

ABSTRACT

Title of Document: EXAMINATION OF THE MANAGEMENT
OF SOCIAL MEDIA RECORDS AT A
FEDERAL EXECUTIVE AGENCY

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Maintaining and preserving records has long been regarded as essential to the functioning of federal government and to related open government initiatives in particular. However, the literature identifies specific technology and policy-related challenges of managing social media records. While there exists in the literature a limited examination regarding the management of social media content in the federal agencies, a close analysis is needed to identify how social media records are being managed in practice. As the nature of social media and electronic content are both rapidly evolving, it is important to ensure that current practice guidelines are applicable to new technology and continually re-aligned to policy as requirements and regulations change. In recent years, effective management of social media records has become relevant not only in terms of ongoing compliance but as an essential element of open government and transparency-related initiatives. Additionally, and perhaps even more important, all records

management and archive practices, including social media preservation, serve a larger social function of maintaining and documenting our collective memory and experiences. This study provides an in-depth analysis of social media records management within a federal executive agency, utilizing a mixed-methods approach consisting of website review, document review, and follow-up interviews.

This study presents theoretical as well as practical implications. On the theoretical level, the study contributes to records management theory, application of information models, and the definition of the record in the social media environment. On the practical level, this research provides recommendations to industry and federal agencies for the development of standards, guidance, and technologies for the management and preservation of social media records.

EXAMINATION OF THE MANAGEMENT OF SOCIAL MEDIA
RECORDS AT A FEDERAL EXECUTIVE AGENCY

By

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DEDICATION

To my wife, for her steadfast support, help and encouragement along the way.

To my children, who have been my source of inspiration.

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Table of Contents

Chapter 1: Introduction	1
1.1 Introduction	1
1.2 Research questions and purpose.....	5
1.3 Background of the study	6
1.4 Significance of the study	8
1.5 Overview of research plan.....	9
1.6 Summary of chapters.....	13
Chapter 2: Literature Review.....	15
2.1 Introduction.....	15
2.2 Records management theory.....	15
2.2.1 Basis in archival theory.....	16
2.2.2 Influences of multiple disciplines	17
2.3 Concept of a record and information models.....	19
2.3.1 Concept of a record.....	19
2.3.2. Specific properties of records	22
2.3.3 Information lifecycle model.....	24
2.3.4 Information continuum model	28
2.4 Records management and archival issues for social media content	33
2.5 Records management in the U.S. federal government.....	37
2.5.1 Federal legal and regulatory recordkeeping requirements.....	37
2.5.2 Definition of federal record	37
2.5.3 Electronic records management in the federal government.....	38
2.5.4 NARA definition of social media technologies	39
2.5.5 Social media records management in federal departments and agencies	41
2.6 Summary	44
2.7 Conclusion	46
Chapter 3: Research Methodology.....	47
3.1 Introduction.....	47
3.2 Goals, research questions and methods	47
3.2.1 Goals and research questions	47
3.3 Design, methods and research procedures	48

3.3.1 Design	48
3.3.2 Research steps and procedures.....	51
3.3.3 Researcher subjectivity	54
3.3.4 Methodology and methodological context.....	55
3.3.5 Site selection	56
3.3.6 Participant selection	58
3.3.7 Ethical considerations and confidentiality.....	60
3.4 Interviews.....	61
3.4.1 Interview data collection.....	61
3.4.2 Interview data analysis.....	64
3.5 Document review	65
3.5.1 Document review data collection.....	65
3.5.2 Document review data analysis	67
3.5.3 Website review data collection	67
3.5.4 Website review data analysis.....	68
3.6 Limitations	68
3.7 Summary	69
Chapter 4: Results.....	70
4.1 Introduction and restatement of research questions.....	70
4.2 Overview of findings	70
4.3 Uses and perceived value of social media	72
4.3.1 Trends across component agencies.....	72
4.3.2 Real time sharing of information	86
4.3.3 Awareness of social media’s value for information sharing.....	88
4.3.4 Contrast between one-way and interactive social media	90
4.4 Interaction and collaboration	93
4.4.1 Responding to citizen needs and “lowering barriers to entry”	94
4.4.2 Internal social media uses: collaboration and knowledge-sharing among staff	99
4.5 Centralized vs. decentralized management of social media	106
4.6 Privacy and security of third party applications	112
4.8 Policy and practices for managing social media records	119

4.9 Participant perceptions of steps taken to manage and preserve social media records	125
4.9.1 Participant perceptions of existing processes	125
4.9.2 Development of guidelines for management and preservation.....	126
4.9.3 Manual approaches to managing and preserving social media records	128
4.10 Chapter summary	134
Chapter 5: Discussion and Conclusions.....	136
5.1 Introduction.....	136
5.2 Findings and implications: Overview	136
5.3 Capturing new perspectives through social media.....	137
5.4 From lifecycle to continuum.....	140
5.5 Federal policy challenges.....	146
5.6 Agency practices and policy requirements	148
5.7 Implications of social media use and practice	150
5.8 Evolving conceptions of records and social media.....	152
5.9 Toward a new view of records management policy and practice.....	159
5.10 Recommendations.....	161
5.10.1 Recommendations for policy and practice.....	161
5.10.2 Recommendations for research and development	163
5.11 Conclusion	165
Appendices.....	166
Appendix A: Federal Reports and Guidance on Management of Social Media Records.....	166
Appendix B: Interview List	167
Appendix C: Approval Process for External Social Media (Web 2.0 Applications).....	168
Appendix D: Records Control Schedule for Social Media (Web 2.0 Applications)	169
Appendix E: List of DOJ Component Agencies.....	172
Appendix F: Interview Protocol.....	174
Appendix G: Federal Legal and Regulatory Recordkeeping Requirements.....	177
Appendix H: DOJ Privacy Policy	178
Appendix I: NARA Clause for Standard GSA Terms of Service Agreement.....	183
Appendix J: Coding Table	184
References.....	186

Chapter 1: Introduction

1.1 Introduction

The definition of a record may vary depending on context and organizational environment. However, one widely accepted definition in the records management field is the International Standards Organization (ISO) definition: “[I]nformation created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business.” (ISO, 2001). Further, ISO identifies key characteristics of a record to be “authenticity,” “reliability,” “usability,” and “integrity” (ISO, 2001). While these definitions and related conceptions of records have been adopted widely by federal agencies, the rise of online communication and social media have served to challenge traditional definitions and characteristics of a record. The idea of authenticity, for example, is far more complex in a digital world in which social media posts can be updated and edited with ease. In fact, the rise of social media, and communication practices associated with social media use, raise significant questions about what constitutes a record, how it is used, and how it should be maintained and preserved over time.

Maintaining and preserving records has long been regarded as essential to the functioning of government and to related open government initiatives in particular. In a Presidential Memorandum on management of government records, President Barack Obama stated, “When records are well managed, agencies can use them to assess the impact of programs, to reduce redundant efforts, to save money, and to share knowledge within and across their

organizations. In these ways, proper records management is the backbone of open government” (Obama, 2011). As technology continues to evolve and, in some cases, disrupt current paradigms (Christensen, 1997) and practices, the challenges of records management likewise evolve. In particular, federal government records management practices and policies have been impacted by recent exponential growth in use of social media, defined by the National Archives and Records Administration (NARA) as “Social media refers to the various activities integrating web technology, social interaction, and user-generated content. Social media includes blogs, wikis, social networks, photo libraries, virtual worlds, location-based services, and video sharing sites.” (NARA, 2014). Reports and guidance have confirmed that social media applications likely contain records subject to existing government legal and regulatory recordkeeping requirements and policies (National Archives and Records Administration (NARA), 2010; NARA, 2014; Sunstein, 2010; Federal CIO Council, 2009).

Federal departments and agencies (herein referred to as federal agencies) have embraced social media for open government initiatives and communication with the public for several years (Jaeger, Bertot & Shilton, 2012). An assessment of agency use indicates that seventy percent of agencies currently use social media (NARA, 2011b). For example:

- The State Department uses a Twitter account @dipnote to engage followers and disseminate information for emergency situations such in the 2010 earthquake that impacted Haiti (Wigland, 2010).
- The Central Intelligence Agency uses Intellipedia (a version of Wikipedia) to capture knowledge of all sixteen intelligence agencies in the United States (Mergel, 2012).

- The Transportation Security Administration (TSA) developed the "Evolution of Security" blog to provide travel tips and address incidents involving airport security (McClure, 2010).

Each of these examples demonstrates the continuing growth of social media in federal agencies, which make use of social media applications in order to conduct business and share information with the public.

Maintaining and preserving electronic records has long been regarded as essential to the functioning of government and in facilitating related open government and e-government initiatives. Such records can play a valuable role in informing government decision-making, preservation of historical events and decisions for future generations, and facilitation of greater government transparency and oversight. However, while these considerations heighten the importance of this topic, rapidly changing technologies continue to pose practical as well as policy-related challenges for the management of electronic records. Some of these challenges may include the unreliable or changing nature of electronic data, the fact that some electronic records used in the past may no longer be accessible or may be stored on obsolete media technologies, and the attendant loss of critical information. For many years, the field of records management has struggled with the implications of changing technologies, often having to consider issues raised by new technologies after these technologies have already been adopted within the organizational setting. This has presented challenges for implementing effective records management practices for new technologies, since records management practices and standards typically are reactive, having to adapt as technologies continue to change.

Guidance to federal agencies (Appendix A) from the National Archives and Records Administration (NARA), the Federal Chief Information Officers' (CIO) Council, the Office of Management and Budget (OMB), the General Services Administration (GSA) and Government Accountability Office (GAO), has specified that content within social media applications may be records subject to existing legal and regulatory recordkeeping requirements (NARA, 2011; Sunstein, 2010; Federal CIO Council, 2009). Nonetheless, recent research has identified serious challenges with the management of social media records in federal agencies (ACT&IAC, 2011; Doran, 2012; Franks, 2010; NARA, 2010; Grimes, 2009). These challenges include: lack of policies addressing social media records, uncertainty about what constitutes a record in a social media environment, difficulty capturing social media records for management in electronic recordkeeping applications, and difficulty controlling information within third party applications or cloud computing environments. Each of these studies has recommended that policies, technology, and practice in the federal agencies be updated in order to ensure that essential records generated through social media technologies are retained and protected accordingly.

A NARA survey of 270 agency records management programs found that “just 50 percent of these agencies said they have developed policies and procedures for capturing and managing any records created on social media platforms, though many agencies assert that policies are currently being developed” (NARA, 2011b). NARA has developed specific policy guidance on managing social media records within the federal agencies (NARA, 2014; NARA, 2010). In addition, guidance has been issued by the OMB, Federal CIO Council, GAO, and GSA, regarding agency obligations and practices in the management of social media records

(GAO, 2011; Sunstein, 2010; GSA, 2009; Federal CIO Council, 2009).

1.2 Research questions and purpose

The purpose of this exploratory case study was to better understand and analyze differing approaches of using and managing records generated through social media tools. As this research is exploratory, the researcher chose to take a case-based approach focused on one agency. This agency was selected based on willingness to participate, size and diversity of various component agencies, awareness of social media policy issues, and widespread use of social media within the organization. The study describes various practices, procedures and policies related to social media use within this agency. In addition, the study highlights and identifies challenges faced by component agencies in the DOJ charged with the retention and preservation of social media content. The research questions for this study are:

- RQ1. What is the practice of the DOJ and component agencies for using social media technologies?
- RQ2. What steps are DOJ and component agency staff taking to manage and preserve social media records?
- RQ3. How do DOJ and component agency practices for using, managing, and preserving social media relate to the information models and records management theory?

Answers to these questions provide insight into how one particular agency has implemented practices and procedures regarding social media use and records management.

This information, while limited in its scope to the one agency under discussion, is useful in that it describes one particular example of the approaches taken by agency staff to social media-based records. In doing so, the study describes some of the particular aspects and challenges of the records management process and, also, describes ways in which agency practices and policies relate to some larger issues in the field, such as alignment to records management theories and the development of best practices for the management of social media records.

1.3 Background of the study

This study is based upon, and incorporates, research conducted for an integrative paper examining records management policies and processes for managing social media in component agencies of the United States Department of Justice (DOJ). The integrative paper sought to gain a preliminary understanding of how records management staff perceived, managed, and implemented social media records management practices within the DOJ; the current study presented in this dissertation builds on these results and extends discussion of the issues first examined in that integrative paper. The preliminary collection and analysis of data completed for the integrative paper served to allow the researcher to test and revise procedures for data collection and analysis as necessary (Yin, 2003). From this pilot research for the integrative paper, the researcher discovered that different uses for social media exist within this agency, with corresponding impact and ramifications for each of these uses. The researcher was also able to identify specific policies and processes, technological challenges, and policy-related challenges that surround social media records in the workplace. This research, however, led the researcher

to further questions about information gained in interviews and document review and about the utility of some essential policies which the records management field has developed over recent years. Accordingly, the qualitative study presented in this dissertation continues and extends this exploration of current practices across agencies.

In the process of examining these practices for use and management of social media records in the federal agency setting, the researcher has considered, also, the ways in which those practices relate to the information models (such as information lifecycle and information continuum) which are currently considered central to most records management and archival practice (Yusof & Chell, 2000; Upward, 1996). Federal records management policies and regulations are generally considered to be built upon the information lifecycle model, which identifies discrete steps from the creation of a record to its ultimate disposition (NARA, 2015). As social media continues to gain increasing prominence in government, there is an open question as to how the information lifecycle model, with its discrete phases, applies to management and preservation of social media records. While prior research, has acknowledged the challenges of managing social media records within federal agencies, there is a gap in the literature with respect to practical discussions of how federal agencies actually are negotiating these issues. In fact, an in-depth exploration of these issues, such as that undertaken in this study, within a federal department or executive agency has not been published in the literature. However, such research is needed in order to accurately characterize the current state of social media use and management, provide an updated base for policy recommendations and development, and ensure preservation of history through social media channels.

1.4 Significance of the study

This study is significant in that it addresses a critical gap in practical and theoretical discussions of these issues thus far in the literature. On the theoretical level, the study contributes to records management theory, including the exploration and applications of information models (such as the information lifecycle and information continuum). In addition, the concept of a record in the social media environment is examined, as well as the technical and policy implications of this definition for capture, retention and preservation. While these topics have been explored previously in the literature, there is little discussion in the published literature of how these definitions and models might apply to social media in federal agencies, or in government more generally. This exploratory examination of practice and procedures in the U.S. Department of Justice describes how these issues present in one particular case, a large federal executive agency.

With regard to practice, this research provides recommendations to industry, federal agencies, and NARA on the development of standards and guidance for the management of social media records. The study identifies how awareness of federal guidance relates to management of social media records within federal government agencies. The study also seeks to identify the limitations of such awareness on practice. The study explores issues related to resources and technology available to meet federal guidance and internal policy requirements. The research finally presents several recommendations of viable approaches for the management of certain social computing content as records.

Records are widely understood to be important for organizational, business and legal purposes. In the context of governmental agencies, records serve an additional and essential purpose, playing a foundational role in recording history and facilitating government transparency and accountability. In fact, “Records are the foundation of open government, supporting the principles of transparency, participation, and collaboration. Well-managed records can be used to assess the impact of programs, to improve business processes, and to share knowledge across the Government. Records protect the rights and interests of people, and hold officials accountable for their actions. Permanent records document our nation's history.” (OMB, 2012) Given the importance of records, and records management, for government functioning, as described by the OMB, there is a significant need for current research to examine practical implications of adopting social media, which can greatly facilitate government transparency and sharing of knowledge but which can also present additional issues regarding privacy, data storage, third-party ownership, retention and disposition issues, and the like.

While this study helps to address gaps in the literature by discussing how federal government agencies address records management issues for social media technologies in general, further research is needed to address issues related to specific social media technologies.

1.5 Overview of research plan

This study utilized a qualitative approach consisting of document review, screening of potential participants in collaboration with DOJ personnel, and interviews. The use of multiple sources strengthened the study design (Yin, 2003), allowing for triangulation of data and analysis of units

of meaning across various data sources. The research plan consisted of several steps, each of which had a specific goal related to the overall purpose of the study and each of which was accomplished within a specified timeframe.

Research Step	Goal	Timeframe
Initial exploratory interviews and document review as part of previous study, leading to development of questions to be further explored in this study	Identify questions for further research	August 2012-March 2013
Initial identification of participants, based on DOJ input and review of public documents*	Identify research participants	April 2013-January 2014
Development and distribution of screening survey to be used by component agency personnel for identification of additional participants	Identify research participants	February 2014

Completion of 30-60 minute interviews with component agency staff members identified by DOJ personnel as eligible participants in the screening process*	Collect data to answer research questions Begin to analyze data in order to inform continued interviews	March 2014-June 2014
Document review of component agency policies regarding social media, particularly (but not limited to) those referenced by interviewees*	Gather additional information for triangulation and verification of data	July 2014- September 2014
Analysis of data from the screening survey, document review, and interview notes, recordings and transcripts*	Gather, analyze and organize information to answer all	October 2014 - December 2014

	research questions	
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**Given the study's iterative design, the researcher continued to reflect on, and revisit, each of these steps throughout the research process.*

Figure 1: Research Plan: Research Steps, Goals and Timeline.

It should be noted that the DOJ generally uses the term “agencies” to refer to individual component agencies of the department, such as the Federal Bureau of Investigation (FBI), Civil Rights Division, and National Security Division. At times in component agency documents, the term “components” is used, particularly when referring to smaller offices or programs. However, for purposes of clarity, this study will refer to the DOJ itself as a “department” and will use the term “component agencies” for individual components, offices or agencies that form part of the DOJ.

In accord with theories of qualitative research, the research plan components form an iterative design (Yin, 2003; Hartley, 2004), in which the researcher reflects on the data in order to continuously assess and refine research questions, data collection procedures, and analysis (Hartley, 2004). In this case, the researcher used initial findings of the integrative paper to frame research questions, which were then reviewed and refined following website and document review and interviews with participants. Additionally, the researcher used information gained from website reviews to assist with identifying agencies that were particularly active in social media use; this information helped to guide selection of participants for interviews and policies

for review. Lastly, as data analysis progressed throughout the study and as interviews were completed, the researcher revisited research questions and results of initial document review to facilitate coding and analysis of themes. (See Figure 2 for a visual depiction of the iterative research design.)

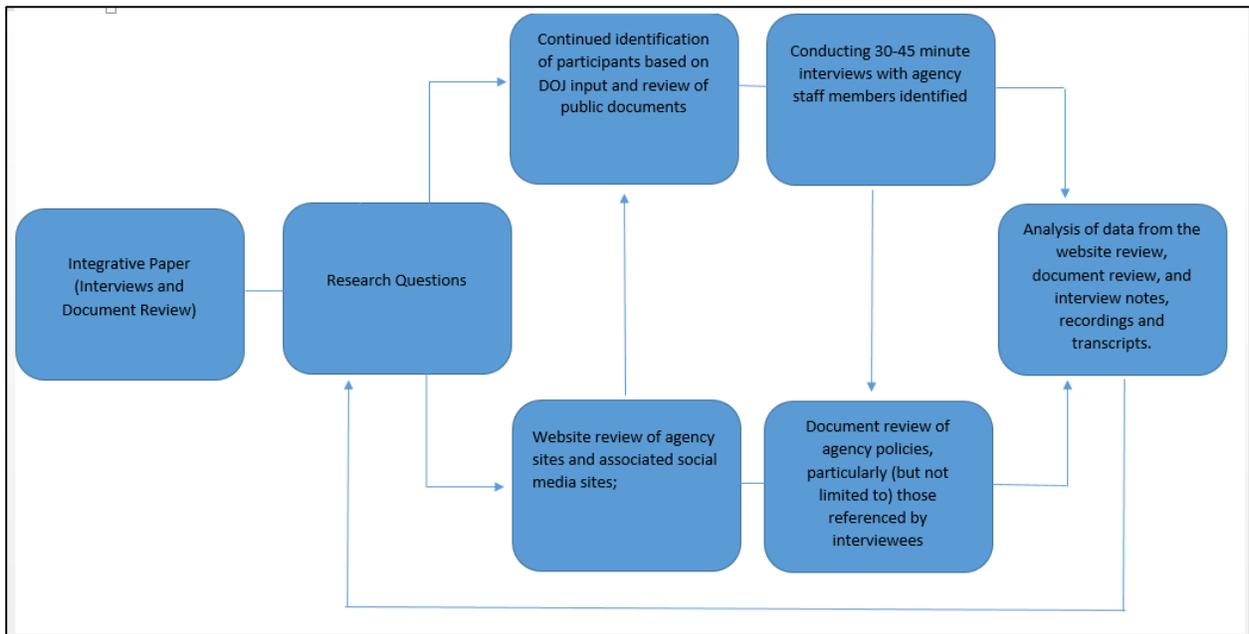


Figure 2: Iterative Research Design

1.6 Summary of chapters

In Chapter 1, the researcher provides an introduction to the study, as well as specifics regarding the purpose and goals of the study, the research questions explored, an overview of the research plan, and expected contributions of the study.

Chapter 2 presents a review and synthesis of the literature as well as the theoretical foundation for the research. In addition, this chapter provides a description and definition of

social media/Web 2.0 technologies in the context of the U.S. Federal Government. The literature review provides a survey of the archival and records management literature on the management and preservation of social media records. In addition, it presents specific federal guidance and reports, and provided an overview of federal regulatory recordkeeping requirements. Finally, it presents studies that have addressed records management of social media in federal agencies and discusses relevant gaps in the literature.

In Chapter 3, the researcher explains the approach of the study, including the selection of methodology. In addition, the chapter provides the phases and process for collecting and analyzing data.

In Chapter 4, the researcher provides the results of the study, identifying themes that emerged from the data that was collected through interviews and document review, including a review of policies and social media sites.

In Chapter 5, the researcher presents discussion of the study findings, including implications of the results for the interpretation of key models such as the information lifecycle, and conclusions and recommendations.

Chapter 2: Literature Review

2.1 Introduction

This chapter provides an overview of the available literature on this topic. The chapter will first provide an overview of records management theory, review the published literature in this area, then synthesize findings and identify gaps to be addressed in this study.

2.2 Records management theory

While the field of records management is heavily influenced by practice, the existence or non-existence of records management theory, as well as the identification of such a theory and placement within a discipline, is an area of discussion and debate in the records management and archival literature. While the specific theoretical underpinnings of records management are subject to discussion in the records management and archival literature, the literature supports the existence of a records management theory either based in archival theory or one that is influenced by multiple disciplines. The literature discusses several aspects of the theoretical base of records management. As Yusof and Chell found in an extensive review of records management theories in the literature, “RM has in the past, been formed on a framework of two relevant bodies of knowledge. One views RM as a management technique (under the umbrella of RIM), whilst the other is influenced by the archival point of view. Those conceptual frameworks are well defined and continue to underlie present RM practice.” (Yusof & Chell, 2002).

2.2.1 Basis in archival theory

One of the prevailing themes in the literature is that archival theory serves as the basis of records management theory. Duranti and Walters both provide explanation and support for the archival basis of records management theory (Duranti, 1999; Walters, 1995; Duranti, 1989).

Duranti explains that as archival science has broadened to include control and appraisal of active and semi-active records, “archivists have rediscovered the importance of the critical study of the document and turned to diplomatics to test the validity of its principles and methods for modern and contemporary documents.” (Duranti, 1989). Walters concurs that records management is based upon archival theory, stating “it can be concluded that at the base of records management theory lies archival theory. In other words, many records management practices are born for the same body of knowledge as archival practices” (Walters, 1995). Walters sees records management as a closely allied field of archival science with similar theories about the nature of records, their creation, organization, retrieval, preservation, and use (Walters, 1995).

Duranti explains that archival diplomatics can be seen as providing the foundation of modern records management theory. Archival diplomatics is an ancient discipline emerging in the Middle Ages as a method to examine recorded information in order to separate fact from fiction (Duranti, 1999). The theory of diplomatics is based upon the importance of assessing the validity and authenticity of records and separating original records from forgeries. Duranti concludes that historically, this discipline was used for “determining the authenticity of records issued by sovereign authority in previous centuries. Its primary purpose was to establish the reality of the rights or truthfulness of the facts contained in such records. In the nineteenth

century, historians adopted diplomatics as a tool of documentary criticism for assessing the authority of medieval records as historical sources” (Duranti, 1999). Since ensuring the authenticity and the reliability of records are understood as essential and fundamental aspects of records management, archival diplomatics can be viewed as providing a theoretical basis for records management.

In applying the theoretical concepts of authenticity and trusted record in electronic environments, for application to electronic recordkeeping systems, Duff presents the concept of Literary Warrant, as the “authority inherent in the laws, regulations, standards, and professional best practices” (Duff, 1998). In this way, society has established a number of central recordkeeping procedures and requirements that ensure that records are trustworthy, and identifies how trustworthy records are to be created and maintained over time. Literary warrant provides the basis for translating theoretical or abstract requirements into a practical approach towards the management of electronic information as evidence (Duff, 1996; Duff, Thomas, & Wallace, 1994; Hedstrom, 1997).

2.2.2 Influences of multiple disciplines

While the literature provides support for the basis of records management in archival theory, there is also support for the influences of multiple disciplines on records management. Brumm states that that “records management suffers from multiple theory disorder, since it encompasses knowledge of theories of information use and users, concepts of information search and retrieval, and knowledge of the information life cycle theory – interwoven with theories of

management” (Brumm, 1992). Accordingly, Brumm concludes that issues may arise when information professionals do not recognize the disciplinary nature of their professions, which Brumm speculates may lead to the misunderstanding of records management. Pemberton also concludes that records management draws on multiple fields, stating that “the theoretical roots of records management, archives, and librarianship lie in information science, cognitive science, systems sciences, and at conceptual intersections with fields cognate with our own.” (Pemberton, 1998). McLeod agrees that records management theory involves several elements including the characteristics of a record and the role and objectives of records management. Accordingly, McLeod concludes that “the fundamental theory and concepts must relate to the nature and function of records and their management” (McLeod, 2010).

In the most substantive review of the literature related to records management theory, Yusof & Chell conclude that the discipline has moved away from its origins in archival administration and is now more often included in the management area (Yusof & Chell 2002). However, Yusof & Chell reiterate that “the appraisal process that fixes the value of records and helps determine what records will be retained, means that archival principles still remain crucial.” (Yusof & Chell, 2002). As a result, they propose a new view of records management theory which draws on information technology, archives, information science, and general management.

2.3 Concept of a record and information models

2.3.1 Concept of a record

The definition of a record originates from the Latin, *recordi*, which means “to remember” (Duranti & Thibodeau, 2006). The record serves as a means to transfer information over time and is used to provide evidence of an event or activity. This definition varies depending upon the context and organizational environment, as each organization may define the term differently, and the term varies also from country to country (Yusof & Chell, 1998; Lemieux, 2001; Hörnfeldt, 1998). While there are varying definitions of record in different contexts, the nature of a record is generally understood to be unaffected by medium or technology (Hopman, 1998). One definition that is widely used within the field of records management is found in the International Standards Organization definition contained in the *Information and Documentation —Records Management (ISO 15489)* standard (Stevens, 2001). This definition states that a record is “information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business” (ISO, 2001).

This definition tends to suggest that the nature of a record is delimited and definable and that it serves primarily as “a neutral repository of facts” (Schwartz and Cook, 2002, p. 1).

However, the development of postmodern perspectives provide a broader view of the concept of a record and, to some extent, challenge this understanding. In a postmodern view, dynamics of power, cultural change, and access are taken into account, and it is recognized that a record, or any writing, may not be the definitive and neutral evidence that we may presume it to be (Cook,

2001a; Schwartz and Cook, 2002) but instead may incorporate perspectives primarily of those in power and may omit the perspective of “the oppressed and voiceless” (Bastian, 2006, p. 267). When records are viewed through this lens, it becomes possible to understand how the overall context in which the records were created can potentially provide a richer understanding than the actual content of the record itself (McKemmish, 2001). In this sense, Cook identifies that postmodernists define documents or records as a form of narration rather than the traditional definition of “evidence of transactions”. In fact, as Cook explains, postmodernists “believe that there is not one narrative in a series or collection of records, but many narratives, many stories, serving many purposes for many audiences, across time and space. Documents are thus dynamic, not static and the archivist as much as the creator or researcher is one of the narrators.” (Cook, 2001b). For example, in ancient societies, women were delegitimized by record-keeping and archival processes and in documentary evidence. By merely focusing on the content of the record as authoritative evidence, without appreciating the cultural and historical context of women’s delegitimization, one would arrive at an incomplete understanding of women’s role and, in fact, an incomplete picture of the society as a whole (Cook, 2001b).

Recognizing these concerns, the records management and archival communities have begun to implement approaches which attempt to address the broader context of records in order to ensure more voices are represented. Macro-appraisal or postmodern appraisal process has been implemented in the Government of Canada to incorporate the viewpoints and voices of the “marginalized” in society. In this context, Cook explains, postmodern appraisal, “consciously attempts to document both the functionality of government and its individual programs that are themselves the creation of citizens in a democracy *and* to document the level of interaction of

citizens with the functioning of the state: how they accept, reject, protest, appeal, change, modify, and otherwise influence those functional state programs, and are in turn influenced by them.” (Cook, 2001b). This is different from the determination by state dictates or policies or new trends in historical research. Instead, macro-appraisal attempts to reflect societal values by conducting “a functional analysis of the interaction of citizen with the state” (Cook, 2001b).

Bastian explains that records may be in fact be generated in a format completely independent of the medium. In applying this concept, Bastian suggests that non-textual documentation of memory texts and embodied performance may be considered a record. A non-textual construct of the concept of the record as a method of transmitting knowledge, as embodied in performance, allows for collective memory can be applied “if communities of records are to truly reflect the dynamic actions, transactions and interactions of the society” (Bastian, 2006). This more flexible understanding of a record’s nature allows for a broader and potentially more inclusive understanding of records and evidence. In general, the applications of postmodern theory to recordskeeping serve to broaden our understanding of what records are and to remind us that, in any record or account, we must look for what is missing as well as what is present. In this particular study, the researcher’s selection of qualitative methods, which allow for rich and detailed examination (Strauss and Corbin, 1998), and which provide ample opportunity to consider broader context of the information collected, allows flexibility for incorporation of multiple perspectives, consideration of policies in light of practice and day-to-day context of implementation, and inclusion of the voices of those whose positions involve ongoing work with social media.

