



A REPORT ON FEDERAL WEB 2.0 USE AND RECORD VALUE

2010

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Table of Contents

1.0 Executive Summary	3
2.0 Purpose	4
3.0 Background	4
4.0 Definitions	5
5.0 Methodology	6
6.0 Findings	9
6.1 Social Media Policies and Guidance	9
6.2 Uses of Web 2.0	10
6.3 Recurrent Themes and Analysis	14
7.0 Recommendations	19
8.0 Conclusion	20
Appendix A—Interview Questions	21
Appendix B—Tools Discussed in Agency Specific Interviews	22
Appendix C—Jam Session Discussion Questions	24
Appendix D—Selected Resources	25
Appendix E—Social Media Tools and Sites Reviewed	28

1.0 Executive Summary

In Fiscal Year 2010, the National Archives and Records Administration (NARA) undertook a study to observe how agencies are using web 2.0 tools to conduct business and identify characteristics that may affect the value of information created and shared in web 2.0 formats. A NARA team interviewed six Federal agencies that are using web 2.0 tools to conduct mission-related business and have policies or procedures for implementing and using tools. Representatives from an additional nineteen Federal agencies volunteered to attend a focus group jam session to provide a broader understanding of Federal web 2.0 uses.

From a records value perspective, web 2.0 content is best analyzed based on the function and use of the information, not solely by the platform or tool. The study describes the tools based on their major functions and use, such as public outreach and engagement, internal and interagency collaboration, and social networking. The following specific characteristics were identified as affecting the record value of the information:

- Extensive duplication of information
- Ability to record increasing aspects of process
- Syndication of content to reach new audiences
- Added structure and context
- Overall perceptions of the authoritativeness and longevity of content

The study concludes that based upon function and use, records created should continue to be assessed based upon business, evidential, informational, and contextual values. The concepts of temporary and permanent value have not changed. Additionally, some management issues became readily apparent and are noted.

The web landscape is evolving so rapidly that if we neglect to address these issues, we risk losing the truly valuable materials created by the Federal government. NARA and Federal agencies should be proactive in working together to understand these complexities and develop solutions. The study makes the following recommendations:

- Clarify how the Federal Records Act definition of a record applies to web 2.0 information
- Mitigate public expectations of content longevity
- Create a new General Records Schedule (GRS) item to provide dispositions for records created through clearly temporary uses of web 2.0 tools
- Address transfer requirements for permanent web 2.0 records
- Re-evaluate media neutrality as it applies to web records
- Develop partnerships to identify best practices for capture and management of social media records
- Integrate records management into agency social media policy

2.0 Purpose

The intent of this study was to gather information on how Federal agencies are using web 2.0 tools (blogs, wikis, social networking, and other collaborative web-based technologies) to create and share information. The study identifies characteristics of the information that is found in web 2.0 formats and how those characteristics affect the value of the information. It also provides a basis for determining whether Federal records created using web 2.0 tools should be retained for a temporary period of time or are permanent and ultimately transferred to the National Archives.

This study does not describe or dictate how to schedule or manage web 2.0 records. It does not focus on specific technological issues, identify permanent web 2.0 records, or assess any specific NARA or agency policy or guidance. This study does note key management issues that participating agencies addressed through the course of the study.

3.0 Background

The Federal Records Act defines a Federal record without respect to format (44 U.S.C. 3301).

This definition applies to all Federal records, including any information created and maintained using web 2.0 technologies which fit the criteria identified in the definition. The E-Government Act of 2002 (Public Law 107-347) places a number of requirements relating to web use on the Office of Management and Budget, NARA, and other Federal agencies. In the E-Government Act of 2002, Federal agencies are required to increase their use of websites and other electronic means to conduct agency business and provide agency information to the public while still respecting privacy, security, management and accessibility principles.

As part of its responsibilities, NARA provided guidance and required that agencies propose records retention schedules and plan for managing their electronic records within specific time frames. In early 2005, NARA published its *Guidance on Managing Web Records*, a document that explored some of the applications that characterized the emerging web and their impact on records management.¹ NARA then released *Implications of Recent Web Technologies for NARA Web*

Definition of a Federal Record:

Records includes all books, papers, maps, photographs, **machine readable materials**, or other documentary materials, **regardless of physical form or characteristics**, made or received by an agency of the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of data in them.

44 U.S.C. 3301 (emphasis added)

¹ <http://www.archives.gov/records-mgmt/policy/managing-web-records-index.html>

*Guidance.*² These resources provide guidance to agencies in carrying out their records management responsibilities, but they do not address the value of the information being created with web 2.0 technologies.

4.0 Definitions

Types of Technology

Web 2.0 and social media are umbrella terms used to define the various activities integrating web technology, social interaction, and content creation. Through social media, individuals or collaborations of individuals create, organize, edit, comment on, combine, and share content online. Social media and web 2.0 use many technologies and take many forms, including RSS and other syndicated web feeds, blogs, wikis, photo sharing, video sharing, podcasts, social networking, social bookmarking, mashups, widgets, virtual worlds, microblogs, and more.

A key commonality between these technologies is their interactive nature. Content owners post or add content, but the audience also has the ability to contribute content. Social media platforms can be grouped into broad categories, though some tools may fit into more than one specific category depending on how they are being used.

