

Guideline No. 24

Records Management and Web 2.0

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Records Management and Web 2.0

Introduction

These guidelines are designed to help NSW public office records managers:

- understand the issues surrounding the use of web 2.0 applications to transact business
- help records managers carry out their recordkeeping duties in light of these tools.

A report by the Australian Department of Finance and Deregulation¹ found that in December 2008 two out of five people who last contacted government did so using the internet. Nine out of ten of those used websites rather than email. These figures indicate that use of public office websites is increasing and evolving including the use of web 2.0 applications.

According to David Mitchell Smith of Gartner Research, web 2.0 refers to:

- business, social and technology evolutions, including new models for community and collaboration
- how web 2.0's participative nature can be leveraged inside and outside the enterprise
- the new business models that web 2.0 facilitates
- the lightweight programming models used to build web 2.0-style mashups
- various web 2.0 applications, such as blogs, wikis, folksonomies and social networks².

It is Smith's final point on web 2.0 applications that this guideline examines.

These guidelines have been written in non-technical language and, in the spirit of web 2.0, State Records would greatly appreciate if any comments or questions regarding these guidelines be placed on their State Records Future Proof blog³. As the world of web 2.0 continues to change and evolve, these guidelines will be continually updated and all comments would be greatly appreciated.

What is 'Web 2.0'?

There is much disagreement about what 'web 2.0' actually is. For the sake of these guidelines, we will be providing only one definition, yet like most definitions it is limited. In the simplest terms, the concept of web 2.0 has the web as a platform on which you as the user control the data. Web 2.0 is about the user experience and interaction, constant reuse of material, immediate feedback, updating and contribution of data that is not constrained by software or format.

What has been retrospectively named 'web 1.0' was dominated by people publishing information and required specialised skills and specific software. Users had little control over content and websites were not capable of mass interaction. Today the user is not just retrieving information, they can now control it. The actual technology of the web has

¹ Australian Government, Department of Finance and Deregulation, Australian Government Information Management Office *Interacting with Government: Australians' use and satisfaction with e-government services*, Canberra, 2008, viewed 02 February 2009
<<http://www.finance.gov.au/publications/interacting-with-government/index.html>>

² D.M. Smith, *Key Issues for Web 2.0 and Beyond*, 1H08, Gartner Research Paper I.D Number

G00154877, publication date 25 January 2008 p.4

³ <<http://futureproof.records.nsw.gov.au/>>

not dramatically changed, however the way it is being used has. In many ways web 2.0 is simply a natural extension of web 1.0.

In a recent briefing paper for Joint Information Systems Committee (JISC), Mark van Harmelen⁴ defined seven types of Web 2.0 application:

1. blogs
2. wikis
3. social bookmarking
4. media sharing services
5. social networking systems
6. collaborative editing tools
7. syndication and notification technologies

To this list we can also include

8. instant messaging

Uses

Web 2.0 applications are being increasingly used throughout government.

Below is a table that describes the various applications and provides examples of how they are being used within public offices.

Application	Description	Examples of use within a public office
Blogs	Also known as a 'weblog' or 'web log', a blog is a diary-like site traditionally maintained by an individual and commented on by the community. Entries within a blog are usually displayed in reverse chronological order. Blogs are often used to provide commentary or comments on a particular topic.	<ul style="list-style-type: none"> • coordinate and monitor project management initiatives • corporate communication • diary style reporting on public office activities • public feedback • coordinate feedback and discussion in a central location
Wikis	A wiki is a webpage or series of webpages that allows and encourages the reader to contribute and modify the content.	<ul style="list-style-type: none"> • project management • peer review of documentation • public review of documentation (e.g. New Zealand Government Web Standards website wiki⁵)

⁴ M. Van Harmelen. *Briefing paper on Web 2.0 Technologies for Content Sharing: Web 2.0, an introduction*, Manchester, 2008, viewed 02 February 2009 <<http://franklin-consulting.co.uk/LinkedDocuments/Introduction%20to%20Web%202.doc>>