2.3.2. Specific properties of records

Particularly in examining how traditional views of records management apply to the rapidly changing world of social media (which potentially incorporates a plurality of voices and perspectives, according to postmodern theory), it is helpful to begin with a view of how we have traditionally defined records according to discrete qualities and properties. These significant properties of the records would affect their “quality, usability, rendering, and behavior” (Hedstrom & Lee, 2002). Overall, Hedstrom and Lee identify the significant properties of the record are may depend upon a number of factors including “institutional priorities, anticipated use, knowledge of the designated community, the types of materials involved, and the financial and technical resources available to the repository” (Hedstrom & Lee, 2002). Significant properties are those that must be considered in preservation decisions and for complex objects may include internal composition and external relations (Hedstrom & Lee, 2002). For example, a “repository might decide to preserve the text, images, and graphics of a web page along with procedures to reproduce its original composition, but to forego the video segments” (Hedstrom & Lee, 2002). Such properties must be preserved in order for the record to remain accessible and meaningful (Night, 2008). As Wilson elaborates, significant properties are those characteristics that must be preserved “in order to ensure the continued accessibility, usability, and meaning of the objects, and their capacity to be accepted as evidence of what they purport to record.” (Wilson, 2008).

Yeo applies the concept of significant properties to identity and originality, by comparing original documents that have been migrated from one system to another, as well as paper

documents that have been digitized, both being different from the original electronic or physical document (Yeo, 2010). In the case of paper documents that have been digitized, the new electronic versions may include additional metadata elements that did not exist in the original document. Similarly, when an electronic document is migrated from one system to another, elements of the records may be lost or may be altered from the original version. In that sense, any time that a record is digitized or migrated, it could be considered a form of appraisal, with properties that are retained being the significant properties of the records (Yeo, 2010).

Yeo also explored the concept of the record as something that may go beyond the traditional definition of evidence or representation (Yeo, 2008). Yeo notes that it may be difficult to draw hard boundaries for what is or is not considered to be a “record” and may be considered “boundary objects” that may implicate many different categories of information and disciplines (Yeo, 2008). For example, a report or a procedure manual can be seen both as a record and as an information product, and may be considered a “boundary object” (Yeo, 2008). In fact, Yeo specifically identifies websites as potential boundary objects, as various users may perceive a website as falling into different categories, such as “a record, a computing resource, a sales platform, a corporate management tool, and a manifestation of contemporary culture” (Yeo, 2008). This concept further highlights the complexities inherent in determining what may or may not constitute a record, particularly for social media, which can be seen as a communication platform, a platform for collaboration, and more. This fits well with Yeo’s observation that boundary objects “straddle many different communities of practice” and can be “claimed by two or more communities.” (Yeo, 2008).

In summary, while the exact properties of a record continue to be discussed in the literature, the following may impact the value and nature of a record: quality, usability, institutional priorities and designated use, and financial and technical resources available (Hedstrom and Lee, 2002); identity, originality, and user community (Yeo, 2008).

2.3.3 Information lifecycle model

In considering the historical and current views of records and information, it is impossible to omit the information lifecycle model. The information lifecycle model is widely regarded as the construct on which many United States records management technologies and applications are based. The lifecycle concept was pioneered by Schellenberg, who developed the lifecycle model to facilitate management of records from their “birth to death” (Schellenberg, 1956). The information lifecycle shows how information is managed through several “stages” starting from records creation and ending in final disposition (which includes destruction or archival preservation). While there are number of variations and interpretations of the lifecycle model, the most prevalent module in use in the field of records management includes at least three distinct phases: (1) creation, (2) maintenance and use, and (3) disposition (NARA, 2000). One of the underlying assumptions of this model is that information does not naturally progress through the stages of the lifecycle. Information requires active management in a controlled and systematic manner. Each step of the lifecycle requires vigilance in order to preserve both the authenticity and reliability of the record (Duranti & Macneil, 1996).

At the creation stage of the information lifecycle, records are “declared” and created in a manner which is reliable and authentic and can be proven to be a true representation of the document (Duranti, 1999; Duranti & Macneil, 1996). At this stage, records may be captured and classified according to the value of the information. The classification of the record identifies the length of time records are required to be retained based upon the primary and secondary values such as the legal value, fiscal value, historical value, and administrative value (ARMA International, 2005; ISO, 2001; Robek, Brown, & Stevens, 1996). At the maintenance and use phase of the lifecycle, records are protected from modification or destruction, as well as other threats to the information such as technical obsolescence, loss, physical damage, and other types of degradation or threats to the electronic or physical media containing the record (ARMA International, 2005; ISO, 2001; Robek, Brown, & Stevens, 1996). In addition, records are to be accessible to authorized individuals within the organization for a number of purposes, such as research purposes, administrative activities, preparation for audits, and the need to meet legal and regulatory requirements that are associated with doing business (ARMA International, 2005; ISO, 2001; Robek, Brown, & Stevens, 1996).

Records may enter the disposition phase of the information lifecycle after the retention period has concluded. At this stage, records may be properly destroyed or subject to archival preservation (ARMA International, 2005; ISO, 2001; Robek, Brown, & Stevens, 1996). The disposition of records in the final stage of the lifecycle occurs in a secure manner to ensure that records subject to destruction are no longer accessible. If the records possess enduring value, requiring long-term preservation, actions are taken to ensure that the record may continue to be

accessible, such as protection from technical obsolescence and degradation. At this stage in the lifecycle, records may be transferred to an archival repository for permanent preservation.

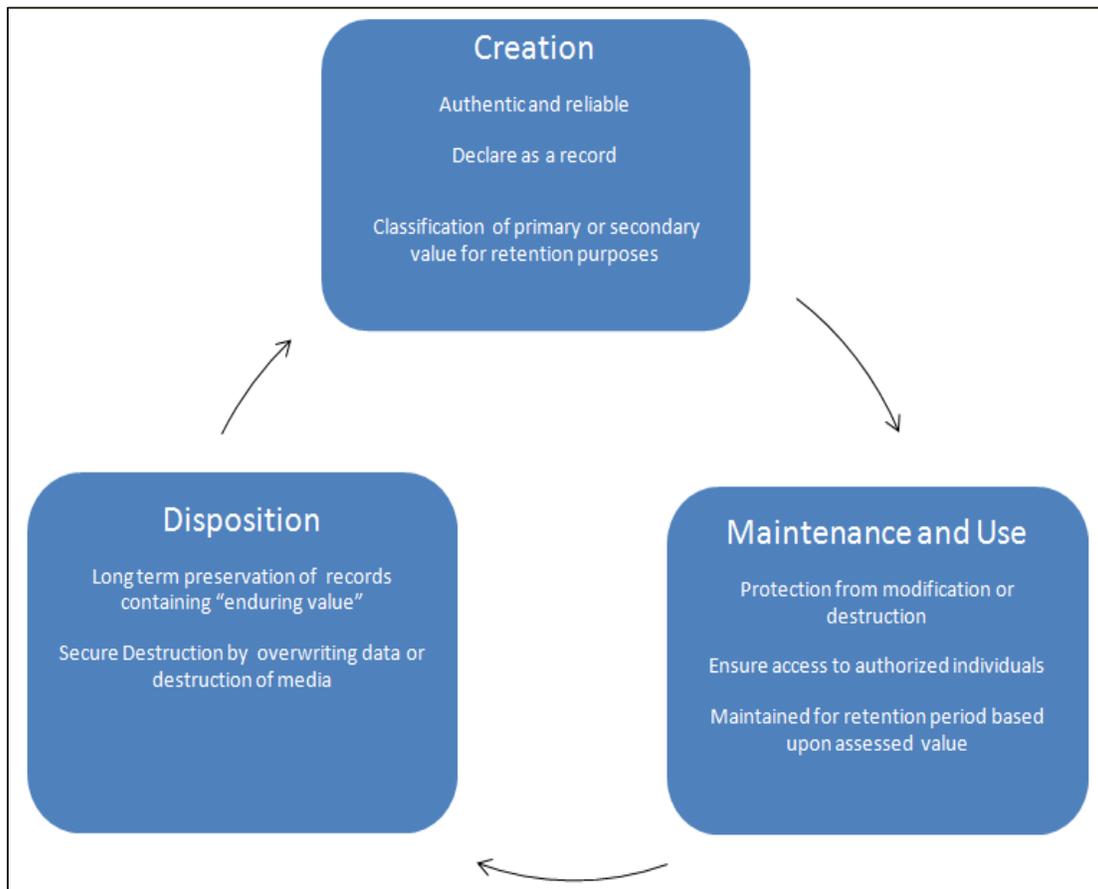


Figure 1: Information Lifecycle Model and Actions at each Lifecycle Stage

The federal government long relied on a specific version of the information lifecycle model (see Figure 2), which also identifies creation, maintenance and use, and disposition as its phrases. On its website, NARA describes phases of the model thus: “**Creation:** A person or organization in the Federal Government produces or receives a record. **Maintenance and**

use: While being used, the record is organized and stored with similar material. **Disposition:** A record is evaluated. The creator of a record proposes to the National Archives how long it should be kept....Records schedules are set up to determine how long all Federal records are to be kept by the Government.” (NARA, 2015). NARA further elaborates, “All information has a lifecycle. Information is created, captured in some form, stored and ultimately destroyed or preserved indefinitely.” (NARA, 2015); information that is considered a record for federal government purposes is “placed under government control” during its lifecycle (NARA, 2015) and preserved or disposed of accordingly. This view permeates federal records management policy as disseminated by NARA and, also, is reflected in the Federal Records Act (2014).

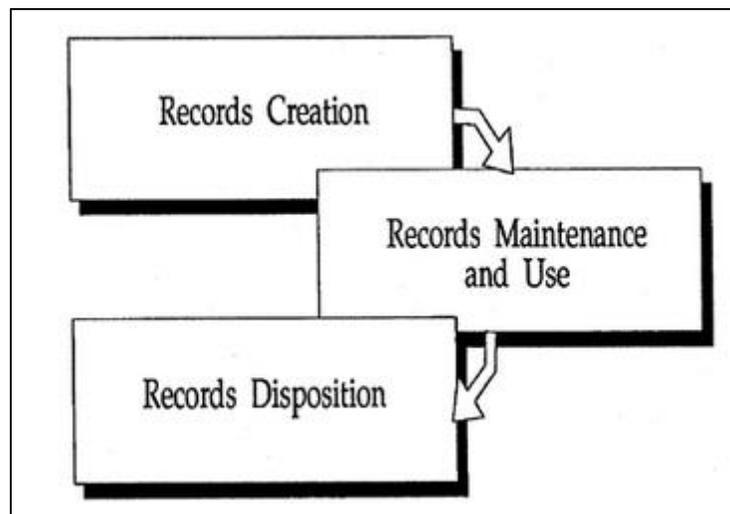


Figure 2: Federal Version of Information Lifecycle (taken from Disposition of Federal Records: A Records Management Handbook 2000 Web Edition)

Despite the fact that the lifecycle model is widely used within the records management community, especially in the United States, there have been critiques regarding application of this model within the electronic environment and viability of the model due to new and changing technologies (Yusof & Chell, 2000). If the life cycle works well for paper-based records, the continuum seems to be the best concept to manage electronic records because it “more appropriately reflects the characteristics of electronic records because of their capability to change form when technology is employed as the medium or carrier of information. In other words, though strongly dependent on software and hardware, electronic records are conceived before they are created, they can remain active through successive generations, and can survive death by the migration of their data streams. In contrast, the term life cycle indicates that there is a start and an end to the life of the record, and is only, in reality, applicable to records in paper format.” (Upward, 1996).

2.3.4 Information continuum model

While the information lifecycle continues to be the primary model for which the field of records management standards and supporting records management systems are founded upon, the information continuum is another important model prevalent in both the field of archives and records management. The information continuum model seeks to address the shortcomings of the lifecycle model, specifically due to the challenges of applying the lifecycle model to electronic information. The continuum model presents a significant paradigm shift for records management. In general, the information continuum model is more complex than the lifecycle

models utilized in records management. In a seminal article, Atherton proposes the transition from the records management lifecycle model, containing multiple phases (including the “records management” phase (creation, classification, use and disposition) followed by archival phase (acquisition, description, preservation and use), proposing a unified information for records management an archives phase consisting of four stages “creation, classification, scheduling, and maintenance and use” (Atherton, 1985). However, Atherton did not provide a detailed description or model for implementing and utilizing the continuum in practice. Overall, Atherton focused on the continuum from the perspective of service to the organization as well as service to the broader society (Atherton, 1985).

The continuum model was further conceived by Upward, who provided a more detailed definition and description of the continuum model and described the potential use of the theoretical models in practice. Upward’s continuum model is influenced theoretically by archival science, postmodernity, and the “structuration theory” of Giddens (Upward, 1996). Upward’s work (and the concept of the information continuum itself) was based upon the earlier works of McLean. Overall, Upward’s goal in developing the information continuum models was to provide a greater conceptual foundation, as well as to provide further exploration of the nature of the continuum (McKemmish & Piggott, 1994). Upward’s model of the records continuum (Figure 2) is developed as a model that can be used as a teaching tool for communication of evidence-based approaches in archives and records management (Upward, 1996).

Upward’s continuum model provides the overall structure for placing records through current and future activities and systems, focusing on four vectors or dimensions: “Create” ,

“Capture”, “Organize” and “Pluralize”. The characteristics of the records, the recordkeeping system, and the ordering processes operate are seen as activities that are interconnected and transcend both space and through time (Upward, 1997). Upward explains further “the recordkeeping continuum is liable to be misinterpreted as a version of the life cycle concept simply because both encompass current recordkeeping processes. A continuum approach is very different conceptually, and in practical terms its impact upon electronic recordkeeping practices can be substantial. Approaches based on creation, maintenance and disposition refer to only some, not all, of the ordering processes involved in recordkeeping, and do not make up a continuum” (Upward, 1996).

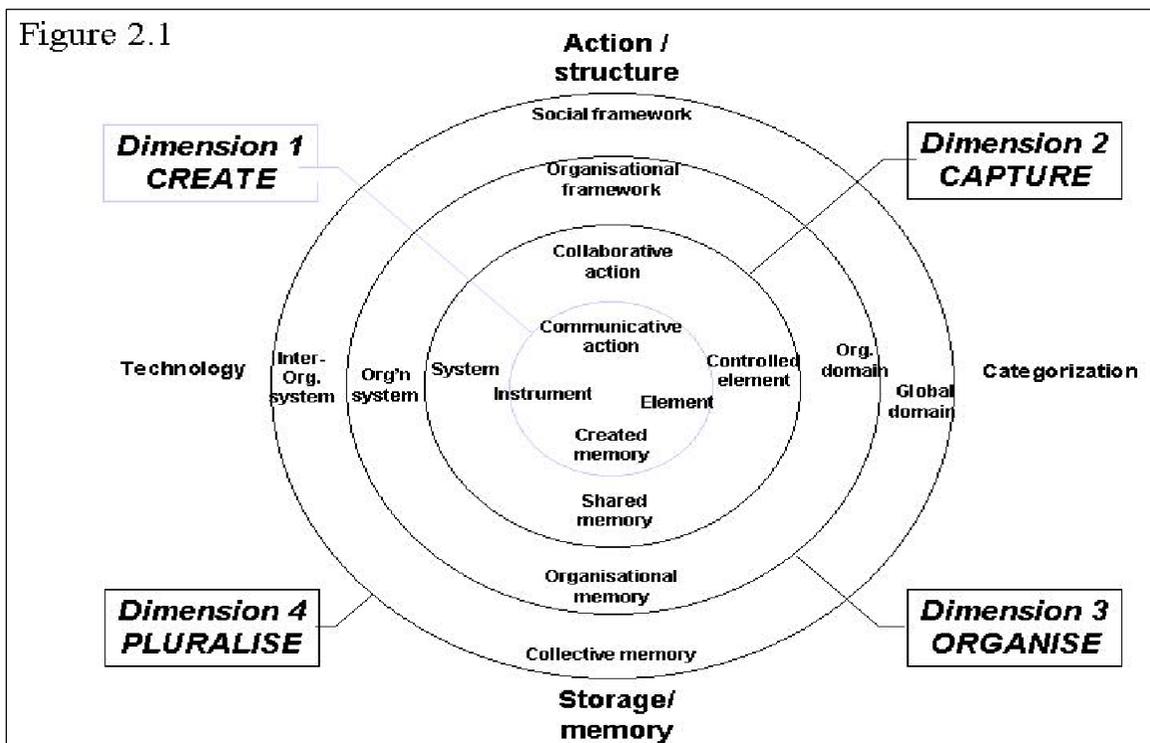


Figure 3. Upward’s Information Continuum Model (Upward, 1997).

McKemmish provides further clarification on the continuum model and its role in respect to records management. McKemmish explains that the model is not time-based (as are the lifecycle models). Instead, continuum models view records functions “simultaneously as organisational and collective memory from the time of their creation” (McKemmish, 1997).

In applying the information continuum to social media, Bak provides additional support for adopting the information continuum in a rapidly changing, dynamic, and collaborative electronic environment. Bak identifies a number of challenges when applying the information lifecycle model to new technologies, such as social media. Specifically, Bak questions the concept of “creation” when an information resource can be created by “mashing” multiple data sets, which may occur by degrees, may involve multiple collaborators, or may ultimately transform that resource into something entirely new. While the information lifecycle identifies a “disposition” phase, this may never actually occur in the electronic environment (Bak, 2011).

Bak argues that the metaphor of the continuum is better suited to Web 2.0 technologies than the lifecycle because the continuum does not require a specific beginning and endpoint. In addition, the continuum does not require the information resource to follow a specific path to the individual endpoint. In doing so, Bak poses several critical questions:

But when information resources, and especially those in Web 2.0 environments, are viewed in aggregate the lifecycle metaphor becomes incoherent. What is the moment of creation of a mashup of data sets? What is classification, and when is it effected, in an

environment better suited to folksonomies than controlled vocabularies, and in which terms may be changed, added or deleted at any point? What is the right trigger for retention in a digital environment – creation, last edit, last use? How does an organization effect disposition on materials, such as Facebook profiles, over which they have ceded ownership? How is the owner or steward of collaboratively authored resources identified? And what if information resources can only be managed by intervening before they are created – must there now be a "prenatal" or "preconception" stage of the "lifecycle"? The metaphor becomes absurd (Bak, 2011).

Ultimately, Bak concludes that the information continuum is more applicable in the “digital information economy”. Bak explains that creation has ceased to be a distinct phase, since information resources may be copied or may actually grow organically from earlier information resources. Furthermore, other recordkeeping activities of classification, scheduling and disposition occur as part of a singular phase of “information management and use”. In the continuum model, further management and use of resources occurs as time passes and the information resources may cease to be of direct operational value. Accordingly, technologies and processes must be in place to enable the management and use of these information resources. Bak concluded that this overall recordkeeping context must therefore predate the creation of individual information resources (Bak, 2011).

The application of Back's ideas to federal records management policy, and the federal information lifecycle model, has possibly intriguing implications. As Bak points out, the information lifecycle model may have significant shortcomings when applied to digital content, and the continuum model may be more appropriate. However, as the lifecycle model is currently written into federal regulations and policy, there is a potential disconnect between the nature of digital technology, adopted with increasing frequency by federal agencies in the era of open government, and that lifecycle model. While the continuum model may hold potential for more accurately describing the nature of digital content and the unique characteristics of digital records, that model has not been adopted at the federal level, nor does it inform current policy or technology.

2.4 Records management and archival issues for social media content

The archival and records management literature has recognized that blogs, social networking applications, wikis, and micro-blogs should be managed pursuant to records management standards and best practices. (Bailey, 2008; Bailey, 2009; Barnes & Barnes, 2009; Cunningham & Wilkins, 2009; Dearstyne, 2007; Stuart & Bromage, 2010). The professional literature has also addressed the need to update records management policies in order to manage the unique and dynamic content those social media platforms provide. The topic of social media records has also been addressed in the legal literature with regard to admissibility of social media content in legal proceedings, pursuant to the requirements of the Federal Rules of Evidence (Schesser, 2006; Bernman, Nguyen, & Chrzan, 2009; Wilson, 2008). This provides further

support of the legal value of social media content and of the potential for such content to serve as a record in the event of litigation.

Several studies have examined the technical and policy-based issues and challenges related to the capture and preservation of social media. McCown & Nelson specifically address the intriguing question, “What happens when Facebook is gone?” citing examples of technologies that have disappeared over the last few years such as Yahoo Mash, Yahoo Photos, and Google Lively (McCown & Nelson, 2009). In each case, the service provider ended the service and related user data was lost as a result. McCowan & Nelson conclude, “One may only speculate how many web services would be terminated in a Microsoft-Yahoo merger. Even websites designed for archiving the Web are not guaranteed to persist, especially in today's increasingly harsh economic climate which may force a number of Web 2.0 websites out of existence.” (McCown & Nelson, 2009). In the study, McCown & Nelson explored the types of personal data being stored in Facebook and examined methods by which this data can be extracted and archived for personal use. This study was one of the first efforts to examine the problem of archiving Facebook accounts and to propose possible technical solutions.

In an article examining the capture and preservation of Weblogs (blogs), Sullivan identified a number of both technical and policy-related issues related to their preservation (Sullivan, 2005). Among the concerns identified when examining the capture and preservation of these sites is that the Internet Archive “does not provide adequate intellectual control over the on-line diary and does not enlighten the researcher to the broader social, cultural, and historical relevance of the diary in the way that a traditional archives can.” (Sullivan, 2005). Sullivan recommends that archivists begin to incorporate blogs in their acquisition policies, developing

broader collecting strategies and identifying a method of appraising and acquiring on-line diaries for ingesting into repositories. Sullivan concludes that the larger policy issues need to be addressed before a method for managing and preserving the information is developed (Sullivan, 2005).

A quantitative study reviewing six datasets of event-centric resources shared on social media found that from June 2009 to March 2012 about 11% of resources shared in social media has been lost after just a year, and an average of 27% had been lost after two and a half years (Salaheldeen & Nelson, 2012). In the study, Salaheldeen, & Nelson found a nearly linear relationship between time of sharing of the resource and the percentage lost (in years) (Salaheldeen & Nelson, 2012). The study provides a model that predicts and extrapolates that after the first year of publishing nearly 11% of shared resources will be lost and after that the model predicts that the loss of 0.02% per day (Salaheldeen & Nelson, 2012).

While social media presents challenges for the capture and preservation of records, both Bailey and Cox have provided several intriguing alternatives for addressing these challenges going forward. Bailey's book *Managing the Crowd: Rethinking Records Management in a Web 2.0 World*, focuses specifically on how social media may be harnessed for records management purposes (Bailey, 2008). In doing so, Bailey explains that in the social media environment it may be possible for the user community to play a role in "collectively identifying" the value and properties of records generated and stored in social media technologies. In this paradigm, Bailey sees records retention and description as determined "in part" by users within general boundaries defined by the records manager. Bailey explains that with the exponential growth of electronic information, harnessing the "wisdom of the crowd" may provide an approach to the scalability

issues currently experienced by those charged with managing records. Among Bailey's recommendations are to leverage a "tagging system" allowing users to tag records and offer feedback on whether records were useful and should be retained based on operational need, legal requirements and historical interest (Bailey, 2008). In addition, Bailey recommends that in order to address records management requirements in social media environments, a "detailed, complex and fluid" model is needed. Cox presents another user-based alternative to managing complex digital content, suggesting that the preservation of complex digital materials may be accomplished by leveraging the "Citizen Archivist" for Digital Curation projects. While not specifically addressing social media, Cox has speculated that "new networked digital technologies have pushed archivists, at least some, to rethink the custodial model and to consider new kinds of distributed or post-custodial strategies" (Cox, 2009).

In this section, the researcher introduced issues such as admissibility of social media content in legal proceedings, obsolescence of technology as it relates to third-party social media tools, intellectual control over content, policies and strategies for acquiring and ingesting social media content, and data loss as it relates to sharing of social media content. While these issues typically are considered to be challenges, other aspects of social media have positive potential, such as allowing the user community to play a role in the categorizing of records, leveraging user-based tagging to provide for a scalable model to identify and manage social media content as records.

2.5 Records management in the U.S. federal government

2.5.1 Federal legal and regulatory recordkeeping requirements

There are a number of legal and regulatory recordkeeping requirements that federal departments agencies must adhere to (Appendix F). The backbone of the federal recordkeeping system is based upon the Federal Records Act of 1950 (1976) and Presidential and Federal Records Act Amendments of 2014 (2014), defining records and establishing records management by federal agencies, the Federal Records Disposal Act of 1943 (2004) establishing the legal basis for the disposal of records of the United States Government. These laws provide the fundamental requirements for recordkeeping in federal agencies.

Several related laws also impact the management of records in federal agencies. A non-exhaustive list of such laws includes the Paperwork Reduction Act of 1980 (1995), establishing the legal basis for minimizing the cost of creation, collection, maintenance, use, dissemination, and disposition of information, the Freedom of Information Act of 1966 (1996) defining the types of federal agency records that are subject to disclosure and also outlines specific disclosure procedures, and the E-Government Act of 2002 (2002), aiming to improve citizen access to federal records through increased transparency. Finally, NARA Regulations (2009) provide policies that to federal agency to records management programs must comply with in order to ensure that records are records are created, maintained, and subject to disposition.

2.5.2 Definition of federal record

The federal government defines a record, in the Presidential and Federal Records Act Amendments of 2014: “(A) includes all recorded information, regardless of form or characteristics, made or received by a Federal agency 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 United States Government or because of the informational value of data in them” (Presidential and Federal Records Act Amendments, 2014).

While the definition of a federal record is codified in the Presidential and Federal Records Act Amendments of 2014 (2014), the interpretation of this definition is delegated to the United States Archivist. Specifically, “The Archivist's determination whether recorded information, regardless of whether it exists in physical, digital, or electronic form, is a record as defined in subsection (a) shall be binding on all Federal agencies” (2014). Significantly, the amendment also transfers the authority for records management in the federal government from the GSA to NARA, a responsibility that was previously shared between the two agencies.

2.5.3 Electronic records management in the federal government

Traditionally, records management has served an important role in support of the delivery of government services, providing evidence of the government transactions and legal and regulatory obligations (NARA, 2010c). The importance of managing information helps to ensure the effective and efficient management within the government, as well as to promote and provide evidence of important transactions and documentation of essential services (Cuillier &

Piotrowski, 2009). Many of the records generated throughout the federal government may possess historical value, and are necessary to secure the rights and privileges of U.S. citizenship (NARA, 2010). As legal and regulatory requirements have clarified the need for the federal government to control both electronic and non-electronic information, this has posed a new set of challenges with regard to changing in technologies that generate records that are required to be controlled through the information lifecycle (Rawlings-Milton, 2000; Perritt Jr., 1992; Plocher, 1999; Van Wingen, 1999; Sprehe, 1992).

The federal government has incorporated electronic records management into their information technology infrastructure and practices, posing both opportunities and challenges with regard to ensuring greater accessibility of government information (Plocher, 1999; Van Wingen, 1999; Lewin, 1996). In particular, the volume of electronic information generated by the U.S. federal government, in addition to the lack of the funding, resources, and awareness necessary to enable effective records management in a diverse environment, have posed significant challenges with regard to managing electronic records throughout the federal agencies (Lewin, 1996; Rawlings-Milton, 2000).

2.5.4 NARA definition of social media technologies

NARA has defined Web 2.0 and social media in three reports (1) *Guidance on Managing Social Media Records (2014)*, (2) *A Report on Federal Web 2.0 Use and Record Value (2010)*, and (3) *NARA White Paper on Best Practices for the Capture of Social Media Records (2013)* (collectively referred to as the NARA social media guidance) as “Social media refers to the

various activities integrating web technology, social interaction, and user-generated content. Social media includes blogs, wikis, social networks, photo libraries, virtual worlds, location-based services, and video sharing sites.” (NARA, 2014). These platforms support business processes that both create and manage content and can be used internally, externally, or both. NARA’s guidance provides a non-exhaustive list of such technologies, which includes:

- (1) **Web Publishing:** These are defined by NARA as “Platforms used to create, publish, and reuse content. Examples include microblogging (Twitter, Plurk), Blogs (WordPress, Blogger), wikis (Wikispaces, PBWiki), mashups (Google Maps, popurls).”

- (2) **Social Networking:** These are defined by NARA as “Platforms used to provide interactions and collaboration among users.” Examples include Social Networking tools (Facebook, LinkedIn), Social Bookmarks (Delicious, Digg), Virtual Worlds (Second Life, OpenSim), Crowdsourcing/Social Voting (IdeaScale, Chaordix).”

- (3) **File Sharing/Storage:** These are defined by NARA as “Platforms used to share files and host content storage. Examples include Photo Libraries (Flickr, Picasa), Video Sharing (YouTube, Vimeo), Storage (Google Docs, Drop.io), and Content Management (SharePoint, Drupal).”

For the purposes of this analysis, the term social media will be used to refer to the definition, description, and examples provided in NARA's social media guidance.

2.5.5 Social media records management in federal departments and agencies

U.S. federal government social media use and records management policies have been examined through several studies in the literature. In one literature review, the complexities and challenges of managing social media records are identified, as well as the need to update policies for managing social media content through the agencies (Grimes, 2009). Another literature review provides an overview and annotated bibliography on social media and records issues, describing resources and standards related to the management s social media records (Shaffer, 2012).

A study examining federal agency records management identified issues related to inclusion of social media content in these policies, and presented policy recommendations for federal agencies seeking to update policies to address social media records (Doran, 2012). The literature has raised issues specifically about the ways in which externally hosted "third-party" social media sites have applied records schedules, as well as methods for archiving and preservation of content for permanent access and retrieval (Bertot, Jaeger, & Hansen, 2012). In addition, a study examined the aspect of social media which invites public participation into knowledge creation, indicating that these issues need to be addressed appropriately from an archival perspective (Mergel, 2012).

