:I	(8 13)
Authenticity	RM:Act	(8 14)

APPENDIX F

TEMPLATE 2

WHAT IS A COMPLETE RECORD IN THE TRADITIONAL ENVIRONMENT?

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COMPLETE RECORD = a record that has all the elements of form required by the juridical system in which it is created. Completeness is conferred to a record by the presence of all required elements of its intellectual form, specifically the features of content articulation and the annotations.

Intellectual form = the characteristics of the internal composition of the record

They are, in any order:

1. **entitling** = name, title, capacity, or address of the physical or juridical person issuing the record or of which the author of the record is an agent (eg. letterhead)
2. **title** = name of the record. It refers either to the form of the record (eg. indenture, minutes) or to the act carried out by the record (eg. agreement, oath of office)
3. **date** = place (topical date) and time (chronological date) of the compilation and/or issuing of the document and/or of the act which the record concerns
4. **superscription** = name of the author of the record and/or of the act (eg. "I, John Smith, declare..." or "John Smith, of the first party"). In letters, it often takes the form of entitling.
5. **inscription** = name, title, and address of the addressee of the record and/or of the act
6. **salutation** = a greeting (eg. "Dear sir")
7. **subject** = statement signifying what the record is about
8. **preamble** = statement expressing the ideal motivation of the act, or the ethical or juridical principles inspiring it, or the articles of law on which the action is based
9. **exposition** = statement of the concrete and immediate circumstances generating the record and/or the act
10. **disposition** = expression of the will or judgement of the author
11. **appreciation** = a wish for the realization of the disposition
12. **complimentary clause** = a brief formula expressing respect (eg. "yours truly")
13. **attestation** = the subscription of those who took part in issuing the record (i.e. author, writer, countersigner, and/or witnessess). It might or might not take the form of signatures
14. **qualification of subscription(s)** = title and capacity of the subscriber(s)
15. **secretarial notes** = initials of typists, mention of enclosures, indication that the record is copied to other persons

Some other elements of content articulation are particular to certain record forms and contribute to their identification by being necessary to their completeness. They are:

16. **invocation** = mention of the higher power in the name of whom the type of act is carried out (eg. "In the name of the law")
17. **formula perpetuitatis** = sentence declaring that the rights put into existence by the record are not circumscribed by time
18. **notification** = publication of the purport of the record (eg. "Know you" as in a letters patent)
19. **corroboration** = enunciation of the means used to validate the record and guarantee its authenticity
20. **clause of injunction** = expression of the obligation of all those concerned to conform to the will of the author
21. **clause of prohibition** = prohibition to violate the enactment or oppose it
22. **clause of derogation** = expression of the obligation to respect the enactment notwithstanding other orders or decisions contrary to it, opposition, appeals, or previous dispositions
23. **clause of exception** = expression of the situations, conditions, or persons which are excepted from the enactment
24. **clause of obligation** = expression of the obligation of the parties to respect the act for themselves and for their successors or descendants
25. **clause of renunciation** = expression of the consent to give up a right or a claim
26. **clause of warning** = treat of punishment, should the enactment be violated
27. **promissory clause** = expression of the promise of a prize if the enactment is respected

The minimum required elements of content articulation for a record to be complete are:

- a. **date** (for identifying the topical and temporal context)
- b. **superscription or attestation** (for identification of the author)
- c. **inscription** (for identification of the addressee)
- d. **disposition** (for identification of the action)

With non textual records, that is, with graphic or image records, the minimum required elements of content articulation are:

- a. **date**
- b. **superscription or attestation**
- c. **inscription**
- d. **title or subject** (for identification of the content)

The **disposition** is represented by the graphics or the image.

In addition to these, other elements of content articulation are required within each given juridical system for each given record form.

Annotations = additions to the content of the record made after its compilation. They can be distinguished in categories in relation the procedural moment in the treatment of the affair in which they were added to the record in question:

Annotations added in the execution phase:

authentication = the express, legal recognition that a record or the signature(s) on it is what it purports to be (particular to certain record forms)
registration = the reference to a transcription of the record made in a register by an office different from the one creating the record (particular to certain record forms)

Annotations added during the **handling** of the record:

instructions = the mention of previous or following actions, directions for transmission, disposition, classification, etc.
dates of hearings or readings
signs besides the text = notations added by the reader, such as check marks, question marks, etc.

Annotations added during the **management** of the record:

registry number = the consecutive number assigned to incoming and outgoing mail in offices using the registry system
classification code = the code which identifies a record by its documentary relationships in the receiving and/or generating offices
cross-references = the indication of the classification code of related files
date of receipt = chronological date of the receipt of the record
name of recipient = name of the receiving office (usually affixed by a stamp) or individual.

The annotations required for a record to be complete are entirely dependent on the context of the creator

TEMPLATE 6

WHEN IS A COMPLETE RECORD CREATED IN THE ELECTRONIC ENVIRONMENT?