Web Publishing: Web sites that allow users to post or publish content to reach a large audience and gain feedback. Examples of these tools include the following:

- Microblogging (Twitter, Plurk)
- Blogs (WordPress, Blogger)
- Wikis (Wikispaces, PBWiki)
- Mashups (Google Maps, popurls)

Social Networking: Web sites that allow users to establish connections and share information with one another. A social network service essentially consists of a representation of each user (often a profile), the user's social links, and a variety of additional services. Common social networking platforms include the following:

- Social Networking tools (Facebook, LinkedIn)
- Social Bookmarks (Delicious, Digg)
- Virtual Worlds (Second Life, OpenSim)
- Crowdsourcing/Social Voting (IdeaScale, Chaordix)

² <http://www.archives.gov/records-mgmt/initiatives/web-tech.html>

File Sharing and Storage: A file hosting service or online file storage provider specifically designed to host content. Common file sharing/storage platforms include the following:

- Photo Libraries (Flickr, Picasa)
- Video Sharing (YouTube, Vimeo)
- Storage (Google Docs, Drop.io)
- Content Management (SharePoint, Drupal)

Types of Value

The value of a record relates to its “usefulness, significance, or worth . . . to an individual or organization.”³ Records determined through an appraisal evaluation to have historical or permanent value are ultimately transferred to the National Archives. Those that do not have historical value must still be assessed for their temporary value to determine how long they must be maintained by an agency. There are several specific types of values that are traditionally considered when assessing the overall value of records for agency use and historical purposes:

Business value: The record’s role in the business process and its usefulness to the agency’s mission, tasks, and compliance with statutory and other requirements.

Evidential value: The characteristics of a record that provides information about the origins, functions, and activities of its creator. Evidential value relates to the process of creating information rather than the actual informational content.

Informational value: The long-term usefulness or significance of the record based solely on the information content. We will use this term to indicate value of the web 2.0 content regardless of how the information is presented.

In addition to these traditional criteria, in determining long-term value the web study addresses the contextual value of web 2.0 materials. For the purposes of this study contextual value will be defined as follows:

Contextual value: The long-term value of the essential properties of the tool such as functionality, layout, and metadata that adds to the informational content. The record has value that could be lost by changing it or removing some of its properties, such as its appearance and format.

³ http://www.archivists.org/glossary/term_details.asp?DefinitionKey=63

5.0 Methodology

Initial Interviews

One of the primary goals of this study was to identify how agencies are using web 2.0 tools. We solicited participation from agencies that use web 2.0 tools, have policies or procedures for implementing and using the tools, and whose web 2.0 use reflects unique and innovative ways of conducting agency business.

The following agencies participated in the study:

Department of State
Environmental Protection Agency (EPA)
Joint Staff (JS)
National Aeronautics and Space Administration (NASA)
United States Army
United States Geological Survey (USGS)

The study team gathered information about overall web 2.0 activity within each agency during introductory meetings. We issued an initial survey to records managers and social media staff in which we requested information about major tools being used by the agency and the agency's social media use and management policies.

Agency-Specific Interviews

The main portion of the study consisted of agency-specific interviews with each agency using a set of questions designed to reveal how tools are used to support agency functions. The questions addressed major topics in an open-ended fashion and included follow-up questions relating to each specific tool's context and purpose. The interviews focused on tools identified through the initial survey and through research of publicly accessible tools, with an attempt to cover a broad range of tools. The agency-specific interviews were conducted via telephone or in-person, and they included at least two members of the study team as well as web and records management staff at the participating agency with responsibilities in social media and records management. Each participant received the list of questions (see Appendix A) in advance. Appendix B includes descriptions of the major tools we discussed during our interviews.

The study focused on the following tools during the Agency-Specific Interviews. See Appendix B for detailed descriptions of the tools.

Department of State

Diplopedia
Communities@State
ExchangesConnect

EPA

Greenversations
Discussion Forums

JS

APAN
Intelink
Jabber

NASA

SpaceBook
NASA Twitter

Army

MilSuite

USGS

Twitter Earthquake Detector

Focus Group Jam Session

After conducting interviews with the six participating agencies, NARA held a half-day focus group jam session to gather additional qualitative information about Federal web 2.0 uses and to substantiate trends identified in the original interviews. Representatives from an additional nineteen Federal agencies volunteered to attend the jam session. Team members asked six questions (see Appendix C), which were a subset of the agency-specific interview questions, and moderated the discussion.

Agencies that participated in the jam session:

Library of Congress (LOC)
General Services Administration (GSA)
Energy Information Administration (EIA)
National Highway Transportation Safety Administration (NHTSA)
National Archives and Records Administration (NARA)
Department of Homeland Security (DHS)
Office of Personnel Management (OPM)
Department of Health and Human Services (HHS)
Federal Communications Commission (FCC)
National Labor Relations Board (NLRB)
Internal Revenue Service (IRS)
Office of the Secretary of Defense (OSD)
Department of Justice (DOJ)
Office of Management and Budget (OMB)
Securities and Exchange Commission (SEC)
Pipeline Hazardous Material Safety Administration (PHMSA)
Small Business Administration (SBA)
Department of the Treasury
Government Accountability Office (GAO)

6.0 Findings

6.1 Social Media Policies and Guidance

Many agencies have established policies and guidance related to social media use and records management. The following examples illustrate how three agencies have provided guidance to staff regarding records management in addition to policies on the use of web 2.0 tools:

- The Department of Defense recently released a memorandum for all Department staff with guidance on appropriate uses of web 2.0 tools. In addition to providing guidance on appropriately representing the Department in a public sphere, the guidance indicates that “all users of these Internet-based capabilities must be aware of the potential record value of their content, including content that may originate outside the agency.”⁴
- EPA has an “Interim Guidance for EPA Employees who are Representing EPA Online Using Social Media” that counsels employees that “agency records created or received using social media tools must be printed to paper and managed according to the applicable records schedule in a recordkeeping system.” Users are then provided with links to the EPA’s Records Management program, which explains EPA employees’ recordkeeping obligations.
- Department of State’s policy, “Using Social Media,” includes a section devoted to records management. In this policy, the agency designates the site sponsor as the responsible recordkeeper and requires that records, whether they are content records or site management records, either be maintained with related records or managed through an acceptable records management application. Users are referred to the records management staff for scheduling responsibilities.⁵

Approximately half of the jam session participants said that their agencies had some type of social media policy in place. However, many existing social media policies focus chiefly on use and do not address records management.

Many agencies are still in the process of constructing social media guidance and policy. The Army and NASA have policies in a draft phase, and the USGS is operating under an interim policy until the Department of the Interior releases a Department-wide policy. Half of the jam session participants reported that their agency didn’t have a social media policy.

⁴ <http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-026.pdf>

⁵ <http://www.state.gov/documents/organization/144186.pdf>

6.2 Uses of Web 2.0

This section is organized by topic areas covered in the survey and summarizes the responses from the interviews and jam session. The study team did not attempt to further validate the information beyond what was provided during the interviews and jam session.

The agencies we interviewed use web 2.0 tools to support a variety of programs. Agencies use web 2.0 tools in a variety of formats and iterations. The nature of the technology invites innovative uses for most tools. Most government uses of social media can be categorized by the way the tool is being used and its functional role in the agency.

The Department of State uses web 2.0 tools to engage the public in several ways:

Text messaging campaigns in Africa in areas where computers are not as readily available to chronicle events during a recent Presidential visit



Annual Democracy Video Challenge using YouTube



The Bureau of International Information Programs uses various platforms to encourage discussions on the role and nature of democracy throughout the world

We identified four primary ways in which agencies are using social media tools to support their missions:

1. Public Outreach and Engagement

Many agencies interviewed use social media to expand their public presence and reach a wider audience. They have established accounts on public social networking and microblogging sites such as Facebook, Twitter, and YouTube in order to leverage opportunities for greater outreach to the large populations of site users. Many have a centralized Facebook page to provide general information about the agency such as the agency mission, organization, agency-sponsored events, or publicity announcements. A few of the agencies do not have a Facebook page for the agency as a whole, but they do have pages focused on individual units, offices, departments, or office heads. Some agencies have no Facebook presence.

Blogs, podcasts, and other tools are similarly used to reach the wider public. The IRS, which does not currently have a Facebook page, uses podcasts to distribute tax information. USGS employs an array of

social media tools including sixteen Twitter feeds, a wide variety of RSS feeds, and seven podcast channels to share general agency, geographic, and scientific information.

Public outreach uses include interactive posting of content which generate responses and comments. In some cases, the posting is intended to be a news release, but the technology enables users to comment. The responses and comments to these types of postings may not be

used or collected within the agency. One participant characterized postings in this manner as similar to making an announcement in a town square or other public forum without directly inviting feedback.

Agencies may encourage public discussion through postings that include questions, media clips, or statements intended to spur discussion. Although the agency initiates and encourages discussion they may not collect or use public comments or interaction. For example, the Department of State's Bureau of International Information Programs uses various platforms to encourage discussions on the role and nature of democracy throughout the world. The purpose of the postings is to promote public discussion. Generally, these types of discussions do not directly affect the actions of an agency.

Agencies also use technology to engage citizens in public discourse about topics related to the agency's mission or to involve citizens in the activities of the agency. Several agencies use IdeaScale to solicit feedback on proposed policy changes, website redesigns, projects, and initiatives on a broad scale. EPA uses discussion forum blogs to propose questions about environmental issues and practices and to allow the public to submit suggestions and ideas for possible solutions. Each blog post includes a defined question and responses are submitted as comments, which may potentially be incorporated into EPA policies and practices.

Agencies do use web 2.0 tools to directly encourage public engagement. Participants submit short videos about what democracy means to them, and winners are selected using a combination of staff evaluation and public rankings. The Library of Congress uses the photo sharing site Flickr to leverage public interest and knowledge to improve the Library's descriptive materials about the photographs in its collection. The Library posts photos on Flickr and encourages the public to add tags and comments to help identify the photos and add descriptive information. The Library leverages the knowledge of the collective public and adds those contributions to its collections.

Study participants also use social media tools for recruitment as another arena for outreach and engagement to reach the public where they are. The Department of Energy has established an island in Second Life with the purpose of reaching out to more potential employees through that virtual world. The IRS and GAO are currently using Facebook to recruit and answer questions concerning agency employment opportunities and application processes. The Go Army website includes interactive tools to portray a soldier's life and explain procedures for joining. There are also Go Army Facebook and MySpace pages, Twitter accounts, blogs, and discussion forums aimed at recruitment.

2. Internal Collaboration and Information Sharing

Participating agencies use web 2.0 technology to coordinate and collaborate on internal agency work products or to facilitate internal business processes. Internal collaboration includes disseminating information to employees about policies, procedures, or practices, as well as actual collaborative creation of a product. The Department of State uses a wiki application, Diplopedia, to share general knowledge about procedures and posts. Agency staff are highly mobile, and there is a need for knowledge about procedures or tips relevant to a specific post to be centrally available and shared.