Several studies have specifically addressed the management of social media records in federal agencies by conducting interviews with agency officials. These studies have also examined the challenges related to the management of records in social media in federal agencies and provided specific recommendations for effective practices (Doran 2012; ACT&IAC, 2011; Franks, 2010). The challenges identified include: lack of policies addressing social media records, uncertainty about what constitutes a record in a social media environment, difficulty capturing social media records for management in electronic recordkeeping applications, and difficulty controlling information within third party applications or cloud computing environments. Each of these studies has recommended that policies, technology, and practice in the federal agencies be updated in order to ensure that these essential records generated through social media technologies are retained and protected accordingly.

One continuing challenge, identified throughout the literature, is that department or component agency records may reside on third-party social media platforms that are potentially outside of the control of the federal government (Bertot, Jaeger, & Hansen, 2012; ACT&IAC, 2011; Franks, 2010). This content may be subject to the constantly evolving policies of the service providers, causing concern about whether this content will be available and accessible in the future. This presents a significant and ongoing challenge for federal departments and agencies seeking to develop methods and approaches to manage and preserve records generated by social media applications. This challenge is further exacerbated without automated methods or sophisticated tools to capture social media records so that they can be stored and managed internally.

Writing in *American Archivist* in 2014, Arnold and Sampson addressed the use of some such tools, describing the use of Twitter's Application Programming Interface (API) to gather tweets from the 2011 Egyptian revolution. The authors describe particular challenges related to use of API and other such tools, including "determining the scope of collection, quantitative and qualitative collection methods, separating signal from noise, and navigating vernacular and formal languages" (Arnold and Sampson, 2014). The authors also discuss guidelines for best practices for using sophisticated tools to gather and preserve social media records.

A growing body of research has examined the use of sophisticated social media technologies in government, responding in large part to the 2011 Presidential Memorandum on Managing Government Records. Agencies have grappled not only with best practices for collecting and preserving social media records, but also with more basic questions of what technologies to utilize and how to do so. Mergel (2013a) interviewed social media directors across government agencies and determined that their decisions were largely driven by informally-gathered information about best practice, observations from public and private sector, and information about public needs or "citizen behavior." As a result, Mergel recommends greater use of "formalized knowledge sharing" among personnel adopting and implementing social media technologies in order to support their effective use in government. Snead (2013) also conducted a qualitative examination of social media use in the executive agencies, finding that "most agencies" use at least some forms of social media. While participation varies from agency to agency, there is an increased trend of public interaction with agencies based on the recent adoption of social media and the move toward greater "transparency".

Mergel (2013b) presents results of a qualitative examination of agencies' use of social media, and discusses use of social media in a "bi-directional" (p. 328) capacity in government and addresses the challenges of reliably measuring or evaluating social media use or its effectiveness in government, a practice with which few government agencies have yet engaged. Despite the increased interest in social media use, Mergel argues there are few objective, measurable standards on which agencies can rely. She cites several common objectives for agencies leveraging social media: greater transparency, increased citizen participation and collaboration (among agency personnel or with the public). Of these three, collaboration remains particularly problematic: "[S]ocial media is clearly not used for back and forth conversations that might lead to innovative insights or ideas on how, for example, government operations can be improved" (p. 331). Indeed, government's primary objective often seems to be "pushing out government information through social media channels," rather than planning collaborative or engaging interactions (p. 331). This may be in part due to legal or personnel issues, as government procedures currently often require responses "to go through a highly restricted information vetting process" (p. 333). As a result, Mergel recommends adoption of incremental steps measuring and implementing social media interactions.

2.6 Summary

Based upon the literature, it is clear that the management and preservation of social media records is an important and challenging issue for federal agencies to address. While many management and preservation practices have been traditionally based on the concept of the

information lifecycle, recent scholarship has called into question the degree to which this model accurately captures the dynamic and unique nature of electronic media and particularly social media, which is by its nature dynamic and diverse. Such questioning is highly relevant in light of theories such as postmodernism, which likewise questions whether any record is truly static, can truly be defined, and accurately captures that which it claims to represent. Taken together, both of these developments provide a basis for exploring other alternative models, such as the information continuum model, as being more applicable to the nature of electronic records in general and social media in particular.

The literature indicates that an essential component of addressing this issue is for federal agencies to ensure that records management and social media policies provide specific guidance and methods for identifying records generated within these technologies and managing the records accordingly. Other aspects of this guidance involve the use of technology, such as how social media records can be captured and preserved. This is especially applicable to third-party applications that are hosted externally and are outside of the control of federal departments and agencies. Other elements of the policies involve fundamental issues such as how a record is defined in a social media environment.

While there exists, in the literature, a limited examination, via interviews, of the management of social media content in the federal agencies, a close analysis is needed to identify how NARA and other federal guidance is being practically applied within a specific federal department, a topic which has not been examined in the literature. Such an analysis is important to the field because of its potential to identify key elements and challenges, as well as different approaches for applying the guidance in practice.

It is evident that a gap exists in the literature with respect to records use and preservation in the social media environment. Specifically, additional research is needed to identify the use of both manual and automated methods of capturing, retaining, and preserving records in the social media environment. Finally, based on staff members' perceptions of user awareness regarding records management, additional research may also focus on the type and extent of training required to support implementation of best practices throughout agencies, for users in a variety of roles.

2.7 Conclusion

This chapter has reviewed the available literature regarding records management and social media, particularly with respect to government agencies. The chapter then synthesized key themes emerging across the literature and identified gaps within the literature, some of which addressed in this study.

Chapter 3: Research Methodology

3.1 Introduction

This chapter provides an overview of the research methodology of the study. The chapter begins by explaining and describing the qualitative focus of the study. The chapter then outlines the research procedures, describes the phases of the study and procedures for data collection and analysis of website review, qualitative interview and document review data.

3.2 Goals, research questions and methods

3.2.1 Goals and research questions

The goals of this analysis were 1) to better understand the practices of a federal department regarding social media records use and related issues, including technology as well as policy and federal guidance; 2) to examine those issues in light of management and preservation practices for social media; and 3) to develop an understanding of how these practices relate to current information models and records management theories. The purpose of the study was to answer the following research questions:

- RQ1. What is the practice of the DOJ and component agencies for using social media technologies?
- RQ2. What steps are DOJ and component agency staff taking to manage and preserve social media records?
- RQ3. How do DOJ and component agency practices for using, managing, and

preserving social media relate to the information models and records management theory?

This research consisted of qualitative case study research, attempting to identify the practices and beliefs of component agency staff, with respect to records management of social media, through interviews in which they shared their perspective and their everyday experiences (Kvale & Brinkmann, 2009). Throughout the process of conducting this research, the researcher carefully considered participant responses during interview, data gained from document review, the researcher's role as an observer at the DOJ, and the subjectivity that I, like all researchers, brought to this project (Powell & Connaway, 2004; Creswell, 2008).

3.3 Design, methods and research procedures

3.3.1 Design

This study was conducted in two phases. In the first phase, the researcher conducted research for an integrative paper addressing this topic, conducting interviews with a small subset of staff members at the DOJ and a preliminary review of documents for component agencies, including policies, internal and public facing component agency websites. Continued contact for member checking during data analysis occurred following these interviews. As is common practice in qualitative research, the researcher used ongoing analysis in order to guide interpretation, identification of themes, and refinement of research questions as part of an

iterative process (Strauss & Corbin, 1998; Hartley, 2004). In the second phase, the researcher conducted interviews with a larger set of component agency staff, including those in records management and records policy implementation positions throughout various component agencies, using findings from the first phase of the study to guide the selection of participants and interview questions. At the same time, the researcher conducted a review of publicly available policies for all component agencies and a review of public-facing websites for all component agencies. The result is a multi-dimensional picture of how records management is perceived, managed and implemented with respect to social media throughout various federal component agencies

While conducting research, the researcher spent numerous full and partial days at DOJ offices in Washington, DC. The researcher's activities at the DOJ related solely to completion of this study. Therefore, the researcher functioned primarily as a non-participant observer, as ongoing involvement in component agency projects, or day-to-day participation in DOJ initiatives, did not occur. The researcher also recognized that familiarity with DOJ staff and procedures might develop which would impact his perception and interpretation of study findings, and for that reason the researcher has continued to monitor and consider his role and subjectivity throughout this process (Patton, 2002).

This study utilized a qualitative approach consisting of document review, screening of potential participants in collaboration with DOJ personnel, and interviews. The use of multiple sources strengthened the study design (Yin, 2003; Powell & Connaway, 2004), allowing the researcher to analyze multiple types of data and identify themes across interviews, documents review and website analysis.

The research plan, described more fully in the chart on p. 59, consisted of six steps:

1. Continued identification of participants based on DOJ input and review of public documents (building on prior integrative paper research).
2. Distribution of screening survey to DOJ personnel for identification of eligible participants.
3. Conducting 30-45 minute interviews with component agency staff members identified in the screening process.
4. Concurrent document review of component agency policies, particularly (but not limited to) those referenced by interviewees (this step builds upon the document review conducted in the pilot study).
5. Website review of component agency sites and associated social media sites.
6. Analysis of data from the website review, document review, and interview notes, recordings and transcripts.

The use of iterative qualitative design (Yin, 2003; Hartley, 2004) allowed the research to continuously reflect on the data in order to refine questions, processes and data analysis. The iterative design model below describes how this process worked throughout the course of the study. Initial findings from the integrative paper were used to frame research questions, which were then reviewed and refined following website and document review and interviews with participants. Additionally, the researcher conducted website review and used findings from that review to identify component agency participants, based on patterns of social media use. Participants were asked, in interviews, if they could provide any component agency policies that

guided their use of social media, and findings from document review of policy were both juxtaposed with other sources of data and, also, used to continuously refine research questions and procedures. As interviews were completed, the research continued to reflect on findings to facilitate coding and analysis of themes. (See Figure 1 for a diagram of the research design.)

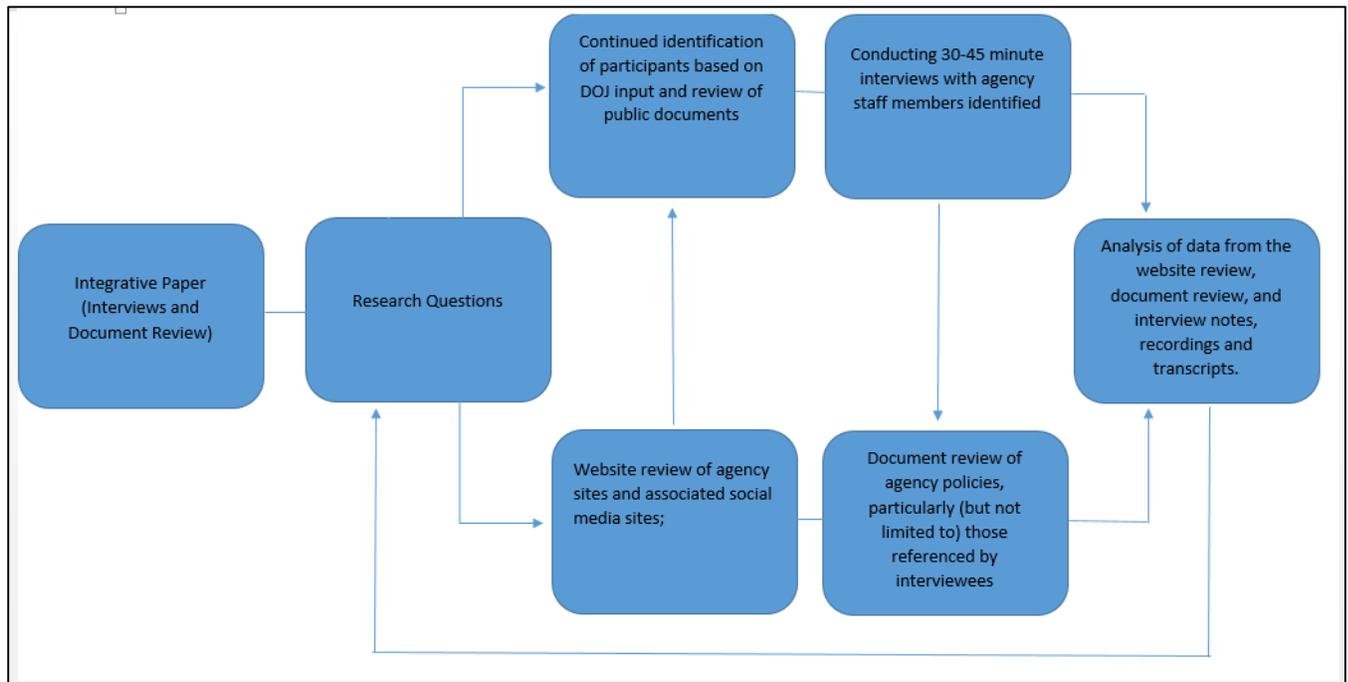


Figure 1: Iterative Research Design

Each step of the research served a specific purpose within the research design. The chart below identifies steps of the research process and the timeframe within which each occurred (see Figure 2).

3.3.2 Research steps and procedures

Research step	Goal	Timeframe
Initial exploratory interviews and document review as part of integrative paper	Identify questions for further research	August 2012-March 2013
Initial identification of participants, based on DOJ input and review of public documents*	Identify research participants	April 2013-January 2014
Development and distribution of screening survey to be used by component agency personnel for identification of additional participants	Identify research participants; Collect data to answer research questions	February 2014
Completion of 30-60 minute interviews with component agency staff members identified by DOJ personnel as eligible	Collect data to answer research questions	March 2014-June 2014

participants in the screening process*	Begin to analyze data in order to inform continued interviews	
Document review of component agency policies regarding social media, particularly (but not limited to) those referenced by interviewees*	Gather additional information for triangulation and verification of data	July 2014- September 2014
Analysis of data from the screening survey, document review, and interview notes, recordings and transcripts*	Gather, analyze and organize information to answer all research questions	October 2014 - December 2014

**As discussed previously, given the study's iterative design, the researcher continued to reflect on, and revisit, each of these steps throughout the research process.*

Figure 2: Research Timeline, Steps and Purpose.

The researcher examined records and information management practices in one particular case (at the DOJ) through triangulating data from review and analysis of internal component agency documents and policies, interview notes, audio recordings of the interviews, transcripts, and website review (Powell & Connaway, 2004). In data analysis, open, axial and selective coding were used. The coding process consisted of first identifying key themes in each interview, grouping themes into categories as they naturally emerge, and comparing themes and categories within interviews and across interviews. Themes identified from interview data were also compared with those themes emerging from document review and with the results of the initial screening questionnaire (Strauss & Corbin, 1998). The researcher ensured validity of survey results through triangulation of data (Maxwell, 2012), interview notes and document review. The resulting thematic analysis describes current approaches for managing social media records through policy and technology, as well as challenges that continue to exist. Ultimately, relevant themes were identified which can provide insights and inform future research on the management of social media record with the U.S. federal government.

3.3.3 Researcher subjectivity

The researcher is a practitioner in the field of records and information management, as well as a doctoral student at the University of Maryland iSchool with a research interest in records management for social media. The perspective informing this analysis was based upon a background in the area of records management and archives. In addition, the researcher worked closely with staff at the Office of Research Methods and Policy (ORMP) throughout this project,

which may have implicitly influenced the perceptions thinking presented in this analysis. It is acknowledged that the researcher's background and experiences may have influenced all aspects of this analysis.

3.3.4 Methodology and methodological context

This study utilized qualitative, interpretive methodology, considering self-reported practices of agency staff within the larger context of existing policy and the organizational environment of the agency. In this study, the focus was on one particular agency or "case," allowing for in-depth "exploratory" examination of practices, policies and additional factors identified at the Department of Justice (Powell & Connaway, 2004, p. 61). This approach fits with Leedy and Ormrod's description of "qualitative research in which in-depth data are gathered relative to a single individual, program, or event, for the purpose of learning more about an unknown...situation" (2001) and with Yin's (1989) statement that case study is appropriate when examining a "phenomenon within its real-life context," and when boundaries between the phenomenon itself and its context are not clear (Yin, 1989). Consistent with general approaches to qualitative research, the study uses multiple means of data collection (Powell & Connaway, 2004; Yin, 1989).

As described in the literature review, records and information management have traditionally been seen as fields that deal with objective, strictly defined processes. The field's historical roots in diplomatics, along with widely accepted models such as the unidirectional information lifecycle model, have contributed to this perception. However, newer approaches such as postmodernism have begun to challenge this understanding of records and information

science (Cook, 2001b, p. 22). In juxtaposing objective phenomena such as policies and records definitions with subjective participant perspectives on practices and implementation, the study relies on constructionism (Powell & Connaway, 2004; Crabtree & Miller, 1999) as a means of examining objective phenomena while acknowledging they exist within socially constructed and mediated entities. These contexts have provided a foundation for this study to examine questions related to practice within the wider context of technology and changing models of information will allow for rich analysis of data, synthesizing agency staff members' personal perspectives on the records management process with existing and specific guidance. Integrating these approaches allowed the researcher to “understand why participants act as they do” while also considering “the subjective aspects of human experience and behavior.” (Powell & Connaway, 2004, p. 59).

3.3.5 Site selection

The site chosen for the study was the DOJ, an executive department of the federal government subject to the provisions and regulations of the Federal Records Act. The DOJ, a large federal executive cabinet agency, consisting of 55 component agencies at the time this study was conducted, including the Federal Bureau of Investigation, United States Attorneys' Office, and numerous other agencies, with a total budget of 25 billion dollars (DOJ, 2012). The DOJ is the one of the world's largest law offices and the U.S. government's central agency for the enforcement of federal laws. As such, due to its size and the diversity of organizations situated within the DOJ (Appendix E), this was an appropriate site to analyze issues related to federal department and component agency use of social media and recordkeeping practices. In

addition to conducting survey, follow-up interviews, and review of policy, the researcher spent several full or partial days at the DOJ over a four-month period in order to gain an “in-depth understanding” of the issues and dynamics at the agency relevant to the analysis (Creswell, 2009, p. 192).

Figure 2, below, depicts the organizational structure of the DOJ as presented on the DOJ website. (Some component agencies listed here actually consist of several smaller organizations, which the DOJ has not visualized on this chart.)

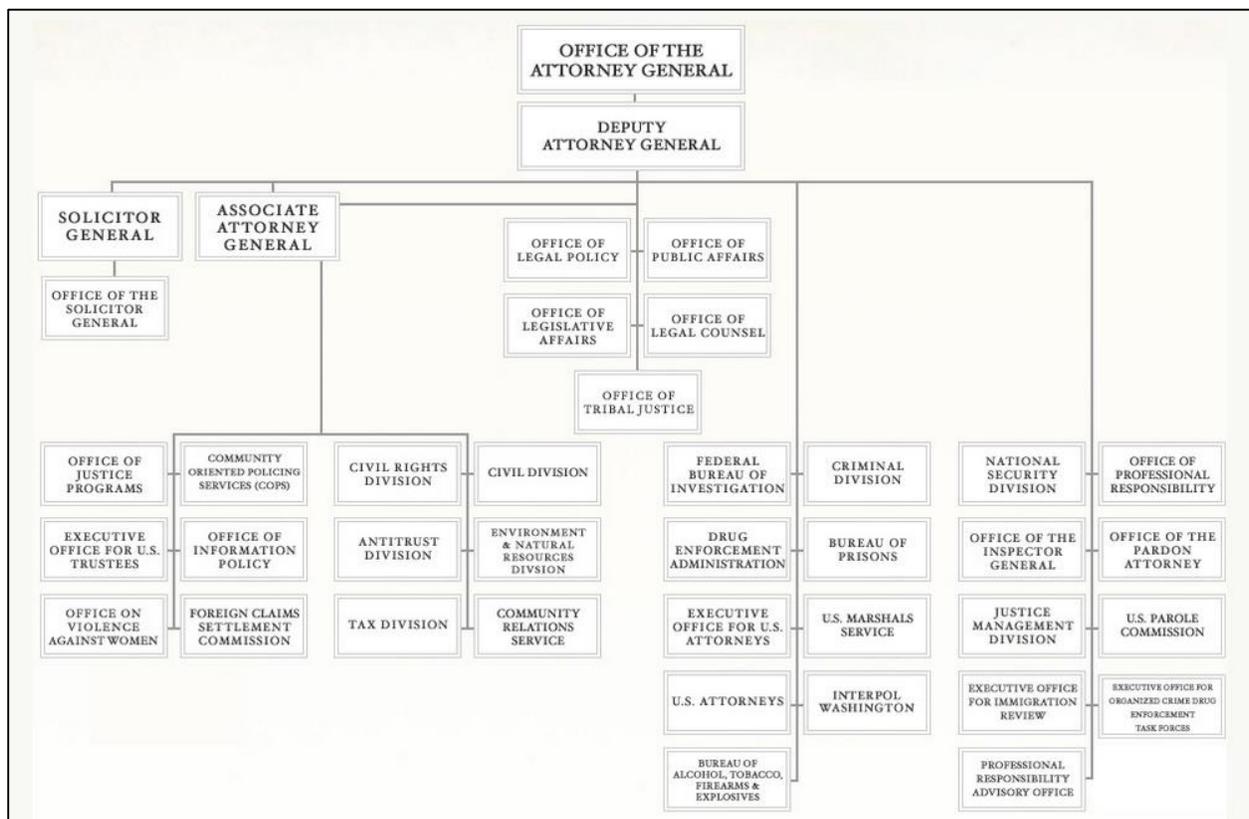


Figure 3: Organizational Structure of the DOJ (USDOJ, 2015).

The DOJ generally uses the term “agencies” to refer to individual components of the department, such as the Federal Bureau of Investigation (FBI), Civil Rights Division, and National Security Division. At times in component agency documents, the term “components” is used, particularly when referring to smaller offices or programs. However, for purposes of clarity, this study will refer to the DOJ itself as a “department” and will use the term “component agencies” for individual components, offices or agencies that form part of the DOJ.

3.3.6 Participant selection

Under the DOJ policy, component agencies are required to assign responsibility to a person and office with appropriate authority to coordinate and oversee a comprehensive records management program. This study utilized purposeful selection of participants (Creswell, 2009; Powell & Connaway, 2004) in order to identify those participants who coordinate, oversee, or participate substantially in the component agency’s management of social media, including Records Officers, Records Mangers, and Information Technology professionals and social media administrators at 55 component agencies (see Appendix B) of the DOJ. The researcher identified those personnel through input from the DOJ and through review of available component agency staff listings. All such personnel received a three-question screening survey online, sent via email from the ORMP. The survey asked participants to state their role with respect to management of social media, whether their component agency utilizes social media, what types of social media were used, and to provide contact information for the individual that is responsible for social media. The survey questions were designed in consultation ORMP staff; results were returned directly to the ORMP for personnel reasons. The screening survey was sent

out to all 55 records custodians, records managers, and records officers in the component agencies. Of the 55 individuals that received the screening survey, 16 identified that their component agency utilizes some form of social media. Of those 16 individuals that were identified, 6 declined to be interviewed. In addition, 5 individuals were directly identified by ORMP apart from the screening survey. The research liaison in the ORMP reviewed responses to these screening questions for the purpose of identifying eligible study participants, who were then referred to the researcher. Participants were chosen based upon their the role in overseeing records management programs and/or managing social media, since these staff members are thought to be in the best position to be able to provide substantive responses to in the interview stage (See Table 3 for participant roles). Interview participants reflected a diverse group of component agencies with varied focus areas, including but not limited to law enforcement, including criminal justice services, litigation, domestic policy initiatives, and public relations. To maintain participant confidentiality, specific component agencies are not identified for interview participants.

Participant	Interview Method	Role
Participant 1	In-person	Records Officer
Participant 2	In-person	Information Technology Policy Manager
Participant 3	In-person	Information Technology Policy Analyst
Participant 4	In-person	Information Technology Specialist
Participant 5	In-person	Information Technology Specialist

Participant	Interview Method	Role
Participant 6	In-person	New Media Specialist
Participant 7	In-person	Component Agency Director
Participant 8	In-person	Public Affairs Specialist
Participant 9	Phone	Social Media Specialist
Participant 10	In-person	Assistant Director of Information Systems
Participant 11	In-person	Director of Administrative Services
Participant 12	In-person	Records Officer
Participant 13	Phone	Component Agency Director
Participant 14	In-person	Records Officer
Participant 15	E-mail	Records Officer

Table 3: Participants, Methods of Interview and Roles

3.3.7 Ethical considerations and confidentiality

In conducting the research, both confidentiality and informed consent were adhered to and respected. Per federal and University regulations, no data was collected from human subjects without prior IRB approval. University IRB approval was obtained and followed throughout the study. The study involved no significant risk to study participants beyond potential risks associated with loss of privacy or confidentiality. All study data was kept confidential, and reporting anonymized participants in order to protect their identities. The goals of the study were communicated clearly to participants and participant consent was obtained

prior to collecting data. It was made clear to participants, both in informed consent documents and orally in the interview process, that their employment status would in no way be impacted by their decision to participate or by the information they share. All participants were provided identifying numbers which will be used throughout the process of recording notes, transcribing interview data, and coding. All data, including audio recordings and transcripts of interviews, copies of screening questionnaire responses, and researcher notes, was kept in electronic form on a password-protected computer in a locked office. Audio recordings will be destroyed after the conclusion of the research.

3.4 Interviews

3.4.1 Interview data collection

Semi-structured interviews were conducted face-to-face, via telephone, or via email or chat, as practicable depending on scheduling and distance considerations. Interviews ranged from 30 to 60 minutes duration, and the researcher interviewed 15 total component agency staff members. Interviews were particularly appropriate here because, through interviews, the researcher can “attempt to understand the world from the subjects’ points of view” (Kvale & Brinkmann, 2009, p. 1), considering the “cultural, everyday and situated aspects” of a situation as part of the participant’s perspective (Kvale & Brinkmann, 2009, p. 12). The interview addressed the ways in which participants saw social media being addressed, if it was addressed, in component agency policies and practices, and what the implications of these practices might

be. The interview protocol (see Appendix F) was aligned to the three research questions (see Figure 3.2) to ensure that all interview topics were directly related to one or more research questions (see Table 3, below). The use of semi-structured interviews allowed the researcher to use “probing and clarifying questions” (Powell & Conaway, 2004) when necessary while also addressing specific topics and providing the interviewee with the flexibility to elaborate on specific topics when appropriate (Kvale & Brinkmann, 2009). The researcher piloted the interview protocol on two individuals prior to the interviews in order to gain feedback about clarity and phrasing of questions. While conducting the interviews, the researcher also took time to establish rapport and to frame and modify questions effectively (Powell & Connaway, 2004; Kvale & Brinkmann, 2009; Jorgensen, 1989).

Interviews were recorded where participant consent was obtained, and where participant consent or component agency protocol prevented recording, the researcher took detailed notes, reviewing and compiling them immediately after the interview in order to send to the participant for member checking. Member checking (Creswell, 2009) occurred following researcher review of transcripts and notes and initial coding of transcripts and notes. Topics addressed in the interview included a combination of open-ended and closed-ended questions in three broad categories: (1) Background Information, (2) Social Media Use, and (3) Social Media Management and Preservation.

Research question	Interview questions addressing this research question	Purpose of interview questions
(1) What is the practice of the DOJ and component agencies for using social media technologies?	1, 2, 3, 4, 5, 6, 7, 8	<p>Identify and describe practices in use at DOJ and component agencies for using social media technologies</p> <p>Identify specific social media technologies in use both internally and externally</p>
(2) What steps are DOJ and component agency staff taking to manage and preserve social media records?	1, 2, 9, 10, 11, 12, 13	<p>Identify policies and procedures (including federal guidelines if applicable), and any technologies, used to manage and preserve information, if they exist</p> <p>Identify and describe any training practices in use at DOJ or component agencies addressing management and preservation of social media records</p>

Research question	Interview questions addressing this research question	Purpose of interview questions
		Describe relationships between staff practices and policies or procedures addressing social media records
(3) How do DOJ and component agency practices for using, managing, and preserving social media relate to the information models and records management theory?	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Describe component agency practices for using, managing and preserving social media Describe whether and how staff practices relate to information models and records management theory

Figure 4: Alignment of interview questions with research questions.

3.4.2 Interview data analysis

Because qualitative research involves a “cyclical approach” (Powell & Connaway, 2004, p. 196), it was expected that interview data would both influence, and be influenced by, the researcher’s analysis of other data sources, including survey responses and document review.

Powell and Connaway (2004) describe qualitative analysis as “an ongoing process that feeds back into the research design right up to the last moment of data gathering” (p. 196), and Hartley (2004) discusses the iterative nature of qualitative research, in that data can be used to continuously revise and refine research questions and procedures. Therefore, the researcher continuously reflected on interview findings and on evident themes throughout the process. In analyzing interview data, application of open, axial and selective coding procedures allowed me to identify themes, relate them to one another, and prioritize most significant themes in order to guide analysis of the data as a whole throughout the process (Strauss & Corbin, 1990). Constant comparison of thematic definitions and researcher notes ensured consistency throughout the coding process (Creswell, 2009). This “systematic” exploration allowed me to generate meaning from the data (Coffey & Atkinson, 1996, p. 46) so that findings “can grow naturally from the data analysis” based on the identified themes (Powell & Connaway, 2004, p. 196). Finally, the researcher reviewed themes and concepts generated from interview data in light of data generated from website and document review.

3.5 Document review

3.5.1 Document review data collection

In order to better understand how federal agencies are addressing social media records through the use of policy and to validate interview data, the researcher reviewed component records management policies and supporting data contained in Department or independent

component agency websites. The researcher reviewed external and publicly available information about component records management policies, which included actual policy documents where they existed and other documents such as disposition memos submitted to NARA. Other internal policies and information, which were not publicly available, were requested in all interviews and provided in some interviews. Some agencies did not have specific policies in existence and some were unable to share them outside the component agency. Internal and external documents included social media policies, records management policies, a directive on social media use, disposition authorities submitted to NARA, and internal component agency presentations referencing their policies. Policies reviewed included four total internal policies and three public-facing, external policies. The researcher reviewed all policies which the researcher was able to obtain and identified major themes and topics.