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The necessary and sufficient elements of intellectual form for a traditional textual record to be complete are:

- a. **date** (time and place)
- b. **superscription** or **attestation** (name or signature of author)
- c. **inscription** (name of addressee)
- d. **disposition** (action)

The necessary and sufficient elements of intellectual form for traditional non-textual records to be complete are:

- a. **date**
- b. **superscription** or **attestation**
- c. **inscription**
- d. **title** and/or **subject** (identification of content)
- e. **disposition** (the image, the graphic, the numerals, etc.)

PROPOSITION: for any electronic record to be complete, elements of intellectual form comparable to those required for traditional records are necessary, but they might not be sufficient.

TEXTUAL RECORDS IN ELECTRONIC FORM

a. date

The record must have a date, because the mention of the time and place of the record's creation captures the relationship between its author/writer and the fact/act in question, and this relationship becomes something the record talks about. With traditional records, the date is usually included in the record when its compilation begins, and appears on the top or bottom of the record. With electronic records, the date is usually automatically added by the electronic system to electronic messages, when these pass through the buffer, that is, after their compilation is concluded and the transmission command has been given. The date appears on the first line of the header, and includes the time of receipt of the message in addition to that of delivery, but does not include the place. With other electronic applications, the time is added by the system if this has the ability to control the "version" of the documents moved through it, or is included by the author/originator when the document is finished.

Therefore, with electronic records, the chronological date must include the time of transmission (to an internal and/or external addressee) and time of receipt. Moreover, the topical date (the mention of the place where the document is made and/or from where it is transmitted) is also necessary for a record to be complete.

b. superscription or attestation

The record must include the name of the author, because this element assigns responsibility for its content. With traditional records, the name of the author may appear in the letterhead (entitling), in the initial wording of the text (superscription), and/or at the bottom of the document as a signature, a symbol, or a signet (attestation). The signature or its equivalent attests that the record is adequate, and this attestation becomes the most important fact about the record. With electronic records, the name of the person releasing the record (not necessarily its author) is usually automatically added by the electronic system to messages after their compilation is concluded and the transmission command has been given. Any electronic record system can only automatically include among the intellectual elements of form the electronic address from which a message is sent. This address might be that of the author/writer of the message, or of its originator (be this

person aware or not of it). Juridically, the person from whose address the message is sent is its author and writer, unless an attestation is attached to the record that would unequivocally demonstrate who its author/writer is, such as an electronic seal. The subscription (that is, the mention of the name of the author/writer at the end of the record) is not to be considered an attestation, because anyone could type any name. While the name of the person from whose address the record is sent, by automatically appearing on the header, carries with itself some authority, and therefore can be compared with an entitling or letterhead, it can never have an attestation function.

Therefore, with electronic records, the attestation of the author and an entitling showing the name of the originator are necessary for completeness. (If security is such that nobody other than the electronic address holder, that is, the originator, can have access to that address for sending messages, then the entitling does acquire a superscription function, but never an attestation function).

c. inscription

The record must include the name of the addressee, because it needs to be manifested, that is, transmitted or intended for transmission to some person in order to come into existence. With traditional records, the name of the addressee is usually expressed in the initial part of the record, whereas the names of those to whom the record is copied (**receivers**) is expressed in a separate section, usually at the end. With electronic records, the name of the addressee(s) is usually included in the header of electronic messages as well as the names of the receivers. However, when a message is forwarded to a list of addressees and/or receivers that resides in the electronic system, such list may not appear in the header of the record.

Therefore, with electronic records, the name of all addressees and receivers must be included for completeness, making sure that the two groups are formally distinguished. (While the names of the addressees need to be in the body of the record, that is, constitute an intrinsic element of form, the names of the receivers can simply be linked to the record and constitute an extrinsic element of form, which would fall into the category "annotations").

d. disposition

The record must include the disposition, that is, the expression of the will or judgement of the author, because this is the reason why the record is created in the first place. With traditional records, the disposition is usually introduced by a verb able to communicate the nature of the action and the function of the record. With electronic records, there is no difference.

Therefore, with electronic records, a message expressive of the will or judgement of the author is necessary for completeness.

NON-TEXTUAL RECORDS IN ELECTRONIC FORM

a. date

As with textual records in electronic form, **chronological and topical dates are necessary for a non-textual record in electronic form to be complete.**

b. superscription or attestation

As with textual records in electronic form, **both an entitling and the attestation of the author are necessary for a non-textual record in electronic form to be complete.**

c. inscription

As with textual records in electronic form, **the name of all addressees must be included in each non-textual record in electronic form for it to be complete, while the names of the receivers need only to be linked to it.**

d. title and/or subject

The record must include a title, providing its name, and/or a subject, describing its content. The title or the subject should include the date of the event, fact, or act represented, if different from the date of the record. While traditional non-textual records do not always have a title or subject, **non-textual records in electronic form, just like the textual ones, always include a one line title** (which is usually called "file name") that is often the subject of the record. This is not sufficient for either textual or non-textual records.

Therefore, with both textual and non-textual electronic records, a title and/or subject that properly describe the record and its matter are necessary for completeness.

e. disposition

With non-textual records, the disposition is represented by the graphics or images contained in the record.