Social voting, crowd sourcing, wikis, and other platforms may be used for internal collaboration purposes. There are wikis used internally for law enforcement collaboration, which may include local communities that allow agents to collaborate on a local level. Some agencies are using interactive meeting tools to allow chats and messaging to facilitate meetings. The National Labor Relations Board has a wiki that allows collaboration among different offices within the agency to help respond to questions that have been received from the public. Some offices within JS use blogs to provide a place for staff members to report the status of projects to both their superiors and the rest of the office. This JS process allows more open communication between staff members and allows supervisors to have a more immediate method of feedback about staff activities. Participating agencies also use SharePoint as a method of allowing collaborative creation and editing of documents.

Often a single tool is used for both internal information sharing and collaboration. For example, Department of State uses Communities@State to create communities for sharing information. There are three major areas around which communities are established: professional interests, bureaus/posts, and topics. The purpose and function of each community varies widely. Some post communities allow employees to collaborate in providing general how-to information for a specific post or area, while others may just provide an area for post employees to form social connections on a topic of interest. At least one community recreates a newsletter publishing function within the community social media setting.

JS has a tool to allow internal chat rooms at various levels of their organization. This tool includes a watch center function to keep officials informed about world events. Chat rooms serve

The Army uses a suite of tools known as MilSuite to support collaboration and social networking in the larger military community.

Components of MilSuite:

MilBlog—an internal news publishing tool



MilWiki— an internal wiki with articles covering a range of topics and functions



MilBook—provides connections among users

as news tickers with updates and articles of potential interest. When incidents occur, a chat can be opened to provide updates to decision makers on information as it occurs.

Wikis often give agencies the ability to both disseminate information and initiate collaboration. The Army's MilWiki is a standard internal wiki with articles covering a range of topics. However, the Department is considering moving field manuals (ATTPs) onto the wiki format. Other wiki articles involve general institutional knowledge or may be specific to individual organizations, units, or groups. The wiki is set up with internal portals to organize categories of articles and information.

Internal collaboration tools may be similar to various social networking software, but with multiple customizable tools within. For example, NASA's Spacebook is an internal agency-wide tool similar to Facebook with the ability to customize views, allow for direct interaction with individuals, establish groups, communicate through microblogging, and more. The content as presented can change based upon the needs of individual users.

3. Interagency and External Collaboration

Many agencies host social media platforms to provide a space for interagency collaboration. The MAX Federal Community is a wiki environment managed by OMB. Within the MAX Federal Community, agencies can interact in multi-agency collaboration, with each agency contributing its own content to meet its own purpose.

Other tools already discussed may also have a multiple agency aspect. The Intelink network is a space where contributing agencies have the ability to share content. Communities@State are available to additional agencies through the Intelink network. The MilSuite of wikis, blogs, and other social networking tools are available to a larger military community for whom additional use data was not explored in the study.

4. Social Networking

Social networks are sites that make it easy for users to establish networks of contacts. They allow users to find people they know among the members of the network or look for other members with similar interests or affiliations.⁶ Some agencies have developed social networking tools to facilitate communication and interaction between their employees or other constituents. For example, NASA's Spacebook, discussed above as a tool for collaboration and information sharing, also serves as a social network for employees. The Department of State uses a site called ExchangesConnect, which is both internal and external networking, to provide a platform for members to connect and share information.

⁶ "Social Networking and Government," http://www.usa.gov/webcontent/technology/social_networks.shtml

6.3 Recurrent Themes and Analysis

Factors Affecting Value

Duplication

Participating agencies stated that as they use different tools to reach more audiences, they often repurpose the same content. Many agencies only put information on web 2.0 tools for the public that are also found on their official websites. As a result, much of the information found in social media tools is duplicative and considered to be non-record material. For example, many times agency blog posts are often referenced in agency microblogs, and information from either of these sources is syndicated by public users.

Since much of the information in social media is duplicative, there is also confusion about which version serves as the official source of information. Participating agencies generally agreed that most information available to the public in web 2.0 tools were not considered official communication. They indicated that many tools, both internal and external, have disclaimers that indicate content is not policy or an official source. Instead, public tools often refer users back to the agency website as the official source. For example, the Department of Justice Facebook and YouTube pages state “If you are looking for the official source of information about the Department of Justice, please visit justice.gov.”⁷

Social Media: Record or Non-record?

Some agencies reported that they have trouble determining what social media is record material. The value of social media content is affected by the pervasive duplication of content among multiple tools. This is one reason participating agencies may currently consider much of the information disseminated through social media tools to be non-record material.

Despite these public outreach issues, internally participating agencies do realize that web 2.0 applications can be used to reduce duplication and streamline the flow of information to employees. MilSuite was created to make staff aware of what already exists so that needless duplication of work would not occur. The Department of State streamlines information in Diplopedia, which allows for the addition of instructional and supplemental information that accompanies official sources and dissemination of information to all employees.

⁷ Facebook <http://www.facebook.com/DOJ#!/DOJ?v=wall>, YouTube <http://www.YouTube.com/TheJusticeDepartment>

More Information is Recorded

Discussions that previously occurred over the phone or in person are now documented because of the use of chat or similar tools. More interactions and decisions are documented—whether purposefully or accidentally—and therefore more potential record material is created. The Department of State and the Army both use social media to create a repository of centrally stored institutional knowledge, where previously the knowledge would have been shared orally, if at all. One jam session participant characterized this issue as web 2.0 documenting a virtual water cooler.