As a general rule, the researcher identified component agencies for publicly available data and, in order to preserve participant confidentiality and conform to agency-specific stipulations, did not identify component agencies for interviews or, in some cases, review of internal documents. As a result, the study refers to specific component agencies in some places and uses component agency identifiers (“Component A,” “Component B,” and so forth). Because of the low number of internal policies and participants, internal policies provided by participants during the course of an interview are not referenced by specific component agency name, as this would compromise participant confidentiality.

3.5.2 Document review data analysis

In order to determine the nature and content of component agency records management policies, the researcher conducted content analysis (Powell & Connaway, 2004) on each policy using a qualitative thematic approach (Creswell, 2009). Policies were collected and reviewed and coded (Appendix J) according to the three-step coding process (Powell & Connaway, 2004; Strauss & Corbin, 1998). Throughout coding, the process of constant comparison allowed me to integrate themes identified within each policy with those identified in other policies and throughout interview responses, “looking for patterns” within and across policies. Results of the document review thus served to triangulate data in conjunction with the interview and website review data. Document review assisted in ensuring validity (Powell & Connaway, 2004; Maxwell, 2002) and provided additional perspective and insight into the research questions.

3.5.3 Website review data collection

In addition, a comprehensive review of the component agency links to social media sites was conducted. Procedures for this review were as follows: the researcher first reviewed the main component agency website and identified links to all component agencies with web presences. (Some component agencies did not have web presences.). The researcher then reviewed to each component agency website and determined whether that component agency had a social media presence (namely, Facebook, Twitter, YouTube, iTunes, or other blogs). The researcher then verified each of those links to view and capture data from various social media sites. In addition to reviewing webpage content, the researcher captured screenshots of

component websites and related social media sites. Of the DOJ components, six used no external social media at all; 30 managed their social media exclusively through the Office of Public Affairs; thirteen managed and maintained their own social media presence within the component agency, sometimes leveraging Office of Public Affairs support for specific social media tools.

3.5.4 Website review data analysis

In cataloguing types of social media used by each component agency, the researcher chose to represent the data in a table, which summarizes tools used by each component agency and identifies whether the component agency manages its own social media content or uses the central public affairs office of the DOJ. Additionally, the researcher analyzed content and features used across component agency websites, which included variable features such as use of video, enabling or disabling of comments, and usage statistics. As a result, this website analysis provides both quantitative data regarding the types of social media utilized across this entire component agency and, also, more qualitative data that captures the variability in the ways that different components leverage and manage social media.

3.6 Limitations

This study had several important limitations. First, the analysis did not involve a

systematic review of all department or component social media policies or social media sites, as not all departments or components make that information available. The degree to which supplemental policies, procedures, and additional information are made available varies within each component and therefore was not consistently captured in this study. Second, it is further acknowledged that document review may not reflect current or pending updates to policies undergoing revision, and some policies may not be available for reasons specific to various agencies. Third, this exploratory study presents data from a relatively small group of participants within a single agency and therefore is not generalizable without further validation by additional research. Finally, due to agency policy and confidentiality considerations, some participants declined to have interviews recorded. In these cases, the researcher took meticulous notes during the interview, verified and reviewed the notes immediately upon completion of each interview, and conducted select member checks with participants during data coding and analysis, as described in this chapter.

3.7 Summary

This chapter provided an overview of the research methodology, including research goals, questions, and the underlying mixed methods approach. The chapter reviewed the research plan and described ethical considerations, the site selection process, participants, and data collection procedures. Finally, the chapter reviewed procedures for data analysis for initial screening, qualitative interview and document review data. The chapter concluded with a discussion of limitations.

Chapter 4: Results

4.1 Introduction and restatement of research questions

Findings across various data sources were reviewed, coded and synthesized both within and across categories (Appendix J). In the process of data analysis, key categories emerged (Patton, 2002), which helped to elucidate answers to the three research questions and also identified themes or concepts which appeared across research questions and across data sources. As described in Chapter 3, the researcher collected data across three domains, resulting in interviews, reviews of written policy, and website analysis.

The research questions are restated below, with primary data sources used to answer each question listed in parentheses:

- RQ1: What is the practice of the DOJ in component agencies for using social media technologies? (Interviews and review of social media sites)
- RQ2: What steps are the DOJ and component agency staff taking to manage and preserve social media records? (Document/ policy review and interviews)
- RQ3: How do DOJ and component agency practices for using, managing and preserving social media relate to the information models and records management theory? (Documents, interviews and website review)

4.2 Overview of findings

The research findings are described in more detail throughout the chapter; however, findings generally can be grouped into three core categories: value, use and practice and policy. Most participants reported social media to be valuable, with many participants commenting that social media had organizational value both internally and externally, though it was used differently in each case. Some participants reported social media to be useful in that it furthered or supported their organization's business purpose or mission, allowing communication with the public or dissemination of component agency policies. Alternatively, participants whose component agencies may not have had a business need for communication with the public tended to see public-facing social media as less valuable.

In terms of practice and use, participants reported a variety of practices for using, managing and preserving social media. External social media was frequently, across component agencies, used for communication with the public, though such communication was almost always unidirectional. Internal social media was most commonly used for collaboration within component agencies or knowledge-sharing within and across component agencies.

Participant interviews, website reviews and document review yielded varied information about policy. There is a policy governing records management, as well as other issues, within the DOJ. A few component agencies also had developed their own policies as well. In some cases, policy has a direct impact on practice and use of social media. For example, policy prohibits component agencies from collecting public information for privacy reasons, precluding agencies from monitoring or responding to public comments on social media.

Website review revealed that a majority of DOJ component agencies (30) had an agency-specific social media presence that is managed exclusively through the Office of Public Affairs;

thirteen managed their own, either completely or with limited support from the Office of Public Affairs; and six had no social media presence at the time the data was collected. Further details regarding component agency-specific use of external social media are provided in the charts that follow in Section 4.3.1.

4.3 Uses and perceived value of social media

4.3.1 Trends across component agencies

A review of DOJ component agency websites identified a number of external social media sites that are currently used in DOJ component offices and agencies. The following chart provides details from the review, including specific tools in use, content, whether it is managed centrally through the Office of Public Affairs (OPA), and what features and choices made when utilizing the sites. The social media sites included in the following chart (Figure 1) are not comprehensive and are based upon the inclusion (or lack of inclusion) of links contained on each component agency homepage. Agency organization is based upon the DOJ organization chart presented on the main department website (DOJ, 2015); grouping of agencies similar in function, structure or mission follows the DOJ grouping. Trends are briefly discussed for the organizations identified in each chart.

Component Agency	External Social Media Use	Features and Content									
		Posts	Comments/ Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information	Photos	Videos	Audio Recordings	Transcripts
U.S. Marshals Service	None	No External Social Media Use									
Federal Bureau of Investigation	  *    *	  	   	 				 	  		 
Bureau of Alcohol, Tobacco and Firearms	    *	  	 	 	 		 	  			
INTERPOL Washington	None	No External Social Media Use									
Executive Office for U.S. Attorneys											
Executive Office for Organized Crime Drug Enforcement Task Forces	None	No External Social Media Use									
Criminal Division	 *  *  *  *	See Office of Public Affairs									

 = Facebook,
  = Twitter,
  = YouTube,
  = Podcasts,
  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 1: Law Enforcement External Social Media Use.

Among law enforcement agencies, external social media use appears to vary. Some component agencies, such as the Criminal Division, rely on the main DOJ Office of Public Affairs (OPA) social media sites, including OPA-managed Facebook, Twitter, and YouTube sites as well as the OPA-managed Justice Blog. This trend is not limited to law enforcement agencies; throughout the DOJ, many component agencies utilize OPA for some or all of their social media presence. Some component agencies, such as the FBI, manage their own social media presence, with extensive presence on Facebook, YouTube, and Twitter. The FBI, in fact, has further individualized its social media presence, adding links for the public to submit tips through its social media services. At the same time, some law enforcement component agencies have no social media presence to date, including the Crime Drug Enforcement Task Forces and Interpol.

Component Agency	Social Media Use	Features and Content								
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Links to Agency Information and History	Photos	Videos	Audio Recordings
Attorney General	 *  *  *  *	See Office of Public Affairs								

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Office of Associate Attorney General	 *  *  *  *	See Office of Public Affairs									
Office of Deputy Attorney General	 *  *  *  *	See Office of Public Affairs									
Office of the Solicitor General	 *  *  *  *	See Office of Public Affairs									

 = Facebook,
  = Twitter,
  = YouTube,
  = Podcasts,
  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 2: Leadership Offices External Social Media Use.

As evidenced in Figure 2, the DOJ leadership offices consistently use the OPA social media sites. Usage is consistent among these offices, with all of them utilizing OPA-managed Facebook, Twitter and YouTube sites as well as the JusticeBlog. This approach allows for a centralized approach to communication from department leadership and alignment with overall communications strategies.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information	Photos	Videos	Audio Recordings	Transcripts
Office of Legal Policy	 *  *  *  *	See Office of Public Affairs									
Office of Public Affairs	 *  *  *  *	 	  	 	 	 		 	 		
Office of Tribal Justice	 *  *  *  *	See Office of Public Affairs									
Office of Legislative Affairs	 *  *  *  *	See Office of Public Affairs									

 = Facebook,
  = Twitter,
  = YouTube,
 P = Podcasts,
  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 3: Leadership Support External Social Media Use.

As with the department leadership offices (see Figure 2), the social media presence of the

DOJ Leadership Support offices is managed strictly through OPA, which is itself one of the Leadership Support component agencies. This approach, again, facilitates a unified and streamlined presentation and consistent communication channels across leadership support offices.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Office of Justice Programs	   *	  	 	 	 	 		 	 	 	
Community Oriented Policing Services	   *  *	  	  	 	 	 			 		
Office of Violence Against Women	 *  *  *  *	See Office of Public Affairs									
Community Relations Service	 *	See Office of Public Affairs									

 = Facebook,  = Twitter,  = YouTube,  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 4: State and Local Assistance External Social Media Use.

Use of external social media is fairly consistent among the DOJ component agencies designated as performing “State and Local Assistance” functions. Many of these agencies have leveraged OPA to manage some or all of their social media; the Office of Violence Against Women, for example, uses OPA for all social media communications. The office of Community Oriented Policing Services, in contrast, has OPA-managed social media presence on YouTube and Justice Blog but manages its own Facebook site and Twitter feed. The Community Relations Service has the most limited social media presence of any of these agencies, with an OPA-managed blog presence as its only social media use.

Component Agency	Social Media Use	Features and Content								
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings
Office of Legal Counsel	 *  *  *	See Office of Public Affairs								
Civil Division	 *  *  *  *	See Office of Public Affairs								
Tax Division	 *  *	See Office of Public Affairs								

Component Agency	Social Media Use	Features and Content								
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings
	 *  *									
Antitrust Division	 *	See Office of Public Affairs								
Civil Rights Division	 *  *  *  *	 	  	 	 	 	 	 		
Environment and Natural Resources Division	 *  *  *	See Office of Public Affairs								
National Security Division	 *	See Office of Public Affairs								
Executive Office for U.S. Trustees	 *  *  *	See Office of Public Affairs								

 = Facebook,  = Twitter,  = YouTube,  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 5: Legal Representation and Advice External Social Media Use.

Among the component agencies providing legal representation and advice, there is an almost universal reliance on OPA to manage social media sites. Many component agencies have

OPA-managed Facebook, Twitter, and YouTube presences. The Civil Rights Division, uniquely, manages its own Twitter feed, while utilizing OPA for its presence on Facebook, YouTube, and JusticeBlog. Component agencies addressing National Security and Antitrust have a very limited social media presence, using JusticeBlog as their only social media effort currently. This limited presence may reflect the DOJ policy, discussed in interviews, that agencies be able to present a business case for social media use; the business case for social media with both antitrust efforts and national security may be less evident than for other agencies such as the Civil Rights Division.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Executive Office for Immigration Review	  *	 									

 = Twitter,
  = Blog (Justice Blog)

Figure 6: Immigration External Social Media Use.

The Executive Office for Immigration Review, the sole office in the DOJ organization chart under “Immigration,” utilizes limited social media. Through OPA, it maintains a presence on Justice Blog, and it also maintains its own Twitter feed, which has posts, public comments (in

the form of public tweets and replies), and links to the agency site and policies.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Federal Bureau of Prisons	 *	See Office of Public Affairs									
Office of the Pardon Attorney	 *  *  *	See Office of Public Affairs									
U.S. Parole Commission	 *  *  *	See Office of Public Affairs									
National Institute of Corrections	None	No External Social Media Use									

 = Facebook,  = Twitter,  = YouTube,  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 7: Prisons External Social Media Use.

Use of social media varies among agencies involving prisons (see Figure 7). The National Institute of Corrections has no social media presence, perhaps reflecting the lack of current business need. The U.S. Parole Commission and Pardon Attorney both have OPA-managed social media presence on Facebook, Twitter and YouTube. The Federal Bureau of

Prisons has a limited social media presence, consisting solely of presence on Justice Blog, without any component agency use of other tools such as Facebook or Twitter.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Office of Inspector General											
Justice Management Division	None	No External Social Media Use									
Office of Professional Responsibility	 *  *  *	See Office of Public Affairs									
Professional Responsibility Advisory Office	 *  *  *	See Office of Public Affairs									

 = Facebook,  = Twitter,  = YouTube

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 8: Management and Oversight External Social Media Use.

Social media use varies, also, among the Management and Oversight component agencies. Some, such as the Justice Management Division, have no social media presence at all. The Office of Inspector General maintains its own Twitter feed but does not utilize any other

social media. Two other offices (Office of Professional Responsibility and Professional Responsibility Advisory Office) use OPA-managed social media in the form of Facebook, Twitter and YouTube.

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Asset Forfeiture Program	 *  *  *	See Office of Public Affairs									
Bureau of Justice Assistance	 *  *  *  *	  	  	 	 	 		 			
Bureau of Justice Statistics	 *	See Office of Public Affairs									
Diversion Control Program	None	No External Social Media Use									
Foreign Claims Settlement Commission of the U.S.	None	No External Social Media Use									
National Criminal Justice Reference Service	 *	See Office of Public Affairs									

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
National Institute of Justice	    * 	   	  	 	 	 	 	 	 		
Office for the Victims of Crime	    *	   	  	  	  	  	  	  	  		
Office of Attorney Recruitment and Management	 *,  *,  *	See Office of Public Affairs									
Office of Information Policy	 ,  *	 , 									
Office of Juvenile Justice and Delinquency Prevention	 *,  *,  *	See Office of Public Affairs									
Office of Privacy and Civil Liberties	 *,  *,  *	See Office of Public Affairs									

Component Agency	Social Media Use	Features and Content									
		Posts	Comments and Ratings	Links to Policies	Links to Social Sites	Links to Agency Site	Agency Information and History	Photos	Videos	Audio Recordings	Transcripts
Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering	None	No External Social Media Use									
Office of Special Counsel	None	No External Social Media Use									
Project Safe Childhood	 *,  *,  *	See Office of Public Affairs									
U.S. Trustee Program	 *,  *,  *	See Office of Public Affairs									

 = Facebook,
  = Twitter,
  = YouTube,
  = Podcasts,
  = Blog (Justice Blog)

*= Site managed through central DOJ Office of Public Affairs (OPA)

Figure 9: Other Offices External Social Media Use.

Among other offices, several use no social media at all. Twelve use some social media, and eleven of these use OPA-managed media for at least some of their social media. Some offices, such as the Bureau of Justice Statistics, use Justice Blog only; some (e.g., Project Safe Childhood, U.S. Trustee Program) use OPA-managed Facebook, Twitter, and YouTube sites;

and some (e.g., Bureau of Justice Assistance, Office of Information Policy) use a combination, relying on OPA-managed blogs, for example, and managing their own Twitter or Facebook presence.

4.3.2 Real time sharing of information

Participants appeared to value social media for its ability to allow the government to post information for public consumption. For public-facing social media, such as Facebook, Twitter, YouTube, and other similar social media applications, the primary use of such tools, as articulated by participants, was to provide information to the public using a different form of media or different channel, allowing the public to get the content “how they want it and when they want it”, as stated by Participant Six: “Citizens believe that they should receive updates [from] the government just as they do from the private sector.” Participant Nine identified social media as particularly effective for providing “critical information” because it is faster than traditional forms of communication, a particularly valuable feature in times of crisis or when information is time-sensitive.

Additionally, staff described the value they identified in appealing to a broad audience, which was furthered through the widespread and effective use of social media. For example, Participant Nine stated that social media offered an effective way to provide valuable information to the public, both in the event of a national emergency and, more often, to correct erroneous information or provide real-time updates on matters of public interest. In the words of Participant Six, social media can “inform the electorate and allow them to consume information

in a way that they choose.” Participant Eight, also representing this component (Component A), indicated that one primary value of external social media involves “reaching” a new “community.” Where individuals might not seek out DOJ websites, social media allows government to bring the content to them. Participant Six also cited the example of a press release in this context: rather than needing to go to a component website and hunt for a press release, members of the public can access their social media accounts and have the press release more accessible to them via the component agency’s presence: citizens can, according to this participant, “get the content how they want it and when they want it”. As Participant Eight put it: There are “more and more people whose lives are lived online—instead of having them come to your website, you go to them.” Social media has also presented value with respect to real-time communication; Participant Nine interviewed cited the relatively recent example of the Boston Marathon bombings, when public agencies were able to quickly disseminate information to the public as events occurred in real time. A corresponding challenge in such situations, however, is the fact that misinformation can easily be disseminated as well, and therefore this participant also recommended that social media providers “must make sure to include caveats...especially when information is unveiling in real time” in order to guard against over-reliance on rapidly unfolding information. The use of social media to cover rapidly breaking news and other critical updates can be seen in the way that some agencies use their Twitter feeds and social media presence to highlight information of critical interest to the public, increasing visual accessibility. As breaking news updates are shared through social media, the component agency sometimes alters font size to highlight particularly important events (see Figure 10):

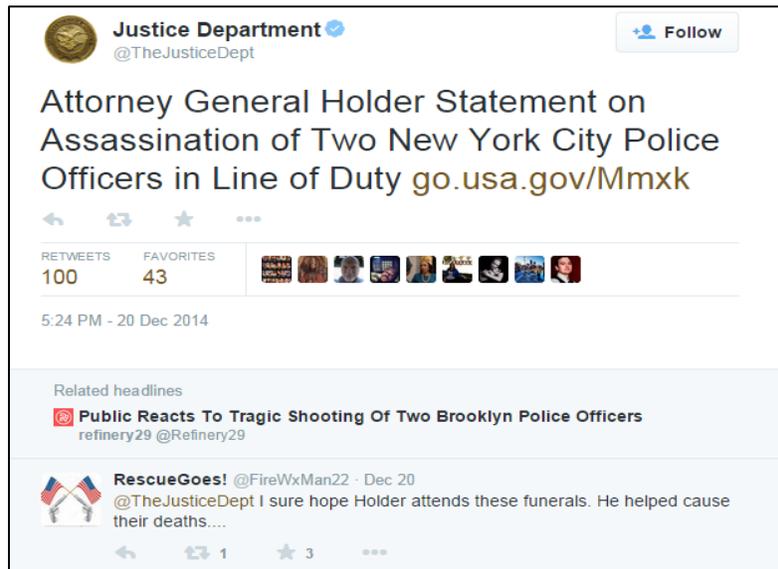


Figure 10: Twitter page with significant event linked in larger font

4.3.3 Awareness of social media's value for information sharing

Content posted on a FBI website demonstrates this awareness of social media primarily as a means of providing important information to the public. This component hosts 36 separate pages, including Facebook, YouTube, Twitter, and iTunes (FBI, 2009). The main FBI website presents its rationale for using external social media: “To reach out to the public, we need to be where people are—and we know tens of millions of people spend their time in social media sites.” (FBI, 2012). The FBI website further explains, "Adding our fugitives, missing kids, threat and scam warnings, and other information into these sites is an extension of what we've done for decades—enlisting the help and support of concerned citizens around the globe to keep communities safer.” (FBI, 2009). (See Figure 11 for an example of the FBI Facebook page.)



Figure 11: Example of FBI Facebook page.

The United States Attorney’s Office (USAO) also makes use of external social media tools such as Facebook, Twitter, and YouTube. One example of this use is evidenced in a press release from the Western District of Virginia, stating that Twitter is a tool to “to provide information about the case work being handled by the office and send press releases, links to photos, transcripts of remarks, media advisories.” (USAO, 2012). A Facebook page is used “to feature information about our community outreach efforts as well as the efforts being made by the community and law enforcement partners whose work the office supports.” (USAO, 2012). In general, the office indicates that social media will be used “in a variety of ways to better inform the public about the work we do, both in and out of the courtroom.” (USAO, 2012).

4.3.4 Contrast between one-way and interactive social media

In general, interview data indicated that participants use public-facing social media in large part for its ability to facilitate one-way transmission of information from the government to the public, rather than use in an interactive manner. “Real-time communication” was mentioned by several participants as a primary function (Participants Six, Two, Four and Five). Participant Eight commented that “town hall and other meetings ...[are] really needed....[something] designed to create interaction on a subject.” However, “legal [and] privacy issues’ limit the use of interactive modes of communication, which “has to be done within the constraints that [agencies] are dealing with.” Participant Nine likewise referenced similar policies and constraints, describing component agencies as functioning within “strict” parameters for what information can be shared with the public or “pushed out.”

With respect to internal use of social media, participants recounted the interactive use of these tools and seemed relatively consistent in acknowledging that social media did add value to internal component agency processes. The participants acknowledged that this differing usage directly impacts the record value of the content in social media tools: Participant Ten described the component agency’s internal wiki as being “temporary content [with] temporary value....when it becomes a final policy it gets moved over” into the formal records management system. Participant Fourteen described how usage varied across the component agency: “Different divisions use it differently....[For SharePoint] we have the main purposes [as] a knowledge base....And other divisions seem to do the same thing. I’m also part of this training group where we’re focusing on how we are training incoming people...but they set it up so you

can collaborate, comment, we're working on surveys, they asked for responses.... But the main focus for the rest of the office seems to be policy, explanation, what we do, how we do it.”

Participant Seven commented that internal social media use seemed to occur “in fits and starts,” with much usage occurring “when a new initiative comes up—[it] gets a lot of use.”

Within social media, components and the main DOJ agency take a range of approaches to the information presented about the agency, with some sharing minimal information such as contact information and some posting much more extensive information that includes photographs and agency history. Agencies often utilize social media to send out press releases and breaking news updates linking back to the main DOJ websites for the official source of information (see Figure 12 for example).

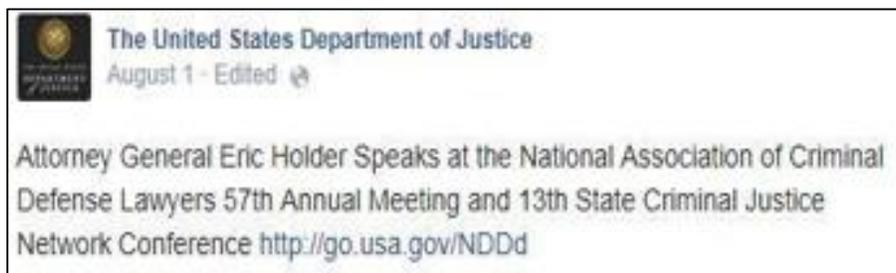


Figure 12: Facebook DOJ timelines including press release related to breaking news

The DOJ has also utilized features such as Facebook’s Timeline to share historical information about the agency (see Figures 13 and 14). This use extends for some components beyond the real-time sharing of information and serves the function of educating the public about prior, as well as current, important events. Photos, notes on historically important dates, and

descriptions of important events are shared on social media, with the public having the ability to like or comment on these historical events much as they would do for current events. This usage, while innovative, is limited to the main DOJ page and one component currently, and appears to be limited to pages managed by the DOJ OPA.



Figure 13: Facebook timeline with historical information about DOJ



Figure 14: FBI timeline with historical events

The use of features such as Facebook’s photo feature also allows components to disseminate information about maintain information about past events in a format easily accessible to the public, as photos posted from previous events remain accessible on the Facebook site. This use does not explicitly reference historical context but does also provide the public a readily available way to access a visual representation about prior, as well as current, events (see Figure 15 for an example):



Figure 15: Agency photos on Facebook

4.4 Interaction and collaboration

The theme of collaboration or interaction recurred frequently in interviews, across various agencies, and was also evident in website review. Unlike some other themes or categories which were specific to external social media (such as disseminating real-time information to the public), the ideas of collaboration and interaction were relevant to both

internal and external social media, although the nature and scope of interaction varied with the types of media and agencies using them. A number of participants, in fact, referenced the idea of interactivity or collaboration in some form (Participants One, Six, Seven, Ten, and Thirteen).

4.4.1 Responding to citizen needs and “lowering barriers to entry”

At Component A, staff saw the value of social media as primarily informative. This component, by virtue of its role and mission, typically engaged in more interactive communication with the public and saw real value in keeping the public informed. Social media was valuable to the Participant Six, from this component, because it lowered barriers for citizens to entry and allowed them to receive content “how they want it and when they want it.” Staff at Component B and Component C, including Participant One, Participant Two and Participant Four, reported they also had leveraged some external social media tools for this purpose. “Real time communication,” said Participant Two, was “very easy with Twitter...easier than with eGov,” the government portal for information-sharing.

One example of this interactive approach focused on information-sharing is found in various agencies’ use of multimedia interactive features, such as podcasts and videos. Frequently, these involve native features such as the ability to like, comment and review, features which are common to many websites and which component agency personnel indicated were expected by some users. For example, YouTube, which is an OPA managed site and is also used by a few component agencies, has native commenting and liking features. On some YouTube DOJ sites, comments are disabled for particular videos. The main OPA-managed

Facebook site does not use videos. However, certain agencies, such as FBI, upload videos to Facebook (see Figure 16 for example) and utilize podcasts with user ratings (Figure 17).



Figure 16: Videos uploaded to Facebook.

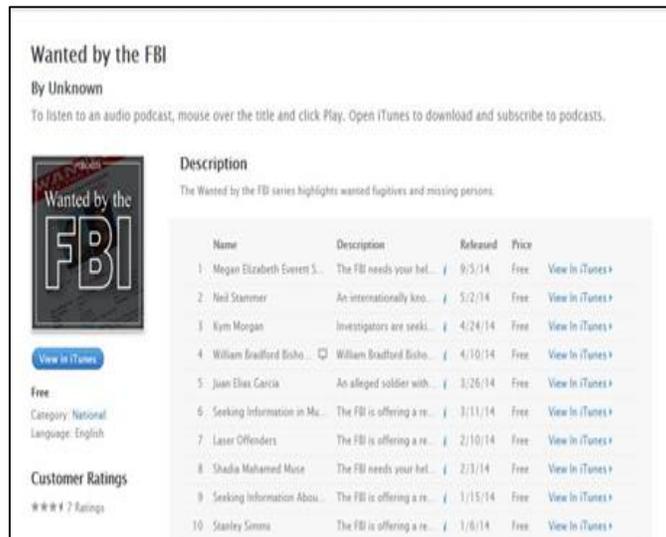


Figure 17: Podcasts with user reviews and ratings enabled.

One feature of external social media leveraged by various components involves the use of interaction and commenting or sharing, so that the user is able to interact dynamically with content. Agencies demonstrated varying approaches to YouTube, Facebook, Twitter and even iTunes. Use of iTunes is somewhat limited and the commenting functionality in iTunes works differently from in other social media venues.

Agencies have incorporated various approaches to user interaction. For example, for components that choose to use Facebook, the Facebook default features such as “like”, commenting, posting and replying to posts, and user reviews (with ratings from 1-5 stars) are enabled, allowing members of the public to express opinions and interact on the component agency Facebook page (see Figure 18).



Figure 18: Facebook post showing “comments”, “shares” and “likes”

As a matter of policy, component agencies do not reply to or respond to posts, comments or ratings, in large part due to privacy concerns explored elsewhere in this chapter. While there is no explicit direction provided to members of the public using the “reviews” feature, it appears

that individuals who choose to “review” the agency on Facebook are generally commenting on the component agency itself, not the accessibility or format of the site.

Interactive features in Twitter also allow members of the public to interact with component agency-posted comment through retweets, replies to tweets and tweets at the component agency itself. Twitter is one of the most popular forms of social media, as it is considered to be easier to access and utilize than sites such as EGov. Twitter is frequently used, by components and by the main DOJ offices, to disseminate major news; and for day-to-day updates. While users can use Twitter to tweet directly to the DOJ, neither the main agency nor components replies to tweets from members of the public (See Figure 19 for screenshot of Twitter use).

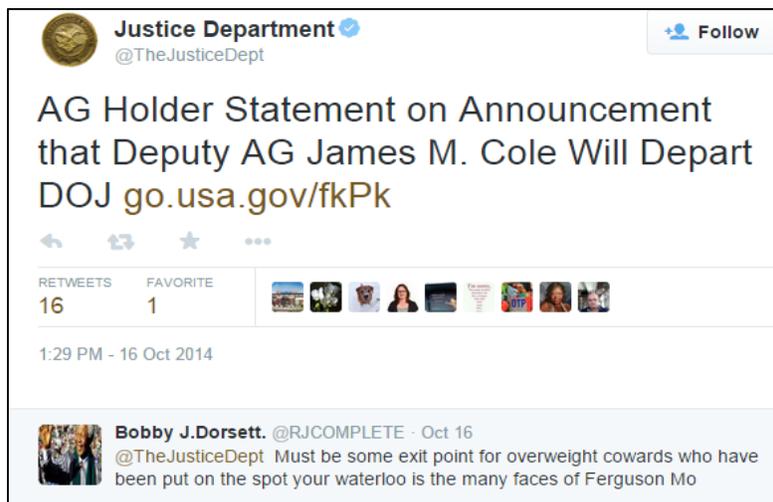


Figure 19: Screenshot of agency “Tweet” and “Reply”.