⁵ State Services Commission, New Zealand Government *Government Web Standards* New Zealand, 2008, viewed 02 February 2009 < <http://webstandards.govt.nz/> >

		<ul style="list-style-type: none"> • facilitate remote input
Social bookmarking	Refers to the ability of an internet user to store and categorise bookmarks of webpages on the internet (rather than their hard drive).	<ul style="list-style-type: none"> • professional literature • reading lists (learning institutions) • online research storage
Media sharing services	Web sites that enable users to share and store images and other media.	<ul style="list-style-type: none"> • providing the public access to government material (e.g. Flickr⁶) • file sharing
Social networking systems	Web based service that allows users to create their own profiles and build a community. Usually found in the online environment, social networking systems are concerned with communicating and sharing information.	<ul style="list-style-type: none"> • professional networking (e.g. LinkedIn⁷) • internal networking • virtual learning, school networking (e.g. alumni online communities) • use of sites such as Facebook to reach a wider audience (e.g. election campaigning)
Collaborative editing tools	Web based service that allows collaborative authoring and editing of specific documents by several users from different computers. Documentation is stored online and removes the need for a hard drive.	<ul style="list-style-type: none"> • useful for people who are dispersed geographically or do not tend to use the same computer or have limited server storage and/or access. A common example of this application is Google Docs⁸ or collaborative editing tools available on the Panel Contract for the supply of Information Asset Management Systems (IAMS) software applications under the Government Selected Application Systems (GSAS) program for NSW Government, run by the Department of Commerce.
Syndication and notification technologies	This technology allows users to be notified when a website is changed or updated.	<ul style="list-style-type: none"> • instant updates for users on changes e.g. of websites, timetables

⁶ <<http://www.Flickr.com>>

⁷ <<http://www.linked.com>>

⁸ <http://docs.google.com>

Instant messaging	'Real time' communication (usually typed text) between two or more people that occurs over a network.	<ul style="list-style-type: none"> • virtual meetings • consultation • remote input into business activities
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Some web 2.0 applications may also demonstrate a combination of features. These are commonly known as 'mash-ups' and may be a mix of the above mentioned applications or cross the boundaries of one into another. A well known example is Twitter⁹, which has aspects of blogging, instant messaging and social networking.

What does this mean for records management?

A **record** is information created, received, and maintained as evidence and information by an [organisation](#) or [person](#), in pursuance of legal obligations or in the transaction of business.¹⁰

Many of the uses of web 2.0 applications may create records. It is important to remember that records are not defined by their format. New technologies such as web 2.0 are a challenge for records professionals as they produce records but are not designed for information capture and maintenance. Records professionals need to become aware of web applications being used or proposed to be used within their organisation and devise ways of capture and preservation of required information as records.

A major finding in the *Interacting with Government: Australia's use and satisfaction with e-government services*¹¹ produced by the Australian Department of Finance and Deregulation indicates that community expectations on how e-government services should be delivered are evolving rapidly and that as internet use has increased so too have the expectations and standards in this area. It is not appropriate for a records professional to ignore the use of web 2.0 applications within their organisation. Records professionals need to integrate web 2.0 applications into their records management programs rather than alienating it. A proactive approach will help to reduce the amount of information that may otherwise be lost when using web 2.0 tools.

Making the record

When approaching web 2.0 tools, there are usually two types of records that are created:

1. a duplicate record of a master record – e.g. a diagram that was created by an individual saved as a record in an original recordkeeping system and stored on their hard drive or server is placed on a media sharing service

or

2. content is created through / on the web 2.0 application, e.g. within a blog or wiki or through instant messaging.

⁹ <<http://twitter.com/>>

¹⁰ AS ISO 15489:2002 *Records Management* Part 1, Clause 3.15

¹¹ Australian Government, Department of Finance and Deregulation, Australian Government Information Management Office *op. cit.*

It is good practice to make decisions on what needs to be captured before the commencement of using any web 2.0 technologies. In addition, it is a requirement of the *Standard on digital recordkeeping* that 'the public office must define the digital State records that it will make and keep' for business conducted in the electronic environment.