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Additionally, these tools add to the metadata being captured and can potentially add to the contextual value of the information. The social networking platforms studied provide additional data in the form of individual profiles, connections, privileges, and use history. Many tools allow users to track how edits are made to a document and how the information is circulated. More information is available, and this increase in available information necessitates further consideration about the value, management, and disposition of these records.

Reaching New Audiences

Even though the information in social media is found on other official sources, web 2.0 platforms offer agencies the chance to reach audiences that they wouldn't otherwise be able to access. One agency described their web 2.0 tools as giving them the ability to syndicate content into new venues where the agency wasn't taking it before, making the tools a multiplier of resources. Through sharing and reposting by the public, more audiences can be reached with fewer resources needed on the part of the agency.

Social media tools also give agencies the ability to reach and interact with specific populations. The NLRB reported that groups on either side of labor relations issues often use different tools to communicate. By expanding the NLRB web presence to a variety of tools, they are better able to obtain perspectives from both sides.

Agencies are using web 2.0 tools to replace or enhance existing business processes. These tools may add value to the process by including more people and ideas. Federal agencies have obligations to report certain projects, initiatives, and policies to the *Federal Register* so the public can comment on the agencies' work; now, social media technology makes it easier for a greater number of people to participate in the regulatory work of government. At least one agency is using IdeaScale to supplement public comment processes. Additionally, EPA program offices establish Discussion Forums for specific projects where members of the public can provide input on the project. Some ideas generated in this process are used in a final report or

policy. The EPA also uses the *Federal Register* process, but the Forums offer a more immediate mechanism to gauge public response.

Internally, the Department of State began an online suggestion forum, The Sounding Board, which allows employees to make suggestions on administrative issues. Suggestions are given status symbols showing whether the suggestion has been implemented or what is happening with the suggestion. Previous suggestion programs did not have the level of transparency or ease of access that the current tool offers.

Contextual Value

Although much of the public content in web 2.0 tools is considered duplicative, the functionality of these tools may enhance the value of content to the agency. Many web 2.0 tools give users the opportunity to view information in new or alternative ways, which may change the original context of the information. For example, one of the advantages of using social media is the ability to customize the look and feel of the interface. Consequently, the look and feel of the information created and disseminated therein is not static. Widgets may provide a customizable view of the information tailored to the individual and mashups can combine information in new ways. Also, the Department of Energy's recruiting island on Second Life adds an interactive element to the presentation of recruitment information. Agencies need to consider whether these new ways of presenting information add to the value of the information as presented in the tools.

Contextual Content:

Enhanced processes, functionality, added metadata and other features may add contextual content to the record. This additional content may enhance the value of the record.

The connecting of information also provides another source of value in web 2.0 records. When the Library of Congress solicits public comments and tagging of their images within an open, searchable database like Flickr, the value of the original content changes because there is additional context. Agency blog posts often link to other news releases, web sites, commentaries, and sources, giving the information a context and structure beyond the actual words in the blog post.

The content of a wiki without the software to run it would still be useful, but without metadata like change history, additional value may be lost. NASA commented that Twitter feeds without the Twitter interface would likely read just the same as feeds within Twitter; as long as the content and essential properties are preserved, the value is retained.

Public Perceptions of Longevity

Many participating agencies expressed concerns about the public's perceptions and expectations of the longevity of web 2.0 content. One agency explained that the culture of the web engenders an expectation that content in its entirety should be available forever. Since the information posted in web 2.0 tools is highly visible, agencies fear that removal of the information would be interpreted as avoiding openness and accountability without providing justification for their actions in the eyes of the public. Another agency confirmed that even if there is no business need to retain the information once it's released, removal of the information could present an appearance of trying to hide something. One agency retains all comments received on social media to protect its reputation, even if the comments are of no business use. Because of these fears, agencies feel it is hard to justify a concrete reason to delete the information.

General Perceptions of Authoritative Communication

Agencies are concerned that the public may view communication from the agency on social media sites to be official, when the agency itself may not consider this an authoritative source. Agencies combat public confusion by providing links on social media sites back to their .gov websites for the authoritative information or by placing disclaimers on the social media site. There seemed to be a general consensus among participants that versions within web 2.0 were not currently considered the official copy.

Participating agencies recognized that public perceptions may shape both what material is considered official and the retention of the records.

Participating agencies also recognized that public perceptions may shape what is considered official. When the interactive version of the information is the most commonly used and referenced, it may function as a more authoritative source for information than initially conceived or presented. Users may consider the readily available version of the information to be the most official source.

There is also a great deal of confusion about what is and is not considered a record. One interviewee stated that the concept of a record is applied too broadly because not everything in social media is considered an official action, while other participants simply weren't sure what material being captured in a tool truly qualifies as a record.

Issues Relating to Records Management

During the course of the study, several major issues became apparent that do not directly relate to the value of web 2.0 information. These are key issues that should not be ignored, but they

could not be fully addressed within the scope of this study. Further exploration or discussion on these topics is needed to build upon the study findings.

Multi-agency Ownership and Management

Many agencies are concerned about managing content in collaborative spaces. JS employees participate in the All Partners Access Network (APAN). Record material is created, modified, or available in APAN; however, there is no formal records management scheme or automated mechanism for capturing information in APAN. Some efforts are being made to capture data by printing hard copies or taking site snapshots, but these efforts are ad hoc.