A review of the DOJ homepage and related policy documentation revealed that the DOJ also maintains a blog (the Justice Blog) on its website, but comments are not accepted. Thirty

agencies are listed by DOJ as participating in, or using, this blog. The blog can be searched by topic, by date, and by component agency as well as freeform fulltext searches of all posts. This blog constitutes a one-way method of communication; comments are not enabled (see Figure 20 for screenshot).



Figure 20: DOJ blog with no comment features.

Participant Eight reported that some discussion of potential interactive uses (such as a Twitter Town Hall) has occurred, but staff still needs to define parameters and protocols for such efforts before pursuing further. Currently there is a disclaimer on the agency social media sites stating that the agency does not respond to any comments. In discussing efforts to initiate interactive social media efforts (such as Town Hall events), one significant obstacle is presented

by the nature of the DOJ's mission and work. For legal reasons, agency staff cannot comment on pending investigations and other legal matters; for this reason, holding open and interactive discussion on Twitter or another platform could be quite challenging within the context of legal obligations. As Participant Six stated, their use of social media must be accomplished "within the constraints" of the component agency's obligations and work.

Some Components without a specific mission requiring interaction with the public, (such as Components D, E, and F) do not use external social media extensively. For example, Participant Seven stated that some components do not use social media externally, as they have not identified a strong business purpose for doing so. In addition, when legal issues are involved, external sharing of information may actually be prohibited or greatly constrained. For these reasons, Component D maintains a static website for external purposes. Participant Thirteen likewise reported that the centralized public affairs division manages most of the social media for the component (Component E), but they do not frequently post subject-specific articles relevant to their field because their mission requires little, if any, public interaction: "[Our division] does not really post a lot to external social media....[we] tried, a few times, to post some articles" but did not pursue the effort further, according to Participant Thirteen.

4.4.2 Internal social media uses: collaboration and knowledge-sharing among staff

Conversely, participants indicated internal social media tools are used in a more collaborative manner than public facing social media applications. These tools can include internal wikis, blogs, and content management applications (such as Microsoft SharePoint)

which allow for knowledge sharing and two way collaboration. Evidence of the greatest value comes from traditional commenting and editing functions within document libraries that enable file sharing and storage. Participants described three separate instances in which use of document libraries and shared edits allowed staff members in geographically dispersed offices to effectively collaborate, demonstrating one practical use of social media. This was a case where there was perceived to be a real “value added” through the collaborative use of a content management application. As Participant One detailed the process: “[There was] a major [situation] when we used SharePoint. It was an innovative use of the tool to share media documents...many offices came together to collaborate and add to the documentation.”

One specific example of such use is evidenced in Component B, a component agency whose size and geographic spread makes interagency collaboration a challenge. As this component is large and also geographically dispersed, it is a challenge to coordinate and work together without technologies such as social media. Participants Two, Three and Five described the component agency’s use of an internal collaboration platform including content management, document sharing and editing, as well as social media functionality. Currently, Component B is using wikis and blogs internally, though there is no internal social networking application (similar to Facebook) that is currently in use. One micro-blogging platform (similar to Twitter), as well as a wiki where users can create an encyclopedia of lessons learned, best practices and subject-matter expertise. Participants Three and Four indicated that these internal social media tools have been received well by component agency staff. Participants Two and Five also indicated that they saw social media as, primarily, facilitating collaboration among a large

component agency that is geographically dispersed across the country. Social media helps to allow for more efficient communications and “helps people do their job more efficiently.”

At Component C, Participant One described one particular situation when multiple staff members, across geographic locations and departments, used SharePoint in an innovative manner to share and edit documents, where many offices came to gather to collaborate. The staff used the document library with track changes and version control; in that case there was a real “value added,” according to this participant, through the collaborative use of word and SharePoint. This described the use of an internal social media tool containing content management, document sharing and editing, as well as some social media functionality. This tool has been used in a collaborative manner through the process of editing component agency documents. This participant reported that Component C is considering using the blog functionality within this platform to “supplement and potentially displace” listservs and email for certain communications.

Staff at Component B (Participants Two, Three, Four and Five) reported that their main use of internal collaborative technology is SharePoint. Additional, more limited uses involve internal wikis and blogs, including a micro-blogging platform (similar to Twitter). Both instant messaging (IM) and video chat are used as well. The component briefly considered implementation of MySites, an internal social networking application, but ultimately did not adopt it as it did not appear to offer value over and above the functionality present in SharePoint. At this component, SharePoint is typically managed ad hoc, with division heads addressing issues as they arise.

The primary benefits of internal social media were articulated in terms of its value as a knowledge base at Component F, although Participant Fourteen, who worked within this component, highlighted difficulties in encouraging users to adopt new practices: “Well, I’ve found SharePoint to be helpful, although we still have trouble getting everyone to use it that way, we still have people used to the old S drive or file share, you know, it’s a work in progress! But whenever we direct them toward it they can find what they want, and it’s useful...Our biggest struggle is constantly updating it, keeping it current.”

Internally, Component C makes most use of SharePoint. According to Participant One, Information management staff within the component are considering use of the blog functionality within SharePoint to displace list serves and email for communications and to provide answers to questions. In addition, they have used SharePoint for collaboration through the process of editing policy documents. Finally, the component makes use of instant messaging, as well as text messaging (through mobile devices such as Blackberries).

At another component agency (Component E), Participant Thirteen referenced uses of internal social media which were primarily geared toward managing policies and procedures and house internal statistics and metrics. Attorney briefs are often stored within internal social media so as to serve as an ongoing, readily available knowledge repository. Continued developments and information about DOJ affairs could be made available as part of that repository, serving as a resource and knowledge source to others and also as a source of potential data for future analysis. At this component (Component E), this participant reported limited use of social media for collaborative drafting and editing or any kind of real-time virtual environment. As described

by this participant, collaboration generally occurs through email or, on occasion, uploading documents into SharePoint.

One consideration referenced in the interview (Component E) involved technical issues and permissions; as different individuals have different levels of access in SharePoint, navigating these levels of access and permission can be a challenge for administrative staff. The goal articulated by this participant was to have an online portal where individuals can collaborate and share documents and resources in real time; however, it was acknowledged during the interview that that goal will not be realized for some time. Additional goals for the future involved increased use of tool such as RSS feeds to push out information on their component blog. Staff at this component also identified management and support as a critical need, particularly in transferring resources from a paper-based system to an online one. In considering whether to move to online systems and reduce use of paper, one important issue involved sustainability; should the component adopt an online system and then lose access to it, it would present a significant difficulty. Maintenance and support of technology-based tools was a “critical need” as identified by this staff member.

At Component E, generally, the primary use of social media is internal, as “99% of information” is circulated within the department, according to Participant Thirteen. This staff member indicated expansion of external, as well as internal, social media may be a goal; the use of blogging coupled with RSS feeds is one idea of interest. In terms of both external and internal social media, information in SharePoint will generally be retained longer than external or internal blog information.

Participant Ten, from another component (Component D), reported that staff use social media internally, not externally. Social media uses extended primarily to use of an internal wiki and an internal bulletin board (PHP/BB). The bulletin board function is used primarily to exchange advice on procedures, field questions, and similar issues. Bulletin board posts are retained as an ongoing knowledge base. Staff can sign up via email and receive real-time email notification of updates or a digest version that is sent less frequently. Staff can opt into bulletin board notifications. For example, staff can access prior documents that have been submitted (attorneys writing a brief on a topic seeking to know more about prior approaches to that issue) in order to make their day-to-day practice more effective.

The wiki in this component (Component D), by contrast, is managed differently, according to Participant Ten. The wiki use began in 2006 and was sporadic at first; staff use it more when new initiatives arise, with comments and discussion occurring frequently on the wiki. The wiki is not used to develop directives or formal policy, but rather is used to generate ideas and support informal discussion and collaboration. For official policies and approval, idea development and discussion still goes through more formal channels; there is no plan to change this at the present time.

The two forms of social media serve “contrasting purposes”. The bulletin board serves as a knowledge base for institutional information; the wiki is a platform to share ideas, discuss and collaborate. Component D does not maintain social media externally, as they have not identified a strong business purpose for doing so. In particular, when legal issues are involved, external sharing of information may be prohibited or greatly constrained. For these reasons, Component D maintains a static website for external purposes. Staff at this component (Participant Seven)

mentioned that staff and attorneys tend to use paper predominantly, rather than relying heavily on electronic methods for document review and collaboration.

For Component F, uses and procedures were described by Participant Fourteen. Component F uses the main DOJ public affairs team to manage its external social media. This component uses internal SharePoint frequently, although (since it is a large component with multiple divisions) different divisions use SharePoint differently. Some use it to store training materials for incoming hires, for collaboration and commenting on draft of documents, for conducting surveys, managing access to information, or maintaining a knowledge repository. SharePoint was formerly used to share case files, records policies, inventories, and similar functions. Currently, many divisions use SharePoint as a repository for the most recent version of policies, a practice which is particularly useful for policies which are updated frequently. SharePoint is also used for collaborative purposes: “They set it up so you can collaborate, comment, we’re working on surveys, they asked for responses, etc....But the main focus for the rest of the office seems to be policy, explanation, what we do, how we do it.” This staff member also described the component use of SharePoint, according to this participant: “Different divisions use it differently. Our compliance unit has set it up for, we have the main purpose is a knowledge base, how they conduct cases, how to handle all different kind of requests, how to handle policy and procedures. And other divisions seem to do the same thing.”

Additionally, Component F uses Lync, a Microsoft product, for quick-response communication akin to instant messaging. Participant Fourteen described Lync use as focusing on “quick response type things that don’t really involve records.” An operational advantage of Lync involves its real-time functionality and the opportunity to get rapid feedback and

confirmation of messages: “You don’t...make the mistake of being returned, sending partial messages.” Link is used for “logistics,” and Link communication is considered transitory information rather than a record per se.

Internal blogs (or external ones) are not used at Component F, according to one participant. “We don’t use blogs,” according to Participant Fourteen. “SharePoint originally was set up as a wiki, but... we are trying to convert [wiki content] over to more easily accessible [formats], it was a whole new function you had to learn and (we didn’t know) whether it was really appropriate for us.” The headquarters “are constantly publishing things on different products,” but for operational and policy reasons the component agency is “more limited in what we do.”

4.5 Centralized vs. decentralized management of social media

Another finding was the presence of variation in styles, links and access to social media across component agencies, including those with centralized and non-centralized resources. The main DOJ site and component agencies demonstrate varying approaches to linking to external content, including social media sites. On the main OPA-managed DOJ social media sites, a consistent entry point is present and easily accessible to the public, appearing as a consistently formatted box with links to social media. The OPA-managed sites typically separate third-party managed sites (Facebook, Twitter) from DOJ sites with a clearly defined bar and words under icons. (See Figure 21 for example.) Non-OPA managed entry points vary from site to site,

intermingling links for non-social media (email signups) with social media. (See Figure 22 for example.)



Figure 21: OPA-managed social media links



Figure 22: Component agency-managed social media links (from component agency website)

There appears to be variance in the frequency with which these connections are updated, even for component agencies leveraging OPA support for their social media links. For example, one component agency has visual style consistent with OPA-managed links but includes a defunct link to MySpace, which is no longer active (See Figure 23 for screenshot).



Figure 23: Component agency link (managed by OPA) including defunct link to MySpace

Connecting back to the contrast between centralized and decentralized resources, there is a notable difference between agencies that manage their own social media presence and those that use OPA to manage their social media presence, particularly in this area of linking and connecting to social media. FBI, for example, lists links to individual field offices' social media sites, as do the US Attorneys. Each FBI field office or district US Attorney's office maintains its own social media sites, as exemplified with this listing of individual, office-maintained sites. (See Figure 24) For example, 34 FBI field offices maintain separate Twitter sites. (One limitation of this study is that each of these individual pages was not reviewed; the three FBI sites were reviewed along with selected individual office pages.)



Figure 24: Variance in external links to social media maintained by individual (non-OPA managed) offices

Some differences existed between department-level and component-level management, expressing some variance between centralized and more centralized approaches. For internal social media, department level guidance documents state that records issues should be considered when establishing an internal social media site. However, Participants Six, Eight and Nine state that there is less formality at the department level for approval, or management, of internal social media tools. “After getting a request, [we] meet and discuss as a group...go over terms of use agreement with the Office of General Counsel,” according to Participant Nine. One participant explained that the approval of internal social media tools is typically managed through the CIO. One participant was not sure whether, and to what extent, her internal department policy addressed social media: “I don’t know [if it does] ...I don’t think so at this point” (Participant Six). Some participants indicated that the department might benefit from having a uniform process in place for approval of internal social media tools (similar to the process for external social media). As a result, the tools in use would be more streamlined, and

the department could weigh implications of adopting each new internal tool in order to produce a limited but effective approach for social media use internally.

At the component level, participants at Component B (Participants Two, Three, Four and Five) indicated that they have begun an effort to consolidate several policies across divisions, addressing issues such as records management, security, public affairs, and information dissemination and related issues, into one overarching component agency-wide policy. This policy approach addresses social media, though it also includes other related communication technologies as well. A review of internal documentation indicated that this policy also makes explicit distinctions between internal and public-facing (external) social media tools, and offers specific guidance related to both internal and external social media tools, including information security, public affairs and records management. This guidance has been tailored to various user communities such as the system owner/administrator or the average staff member.

Throughout interviews, a consistent theme was the contrast between centralized department-level management, coordinated through the Public Affairs office, and component-level management of social media in which component agencies were responsible for their own content and policies. Several staff members interviewed, including Participants Eleven and Twelve, mentioned the impact of central management, or its lack, on the development of policy and practice. Another participant also described the process as informal and dependent on individual judgment, even when centralized policies existed: “Right now the [department records] liaisons determine how to handle the record copies in each department...[but] the Office of Records Management Policy issues all policies [and] they impress them on those responsible for managing records,” according to Participant Eight. Therefore, even when a

component agency has its own policy, individual staff may have some latitude as to how to interpret or implement those policies within their own management practice.

The researcher also interviewed public affairs and social media staff. These individuals worked with component agencies to provide support and guidance, particularly for privacy, ethics and governance issues surrounding social media. This task extended both to domestic and overseas offices. The DOJ as a whole, through its public affairs staff, maintains web presences on Facebook, Twitter and YouTube. Individual requests for components for use of other types of tools are addressed on a case-by-case basis; the office of public affairs provides support to individual offices in maintaining their own presence as well as the overall DOJ webpage and social media outreach. Components must state a “business case,” as several participants (including Participants Eight and Fifteen) described it, for their request, identifying the value of the social media tool requested and describing how it will be used and how content will be submitted. Additionally, components must present a plan for records keeping and ensuring security and privacy. Finally, component staff members must complete training. These elements of the process were described in several interviews with staff from at least three different components (Participants Eight, Fifteen and Two), suggesting the process is consistent in this respect across some, if not all, agencies.

Public affairs staff indicated many components handle their own social media coordination and posting within their own offices, using their own dedicated public affairs staff. However, some divisions do not have public affairs staff (there are fewer than 20 public affairs representatives throughout components in the DOJ). Participant Thirteen commented that his component agency’s external social media efforts did not have “a lot of value as [they were]

managed through public affairs...[the staff member] just stopped doing it” because external social media efforts did not seem purposeful and were “not a goal” for the organization. The one exception this staff member described was an “open government initiative” where he collaborated with public affairs staff to create and “push out an internet page” on that initiative. Participant Twelve echoed this perception, stating of social media tools, “I can’t see how they are used enough” to develop further guidance or collaborative policies. “In our office that just doesn’t happen so I can’t see that working.”

4.6 Privacy and security of third party applications

Differences are also apparent in component agency approaches to user notification, for example with respect to use of third-party social media sites. The main DOJ privacy policy (see Figure 25) contains precise language regarding links to external sites. This policy is linked in various places on the DOJ and component websites. Some components link directly to this policy from external sites such as Facebook and Twitter, or their internal homepages; some components reference it on their webpages or in their notifications to users; and some appear to neither link nor reference it.

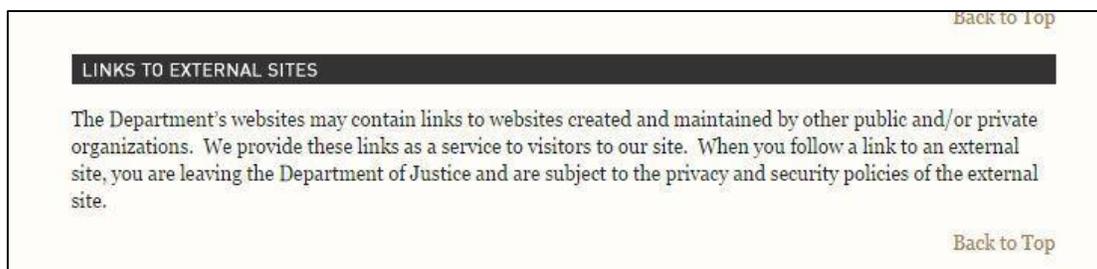


Figure 25: Excerpt from official DOJ privacy policy

Some components, instead of (or in addition to) linking to the official DOJ language on external sites, provide their own notifications to users. All component sites reviewed for this study provided some notification to users following links to external sites, sometimes limited to a simple notification that the user is leaving a DOJ website. The main OPA notification to users clicking on external links (see Figure 26) notifies users they are leaving a DOJ site and accessing an external site such as Facebook or Twitter. This notification, however, does not reference privacy or security.

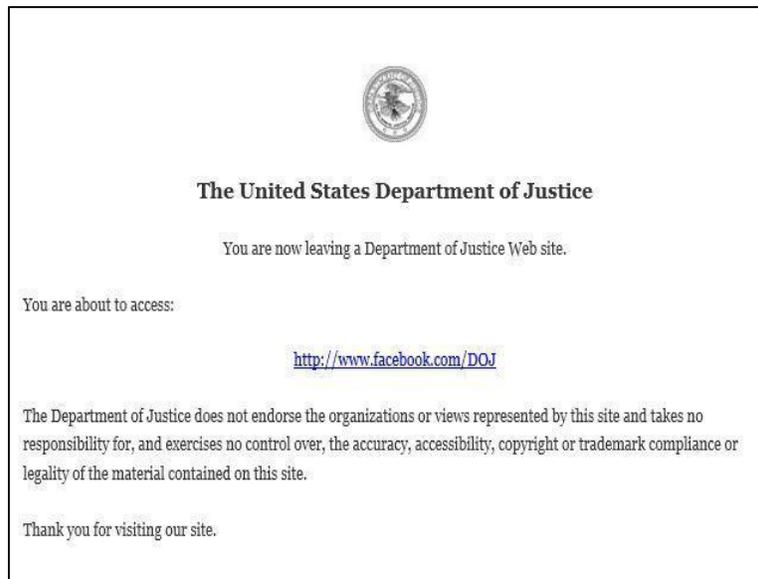


Figure 26: Official OPA notification to users following links from DOJ site to external site

Other examples of component agency notifications are below (Figures 27-28). As indicated in the screenshots, agencies use widely varying language and visual presentation for notification as users proceed to external social media (or other) sites. Some, such as the US Attorney’s office, include more extensive information referencing legal policies and privacy, following the OPA format, but link to their own, independently managed social media sites (Figure 27). Some, such as the BIA and ATF, require the user to agree to leave the main website: (See Figure 28).



Figure 27: Component notification referencing requiring consent to proceed

Some notifications use more technical language in stating that the user is “leaving the DOJ WWW server,” but do not provide information about security or privacy or require consent. The FBI uses language announcing the user is leaving their official site but also does not provide specifics regarding policies, security or privacy.



Figure 28: FBI notification to users leaving official site, no consent

4.7 Incorporating privacy policies within social media tools

In addition to providing pop-up notifications to users leaving component websites for third-party social media, some components have embedded language from DOJ privacy policies, or links to the policies themselves, within the social media tools themselves. For example, the official DOJ Twitter account (see Figure 29) provides a summary statement regarding DOJ privacy practices and links to the entire policy:



Figure 29: DOJ official Twitter account with links to privacy policy

The DOJ official Facebook page does not link to the privacy policy but does provide a disclaimer that the Facebook site is not the official source of information for the component agency, directing the user via a link to the main Justice Department website (Figure 30).

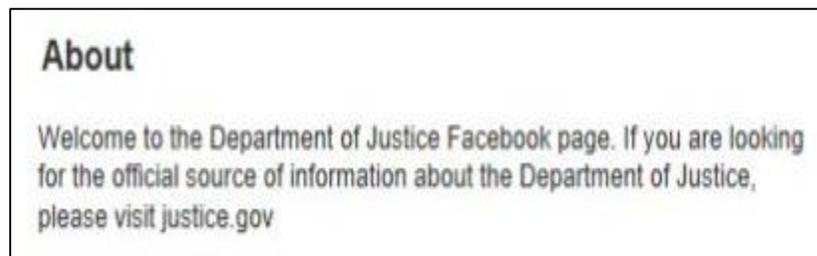


Figure 30: DOJ official Facebook page with disclaimer regarding “official source of information” at justice.gov.

In keeping with this disclaimer, the DOJ Facebook posts consistently link back to posts on the main DOJ website. Such an approach may simplify records management, as social media posts simply provide links to official records stored on DOJ servers (such as press releases or other documents or news items), accessed via the links disseminated on Facebook, Twitter and other sites. (See Figure 31). Participant Fifteen, in interviews, confirmed that this policy is followed at the component level also: “All “tweeted material is also available and archived on [our official website]...tweets broadcast press releases or statements” from the component agency-level public affairs office.



Figure 31: DOJ Facebook site with links to agency content as the official source of information

As noted earlier, as a matter of policy, the DOJ does not collect comments or user information from its Twitter feed from members of the public (see Figure 32). This policy is carried forward at the component level as well (see Figure 33). Interview data from Participant Fifteen corroborated this, as this participant indicated, “[The component agency] does not maintain online “conversations” with followers” on Twitter. The official did reference Twitter’s policy, which deletes log data after 18 months and user data 30 days after an account is closed. Twitter itself also makes clear, in its terms of service, that it can preserve or disclose information if reasonably necessary.



Figure 32: DOJ Twitter page referencing privacy policy



Figure 33: Component Twitter site referencing official privacy policy.

The practice of not collecting or storing comments or messages through official accounts is consistent with interview feedback from participants to the effect that component agencies must ensure records management and privacy policies are followed in social media accounts. According to both written policy and interview feedback, all agencies must comply with minimal privacy statements and policies but the manner in which they do so can and does vary widely,

with some relying on guidance from Public Affairs, some choosing to post minimal content, and some choosing to use extensive notifications of the type described above. Participant Eight described the component agency processes for adding a new social media tool for external or internal use, which includes specification of privacy and security practices. This participant also pointed out, “Currently, there is a disclaimer on [our] social media sites that the government does not respond to any comments.” As described previously, though, this policy sometimes causes challenges in attempting to make social media itself part of the framework of the component agency: “Exploring a limited use of an interactive tool...[such as a Twitter Town Hall, for example] would have to really be done in a controlled manner.” Participant One described his biggest organizational challenge as “awareness of social media as a record; field people may be trained better than headquarters....[we need] user education and awareness to know what a record is... and what to do with it” in terms of policies and compliance as well as technology.

4.8 Policy and practices for managing social media records

As a preliminary step to understand the context in which social media is used and managed throughout this agency, a review of publicly available component agency policy was conducted as described in Chapter 3. In analyzing policies, it is useful to understand that the DOJ’s overarching policy applies to all components and is described below as it is applicable to all component offices. Some component offices have their own policies or guidance that supplement this DOJ schedule, but most appear to rely on the DOJ/ NARA documentation. Participant Fifteen explained: “We refer to the NARA Bulletin...Guidance on managing social

media records. We do not have an agency specific retention schedule.” In interviews, several other participants also referenced the DOJ policies, sometimes in addition to their own agency policies, as the guiding document for social media records management: “The [component agency] Social Media Policy was approved...to establish uniform guidelines” for the creation and use of social media applications and “can be interpreted as applying to internal” as well as external social media, in Participant One’s words. All interviewees whose agencies worked with the Office of Public Affairs referenced this office’s role in managing records, interpreting policy and helping them to implement policies. As Participant described it, “Outreach type things [on social media] get run through Public Affairs....[Setting up a blog] would have to go through Public Affairs.”

The DOJ has a NARA approved Records Control Schedule (Appendix D) that is applicable to “Social Media (Web 2.0) Applications”. This schedule applies to the “content maintained by the Office of Public Affairs on usdoj.gov and/or commercial social networking sites not hosted on DOJ servers”. The schedule makes an explicit distinction, with regard to record retention, between social media applications hosted on DOJ servers and those hosted on public servers. The schedule is not “media neutral”, as the records are scheduled by the type of social media application, rather than the content of the records stored in the social media application.

The schedule specifically identifies “Web Logs (Blogs)” hosted on DOJ servers as scheduled for “permanent retention” to be transferred to the National Archives one year after the end of the Presidential Administration. Alternatively, the schedule describes the approach for management of “Social Networking Sites” hosted on external servers, explaining:

The Department of Justice does not manage the content on these public servers.

Department of Justice content is created, saved, and then posted to these sites. This section applies to the content saved and maintained by DOJ/PAO Staff in DOJ recordkeeping systems.

The specific social networking sites that are scheduled include “Facebook Page (or similar)”, “YouTube Videos”, and “Twitter”. The “Facebook Page (or similar)” is maintained as a temporary record to be destroyed/deleted one year after the end of the Presidential Administration. YouTube videos are maintained pursuant to existing retention schedules. Finally, “Twitter” content is scheduled as a non-record that may be destroyed/deleted when no longer needed.

According to policy and guidance documents, DOJ staff requesting establishment of an external social media site must follow an established procedure (Appendix E). First, staff must complete a specific request form, engage in discussions with the public affairs office, and ensure that the requested social media aligns with PAO's broader public relations strategy. Second, legal, privacy, and records management issues must be addressed, as well as issues of content moderation, implementation, and timeline. When a new public facing social media tool is approved for use, the public affairs office negotiates the terms of service and reviews for acceptability. As a rule, the participants involved in this study, in interviews, indicated that the primary social media tools that are being used in the DOJ under this policy externally are Facebook, Twitter, and YouTube (MySpace activity has been discontinued). Findings from

participant interviews, described in the interview section, corroborate that this policy of having OPA approve sites is in regular use, and findings from interviews and website review provide more specific descriptions into the nature of each tool's use throughout the component agency (see Figure 34).

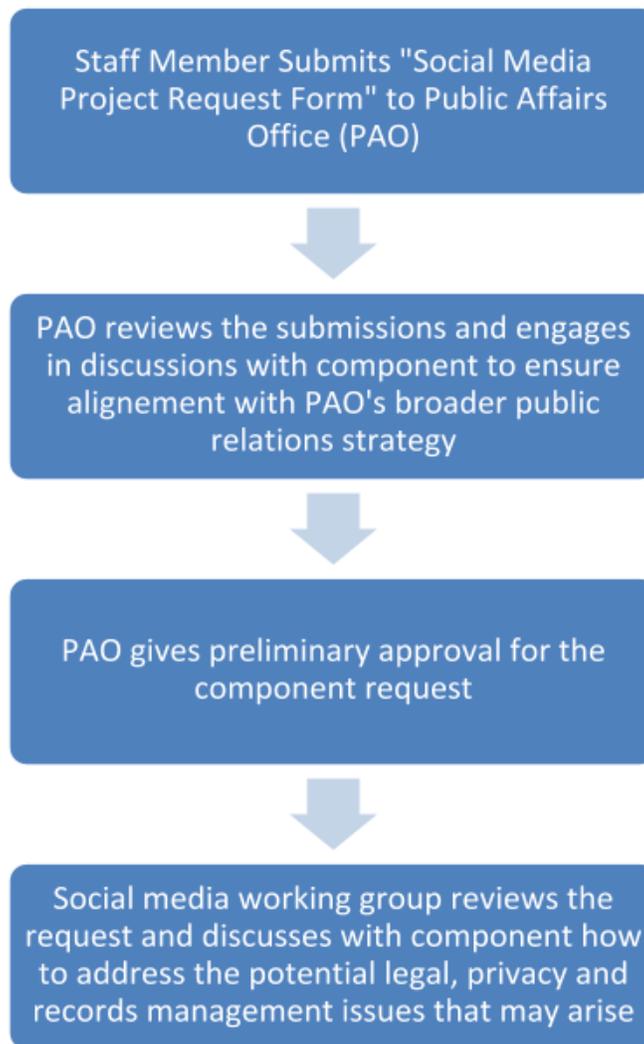


Figure 34: Approval process for social media

In interview findings, participants identified a variety of issues related to management of social media records. Participant One characterized the greatest challenge of policy and management issues as “to have policies, education, and users understand effective practices for records management,” an issue discussed more fully in section 4.10. At the department level, the recommended policy approach for managing information in public facing social media tools is to capture and manage original content outside the tool, and preserve that information within a department recordkeeping system or functional similar system. In addition, department guidance recommends an approach in which a log is maintained that describes material posted to the site including content, links, source office, date uploaded and date removed. According to Participant Six, speaking about the process at Component A, for example, when a new social media tool is approved for use, the appropriate component staff negotiates the terms of service and reviews for acceptability. Throughout the DOJ as a whole, the social media tools that are most frequently being used externally are Facebook, Twitter, and YouTube, (they have discontinued their MySpace activity).

According to policy and the descriptions of practice provided by participants, information contained in the public facing social media tool itself may be treated as a “non-record” and therefore is not subject to related records management and preservation obligations. This approach was developed in order to preserve content that may be externally hosted and not owned or controlled by the DOJ. For cases where original or unique records are created within the social media tool, participants indicated that such content is typically scheduled as a temporary record and accordingly such records do not require long-term preservation; only the original documents linked or referenced in the posting require preservation: “We submitted the

inventory as we were required to do.... So the actual electronic versions of the files is the bulk of our work” (Participant Eleven). Participants in the study explained that in public facing social media sites, user generated information such as comments, tags, or other related metadata did not add to the contextual value of social media records and therefore did not require capture and preservation, an observation corroborated by website review. Participant Eleven also perceived many users as “falling back on the print to file approach” for records management and retention practices with social media, owing to the fact that the component does “not have a lot of retention tools for electronic” [records]. Participants did not report the use of any automated technology to capture and archive this information at the department level, nor did they describe any instances of automated approaches being used in the capture this data at the component level. Policies do not reference automated tools either.