CONCLUSION

All complete electronic records, whether textual or non-textual, must include the following elements of intellectual form:

- 1. Chronological date (of both transmission and receipt)**
 - 2. Topical date**
 - 3. Entitling (originating address)**
 - 4. Attestation (name of author/writer)**
 - 5. Addressee(s)**
 - 6. Receivers (name of copied persons)**
 - 7. Title or subject**
 - 8. Disposition**
-

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Interests: Interested in exploring the effect information technology has on organizations. At a practical level, interest includes developing changes to existing processes to take advantage of information technology and maintaining electronic records. At a theoretical level, interest includes studying organization theory and its relationship with the organizational changes that are occurring as a result of information technology.

Specialized Experience:

Information Management -

Records Management:

- Assisted in the development of the recommendation to procure an electronic records management software for the Office of Thrift Supervision (OTS).
- Oversaw the conversion and verification of OTS' inactive records database from InMagic, an unstructured non-relational database, to TRIM, a structured relational records management database software.
- Developed the implementation strategy for OTS' electronic records management software.
- Developed file structures that became the basis of the file plans for the OTS Washington offices.
- Coordinated the development of file plans for OTS Washington Office.
- Developed tracking system for the Director OTS and the executive directors' correspondence using the workflow features of the electronic records management software.
- Conducted training on the Inactive database and correspondence tracking system.
- Responsible for developing pilots for filing electronic active records in the records management software.
- Responsible for developing pilot for electronic approval of press releases using the workflow features in the electronic records management software.
- Coordinate the day-to-day activities necessary to complete the implementation strategy.
- Managed the development of the records management and electronic information OTS directives.
- Oversaw the development of records inventories, records retention schedules and NARA's approval of the records retention schedules.
- Coordinate the day-to-day activities of the Records Policy Team.
- Prepare presentations on OTS' implementation plan for other agencies and demonstrate the electronic records management software's capabilities.

Paperwork Reduction Act:

- Wrote white paper on the impact of the Paperwork Reduction Act of 1995 on OTS.
- Developed and coordinated OTS' response to the changes in the Paperwork Reduction Act as a result of its reauthorization in August of 1995.
- Ensured that OTS had complied with all changes in the Paperwork reduction Act by its effective date of October 1, 1995.
- Responsible for reviewing, approving and submitting to OMB for renewal all of OTS' information collections under the Paperwork Reduction Act.
- Coordinate OTS' response to the annual Information Collection Budget as required by the Paperwork Reduction Act based on my analysis of the call memorandum.
- Coordinate with the other federal financial regulators the paperwork submission for interagency regulations and guidance.
- Wrote and coordinated publication of the Government Information Locator entries for OTS.

Financial Management -

- Analyzed OTS' Deferred Compensation Plan that OTS inherited as a result of the Financial Institutions Recovery, Reform , and Enforcement Act of 1989.
- Coordinated the establishment of annuities for Deferred Compensation participants at their retirement.
- Analyzed the impact of the Deferred Compensation Plan's insurer filing for bankruptcy and made the adopted recommendation on OTS' continued participation in the plan.

Other -

- Researched and recommended a vendor and implementation strategy for establishing the OTS web site.
- Coordinated the development of the shadowing activity in the Capital Praxis sponsored by the Center for Public Administration and Policy.

Work Experience:

1998-Present Manager, Records Management, Information Management and Services,
 Office of Thrift Supervision

1989-1998 Senior Program Analyst and Records Team Leader, Policy and Support
 Branch, Records Management and Information Policy, Office of Thrift
 Supervision

1982-1989 Chief Paralegal for the Federal Savings and Loan Insurance Corporation
 Division, Office
 of General Counsel, Federal Home Loan Bank Board

1979-1982 Paralegal at Private Law Firms

1978-1979 Paralegal, Freedom of Information Unit, Antitrust Division, Department of
 Justice

1973-1978 Archives Technician, National Archives and Records Administration

Honors:

Member Pi Alpha Alpha 1994- Present

Quality Pay Adjustment 1997

Award for Excellence in Administration 1996

Sustained Superior Performance Awards 1983, 2 in 1984, 1986-1989, 1991-92, 1995-96, 1998

Special Achievement Awards 1984, 1985, 2 in 1989, 1991, 1995

Departmental Honors, Northeastern University 1974

Education:

1998 Doctoral Candidate, Center for Public Administration and Policy, Virginia Polytechnic Institute and State University, Blacksburg, Virginia

1994 Masters of Public Administration, Center for Public Administration and Policy, Virginia Polytechnic Institute and State University, Blacksburg, Virginia

1977 Paralegal Certificate, George Washington University, Washington, DC

1974 Bachelor's of Arts, Northeastern University, Boston, Massachusetts

Other:

President, Pi Alpha Alpha Chapter, Virginia Polytechnic Institute and State University, 1997-Present

Member of Electronic Records Management Working group

Member Small Agency Council Records Management and Issues Subgroup

Co-Chairperson, Automating Records Management Interagency Users Group, 1994-1996