Collaborative spaces and cloud repositories like APAN and Intelink that span between agencies provide unique records management challenges. The Office of the Director of National Intelligence owns the server space used to house Intelink, but according to the Terms of Use agreement required to participate in Intelink, agencies creating the content are responsible for managing their own records. The goal of Intelink is to foster interagency collaboration, but ownership of the content is unclear—this often prohibits agencies from managing their own content.

Rapid Web Tool Adoption

Records management staff in agencies are overwhelmed by the speed at which users are adopting web 2.0 tools and are sometimes being ignored in their agency's adoption of social media. Many participating agencies expressed the concern that web 2.0 tools were being adopted in an informal grass-roots way. Often records management staff are unaware of which tools are being used within the agency; consequently, they have no control over the management of possible record material.

Tools can evolve quickly, particularly complex tools like Spacebook, MilSuite, or Diplopedia. Functionality can be merged, added, or otherwise changed to meet the agency's need. It can be difficult to predict exactly which tools will be used in the future, and agencies foresee a great deal of change in the social media landscape. These changes will provide more challenges to records management staff.

Retention and Disposition

Some participating agencies stated that there is little motivation to dispose of information in social media. Storage costs for electronic information is relatively low. Since there is no prohibitive cost in storing web 2.0 content, there is little motivation to dispose of the information. As stated earlier, agencies also expressed their concern about deleting public comments as a reason for retaining information indefinitely. It appears these agencies are not

addressing the potential effects of storing unnecessary information. Accessibility in searching through large volumes of information held in multiple tools or locations will be costly. Although storage is cheap, providing continuing access to the information requires long-term effort and commitment. By maintaining this information, agencies must also continue to meet legal obligations, such as protecting privacy and responding to discovery or Freedom of Information Act requests. These are all issues beyond the scope of the study.

Another issue related to retention and disposition is the use of third-party sites to host content. Agencies may not control the content sufficiently to apply records management principles. This includes capture and maintenance, long-term preservation, or full deletion when appropriate.

As the complexity of social media becomes greater, the ability to capture and preserve content will also become more complex. Some tools lend themselves more easily to a complete harvest of information; Twitter threads, for example, can be removed from the Twitter site and preserved in another storage location. Others tools may have embedded files or other complexities may be more difficult to harvest or otherwise capture. Agencies expressed a desire to have NARA provide guidance and resources to help in developing techniques for capturing and preserving content.

7.0 Recommendations

This study identified a number of issues that should be addressed:

- *Definition of a Record:* NARA may need to consider clarifying how the definition of a Federal record applies to web 2.0 content. This clarification should include how agencies can determine what web 2.0 information may be categorized as a record. In addition, NARA should consider proposing updates to the statutory definition of a record to reflect the more current environment of web 2.0 and other electronic information.
- *Clarification for the Public:* Agencies and NARA need to clarify to the public the definition of a temporary record and emphasize that many web 2.0 records will be destroyed after a certain period of time or will not be accessible through an agency's website. Agencies also need to better disseminate their retention policies and procedures for records, particularly concerning relevant public comments. Additional clarification to the public may be needed on how comments are being retained.
- *Temporary Records:* Just as with paper records, the majority of content created is of a temporary nature. NARA and agencies must recognize that the majority of web 2.0 records, because of the function of the records, do not have permanent value. Depending

on the use of the web 2.0 technology, certain functions might be considered always temporary. NARA may consider making these specific functions an addition to the General Records Schedule (GRS).

- *Permanent Records:* NARA and agencies should recognize that a small percentage of web 2.0 content does have permanent or long-term value due to the content and way the information is being used. NARA may need to re-evaluate its transfer mechanisms and guidance to ensure that permanent web 2.0 records can be successfully transferred to NARA and preserved.
- *Applying Current Schedules:* NARA and agency records officers should evaluate whether the function of the web records is already covered in an approved agency records schedule. The application of media neutrality to web records as specified in 36 CFR 1225.22(h)(3) should be re-evaluated. When multiple copies and formats of the same record exist, agencies must evaluate and determine which is the most appropriate version for retention as the record copy. If existing schedules cannot be applied, appropriate schedules should be developed.
- *Partnerships:* NARA should work with other agency partners to identify best practices for capture and management of social media records.
- *Records Management in Policy:* Agencies need to integrate records management requirements into their social media policy development and planning processes.

8.0 Conclusion

This web study observed how agencies are using web 2.0 tools to conduct business. It identifies characteristics that may affect the value of information created and shared in web 2.0 formats. These characteristics include the extensive duplication of information, the abilities to record increasing aspects of process, the added structure and context associated, and overall audience perception of the content.

Web 2.0 usage is best analyzed based on the function and use of the information, not solely by the platform or tool. The records created must also be considered in terms of the function or use and assessed based on business, evidential, informational, and contextual values. The concepts of temporary and permanent value have not changed; traditional value assessments also rely on these methods.

The study yielded additional issues outside the initial scope, but which are essential to managing information in social media. There are some technical complexities which make web 2.0 materials more difficult to manage, which causes confusion among agencies and NARA.

The web landscape is evolving so rapidly that if we neglect to address these issues and recommendations, we risk losing the truly valuable materials created by the Federal government. We should be proactive in working together to understand these complexities and develop solutions.