At Component B, for example, the general approach to managing social media records generated in social media is to consider moving the content into a recordkeeping application when it is final, as described by Participants Two and Three. Draft content is typically managed in the internal wiki. This approach can present difficulties when there is a need to save and capture the development of internal social media tools such as wikis and blogs, a circumstance not addressed in Component B policies or practices. Participants at Component B (including Participants Two, Three, Four and Five) perceived that there was no easy way to capture the content and preserve the dynamic nature of such tools. In fact, these participants did not see the dynamic nature of social media as part of what should be preserved—in part due to policy limitations and in part due to the nature of the recordkeeping applications used, which tended to

focus on importing content into a “document” or turning material “into a final copy which is stored somewhere else,” in Participant Three’s words.

4.9 Participant perceptions of steps taken to manage and preserve social media records

4.9.1 Participant perceptions of existing processes

Participants and documentation described a range of processes and procedures in place for records management of social media, some specific and some less so. Document review confirmed the existence and implementation of policies and processes in various component agencies. Participants across agencies acknowledged that technical approaches to manage social media content largely involve manual capture, retention, and preservation of the content outside of the social media application, as no automated methods for capture and archiving of social media content are available at either the department or component level. Despite policies and guidance in place, participants across agencies identified user awareness of records management policies and practices as an area of concern, as described previously in Section 4.9. Participant One commented, “At a minimum [we] hope that someone will read the user guides and manuals.” At one component, there were active efforts to improve user knowledge: “I’m also part of this training group where we’re focusing on how we are training incoming people” (Participant Fourteen).

Several participants pointed out that social media postings are primarily seen as duplicative of content existing elsewhere and therefore they do not have records value on their own. In addition, the participants indicated that social media features (comments, tags, and

metadata) are not viewed as adding to the contextual value of the information and also do not contain records value. Participant Fourteen, for example, differentiated between postings with records value and technologies such as Lync or other instant messaging apps, which was described as “not strictly for records purposes....quick response type things that don’t really involve records.”

4.9.2 Development of guidelines for management and preservation

The process for developing social media guidelines for preservation and use varies among agencies. The experience of one component agency forms an illustrative example. In 2009, this component, (Component B) an effort began to consolidate policies of several divisions (including records, security, etc.) into one overarching policy addressing Electronic Information Sharing Technologies (EIST). The policy includes social media, but also addresses broader technologies such as instant messaging, telephone/voicemail, etc.). As described informally by Participants Two, Three, Four and Five, the team collaborated with records staff at Component B’s Records Management Division in creating and crafting the policy. At this component, there were three iterations in the development of the policy. The first iteration was an attempt to piece together several related policies into one (keeping the policies relatively unchanged), but these participants reported that the language and overall approach were not consistent in this draft. In the second iteration, the team began to standardize terms, but that version was very technical rather than user-friendly. The third iteration retained the key elements of the policies, and

presented a unified voice and concepts. Upon approval, the policy will be published through the Information and technology branch.

EIST is defined as both “Webpage-based tools” and “Point-to-point communication tools”. Webpage-based tools include (but are not limited to) wikis, blogs, micro logs, professional and social networking sites, dating sties, file sharing sites, and image/video hosting sites. Point-to-point communication tools include (but are not limited to) phone calls, voice over internet protocol, email, short message service (text messages), instant messenger, direct messages, and peer-to-peer file sharing.

Further, EIST is divided into USG EIST and Publicly available ESIT. USG EIST is under the operational control of a US entity and not available to the general public. Publicly-available ESIT is available to the general public, whether operated by a USG or non-USG entity. The use of ESIT is also separated into two categories: Official Use and Personal Use. For each category of ESIT, the policy addresses: Security (including information assurance and operational security), Records Management, Public Affairs, and information dissemination controls.

In addition, under this policy, guidance has been developed for different user communities: (1) user guide for the average staff member titled “Use of EIST”, which establishes governance responsibility for components and rules of behavior for personnel who access EIST and (2) user guide from the perspective of-system owner titled “Establishment, Configuration, and Operation of EIST” which covers creating new EIST and configuring systems used to access EIST. The policy emphasizes retaining all Federal Records in a recordkeeping system. An EIST is not a recordkeeping system unless expressly it is designated

as one and is in full compliance with the Component B's Electronic Recordkeeping Certification manual, including information and disposition standards. The component agency Records Management Division must be consulted when a new EIST is established to provide approval and support with technology management and compliance.

At Component C, by contrast, the current social media policy is less broad and geared primarily toward public facing (external) social media. In interviews, Participant One, representing this component agency, indicated that the language in the policy may be interpreted as applying to internal social media as well, providing specific examples from the policy and describing their application to internal social media. This particular policy specifically indicates that social media content is not considered a record if it duplicates information that exists elsewhere. That policy also specifies that when unique content is generated it may, in fact, be considered a record and should be retained based upon the appropriate disposition schedule. However, Participant One who mentioned this topic was not aware of specific procedures for capturing, managing, and preserving social media sites even if such procedures do exist, suggesting some potential disconnect between policy and technology, discussed more fully in Section 4.10.4. The examples of these two component agencies illustrate the variance between approaches to policy at the component agency level, even when all agencies are governed by the same overarching directive.

4.9.3 Manual approaches to managing and preserving social media records

One manual approach to capturing and preserving social media records, described by Participants Two Three, Four and Five, involved moving the social media content into a recordkeeping application when the content is considered to be final, with specifics of the migration to be determined based on the particular social media technology. One participant described a hypothetical situation in which wiki content could be moved into a recordkeeping application once it was considered “final,” while draft content could be managed and retained in the wiki itself: “Once it’s final, it goes to the document system, records management system...the..[content in the] wiki is not a permanent record” (Participant Two). The participant suggested that the comments and history might also be moved to a final application as well, but such technology has not been implemented yet. Another participant described this process as “converting” social media postings, but not metadata, to document form for retention: “We are convert everything over to more accessible [documents], it was a whole new function you had to learn and [we didn’t know] whether it was really appropriate for us...we are kind of behind, we are hoping to get everything converted, more documents” moved into record-keeping applications (Participant Four). In terms of long-term policy implications, it is unclear if future tools may allow the entire social media history to be captured when the information becomes finalized in a recordkeeping application, or if some of this information would be lost under this approach. In these cases, the content, as well as associated metadata, may also be preserved by retaining the content within the tool and preserving the content and tool in place.

4.9.4 Particular challenges of implementation

In describing their perceptions and experiences, participants referenced a variety of challenges related to implementing policy and practices related to social media. Some participants stated that they perceived a gap between the policy and technology used to manage social media in the component organizations. For example, multiple participants indicated that although the policy may indicate that records may be generated in social media tools, the technical means or manual processes needed to capture the information is not easily available, nor are there any standard tools used to ensure the capture in a systematic and automated manner. In other words, policy may exist but there are few clear methods or procedures for carrying policy directives out. “It is one thing to put the requirement into policy, another thing to have the tools to enforce” the policy, in Participant Eleven’s words.

Additionally, the dynamic nature of social media creates a challenge with regard to capturing and preserving information. Obsolescence of social media is also a significant concern, as a result of the rapidly evolving tools and features of social media applications. For example, Participant One acknowledged that it is a significant challenge that the technology always seems to outpace the appropriate controls. Solutions and methods to capture content in the social media environment may exist, but they have not been widely adopted, and by the time they are formally adopted, participants expressed concern that social media tools may have further evolved beyond the limits of those solutions.

Finally, participants expressed some frustration with respect to a lack of resources for management of social media records. Participant One explained that it is difficult to address issues raised by novel technologies (such as social media) when resources are not available,

either through appropriate staffing or the provisioning of automated technologies, to capture, retain, and preserve these records.

Several participants suggested that their agencies' greatest challenge is the awareness that social media content may be a record. User education and awareness remains a challenge across components. As described by Participant One, all stakeholders in the process must have an informed understanding of what constitutes a record in the social media environment and what to do with that record, but few stakeholders have received training or accumulated significant experience with social media records. At Component F, administration has also implemented a training program to ensure consistency among the various divisions: "Part of this training group where we're focusing on how we are training incoming people, so they're more Information Technology focused and they maybe they know SharePoint better" (Participant Fourteen).

Furthermore, different stakeholders may bring different perspectives on the nature of social media, current issues in records management, and the technological issues involved in the process. As a result, Participants Two and Five described how their component has developed tailored guidance for different user communities, including one user guide "for the average staff member" that establishes governance responsibility and rules of behavior, and another from the perspective of a "system owner" which covers creating and configuring a new social media application. At the same time, participants appeared to recognize that user awareness and education may be a slow process; Participant One articulated a hope that, at a minimum, "someone will read" the user guides/manuals, with change in behavior and practices following later.

According to Participant Fourteen, Component F is also exploring whether records schedules need to be developed or updated as internal social media changes. Similarly, staff at Component C articulated several significant challenges when managing social media. First, there is a gap between the policy and technology. There is not always a clear understating of how records management concepts and policies apply in new areas and to new technologies. In addition, the dynamic nature of social media remains an issue with regard to capturing and preserving information. Obsolescence is also a significant concern, with the rapidly evolving tools and features of social media applications. A challenge is that the technology always outpaces the appropriate controls. “Our biggest struggle is constantly updating it, keeping it current,” in Participant One’s words. “Solutions may be out there, such as auto-categorization, as well other methods to capture development of the social media, but they have not been widely adopted.”

Lack of resources can also be a significant challenge and can present a significant issue when dealing with managing new technologies such as social media. Participant Eleven likewise identified resources for “maintenance and support” as a ”critical need”. Procedures described by Participant Thirteen indicated potential challenges regarding permissions and access, technical problems, how to make the best use of tools, and how to best use the virtual environment to communicate. Security is handled through each component and division, as each of these has a network and IT staff and manages their own firewall. For this reason, developing a “true portal” where staff can “share information and collaborate,” as described by Participant Thirteen, continues to be a logistical challenge even when staff may be supportive of the general

goal of collaboration. This staff member, like the component director quoted previously, also identified maintenance and cost of updating equipment as an ongoing concern

Staff at Component G stated their perception that the component agency's dominant paradigm remains dependent on paper records. As archivists and records directors, these staff members oversee a great deal of historic information. One particular challenge stated by Participant Eleven is that individuals overseeing historic or sensitive information may be "apprehensive" about releasing it for storage, so they are more likely to "retain [it] in their own sections" rather than turning over to the records office. One approach which this participant described adopting is to "build trust," leveraging the guidance from the President and NARA to continue building electronic records management through establishing relationships and continued "training and support" for new employees.

However, another barrier is posed by the fact that, despite the federal guidance to move from paper to electronic records, there are not yet many retention tools developed for electronic records management. Therefore, staff at Component G are more likely to fall back on the "print to file" approach as described previously. While a policy requirement may exist in theory, component agencies may not have the tools to implement that policy, as one staff member explained. Additionally, one staff member described a discrepancy between the technological expertise and fluency of IT staff when compared to records and information security, fields for which fewer technological and monetary resources exist, which impacts staffing of records management initiatives: "Getting people able to work in records management is a challenge," according to Participant Twelve.

4.10 Chapter summary

In this chapter, the researcher has presented data collected from multiple sources, including website review and analysis, policy review, and interviews with personnel in varied roles across multiple agencies. Findings and themes were aligned with research questions in order to describe practices for use of social media across component agencies and steps for management and preservation of social media records across components.

Key findings included, but were not limited to, the following:

- 1) Some agencies have implemented relatively sophisticated use of social media, internally and externally; others have little or no social media presence.
- 2) Some agencies manage their own social media, but the majority rely on the Office of Public Affairs to run their external social media, either in whole or in part.
- 3) Agency staff generally see value in social media, particularly as relating to outreach, communication with the public, and collaboration (primarily internal). Agency staff also see federal policies and privacy issues as impacting their use and ability to leverage social media.
- 4) Electronic records management of social media at the component agencies studied was likewise impacted by privacy and policy issues, limiting the government's ability to capture metadata, public comments, and the like.
- 5) Additionally, staff knowledge and training, resources, and the rapidly changing nature of social media technology were seen as challenges facing agency personnel in

crafting and implementing appropriate policies and practices for managing social media records.

In Chapter Five, the researcher will discuss the implications of these findings, particularly focusing on the ways in which these practices relate to federal guidance, information models and records management theory.

Chapter 5: Discussion and Conclusions

5.1 Introduction

In the preceding four chapters, the researcher has described the context and methodology of this study, explored available literature, and presented results from the research. In this chapter, the researcher will discuss the implications of this research, including potential applicability of records management models such as the information lifecycle and continuum models, implications for federal policy and social media, and the relationship between policies, practices and current definitions of records. In doing so, the researcher will present findings for Research Question 3 (How do DOJ and component agency practices for using, managing, and preserving social media relate to the information models and records management theory?) and discuss implications of these and other findings for theory, policy and practice.

5.2 Findings and implications: Overview

As described at the end of Chapter Four, the data examined led to several key conclusions. These are listed again below:

- 1) Some agencies have implemented relatively sophisticated use of social media, internally and externally; others have little or no social media presence.
- 2) Some agencies manage their own social media, but the majority rely on the Office of Public Affairs to run their external social media, either in whole or in part.

- 3) Agency staff generally see value in social media, particularly as relating to outreach, communication with the public, and collaboration (primarily internal). Agency also see federal policies and privacy issues as impacting their use and ability to leverage social media.
- 4) Electronic records management of social media at the component agencies studied was likewise impacted by privacy and policy issues, limiting the government's ability to capture metadata, public comments, and the like.
- 5) Additionally, staff knowledge and training, resources, and the rapidly changing nature of social media technology were seen as challenges facing agency personnel in crafting and implementing appropriate policies and practices for managing social media records.

These findings lead to some considerations regarding implications both for government specifically and for the field in general. These implications are discussed below. For the sake of coherence, more general questions (i.e., what does it mean to preserve records? How does social media tie into government goals?) are considered first, with specific solutions or recommendations addressed later in the chapter. Where appropriate, specific references to findings are provided as well.

5.3 Capturing new perspectives through social media

First, the consistent emphasis by study participants on the evolving nature of technology and questions of obsolescence prompts consideration of larger questions relating to new technologies

and the nature of government's role. What does it mean to preserve the functions of government? Does preservation of government records require preserving all social media interactions in order to also capture how citizens respond to and interact with government? How should agencies choose among competing priorities, such as accurately capturing citizen content on social media and complying with privacy regulations? Which citizen voices or perspectives should be maintained as part of social media preservation? If some, but not all, are to be maintained and preserved, how do we choose which ones, and who makes the decision?

For agencies, also, increasing reliance on social media leads—or should lead—to questions about communications, metrics and decision-making. Such questions were not explicitly referenced by many participants, in part because they acknowledged the policy constraints that prevented them from collecting individual user data. However, such questions will continue to present themselves as agencies continue to adopt social media, and as new technologies continue to provide new ways of interacting with posts (ten years ago, retweeting or replying to a government agency's post was beyond most people's conceptions). The ongoing efforts to engage with social media described by some participants must at some point involve consideration of some of these basic questions. Does social media provide an accurate reflection of constituent responses or beliefs? Do social media "likes" or "favorites" provide reliable metrics for agencies seeking to gauge popular sentiment? How do agencies balance organizational priorities, security and privacy while using social media to increase transparency?

These questions, in fact, are important for agencies, experts and even members of the public to consider, as social media's constantly changing nature requires that policies and practices be updated as quickly as new technologies emerge. As agencies choose to preserve and

maintain some content or types of content, they inevitably will decide not to preserve others. A thorough approach to records management requires that decision-making processes give thought to what is not being captured, or what is being lost, as well as what is being maintained. With social media, agencies must decide whether content such as likes, comments, retweets, and shares may be important--decisions which should not merely be made from an operational standpoint but which should also consider the historical perspective such content may provide. Indeed, records can be considered an essential component of a nation's story; in considering whether and how to include social media records, agencies and experts must consider whose voices may be included in, or left out of, that story. The nature of social media, which allows for multiple perspectives, direct involvement of citizens, and the potential for crowd-sourced decision-making, further suggests that citizens themselves might productively provide input in these decisions as well.

But these larger questions also include issues such as the role of government, the importance of capturing citizen voices, and negotiating tension between government mandates, privacy and other priorities, accurate historical records, and citizen input. In examining and resolving some of these larger questions, prompt action is recommended, including innovation in models used throughout the field, policy decisions and guidance, staff training and resource allocation, and collaboration among agencies and between government and industry.

5.4 From lifecycle to continuum

The principal roles of records management, with respect to government, are widely acknowledged to relate to recording history and fostering government transparency and accountability. According to the Office of Management and Budget, “Records protect the rights and interests of people, and hold officials accountable for their actions. Permanent records document our nation's history” (OMB, 2012). The shift to digital records and the growing use of social media by government agencies, taken together, pose questions as to whether current practices are capturing important information with fidelity, accurately reflecting history, and complying with existing regulations. These questions go beyond logistical management, resources and training (important as these may also be) to address some issues at the heart of government and records management theory and practice. Such questions are foreshadowed in participant discussion of recordkeeping applications (see Section 4.8), where participants describe systems for permanent retention as separate “documents,” entirely separate from the social media application, where content with “permanent value” is stored and user-generated information is not captured for a variety of reasons.

Research question 3, the final question of this study, is, “How do DOJ and component agency practices for using, managing, and preserving social media relate to the information models and records management theory?” From the data gathered in the study and presented in Chapter 4, it is evident that there are considerable challenges in integrating the information lifecycle model with current practices for using, managing and preserving social media records. The discrete phases of the lifecycle model, such as creation, maintenance and use, and

disposition, cannot always be applied with certainty to the more dynamic and ambiguous nature of social media records, where “creation”, for example, may occur at multiple points (original posting by an agency, retweeting with user commentary, or mashup). Current federal records policy and practices, as described in Chapter 4, do not account for this ambiguity because they do not capture such content at all—yet, as discussed in Chapter 2, the nature of social media is such that user-generated content often has fundamental implications for context and historical value. Also as described in Chapter 2, some theorists have identified specific issues, such as the changing definitions of creation, use and disposition, which may arise in attempting to manage social media records. The findings of this study, in general, support the idea that the information lifecycle model is an imperfect fit for the nature of social media. However, the information continuum model may hold promise for modifying or integrating lifecycle-based models with social media records management. These models are more fully described in subsequent sections of this chapter.

Particular challenges with the lifecycle model for electronic records management include the volume and type of information that may need to be maintained, the diversity of the information involved, the fact that it is perhaps stored outside official records management systems, and the rate at which information may grow. Social media intensifies these challenges, as storage often occurs on third-party servers that may have their own policies for protecting data, which may or may not align with organizational privacy and records management policies. Additionally, the nature of information itself is far more dynamic in social media, as information can be updated, tagged, modified with metadata, and retweeted or shared, sometimes going viral. This causes challenge with the volume, growth, and nature of information.

As described in Chapter 2, the information lifecycle model involves discrete, fixed phases, which have clear beginning and ending points and which are clearly distinguishable from one another. The lifecycle model, often, depended on the assumption that electronic documents should function, essentially, as digital paper, a definition echoed in some form by multiple participants describing their current agency practices. The nature of the document or record did not change based on whether it was in paper or digital form.

However, as the nature of electronic information has changed, it has become increasingly evident that this definition, and these assumptions, do not apply as well to new digital technologies, and social media forms a particularly striking example of this nonconformity. As Bak explains (Bak, 2011), the many social media tools available today often add particular types of information and metadata to a record over time (as with sharing, retweets, hashtags, comments, and ratings). Whereas a record treated as “digital paper” will have a fixed creation date and disposition date at a fixed point in time, a social media record can include an initial post of content, plus responses (which may include photos or videos), ratings of the post or content, sharing or retweeting, tagging, and mashups, which may fundamentally change what the record is or create a new record. This is particularly important given that social media, which can be modified or responded to by the public as well as the posting organization, occupies a unique position, as it both serves organizational needs (dissemination of one-way information) and, potentially, also allows the public to interact directly with the content presented and in some cases even change or appropriate it. Such interactions are not preserved currently in agency practices, as described in the findings of this study, and agency personnel themselves feel challenged to address this issue within the constraints of current policy, practice and resources.

In McKemmish's words, "[L]ife cycle formulations ... suggest that records in the early stages of their lives serve organisational memory purposes, and later come to serve collective memory purposes, [whereas] the Records Continuum Model embraces the view that records function simultaneously as organisational and collective memory from the time of their creation. The organisation has a particular interest in the way they function as corporate memory (a third dimension perspective); while societal interests relate to the way they function as collective memory (a fourth dimension perspective)." (McKemmish, 1997). This concept is particularly applicable to social media used in the government sector, as the organization (a government agency) may be using social media primarily for its organizational ends, but members of society at large, given the unique functionalities of social media, may in fact add historical or cultural context to that information by interacting with it in ways influenced by their unique perspectives. Thus, social media use by government may fulfill the immediate organizational ends and, also, may serve as a repository of public sentiment in response to that information. This second use relates to McKemmish's idea of functioning as "collective memory," as there is potential historical value not only in the original posted information but also in the societal response that is captured in comments, reviews, tagging, retweeting, mashups and the like. While the Information Lifecycle Model is widely used in the field of records management (and is officially adopted at the federal level by NARA), it is unclear whether it is able to address both the immediate organizational goal and this larger collective goal. In contrast,

“[t]he Records Continuum Model supports a distinction between collective and organisational memory. In the records continuum, societal needs are characterised as

fourth dimension issues, whereas organisational needs are associated with the third dimension. However, unlike life cycle formulations that suggest that records in the early stages of their lives serve organisational memory purposes, and later come to serve collective memory purposes, the Records Continuum Model embraces the view that records function simultaneously as organisational and collective memory from the time of their creation. The organisation has a particular interest in the way they function as corporate memory (a third dimension perspective); while societal interests relate to the way they function as collective memory (a fourth dimension perspective)” (McKemmish, 1997).

For these reasons, a continuum-based view of records may come to be more appropriate for digital media use, including U.S. federal agencies. From the societal and historical perspective articulated above by McKemmish, there is certainly value in capturing public interaction with government-posted content. At the same time, it is important to keep in mind the experiences of participants in this study, who described the tension among federal policy, privacy mandates, and the interactive nature of social media. Given limitations in resources and the importance of facilitating communication with the public through a variety of channels, many agency personnel appropriately place priority on serving their organizational needs. Indeed, given the constraints within which government operates (including constraints of resources, time and policy), it may be that government agencies themselves are not best positioned to fulfill all of these functions at once.

This paradigm shift, from lifecycle to continuum, has implications across numerous areas of records management and government functioning. Agencies will need to reconsider and

redevelop policies, which are currently based almost exclusively on the lifecycle model. Training will likewise need to be updated, with emphasis both on the rationale behind this shift and the day-to-day shifts in practices that may occur at various agencies. Furthermore, a shift to a continuum-based model will necessitate a broader skill set on the part of professionals within agencies. Practitioners will still need a strong understanding of records management principles and practice, but also will need to broaden their knowledge of information security, privacy, and emerging technologies. As practitioners adapt to the increased complexity of a continuum-based model, requiring them to make more nuanced decisions taking multiple factors into account, there may be an initial gap between practitioners' current level of knowledge and the requirements for implementing this new model.

Additionally, agencies will need to consider the requirements of a continuum-based model in allocating resources, designing programs, and making staffing decisions. Such staffing issues are already of concern for some agency personnel, as described by study participants; these issues may continue to gain significance as agencies address these issues. There are also implications for incorporating this model into application development, particularly relating to opportunities for collaboration with industry and updated development of standards. All of these potential changes, in fact, underscore the need for agencies and experts alike to take a step back and reflect on the role of records management and its relationship to related fields, such as archives, applications development, information security and information privacy. The interconnected and complex nature of social media, in fact, highlights the need for an increasingly collaborative approach, and dialogue among professionals with differing perspective, in order to appropriately manage social media records.

5.5 Federal policy challenges

This study highlights several issues with respect to federal policy. In particular, there are significant policy questions regarding reliance on third party providers, as described in Chapter 4's discussion of privacy policies and external tools such as Twitter and Facebook. Frequently, third party sites and storage providers may have their own privacy and other policies, which may conflict with federal agency policy. While NARA guidance recommends agencies use specific privacy language in their contracts with such providers, in reality it may be difficult for agencies to reach agreement with third-party providers over accepting the federal privacy policy if that policy is more restrictive than the provider's.

Participants in this study evidenced awareness of specific federal policy requirements, including (most notably) privacy requirements. Some participants were aware of guidance from NARA and other agencies (Appendix A), though not all were familiar with such guidance. Participants also, generally, appeared to be familiar with department and component agency-level policies and procedures, suggesting that education of staff about such policies has been largely effective.

It appeared from both the findings of website reviews, including privacy policies and management processes, and from interviews that several gaps still exist with respect to federal policy and management of social media records. One of these gaps has to do with the dynamic nature of social media and the fact that current policy does not always provide agencies with specific guidance about how to implement policies in differing social media platforms. As several participants mentioned, privacy policies also are an area where there is some tension

between typical interactive use of social media, and best practices for preservation of records, and policy requirements. While best practices for records management, particularly for the interactive nature of social media, might dictate capturing and maintaining user data (such as comments, reviews, and tagging) as part of a record, participants in this study indicated that their current privacy policies, which they described as based on federal law and guidance, prevented them from doing so in order to protect citizen privacy. This tension was a repeated theme among participants and, perhaps, may be useful to examine further in research and practical guidance.

This tension among policy, privacy and best practice highlights ongoing challenges which must be dealt with as government agencies continue to work closely with, and share information with, third-party providers (a trend which seems likely to continue to increase). Not only are there day-to-day privacy challenges inherent in the issue of housing information on third-party servers, but larger, significant issues that may need to be addressed through legislation. These include the question of whether agency policies or third-party provider policies should take precedence in any given circumstance, raising larger philosophical issues of government's relationship to industry. The other significant issue related to privacy and records management involves the question of who owns any data housed on third-party servers. Most third-party policies, providers (such as Twitter, Facebook, and the like), claim ownership of any data housed on their servers. As a result, agencies may be required (as observed at the DOJ) to maintain records outside third-party systems. However, agencies are limited in what they can maintain, for example, agencies can maintain original agency-generated documents such as press releases but may not be able to maintain user-generated content (comments, likes, and so on) stored on third-party servers. Therefore, agencies may be abiding by privacy and federal records

policies in not maintaining user-generated content, but a significant gap is not being addressed as a result. Agencies may be precluded from capturing user-generated content for privacy reasons; third-party providers may maintain some user-generated content but do not do so in compliance with federal recordkeeping standards. As a result, some crucial elements of social media content, such as user comments, likes, shares and mashups, are not being captured by either agencies or third-party providers.

Multiple participants in this study stated they found it challenging to rely on federal guidance, as there were few specifics offered in terms of interpreting policy directives or applying them to the unique and often-changing landscape of social media, where new sites frequently arise and familiar social media sites (such as Facebook) add new features or update existing ones. The level of detail in current guidance might be said to constitute a gap in federal policy, as personnel seem generally aware of what they should be doing (managing social media records) and have, in many cases, taken proactive approaches to adopt best practices at the department and component agency levels. However, many personnel also state that they still feel they need a concrete understanding of how to apply federal guidance in specific situations, as it relates to various agency needs and a wide variety of different social media tools.

5.6 Agency practices and policy requirements

The DOJ and component offices are actively addressing issues related to management of social media through policy, and additional specific guidance is being developed in order to make staff aware that records may be generated through the use of social media

applications. Developing and updating of policies is identified in the literature and guidance as a recommended practice to ensure the effective management of social media records. Component offices in this study appear to have followed the best practice approaches in policy development. The DOJ has established a detailed process to monitor the creation, retention and preservation of publicly facing social media applications. This process mirrors what NARA has identified as an effective practice in a recent assessment of federal departments and agencies. Involvement of records management staff in the establishment of a social media site is also a recommended practice that is identified throughout the literature and in several government reports and guidance, in order to ensure that appropriate methods are in place in the event that records will be generated by the social media application. The approach of only posting duplicative information on social media sites and avoiding posting unique content which might require preservation is one of the acceptable methods identified in the NARA guidance. In addition, the department approval process ensures that related issues such as security and privacy are addressed, as well as ensuring that the tool is used in a manner that supports the mission of the department. This helps to add to the value proposition of the use of social media tools and ensure that the tools are being used appropriately.

One method of addressing the challenges presented by social media is to standardize the use of certain social media applications. A very effective approach is currently being implemented at the DOJ through the department-level process to monitor public facing social media applications. By limiting the number and specific types of authorized social media applications, the DOJ may be better able to address challenges of obsolescence due to the rapidly evolving nature of these tools. This may also facilitate the development of system integrations,

especially if it is possible to focus department efforts and resources on several specific technologies and platforms. Finally, this approach allows for detailed policy guidance to be provided on specific social media applications, a method that may aid in raising awareness on issues related to the use and management of social media content. Beyond the question of participants' familiarity with policy, the findings of this study do raise questions about the adequacy of current guidance from participants' point of view. Several participants voiced a desire for more specific and clear guidance from federal agencies regarding management of electronic records, particularly in a social media setting. While NARA guidance and OMB guidance are typically broad so as to apply to a variety of agencies, participants described some difficulty applying the existing guidance to their specific component agency environments. For example, existing NARA guidance on capture of social media records was more specific than previous documents had been, but less specific than some participants stated they would have preferred (NARA, 2013).

5.7 Implications of social media use and practice

As discussed in section 4.1, a significant theme identified in this study involves the differing uses of public facing (external) and internal social media applications within the DOJ, as well as the value that is associated with that use. According to participants, public facing (external) applications are primarily being used as a one-way form of communication and are considered to be akin to a press release, where the component organizations are seeking to provide timely updates or educate the public on a particular topic using a different mode of communicating. Conversely, internal social media tools are being used in a more collaborative

fashion, with traditional document editing tools being more heavily utilized than other forms of social media. These different uses directly affect the value associated with the information from a records management perspective. Since the primary value of public facing social media is to push information to the public and not engage in a two-way form of communication, only information that is being posted by the department or component organizations is typically seen as containing record value. Alternatively, participants indicated that internal social media applications may also generate information containing record value, which may include both the record and contextual metadata.

Participants indicated widespread familiarity with policy and procedures, although individual component agency-level approaches to specific dilemmas varied widely. For example, components took differing approaches to the use and management of centralized vs. decentralized social media applications (with some components using OPA to manage their social media, some managing their own, and some doing both) and to which social media tools to use (with some using none and some using many). Component agency staff in multiple cases were aware of the requirement for agencies to have a business case in order to use social media. Component agencies also exhibited great variation in the ways that they chose to employ social media, which in turn influences the ways in which they address records management for social media. Many stated privacy policies and other policies explicitly, or linked to such policies on the main component agency site. Some used social media to share historical information about their agencies; some used social media primarily to push out current events, day-to-day updates, or press releases. Given the requirement for agencies to demonstrate a business case and to

remain in compliance with policy, it is likely that business purposes, financial considerations and policy and compliance issues will all influence the ways in which agencies use social media.

5.8 Evolving conceptions of records and social media

As described in Chapter 2, current conceptions of records and records management are heavily influenced by diplomatics, although some postmodern theories have complicated application of diplomatics to modern records and information science. The traditional diplomatics-based system “gives importance to the broad context of creation” in considering issues such as the person involved in the record’s creation and the broader legal and social context of the record but, most important, “never distances itself from the reality of the records” (Duranti, 1998, p. 177). However, Cook (2001a) and Bastian (2006) have raised issues that complicate a purely diplomatics-based approach to modern records, including the existence of multiple perspectives, the fact that records often include some perspectives and omit others, and the power dynamics in play as some individuals or organizations may have the authority to create records (or determine what constitutes a record) and some may not. Such considerations are seen to be relevant in this study, as federal agencies, working within the context and constraints of policy and agency priorities, primarily construe records from the perspective of the agency, as original agency-posted information rather than the contextual information, commentary and metadata added by the public interacting with the content over social media.

As described in Chapter 2, the federal definition of a record “includes all recorded information, regardless of form or characteristics, made or received by a Federal agency

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 United States Government or because of the informational value of data in them.” (Federal Records Act, 2014). NARA further specifies that a “complete” record must have “content, context and structure” as well as “associated metadata,” (2014), though the nature of associated metadata is not definitively specified. NARA has, additionally, provided more specific guidance about “best practices” for social media records management, which describes social media’s “added functionality, such as enhanced searchability, opportunities for public comment, or other collaboration.” In this guidance, NARA instructs agencies to consider whether social media content constitutes a record and identify exactly which elements of that content should be preserved, providing some examples but not dictating specific elements of the process.

The attributes highlighted in federal definitions and guidance, indeed, suggest that social-media records may indeed include interactive content or commentary as well as the original posts by agencies themselves. Such a view may be consistent with Hedstrom and Lee’s (2002) statement that properties to be taken into account in the preservation process include both “internal composition” and “external relations.” This may vary based on the nature of the record itself and the content (one thinks, for example, of tips shared with law enforcement over social media, or citizen comments upon government posts that go viral themselves). In a digital world, it is increasingly important to focus on the specific elements of a record that are most essential to preserve (Yeo, 2010).

From the interviews conducted in this particular study, from the perspective of component agencies within the department of justice, it appears records content was viewed largely as consisting of the official posting or original content generated from the agencies. Postings themselves were generally not considered to have long-term value for retention; for example, information posted on social media is typically duplicative in nature or contains a succinct pointer to the official agency website or press release where the content is officially housed and managed through formal systems and channels.

As described by participants at the particular component agencies in this study, this approach is followed consistently, and no formal processes or procedures were identified for capturing unique user-generated social media content with respect to records management, nor did participants identify any organizational value in doing so.

5.8.2 Significant properties of a social media record

In light of Hedstrom and Lee's (2002) model for identifying significant properties, in making decisions about what to preserve, it is valuable to consider both the original organizational purpose and the external or social context of the record. In considering these issues, it may also be useful to keep Yeo's (2010) discussion of boundary objects in mind, as the nature and status of a record may in fact change according to the position, context and priorities of the viewer (Yeo, 2010). Additionally, the concept of a record's significant properties (Night, 2008) is important as well: "Significant properties [are] the characteristics of digital objects that must be preserved over time in order to ensure the continued accessibility, usability, and meaning of the objects, and their capacity to be accepted as evidence of what they purport to record" (Wilson, 2008, p. 15).

Accordingly, it is proposed that consideration of what constitutes a social media record should include the following elements (this list may not be all-inclusive):

- Profile and original agency-created content: (agency post, links to agency content, links to policy, audiovisual content, and profile information)
- Internal policies and process related to social media account creation and maintenance
- Account settings
- Public comments and replies, if replies exist (not part of most federal social media accounts)
- Ratings and reviews
- Shares, with and without commentary
- Tags (including individuals, geo-location, other agencies or concepts/trending hashtags)
- Metrics (page views and followers over time)
- Mashups and user-generated content

These properties can be situated within Hedstrom and Lee's (2002) model identifying both the organizational purpose as well as the external or social context (see Figure 1 below). While Hedstrom and Lee delineated these two categories of organizational purpose and external or social context, there has not, thus far, been an integration of these categories with the features in social media records. Below is one possible representation, created by the researcher as a result of this study's findings, which locates features of social media according to Hedstrom and Lee's principal categories.

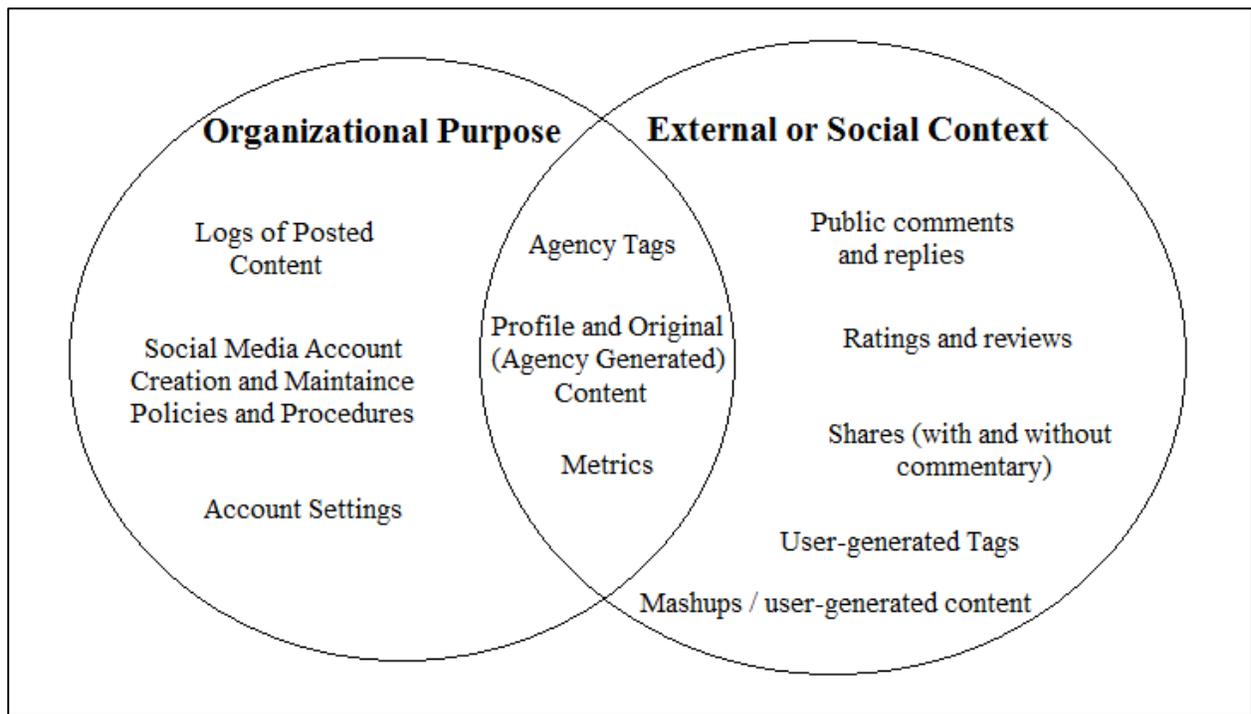


Figure 1: Significant properties of a social media record.

It is acknowledged that these items may not always be easily separated or distinguished, may change over time through introduction of new technologies, and, in fact, agencies themselves may be prevented by policy constraints from capturing all of this data. For example, many department policies and social media sites explicitly reference privacy issues (see Appendix H, DOJ Privacy Policy), and many participants acknowledged department-wide privacy issues that limit agency involvement in leveraging the interactive nature of social media technologies, potentially placing a substantial limitation on agency capability to capture social-media records and data. As described in Chapter 4, many DOJ social media sites are explicit in stating that they do not collect or capture comments, likes or any other public input on their

social media sites. New social media sites, also, are as a matter of policy, reviewed for their adherence to privacy policies. Such practices indicate the agency's awareness of the potential challenges of becoming involved with social media as a government agency and, in particular, the potential conflicts existing among privacy practices and policies, records management practices, and the rapidly evolving nature of technology.

5.8.3 Capture of social media content

The evolving nature of technology, in fact, is one area that has a significant impact on agency practice. At this particular agency, component agencies have taken a proactive, though manual, approach to avoid the issue of preserving records on the social media tools themselves (Appendix C). In some components, unique content that is posted to public facing (externally hosted) social media site may be maintained and preserved in a recordkeeping application along with a log of associated information. As a result of this approach, the content that is needed from an organizational recordkeeping perspective is maintained outside of the tool itself, under DOJ control. The treatment of the information in the site as primarily duplicative content aligns with the NARA generated guidance, which states that duplicate information or links can be treated as non-record content that is not subject to retention requirements or may be considered temporary records subject to short term retention scheduling (NARA, 2010). This method does preserve the content, though the overall context of the information is not preserved with this method. Current NARA guidance on social media suggests that contextual metadata (such as comments and tags)

may, in some cases, be equally important and is not guaranteed to be preserved with this approach (NARA, 2010; NARA, 2010).

This study also found that participants did not describe the use of any sophisticated automated methods to capture content or associated metadata in social media applications. This further substantiates evidence of previous studies that indicated that the automation of capturing, retention, and preservation of social media content is not being employed widely in federal agencies (ACT&IAC, 2011; GAO, 2011; Franks, 2010).

There is, further, a question as to whether the current systems used to capture social media are actually capable of capturing the significant properties of a record. Web crawlers, for example, are increasingly available in the marketplace and used in certain environments; however, federal agency staff have indicated they are less suitable for use in the agency setting because they do not meet security and privacy requirements as identified in federal policy (NARA, 2013). There are few if any records management applications that interface smoothly and effectively with social media, and consequently there is a need for greater interoperability between the two. In particular, there is a need for records management applications to capture and preserve dynamic content and metadata, as well as the overall context (all of the significant properties) of the record in question. Additionally, there is also a related need for social media applications themselves (through APIs or a similar functionality) to ensure that significant properties are able to be preserved.

5.9 Toward a new view of records management policy and practice

Together with the available literature in the field, the findings of this study point to several significant issues which are presented by the increased use of social media in governmental contexts. These include the nature or definition of a record, discussed previously; the need for comprehensive and the need to re-examine the models and assumptions on which records management policies have traditionally been based to ensure that they are still consistent with the evolving nature of digital communication.

Current models of records management, as discussed, assume a fixed creation date and a finite, delimited maintenance and use, and disposition phase. With social media, however, there is an initial question as to what the original record is: the original post? the comments on it? the tagging, metadata, and sharing? While the agency creating a social media post may set a date beyond which it is not “used,” that post, in fact, exists forever in some form on the internet, particularly if it has been shared by another user. Thus, it can be reshared, reposted, retweeted or mashed up at any point—extending its “lifecycle” well past any hypothetical “disposition” date that an agency may try to set.

Given the limitations in a diplomatics-based view of records, which emphasizes the nature and authenticity of the record itself over such contextual issues, it may be appropriate for records management, as a field, to move away from diplomatics as its primary theory. Such a move may enable a broader view of what a record is, including context, interaction and metadata that may not be able to be captured in a traditional view of records management. A broader view of the nature of a record would, also, be consistent with the idea of postmodern appraisal

(McKemmish, 2001; Cook, 2001a; Cook 2001b), considering the significant properties of a record. While the lifecycle model emphasizes the creation, maintenance and use, and disposition of the record itself, a continuum-based approach may provide greater space to consider the record's context, evolving use, and meaning in multiple settings and to multiple groups of users. This view is consistent with McKemmish's (2001) idea that the records-keeping professional must take a broader view of his or her responsibilities. "According to the continuum view, the role of recordkeeping professionals relates to setting up recordkeeping regimes that can ensure that *from their creation*, records are managed in ways that enable them to fulfil their multiple purposes contemporaneously *and* over time. Setting up such regimes involves integrating records and archives competencies and responsibilities" (McKemmish, 1997). In the U.S., records and archives are traditionally seen as separate fields. However, the broader view of records produced by the shift described above may, in fact, allow for increased integration of the two fields, along with a broader view of responsibility for records at the point of creation. Traditionally, records management has been the province of the individual or organization creating, owning or using the record. However, given the constraints that policy and resource availability place on federal agencies, it seems increasingly apparent that the federal government cannot, itself, undertake a comprehensive, context-embedded records management view that preserves citizen data as well as organizational content. For example, government may wish to look to options such as the so-called citizen archivist or the Internet Archive, where individuals or nonprofits take on the task of web-crawling and capturing the web at a particular moment in time. Leveraging citizen archivists, and possibly creating a non-government archive, might allow ensure that important

contextual data within social media is captured without putting the onus directly on government to capture it.

While this type of partnership may address part of the issue, there are still limitations posed by the fact that available technologies are primarily focused just on web crawling. Archivists can archive only what is presented; web crawlers are not privy to information about authenticity, fidelity, and the like. Further discussion and guidance would be needed even for web crawling, citizen archivist initiatives in order to answer questions about how much content to preserve (does the web crawler simply crawl the first level, or does it preserve everything linked to that page, for example?). Further exploration and discussion is needed to address such issues; however, in the short term, a broader view of records management, as it relates to significant properties of a record, application of continuum models, and the potential collaboration of government and citizens may allow both government and society at large to capture and preserve social media records with fidelity.

5.10 Recommendations

As described in Chapter 3, this study is qualitative in nature and, due to the non-generalizable nature of the findings, further research is needed to determine whether and how these findings might apply to other federal or nonfederal agencies. Nevertheless, it is possible to make preliminary recommendations based on this limited study, which may be further explored, validated or modified in future research.

5.10.1 Recommendations for policy and practice

1. As has been discussed throughout this chapter, **the findings of this study suggest a genuine need for a more holistic view of records management and associated changes in records management practice, focusing not just on document and electronic records management but on how these issues relate to larger concerns of information privacy, security and related federal regulations.** Increased communication and collaboration among experts in all of these fields, also, should inform this holistic view. In particular, there is an urgent need for consideration of how existing requirements impact agency functioning and policy, particularly with respect to issues such as resource allocation, development and implementation of policy, and specific approaches to challenges such as information privacy.
2. Participants evidenced a range of understanding of policy and guidance from NARA and other agencies (Appendix A), but still had specific questions as to how they should implement that guidance consistently, in practice, over multiple social media platforms. **Therefore, it is recommended that federal guidance be updated frequently and address specifics of records management challenges as they pertain to currently used social media platforms.** This might, for example, be accomplished by providing frequently-updated lists of approved or recommended tools that meet policy requirements and conform to best practices for records management. This might also provide specific guidance on topics such as how to capture information and records on different platforms and applications, and how to determine the social media components, features, and metadata that should be preserved. Agencies (beyond NARA) should

consider providing specific guidance on issues such as budget, planning and resources and sustainability as they relate to records management.

3. Based on participants' reported experiences with the external policy process, and based on current guidance for managing social media records, **the department might consider extending the current approval process to internal social media applications or consider developing a similar process to monitor the creation and use of internal social media tools at the component level.** There is comparatively greater attention given to external social media; internal social media presents many similar issues in terms of records management practice and organizational practices for collaboration and knowledge-sharing.

5.10.2 Recommendations for research and development

1. As identified by participants in this study, automated tools to capture and manage records generated by social media are not being widely used in the DOJ. **Technologists and the vendor community should work to partner with federal agencies and departments to develop tools that meet records management and archival requirements for managing both internal and external social media records.** While tools to archive and preserve social media content are beginning to emerge, industry still needs to develop secure tools to meet the specific functional records management requirements of federal departments and agencies in order to automate the capture, retention and disposition of

records generated by social media applications and/or ensure that social media applications can integrate with existing records management applications. Such tools should ensure that the significant properties of social media records are retained and preserved.

2. **Further research is also recommended, consisting of more extensive research involving management of social media records within a broader sampling of federal agencies, allowing for the findings of this study to be tested and validated. Additional qualitative and quantitative research, including additional interview and case-study based research, as well as surveys and larger-scale examinations, is recommended as well,** in order to provide further depth to our emerging understanding of agency practices and procedures with respect to social media and to provide information about how these issues are viewed across multiple agencies and throughout the government. Additional research is needed to identify the use of both manual and automated methods of capturing, retaining, and preserving records in the social media environment. Finally, based on participants' perceptions of user awareness regarding records management, additional research may also focus on the type and extent of training required to support implementation of best practices throughout agencies, for users in a variety of roles.

3. **Last, additional research is also needed on how records and information models relate to practice.** Such research may be grounded in investigation of practices, but

should also incorporate a theoretical component to examine how current practices relate to theories and models such as the information continuum.

5.11 Conclusion

This chapter has identified several related and important themes involving (1) the different uses and perceived record value for both public facing and internal social media, (2) policies and processes for managing social media records at the department and component level for public facing and internal social media applications, and (3) specific areas of tension between current policy, practice and theory in the field of records management as applied to a federal agency utilizing a variety of social media forms.

In conclusion, the results of this study suggest significant attention should be given to issues of records management and preservation in the federal agency setting with respect to social media use. While federal agency personnel recognize the extraordinary potential of social media for connecting with the public in new and effective ways, and while they also see potential for internal collaboration and knowledge-sharing using social media tools, agency personnel also must be mindful of federal guidelines and policy as they implement these innovative tools. Updated policy guidance, and continued collaboration with industry and the public in developing and leveraging effective tools, may help to address some of these potential challenges. At the same time, there is a compelling case for researchers, practitioners and federal agencies themselves to examine the models upon which current understandings of records management are based and to consider their relevance to new technologies.

Appendices

Appendix A: Federal Reports and Guidance on Management of Social Media Records

General Services Administration (GSA)

GSA Social Media Handbook. (2009). Retrieved from www.gsa.gov/graphics/staffoffices/socialmediahandbook.pdf

Government Accountability Office (GAO)

Federal Agencies Need Policies and Procedures for Managing and Protecting Information They Access and Disseminate. (2011). *Report to Congressional Requesters (GAO-11-605)*. Retrieved from www.gao.gov/new.items/d11605.pdf

Federal CIO Council

Guidelines for Secure Use of Social Media by Federal Departments and Agencies. (2009). Retrieved from <http://energy.gov/sites/prod/files/maprod/documents/SecureSocialMedia.pdf>

National Archives and Archives Administration (NARA)

A Report on Federal Web 2.0 Use and Record Value. (2010). Retrieved from www.archives.gov/records-mgmt/resources/web2.0-use.pdf

White Paper on Best Practices for the Capture of Social Media Records. (2013). Retrieved from <http://www.archives.gov/records-mgmt/resources/socialmediacapture.pdf>

Guidance on Managing Social Media Records. (2014). Retrieved from <http://www.archives.gov/records-mgmt/bulletins/2014/2014-02.html>

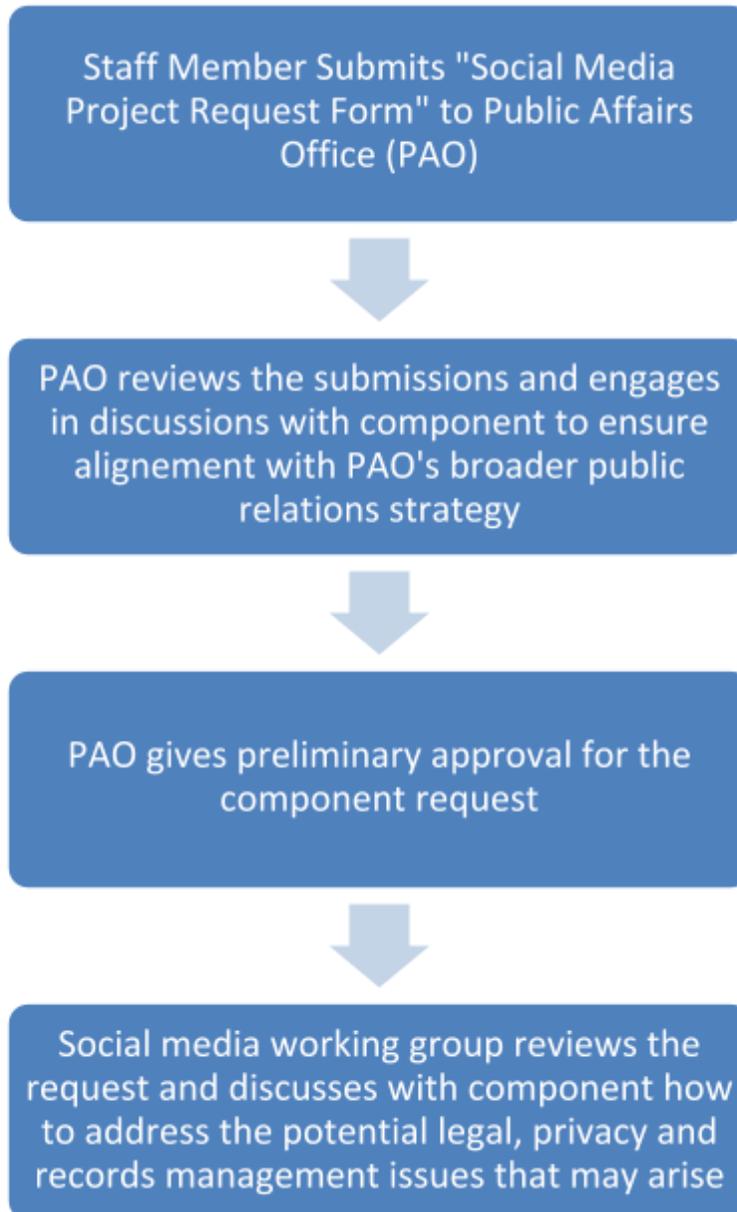
Executive Office of the President, Office of Management and Budget (OMB)

Social Media, Web-Based Interactive Technologies, and the Paperwork Reduction Act. (2010). Retrieved from http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/SocialMediaGuidance_04072010.pdf

Appendix B: Interview List

Participant	Role
Participant 1	Records Officer
Participant 2	Information Technology Policy Manager
Participant 3	Information Technology Policy Analyst
Participant 4	Information Technology Specialist
Participant 5	Information Technology Specialist
Participant 6	New Media Specialist
Participant 7	Component agency Director
Participant 8	Public Affairs Specialist
Participant 9	Social Media Specialist
Participant 10	Assistant Director of Information Systems
Participant 11	Director of Administrative Services
Participant 12	Records Officer
Participant 13	Component agency Director
Participant 14	Records Officer
Participant 15	Records Officer

Appendix C: Approval Process for External Social Media (Web 2.0 Applications)



Appendix D: Records Control Schedule for Social Media (Web 2.0 Applications)

REQUEST FOR RECORDS DISPOSITION AUTHORITY		JOB NUMBER <i>NI-060-10-2</i>	
TO: NATIONAL ARCHIVES & RECORDS ADMINISTRATION 8601 ADELPHI ROAD COLLEGE PARK, MD 20740-6001		Date received <i>10/13/09</i>	
1 FROM (Agency or establishment) Department of Justice		NOTIFICATION TO AGENCY In accordance with the provisions of 44 U.S.C. 3303a, the disposition request, including amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10	
2 MAJOR SUBDIVISION Office of Public Affairs			
3 MINOR SUBDIVISION			
4 NAME OF PERSON WITH WHOM TO CONFER Linda Fitzgerald-Williams	5 TELEPHONE NUMBER 202-514-6667	DATE <i>10/13/09</i>	ARCHIVIST OF THE UNITED STATES <i>[Signature]</i>
6 AGENCY CERTIFICATION I hereby certify that I am authorized to act for this agency in matters pertaining to the disposition of its records and that the records proposed for disposal on the attached _____ page(s) are not needed now for the business for this agency or will not be needed after the retention periods specified, and that written concurrence from the General Accounting Office, under the provisions of Title 8 of the GAO Manual for Guidance of Federal Agencies, <input checked="" type="checkbox"/> is not required <input type="checkbox"/> is attached, or <input type="checkbox"/> has been requested			
DATE <i>10/8/2009</i>	SIGNATURE OF AGENCY REPRESENTATIVE JEANETTE PLANTE <i>[Signature]</i>		TITLE Director, Office of Records Management Policy
7 ITEM NO	8 DESCRIPTION OF ITEM AND PROPOSED DISPOSITION	9 GRS OR SUPERSEDED JOB CITATION	10 ACTION TAKEN (NARA USE ONLY)
	<p align="center">SOCIAL MEDIA (WEB 2.0) APPLICATIONS</p> <p>Social Media or 'Web 2.0 applications' are web-based applications that provide enhanced information sharing and collaboration by facilitating horizontal communication among multiple users. Some well-known examples include wikis, blogs, forums, social networking sites, tagging and media sharing.</p> <p>This schedule applies to the content maintained by the Office of Public Affairs on usdoj.gov and/or commercial social networking sites not hosted on DOJ servers.</p> <p align="center">SEE ATTACHED</p>		
115-109		PREVIOUS EDITION NOT USABLE	
		STANDARD FORM 115 (REV 3-91) Prescribed by NARA 36 CFR 1228	

Appendix D (Continued)

Department of Justice, Office of Public Affairs: SOCIAL MEDIA (WEB 2.0) Applications

Hosted on DOJ Servers

1. Web Logs (Blogs)

These blogs are part of the justice.gov website where content is posted by PAO staff for public consumption. They are intended to communicate with the public about the work of the Department of Justice using plain language and multimedia assets like pictures, videos and audio clips. The blogs may also link to other websites within and outside the Department of Justice. Each blog posting of a particular subject consists of a title, body, author, and a post date.

Disposition: PERMANENT, cut off at end of Presidential Administration. Transfer to the National Archives one year after cut off.

Hosted on public servers (not DOJ)

2 Social Networking Sites.

The Department of Justice has created accounts on several commercial social networking sites in order to provide information to the public. These social networking sites include Facebook, YouTube, and Twitter. Individuals who visit Department of Justice account pages, or interact with these accounts, may be registered users of the social networking service. When interacting with a Department of Justice account, users are not required to provide any information to the Department of Justice. Any information users may have provided to the social networking service, for which they have registered independently, is voluntarily contributed and is neither accessible nor maintained by any Department of Justice entity.

****Note: The Department of Justice does not manage the content on these public servers. Department of Justice content is created, saved, and then posted to these sites. This section applies to the content saved and maintained by DOJ/PAO Staff in DOJ recordkeeping systems.****

Facebook Page (or similar)

a. The profile and original content

The content will include the initial profile, any changes to the profile, and may include original material.

Disposition. TEMPORARY, cut off at end of Presidential Administration. Destroy/delete one year after cutoff.

b. Log of posted content

PAO Staff will maintain a "log" or register that describes material posted by DOJ/PAO staff to include a brief description of content, links, source office, date uploaded and date removed.

Disposition. TEMPORARY, cut off at the end of the Presidential Administration. Destroy/delete one year after cutoff.

Appendix D (Continued)

YouTube Videos

d. Videos posted on YouTube:

Disposition: Record copy maintained by originating component which is maintained in accordance with approved records schedule.

Twitter

A micro-blogging site used to send out alerts about speeches, press briefings and other DOJ news and information. It will only be used to "point" or "redirect" followers to the DOJ website.

Disposition. NON-record. Destroy/delete when no longer needed.

Appendix E: List of DOJ Component Agencies

Antitrust
Asset Forfeiture Program
Office of the Attorney General
Bureau of Alcohol, Tobacco, Firearms and Explosives
Bureau of Justice Assistance
Bureau of Justice Statistics
Civil Division
Civil Rights Division
Community Oriented Policing Services
Community Relations Service
Criminal Division
Diversion Control Program
Drug Enforcement Administration
Environment and Natural Resources Division
Executive Office for Organized Crime Drug Enforcement Task Forces
Executive Office for U.S. Attorneys
Executive Office for U.S. Trustees
Federal Bureau of Investigation
Federal Bureau of Prisons
Foreign Claims Settlement Commission of the U.S.
INTERPOL Washington
Justice Management Division
National Criminal Justice Reference Service
National Institute of Corrections
National Institute of Justice
National Security Division
Office of the Associate Attorney General
Office of Attorney Recruitment & Management
Office of the Deputy Attorney General
Office of the Federal Detention Trustee
Office of Information Policy
Office of the Inspector General
Office of Justice Programs
Office of Juvenile Justice and Delinquency Prevention
Office of Legal Counsel
Office of Legal Policy

Appendix E (Continued)

Office of Legislative Affairs
Office of the Pardon Attorney
Office of Privacy and Civil Liberties
Office of Professional Responsibility
Office of Public Affairs
Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking
Office of the Solicitor General
Office of Special Counsel
Office of Tribal Justice
Office for Victims of Crime
Office on Violence Against Women
Professional Responsibility Advisory Office
Tax Division
U.S. Attorneys
U.S. Marshals Service
U.S. Parole Commission
U.S. Trustee Program

Appendix F: Interview Protocol

Exploratory analysis of the management of social media records at the Department of Justice

IRB #: 325339-1

Principal Investigator: Chad J. Doran

Interview Protocol

Note: We are going to discuss three areas: background information, social media use, and social media management and preservation. Each section has been aligned to a research question for this analysis. However, the semi-structured format also provides room to ask follow-up questions as necessary and to ask participants to elaborate on particular responses.