APPENDIX A—Interview Questionnaire

What is the purpose of the tool, and how is it used?

Is the tool used externally, internally, or both?

What is the function or process it supports?

Does this supplement or replace an existing process?

How does the tool affect the use or function of the information?

How do you select and manage the technologies you use?

How do you see your use of this tool evolving?

What effects would there be to the agency if it disappeared?

What effects would there be to the office if it disappeared?

How often is it used, or how frequently is it updated?

Does the new content replace older content? Is the older content retained? Why?

Where do you go for the most official version of the information?

How does this tool help your agency/office achieve its mission?

APPENDIX B—Tools Discussed in Agency-Specific Interviews

The following describes some of the major tools we discussed during our interviews with the initial six participating agencies.

Department of State

Diplopedia: An internal wiki that serves as a foreign affairs encyclopedia. It typically adds more instructional information to official sources such as handbooks and manuals. It is also a place to disseminate information to staff in near real time. Diplopedia includes Desklopedia, a resource for desk officers to help embassy staff with administrative details and instructions on how to perform infrequent tasks.

Communities@State: A discussion-oriented blogging platform that is organized into communities of practice and interest. The program allows participation and discussion based around central themes. The communities are designed to be time based rather than strictly topic based and exist primarily as discussion threads. These communities can have various functions. Some serve a similar role as Diplopedia in that they provide basic instructions, advice, or experience. Other uses include functioning as a reporting tool, replacing a previously e-mailed newsletter, and serving as a social network.

Exchanges Connect: A social networking tool similar to Facebook that highlights first-person stories about cultures, commonalities, and exchange program experiences.

NASA

SpaceBook: An intranet site used for social networking and collaboration. Generally Spacebook is used as a collaborative space in order to keep up to date on projects and make use of various tools offered through the site.

Twitter: NASA uses Twitter to provide information to the public about NASA's activities. They publicize NASA events, news releases, real-time updates, and information from space missions. NASA maintains several feeds, many of which have thousands of followers.

Army

MilSuite: A series of tools available through the Army Knowledge Online and Defense Knowledge Online portals. The suite includes three main tools: MilBlog, MilWiki, and MilBook. MilBlog is used to disseminate information internally and allows any person with access to the system to write an entry. MilWiki is an internal wiki with articles covering a range of topics and functions. MilBook is an internal social networking tool designed to complement the blog and wiki. MilBook allows collaboration and is often used for quick and temporary group collaborations.

JS

All Partners Access Network (APAN): An interagency network used to foster interagency collaboration and coordination.

Intelink: An interagency tool owned by the Director of National Intelligence (DNI) that allows agencies to share and collaborate on documents. The point of Intelink is to foster interagency collaboration.

Jabber: A tool that allows users to set up chat rooms in multiple networks at various levels of security. The tool is used to facilitate interoffice collaborations and bypass in-person requests in order to speed up the process of information gathering. These chats are intended to be used for short-term collaboration as well as to sustain ongoing activities.

USGS

Twitter Earthquake Detector Project: A mashup of tweets and maps used for earthquake monitoring. The project searches Twitter for tweets that reference words related to earthquakes and then uses the available location data from Twitter to identify where an earthquake is likely happening. This information then can be compared to actual USGS earthquake data. The purpose is to potentially provide the USGS with initial indications of an earthquake before the scientific data reaches the USGS.

EPA

Greenversations: EPA's primary external blog that allows the agency to engage the public in informal conversations and provides a window to activities of the agency.

Discussion Forums: Blogs and forums created for specific projects as a way to introduce questions to the public and potentially use the feedback to drive policy and decision making.

APPENDIX C—Jam Session Discussion Questions

What are some of the innovative ways your agency is using social media and web 2.0 tools?

Are you using web 2.0 as part of a new business process, or are you supplementing/replacing an existing process?

Tell us more about the content. How are you using the content in these tools? What information is captured or contained within the tool?

How does the web 2.0 technology affect the usefulness of the content? What additional value does web 2.0 bring?

What ongoing need, if any, does your agency have for this content?

Where do you go for the most official version of the information?

How do you see your use of these tools evolving?

APPENDIX D—Selected Resources

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<http://fcw.com/Articles/2009/07/06/POLICY-social-media-nasa-inhouse-spacebook.aspx>

Beizer, Doug. “Social Media and DOD: To Be or Not to Be?” *Federal Computer Week*, August 21, 2009.

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<http://socialmediagovernance.com/policies.php>

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Daconta, Michael. “The Twitter of Information Sharing.” *Government Computer News*, June 10, 2009.

http://gcn.com/articles/2009/06/15/reality-check-commentary-ucore-info-sharing.aspx?sc_lang=en

Digital Curation Centre UK. “Curation Reference Manual (formerly the Digital Curation Manual).”

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Digital Preservation Europe. “Considerations for the Preservation of Blogs.”

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Drapeau, Mark. “Social-Media Bans Miss the Mark.” *Federal Computer Week*, August 19, 2009.

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Government Social Media (Wiki). “Social Media Subcouncil: Web 2.0 Governance Policies and Best Practices.”

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Information Services Board, Washington State Department of Information Services. “Web Presentation Guide for Digital Government.”

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McCaney, Kevin. “6 Must Have Features For Top-flight Government Web Sites.” *Federal Computer Week*, September 4, 2009.