Thank you for agreeing to participate in this analysis of social media records at the Department of Justice. As we discussed in reviewing the consent documents, I am an intern with the DOJ Office of Records Management Policy and content from our discussion will contribute to this analysis and provide a better understanding about how DOJ component offices are currently managing records generated by social media applications.

Your responses are voluntary. Please answer each of the questions to the best of your ability. The researcher will be recording this interview and will be using the information you provide in my analysis. However, your name and all identifying information will be kept anonymous. Are you comfortable beginning our discussion now?

PART A: BACKGROUND INFORMATION

Tell me a about yourself and your background. How many years have you been at this component office? What is your role at this component office? How long have you been in this role?

1. Tell me about your component office. Can you provide information regarding the size, mission, geographic location(s) of your component office, and the number of employees?

PART B: SOCIAL MEDIA USE

Web 2.0 and social media are umbrella terms used to define the various activities integrating web technology, social interaction, and user-generated content. Through social media, individuals or collaborations of individuals, create, organize, edit, comment on, combine, and share content. As a result, these new platforms support business processes that

both create and manage content. Web 2.0 and social media platforms can be used internally, externally, or both. In many instances these platforms are operated by nongovernmental third-party entities (NARA, 2010).

3. Does your component office make use of external (public-facing) social media technologies (such as Facebook, Twitter, or Youtube) to conduct component agency business? If so, what types of external (public-facing) social media applications do you use?
4. Does your component office make use of internal social media technologies (such as internal wikis or organizational blogs) to conduct component agency business? If so, what types of internal social media applications do you use?
5. Tell me, what part of the organization is typically involved in the process when deciding to utilize social media in your component office? Can you provide the name and contact information of an individual(s) involved in this process?
6. Tell me about the business purposes for using social media technologies in your component office? How is it used in support of the mission of your organization?
7. Explain the process for uploading information to a social media site. Who is involved in this process?
8. What do you believe is the primary value that social media technologies bring to your organization?

PART C: SOCIAL MEDIA MANAGEMENT AND PRESERVATION

9. Tell me, before deciding to use a social media platform, does your component office consider how records generated in the application will be scheduled, retained and preserved? If so, please explain this process.
10. Tell me what (if any) method does your component office use to capture and preserve records generated by social media applications?
11. Do you utilize a DOD 5015.2 (or functionally similar) records management application to manage your component office records? If yes, do you manage social media within your component agency's records management application?
12. Are you aware any existing policies in place that provide guidance on the management and preservation of social media records?

a. If yes, what types of policies address the retention and preservation of social media records (records management policy, social media policy, others)? Are you able to share these policies? Do your current policies treat social media content as records?

b. If no, are there plans to develop or update any of the component agency policies to specifically address the retention and preservation of social media records?

13. Overall, in your opinion, what are the greatest challenges involved with the capture and management of social media records?

Appendix G: Federal Legal and Regulatory Recordkeeping Requirements

Federal Records Act of 1950 (1976) and

Presidential and Federal Records Act Amendments of 2014 (2014)

Defines records and establishing records management by federal agencies

Federal Records Disposal Act of 1943 (2004)

Establishes the legal basis for the disposal of records of the United States Government

National Archives and Records Administration Act of 1984 (2000)

Divides the records management oversight between General Services Administration (GSA) and the National Archives and Records Administration (NARA).

Paperwork Reduction Act of 1980 (1995)

Establishes the legal basis for minimizing the cost of creation, collection, maintenance, use, dissemination, and disposition of information, the

Freedom of Information Act of 1966 (1996)

Defines the types of federal agency records that are subject to disclosure and also outlines specific disclosure procedures.

E-Government Act of 2002 (2002)

Establishes a framework for improving citizen access to Internet-based government information and services.

NARA Regulations (2009)

Provides policies that to federal agency to records management programs must comply with in order to ensure that records are records are created, maintained, and subject to disposition.

Appendix H: DOJ Privacy Policy

PRIVACY POLICY

Thank you for visiting the Department of Justice and reviewing our Privacy Policy. The Department of Justice is committed to protecting your privacy and securing the personal information made available to us when you access our websites. This Privacy Policy describes what information is made available to the Department of Justice when you visit the Department's websites, and describes how that information is used and stored.

[Information Collected and Stored Automatically](#)
[Personal Information That You Voluntarily Provide](#)
[Children and Privacy on Justice.gov](#)
[Website Measurement and Customization Technologies](#)
[Visiting Official Department of Justice Pages on Third-Party Websites](#)
[Email Subscriptions and Updates](#)
[Links to External Sites](#)
[Security](#)

INFORMATION COLLECTED AND STORED AUTOMATICALLY

If you access information on our websites, the following basic information is automatically collected and stored on Department of Justice servers:

- The name of the internet domain (for example, "xcompany.com" if you use a private Internet access account, or "yourschool.edu" if you are connecting from a university's domain);
- The Internet Protocol (IP) address (a number that is automatically assigned to your computer when you are using the Internet) from which you access our site;
- The type of browser and operating system used to access our site;
- The date and time you access our site;
- The internet address of the website from which you linked directly to our site; and
- The pages you visit and the information you request.

The Department of Justice does not use this information to track the browsing of individuals who access the site. This information is primarily collected for statistical analysis and technical improvements to the site. This government computer system uses software programs to create summary statistics, which may be used for such purposes as assessing what information is of most and least interest, determining technical design specifications, and identifying system performance or problem areas. In certain circumstances, however, we may take additional steps to identify you based on this information and we may share this information, including your identity, with other government agencies.

[Back to Top](#)

PERSONAL INFORMATION THAT YOU VOLUNTARILY PROVIDE

You do not have to provide any personal information to us to access information on our websites. If you choose to provide us with personal information, such as by sending a message to an e-mail address on this website or by filling out a form and submitting it through our website, we will use that information to respond to your message or to fulfill the stated purpose of the communication. If you submit your resume to us electronically, we will use your personal information to consider your application for employment. The Department of Justice does not collect or use information for commercial marketing.

We may share information you give us with contractors acting on our behalf or with another government agency if your inquiry relates to that agency. In some circumstances, we may be required by law to disclose information you submit or we may share this information with other agencies for law enforcement purposes or to protect the Department's websites from security threats. If you provide comments in response to a request for public comments, we may make those comments as well as your identity available to the public in a publication or by posting them on our website. Where possible we may give you more specific guidance at the point of collection regarding how your personal information may be used or disclosed.

Electronically submitted information is maintained and destroyed according to the principles of the Federal Records Act and the regulations and records schedules of the National Archives and Records Administration, and in some cases may be covered by the Privacy Act and subject to the Freedom of Information Act (FOIA). A discussion of the FOIA can be found at http://www.justice.gov/oip/foia_guide09.htm and a discussion about the Privacy Act can be found at <http://www.justice.gov/opcl/privacyact1974.htm>.

Remember that e-mail is not necessarily secure against interception. If your communication is sensitive or includes personal information you may prefer to send it by postal mail instead.

[Back to Top](#)

CHILDREN AND PRIVACY ON JUSTICE.GOV

We believe in the importance of protecting the privacy of children online and do not knowingly contact or collect personal information from children under 13. Our site is not intended to solicit information of any kind from children under 13.

[Back to Top](#)

WEBSITE MEASUREMENT AND CUSTOMIZATION TECHNOLOGIES (E.G. COOKIES)

Website measurement and customization technologies (commonly called “cookies”) are small bits of text that are downloaded to your internet browser when you visit a website. The Office of Management and Budget Memorandum [M-10-22, Guidance for Online Use of Web Measurement and Customization Technologies](#) defines conditions under which Federal agencies may use session and persistent cookies, and categorizes them in “tiers” to identify their characteristics. You may control permissions for cookies on this or any other website by adjusting your individual browser settings for customized privacy protection – see <http://www.usa.gov/optout-instructions.shtml> for helpful guidance. You can still use Department websites if you do not accept the cookies, but you may be unable to use certain cookie-dependent features.

Session cookies

Session cookies are not stored on your computer’s hard drive, and are removed when you complete your session or exit the site. Some Department websites use these “Tier 1” session cookies to provide streamlined navigation and statistical analysis. No personally identifying information is gathered.

Persistent cookies

Certain Department websites use “Tier 2” persistent cookies that remain on your computer’s hard drive after you complete an activity. For example, some Department websites use persistent cookies in association with a voluntary customer satisfaction survey conducted by a third party, [Foresee Results\[external link\]](#)TM. These surveys obtain feedback and data regarding visitors’ satisfaction with our websites, but they do not collect any personally identifying information. If you are randomly selected to participate in this survey, a persistent cookie is stored on your computer’s hard drive for 90 days to preclude a new invitation during that time. Some Department websites also use persistent cookies to enable a [Google Analytics\[external link\]](#) or [Webtrends\[external link\]](#) program to measure how new and returning visitors use our websites over time. These persistent cookies do not collect any personally identifying information, and the information that is collected is only used to improve our websites.

[Back to Top](#)

VISITING OFFICIAL DEPARTMENT OF JUSTICE PAGES ON THIRD-PARTY WEBSITES

The Department of Justice is pleased to participate in open, un-moderated forums offered by third-party websites in order to increase government transparency, promote public participation and encourage collaboration with the Department. We currently maintain official Department of Justice accounts on several third-party websites (e.g., [Facebook\[external link\]](#), [YouTube\[external link\]](#) and [Twitter\[external link\]](#)).

Your activity on third-party websites is governed by the security and privacy policies of the third-party sites. You may wish to review the privacy policies of the sites before using them in order to understand how the information you make available on those sites will be used. Please

note that the Department does not control, moderate or endorse the comments or opinions provided by visitors to these sites. In addition, the Department does not collect or maintain information posted there. Visit our [Contact Page](#) for information on how to send official correspondence to the Attorney General or the Department of Justice.

The Department's websites may also contain embedded content from third-party websites, such as [YouTube\[external link\]](#) videos uploaded by the Department. We provide this embedded content as a service to visitors to our site. When you click on embedded content, you are subject to the privacy and security policies of the third-party website that hosts the content.

[Back to Top](#)

EMAIL SUBSCRIPTIONS AND UPDATES

The Department of Justice maintains several lists of subscribers who have asked to receive periodic email updates. Any recipient of a Department of Justice email may unsubscribe from future messages via a link at the bottom of each email message. We do not sell, rent, exchange, or otherwise disclose our list subscribers to persons or organizations outside the Department of Justice.

Our email analytics provider, GovDelivery, also offers the capability to view some data, such as whether a mass email was opened, at an individual level for 30 days after an email was sent; as a matter of policy and practice this data is only viewed on an aggregate basis.

[Back to Top](#)

LINKS TO EXTERNAL SITES

The Department's websites may contain links to websites created and maintained by other public and/or private organizations. We provide these links as a service to visitors to our site. When you follow a link to an external site, you are leaving the Department of Justice and are subject to the privacy and security policies of the external site.

[Back to Top](#)

SECURITY

For site security purposes and to ensure that this service remains available to all users, this Government computer system employs software programs to monitor network traffic to identify unauthorized attempts to upload or change information, or otherwise cause damage. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals evidence of possible abuse or criminal activity, such evidence may be provided to appropriate law enforcement officials. Unauthorized attempts to upload or change information on

this server are strictly prohibited and may be punishable by law, including the Computer Fraud and Abuse Act of 1986 and the National Information Infrastructure Protection Act of 1996.

[Back to Top](#)

Appendix I: NARA Clause for Standard GSA Terms of Service Agreement

NARA developed the following general clause for use in the standard GSA [Terms of Service agreement](#):

The Agency acknowledges that use of contractor's site and services may require management of Federal records. Agency and user-generated content may meet the definition of Federal records as determined by the agency. If the contractor holds Federal records, the agency and the contractor must manage Federal records in accordance with all applicable records management laws and regulations, including but not limited to the Federal Records Act (44 U.S.C. chs. 21, 29, 31, 33), and regulations of the National Archives and Records Administration (NARA) at 36 CFR Chapter XII Subchapter B). Managing the records includes, but is not limited to, secure storage, retrievability, and proper disposition of all federal records including transfer of permanently valuable records to NARA in a format and manner acceptable to NARA at the time of transfer. The agency is responsible for ensuring that the contractor is compliant with applicable records management laws and regulations through the life and termination of the contract.

Appendix J: Coding Table

Data Source	Open code	Closed Code
Policy	Privacy Compliance and legal requirements Security Retention Disposition or preservation Temporary nature Permanent nature Non-record Value Business purpose Data rights and ownership	Privacy Security Compliance Retention Disposition (temporary vs. permanent) Data ownership
Website Review	Privacy policies Variability Interactivity Business purposes Organizational function Links Policies Varying functionality Outdated technologies Obsolence OPA vs. agency-managed Consistent appearance Use of third-party providers Third-party policies vs. DOJ policies	Privacy Variation Organizational functions Policy and compliance OPA vs. agency: comparison and contrast Third-party partnerships and policies
Interview	Value of internal social media: communication Value of internal social media: collaboration Value of external social media Real-time communication	Internal vs. external Collaboration Communication internally Communication with public Business and organizational purpose Interaction with public Policies and compliance

	<p>Critical information Public presence Information as public wants it Business purpose Organizational needs Specific technologies: SharePoint Specific technologies: Lync Specific technologies: wikis Compliance Interactivity Policy challenges Policy constraints One-way vs. collaborative Public interactivity Retention, creation, disposition issues Use of outside companies Barriers to use: third-party data ownership Barriers to use: collecting private information</p>	<p>Meeting public and organizational needs Real-time communication (internal and external) Lifecycle model Navigating relationships with third-party providers</p>
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References

- American Council for Technology & Industry Advisory Council (2011). Best practices study of social media records policies (Vol. 4800). Retrieved from [http://www.actgov.org/knowledgebank/whitepapers/Documents/Shared Interest Groups/Collaboration and Transformation SIG/Best Practices of Social Media Records Policies - CT SIG - 03-31-11 \(3\).pdf](http://www.actgov.org/knowledgebank/whitepapers/Documents/Shared Interest Groups/Collaboration and Transformation SIG/Best Practices of Social Media Records Policies - CT SIG - 03-31-11 (3).pdf).
- ARMA International (2005). Retention management for records and information, American National Standards Institute. ARMA International. Overland Park, KS.
- Arnold, T., & Sampson, W. (2014). Preserving the Voices of Revolution: Examining the Creation and Preservation of a Subject-Centered Collection of Tweets from the Eighteen Days in Egypt. *American Archivist*, Volume 77, Number 2 (Fall-Winter 2014).
- Atherton, J. (1985). From life cycle to continuum: Some thoughts on the records management – archives relationship. *Archivaria*, Vol. 21 (Winter 1985-86), pp. 43-51.
- Bailey, S. (2008). *Managing the crowd: Rethinking records management for the Web 2.0 world*, Facet Publishing, London, UK.
- Bailey, S. (2009). Forget electronic records management, it's automated records management that we desperately need. *Records Management Journal*, Vol. 19 No. 2, pp. 91-97.
- Barnes, N. D., & Barnes, F. R. (2009). Equipping your organization for the social networking game. *Information Management Journal*, (November/December 2009),
- Bastian, J. (2006), Reading colonial records through an archival lens: The provenance of place, space and creation. *Archival Science* (2006)
- Bernman, S., Nguyen, L., & Chrzan, J. (2009). Web 2.0: What's evidence between friends. *Boston Bar Journal*, Vol. 53 No.1, available at http://www.bostonbar.org/pub/bbj/bbj0102_09/bbj0102.pdf (accessed 12 July 2011).
- Bertot, J. C., Jaeger, P. T., & Hansen, D. (2012). The impact of polices on government social media usage: Issues, challenges, and recommendations. *Government Information Quarterly*, 29(1), 30–40. doi:10.1016/j.giq.2011.04.004.
- Christensen, C. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston: Harvard Business School Press.
- Coffey, A. and Atkinson, P. (1996). Making sense of qualitative data: Complementary research

- strategies. Thousand Oaks, CA: Sage.
- Cook, T. (2001a). Archival science and postmodernism: New formulations for old concepts. *Archival Science*, 1(1):3–24.
- Cook, T. (2001b). Fashionable nonsense or professional rebirth: Postmodernism and the practice of archives. *Archivaria*, (51): 14–35.
- Cook, T. and Schwartz, J.M. (2002). Archives, records, and power: From (postmodern) theory to (archival) performance. *Archival Science*, 2(3–4): 171–185.
- Cook, T. (2005). Management in theory and practice: Origins, characteristics, and implementation in Canada, 1950-2000. *Archival Science*, 5(2-4): 101-161.
- Cox, R. J. (2009). Digital Curation and the Citizen Archivist. *Digital Curation: Practice, Promises & Prospects*. pp. 102-109.
- Crabtree, B. and Miller, W. (Eds.) (1999). *Doing qualitative research* (2nd edition). London: Sage.
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Cuillier, D., & Piotrowski, S. J. (2009). Internet information-seeking and its relation to support for access to government records. *Government Information Quarterly*, 26(3), 441-449. Elsevier Inc. doi: 10.1016/j.giq.2009.03.001.
- Cunningham, R., & Wilkins, J. (2009). A walk in the cloud. *Information Management Journal*, (January/February 2009)
- Dearstyne, B. (2007). Blogs, mashups, and wikis, oh my! *Information Management Journal*, (July/August 2007) available at <http://www.arma.org/bookstore/files/Dearstyne6.pdf> (accessed 20 July 2011).
- Doran, C. (2012). Governing the social network: How U.S. federal department and component agency records management policies are addressing social media content. *45th Hawaii International Conference on System Sciences*. Conference Publishing Services.
- Duff, W. (1998). Harnessing the power of warrant. *American Archivist*. 61:1 (Spring 1998), p. 88–105.

- Duff, W. (1996). Ensuring the preservation of reliable evidence: A research project funded by the NHPRC. *Archivaria*, 42 (1996): 28-45
- Duff, W., Thomas, D., and Wallace, D. (1994). Proceedings of the working meeting on electronic records management. *Archives and Museum Informatics*, 8, no. 4 (1994): 301-353.
- Duranti, L. (2002). The concept of electronic record. In: Duranti L, Eastwood T, MacNeil H *Preservation of the integrity of electronic records*. Norwell, MA: Kluwer, pp.9-22.
- Duranti, L. (1989). Diplomatics: New uses for an old science. *Archivaria*, 28(Summer 1989), 267–269. doi:10.1086/630032
- Duranti, L. (1999). Concepts and principles for the management of electronic records, or records management theory is archival diplomatics. *Records Management Journal*, 9(3), pp. 149-171.
- Duranti, L. and MacNeil, H. (1996). “The Protection of the Integrity of Electronic Records: An Overview of the UBC-MAS Research Project,” *Archivaria*, Vol. 42 (Fall 1996): 64.
- Duranti, L., & Thibodeau, K. (2006). “The concept of record in interactive, experiential and dynamic environments: the view of InterPARES”, *Archival Science*, Volume 6 No.1, pp. 13-68.
- Federal CIO Council. (2009). Guidelines for secure use of social media by federal departments and agencies. Retrieved from <http://energy.gov/sites/prod/files/maprod/documents/SecureSocialMedia.pdf>.
- Franks, P. C. (2010). How federal agencies can effectively manage records created using new social media tools. Retrieved from [http://www.businessofgovernment.org/sites/default/files/How Federal Agencies Can Effectively Manage Records Created Using New Social Media Tools.pdf](http://www.businessofgovernment.org/sites/default/files/How_Federal_Agencies_Can_Effectively_Manage_Records_Created_Using_New_Social_Media_Tools.pdf).
- General Services Administration. (2009). GSA social media handbook. Retrieved from www.gsa.gov/graphics/staffoffices/socialmediahandbook.pdf.
- Government Accountability Office. (2011). Federal agencies need policies and procedures for managing and protecting information they access and disseminate. *Report to Congressional Requesters (GAO-11-605)*. Retrieved from www.gao.gov/new.items/d11605.pdf.

- Grimes, J. (2009). Government records and social software: An initial analysis of the federal government's use of social software and the role of government record keeping, College of Information Studies, University of Maryland. Unpublished paper.
- Hedstrom, M. (1997). Building record-keeping systems: Archivists are not alone on the wild frontier, *Archivaria* Vol. 44 (Fall 1997), pp. 44-71.
- Hedstrom, M. & Lee, C. (2002). Significant properties of digital objects: definitions, applications, implications (1) *Proceedings of the DLM-Forum 2002 Parallel session* .
- Hernon, P. (1994), "Information life cycle: Its place in the management of U.S. government information resources", *Government Information Quarterly*, Volume 11 No. 2, pp. 143-170.
- Hopman, H. (1998). Lost in cyberspace: Where is the record? In K. Abukhanfusa (Ed.), *The concept of record: report from the Second Stockholm conference on archival science and the concept of record, 30-31 May 1996* (pp. 115-130). Stockholm: Swedish National Archives.
- Hörnfeldt, T. (1998). The concept of record: On being digital. In K. Abukhanfusa (Ed.), *The concept of record: report from the Second Stockholm conference on archival science and the concept of record, 30-31 May 1996* (pp. 67-75). Stockholm: Swedish National Archives.
- International Standards Organization. (2001), "ISO 15489-1: Information and documentation – records management", Geneva, CH.
- Jaeger, P. T., Bertot, J. C., & Shilton, K. (2012). Web 2.0 technologies and democratic governance. (C. G. Reddick & S. K. Aikins, Eds.), 11–26. doi:10.1007/978-1-4614-1448-3.
- Jorgensen, D. (1989). *Participant observation: A methodology for human studies*. London: Sage.
- Kvale, S. and Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research*. Thousand Oaks, CA: Sage.
- Lemieux, V. (2001) Let the Ghosts Speak: An Empirical Exploration of the "Nature" of the Record. *Archivaria*, No. 51, pp. 81-111.
- Leedy, P. and Ormrod, J. (2001). *Practical research: Planning and design*. 7th ed. Upper Saddle River: Merrill Prentice Hall.
- Maxwell, J. (2004). *Qualitative research design: an interactive approach*. Thousand Oaks, CA: Sage Publications.

- Maxwell, J. (2012). *Qualitative research design: An interactive approach, 3rd ed.* Thousand Oaks, CA: Sage.
- McClure, D. (2010). Statement of Dr. David McClure Associate Administrator for Citizen Services and Information Technologies, U.S. General Services Administration. Retrieved from www.gsa.gov/portal/content/158009.
- McCown, F., & Nelson, M. L. (2009), “What happens when Facebook is gone?”, Proceedings of the 9th ACM/IEEE-CS joint conference on Digital libraries, ACM Press, New York, NY, pp. 251-254.
- McKemmish, S. (1997). Yesterday, Today and Tomorrow: A Continuum of Responsibility, Proceedings of the Records Management Association of Australia 14th National Convention, 15-17 Sept 1997, RMAA Perth 1997.
- McKemmish, S. (2001). Placing records continuum theory and practice. *Archival Science*, 1(4), 333–359. doi:10.1007/BF02438901
- McKemmish, S. and Piggott. M. (1994). The Records Continuum: Ian Maclean and Australian Archives First Fifty Years, Ancora Press in association with Australian Archives
- Mergel, I. (2009). The use of social media to dissolve knowledge silos in government. *Deliberative Democracy and Public Participation*, (Simon 1982), 177–183.
- Mergel, I. (2013a). Social media adoption and resulting tactics in the U.S. federal government. *Government Information Quarterly*, Volume 30, Issue 2, April 2013, Pages 123-130.
- Mergel, I. (2013b). A framework for interpreting social media interactions in the public sector *Government Information Quarterly*, Volume 30, Issue 4, October 2013, Pages 327-334.
- Murray, K. and Hsieh, I. (2008). Archiving Web-published materials: A needs assessment of librarians, researchers, and content providers Kathleen R. *, Inga K. Hsieh University of North Texas Libraries, USA Available online 27 June 2007
- National Archives and Archives Administration. (2000), “Disposition of Federal Records: A Records Management Handbook”, available at <http://www.archives.gov/records-mgmt/publications/disposition-of-federal-records/chapter-1.html> (accessed 14 July 2011).
- National Archives and Archives Administration. (2010), “A report on federal web 2.0 use and record value”, available at www.archives.gov/records-mgmt/resources/web2.0-use.pdf (accessed 14 July 2011).

- National Archives and Archives Administration. (2012a). An assessment of records management programs in the federal government. Retrieved from <http://www.archives.gov/records-mgmt/resources/self-assessment.html>.
- National Archives and Archives Administration. (2012b). Managing government records directive. Retrieved from <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf>.
- National Archives and Archives Administration..(2013). White Paper on Best Practices for the Capture of Social Media Records. Retrieved from <http://www.archives.gov/records-mgmt/resources/socialmediacapture.pdf>
- National Archives and Records Administration. (2014). *NARA Bulletin*. Guidance on Managing Social Media Records. Retrieved from <http://www.archives.gov/records-mgmt/bulletins/2014/2014-02.html>
- Night, G. (2008). Framework for the definition of significant properties. Retrieved from <http://www.significantproperties.org.uk/documents/wp33-propertiesreport-v1.pdf>
- Obama, B. (2011). Presidential memorandum - Managing government records. Retrieved from <http://www.whitehouse.gov/the-press-office/2011/11/28/presidential-memorandum-managing-government-records>.
- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Perritt Jr, H. (1992). Electronic records management and archives. *University of Pittsburgh Law Review*, 53(964), 963-1024.
- Pemberton, M. J., (1998) Records management: confronting our professional issues. *Records Management Journal*, V8(3), 1998, p. 9.
- Plocher, D. (1999). The digital age: Challenges for records management. *Government Information Quarterly*, 16(1), 63-69. doi: 10.1016/S0740-624X(99)80016-1.
- Rawlings-Milton, M. (2000). Electronic Records and the Law: Causing the federal records program to implode?. *Dissertation*. Virginia Polytechnic Institute and State University.
- Robek, M., Brown, G. & Stevens, D., (1996). *Information and Records Management: Document-Based Information Systems*.

- Salaheldeen, H. M., & Nelson, M. L. (2009). Losing My Revolution: How Many Resources Shared on Social Media Have Been Lost?, (June 2009), 1–12
- Schesser, S. (2006), “MySpace on the record: The admissibility of social website content under the federal rules of evidence”, *First Monday*, Vol. 11 No. 12, available at <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1419/1337> (accessed 20 July 2011).
- Schellenberg, Theodore R. (1956), *Modern Archives: Principles and Techniques* (Chicago: University of Chicago Press)
- Snead, J. (2013). Social media use in the U.S. Executive branch. *Government Information Quarterly*, Volume 30, Issue 1, January 2013, Pages 56-63.
- Sprehe, J. (1992). The significance of admissibility of electronically filed federal records as evidence. *Government Information Quarterly*, 9(2), 153-154. doi: 10.1016/0740-624X(92)90048-Q.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications, Inc.
- Stuart, K., & Bromage, D. (2010), “Current state of play: records management and the cloud”, *Records Management Journal*, Vol. 20 No. 2, pp. 217-225.
- Sullivan, C. O. (2005). Diaries, On-line Diaries, and the Future Loss to Archives; or, Blogs and the Blogging Bloggers Who Blog Them, 8, 53–73.
- Sunstein, C. R. (2010). Social media, web-based interactive technologies, and the Paperwork Reduction Act. Retrieved from http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/SocialMediaGuidance_04072010.pdf.
- Tourangeau, R. Rips, L. and Rasinski, K. (2000). *The psychology of survey response*. New York, NY: Cambridge University Press.
- Upward, F. (1996). Structuring the Records Continuum - Part One: Postcustodial Principles and Properties, *Archives and Manuscripts*, vol. 24, no. 2, 1996, pp. 268-285
- Upward, F. (1997). Structuring the Records Continuum, Part Two: Structuration Theory and Recordkeeping, *Archives and Manuscripts*, vol. 25, no. 1, May 1997, pp. 10-35

- Van Wingen, R. (1999). Principles for information technology investment in U.S. federal electronic records management. *Journal of Government Information*, 26(1), 33-42. doi: 10.1016/S1352-0237(98)00086-0.
- Walters, T. O. (1995). Rediscovering the Theoretical Base of Records Management and Its Implications for Graduate Education Searching for the New School of Information Studies. *Journal of Education for Library and Information Science*, 36(2), 139–154.
- Wigand, F. D. (2010). Twitter takes wing in government : Diffusion, roles, and management. *Proceedings of the 11th Annual International Conference on Digital Government Research*, 66–71.
- Wilson, A. (2008). Significant Properties of Digital Objects, National Archives of Australia, p. 15
- Wilson, J. S. (2008). “MySpace, your space, or our space? New frontiers in electronic evidence”, *Oregon Law Review*, Vol. 86 No. 4, pp. 1201-1240.
- Yeo, G. (2007). Concepts of record (1): evidence, information, and persistent representations. *American Archivist* 70:315-43
- Yeo, G. (2008). Concepts of record (2): prototypes and boundary objects. *American Archivist* 71: 118-143.
- Yeo, G. (2010). Nothing is the same as something else: Significant properties and notions of identity and originality. *Archival Science* 10(2), 85-116.
- Yusof, Z. M., & Chell, R. W. (2002). Towards a theoretical construct for records management. *Records Management Journal*, 12(2), 55–64. doi:10.1108/09565690210442926
- Yusof, Z., & Chell, R. (1998). The eluding definitions of records and records management: is a universally acceptable definition possible? Part 1: Defining the record, *Records Management Journal*, Vol 8 No. 2, pp. 95-112.
- Yusof, Z., & Chell, R. (2000). The records life cycle: an inadequate concept for technology-generated records, *Records Management Journal*, Vol. 16 No. 3, pp. 135-141.