<http://fcw.com/Articles/2009/09/07/FEDLIST-6-goals-for-your-agency-Web-site.aspx>

National Archives and Records Administration. “Guidance on Managing Web Records.” 2005.

<http://www.archives.gov/records-mgmt/policy/managing-web-records.html>

National Archives and Records Administration. “Implications of Recent Web Technologies for NARA Web Guidance.” 2006.

<http://www.archives.gov/records-mgmt/initiatives/web-tech.html>

Pinsent, Ed. “Archiving a Wiki.” March 25, 2009 (online posting), JISC-PoWR.

<http://jiscpowr.jiscinvolve.org/wp/2009/03/25/arch-wiki/>

Public Record Office Victoria, Australia. Records Management Standards and Advice. Includes the following:

Advice 20a - Web-generated Records (2007)

Advice 20b – Technical Issues for Managing Web-generated Records (2008)

<http://www.prov.vic.gov.au/records/standards.asp>

Robinson, Brian. “Web Mashups Put Transparency to the Test.” *Federal Computer Week*, January 6, 2010.

http://fcw.com/articles/2010/01/11/feat-mashups-test-transparency.aspx?s=gov2_120110

State Records Authority, New South Wales, Australia. *Government Recordkeeping Manual*.

Includes the following:

Guideline 20—Keeping Web Records (revised 2009)

Guideline 22—Managing Digital Records (2009)

Guideline 24—Records Management and Web 2.0 (2009)

<http://www.records.nsw.gov.au/recordkeeping/government-recordkeeping-manual/guidance/guidelines/guidelines>

University of London Computer Center. “The Preservation of Web Resources (PoWR) Handbook - Digital Preservation for the UK HE/FE Web Management Community.” 2008.
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Wilson, Jackson. “Attacks Underscore the Limits of Twitter, Facebook.” *Government Computer News*, August 19, 2009.
http://gcn.com/articles/2009/08/24/cybereye-box-twitter-facebook-attacks.aspx?sc_lang=en

APPENDIX E—Social Media Tools and Sites Reviewed

The following are tools and sites that may be mentioned in this report:

All Partners Access Network (APAN)— <https://community.apan.org>

Communities@State— <http://www.state.gov/m/irm/ediplomacy/c23840.htm#communities>

Democracy Video Challenge— <http://www.videochallenge.america.gov/>

Department of Defense social media— <http://socialmedia.defense.gov/>

Department of Energy Island (Second Life) — <http://slurl.com/secondlife/Energy/117/132/46>

Department of Justice social media— <http://www.justice.gov/briefing-room.html>

Department of State social media— <http://www.state.gov/m/irm/ediplomacy/>

Diplopedia— <http://www.state.gov/m/irm/ediplomacy/c23840.htm#diplopedia>

DipNote— <http://blogs.state.gov/>

EPA Forums— <http://blog.epa.gov/oswerforum/> and <http://blog.epa.gov/cwaactionplan/>

EPA Greenversations— <http://blog.epa.gov/blog/>

EPA social media— <http://www.epa.gov/epahome/socialmedia.html>

ExchangesConnect— <http://connect.state.gov/>

Go Army— <http://www.goarmy.com/>

HHS social media— <http://newmedia.hhs.gov/>

IRS Facebook recruitment— <http://www.facebook.com/pages/IRS-Recruitment/269210540098>

IRS podcasts— <http://www.irs.gov/newsroom/article/0,,id=179391,00.html>

Library of Congress Flickr page— http://www.flickr.com/photos/library_of_congress/

Library of Congress social media— <http://www.loc.gov/homepage/connect.html>

MilBook— <https://www.kc.army.mil/book/index.jspa> and
<http://www.doncio.navy.mil/ContentView.aspx?ID=1592>

MilSuite— <http://www.doncio.navy.mil/ContentView.aspx?ID=1592>

NARA social media— <http://www.archives.gov/social-media/>

NASA social media— <http://www.nasa.gov/connect/>

National Labor Relations Board wiki— a public web address is unavailable

Social Media Policies and Guidance—

http://www.usa.gov/webcontent/technology/other_tech.shtml

Sounding Board (Department of State) — a public web address is unavailable

Spacebook— <http://www.whitehouse.gov/open/innovations/spacebook>

Twapper Keeper— <http://twapperkeeper.com>

Twitter Earthquake Detector— <http://twitter.com/usgsted> and

<http://recovery.doi.gov/press/us-geological-survey-twitter-earthquake-detector-ted/>

USGS social media— <http://www.usgs.gov/socialmedia/>

USGS Tweet Chat Archive— http://www.usgs.gov/socialmedia/tweet_chats/

The following are some common platforms that may be mentioned in this report:

Amazon Simple Storage Service— <http://aws.amazon.com/s3/>

Blogger— <http://www.blogger.com>

Delicious— <http://www.delicious.com>

Facebook— <http://www.facebook.com>

Flickr— <http://www.flickr.com/>

Foursquare— <http://foursquare.com/>

Google Docs— <http://www.google.com/google-d-s/documents/>

Google Maps— <http://www.google.com/maps>

IdeaScale— <http://www.ideascale.com/>

LinkedIn— <http://www.linkedin.com>

MySpace— <http://www.myspace.com>

Posterous— <http://posterous.com/>

Second Life— <http://www.secondlife.com>

Snapfish— <http://www.snapfish.com>

Twitter— <http://www.twitter.com>

WordPress— <http://wordpress.com/>

YouTube— <http://www.YouTube.com>