The best way to do this is by a process of appraisal. Appraisal activities, such as functional analysis, are often carried out as part of the design and implementation of recordkeeping systems, business systems and processes to ensure that recordkeeping functionality is built into the systems. This is increasingly important where records are either 'born digital' or digitised and need to be managed appropriately within business systems. Appraisal primarily involves:

1. determining what records should be created and captured to document a business function or activity
2. determining how long the records should be retained and how they should eventually be disposed of.

The use of web 2.0 applications within an organisation should be linked to a business purpose. Often there are many requirements within an organisation, including legal, business and regulatory that stems from the business of the organisation and affects the keeping of records. Consideration should be given to what requirements within the organisation affect web 2.0 recordkeeping.

When determining what records created using web 2.0 applications need to be kept, consideration should be given to:

- business requirements – e.g. project management blogs may need to be captured to understand the status and delays of a project and to be of use for future planning purposes.
- legal and regulatory requirements – e.g. a public submission forum conducted via a blog may require that all posts from the public are retained.
- cultural requirements – e.g. images of an organisation's activities or key events captured on Flickr may need to be preserved as a pictorial history of the organisation.

Other requirements may include confidentiality and security requirements relating to records created using web 2.0. For more information on identifying the specific requirements of your organisation, please consult the *Strategies for Documenting Government Business: the DIRKS Manual*, Step C Identification of recordkeeping requirements.

The level of detail used to define what records are to be kept depends on how much information is needed for implementation purposes and the level of risk associated with the records and the business they document. A useful technique for defining the records is to analyse business processes where they are used and identify the transactions that comprise them.

Records created by web 2.0 applications might be defined in different ways. For example:

- organisational policy may state that at the completion of a collaborative project all records held solely in the collaborative tool (e.g. wiki) must be captured and maintained accordingly
- use of instant messaging for meetings requires a copy of the transactions of the meeting to be retained as minutes.

Thought should also be given to when and how information needs to be captured. In this regard it is a good idea to work out a strategy for record capture with the Information, Communication and Technology (ICT) department and the business unit using the application. Ideally the record capture process will be automated to limit the impact on users.

Be aware of technologies that have a variety of behaviours. One example of a website with a mixture of behaviours would be a blog, which might have behaviours such as:

1. a live feed (e.g. RSS), offering live linked information about changes and users
2. recent comments, which can change and update even when the main content remains static
3. other behaviours connected with management of the blog, such as site administration
4. bookmark and tagging features, which may connect out of the blog to other related services¹²

It may not be feasible or desirable to capture all of these features but at a minimum the context and functionality that has been defined by your public office via identified recordkeeping requirements should be captured.

Problems and advice

Problem	Description / example	Advice
Using third party sites or software and copyright / intellectual property rights	Some third party sites or software include terms and conditions that require the user to assign irrevocable content rights and assume personal liability of the user related to information submitted. Intellectual property of the organisation placed on such a site may become the property of the site due to the terms and conditions accepted by the user.	Encourage users to read and be aware of the terms and conditions of use of all third party sites and software. It may be necessary to update policies and procedures to reflect issues of intellectual property and copyright when using third party sites.
Ownership	Who owns the content when the system has been open to people outside the organisation or the system is not hosted by the organisation?	Be sure to have all policies and procedures related to the use of web 2.0 tools updated to reflect that the use of such tools for work implies ownership by the organisation where appropriate.
Personal vs. professional	The success of web 2.0 is in part due to the informal nature of communication it	As there is no business or recordkeeping requirement to save someone's social

¹² Joint Information Systems Committee, *The preservation of web resources handbook*, United Kingdom, 2008, p.21 viewed 02 February 2009
<<http://jiscpowr.jiscinvolve.org/files/2008/11/powrhandbookv1.pdf>>

	<p>incorporates. Web 2.0 is increasingly being used for professional and personal reasons and the line between work and the personal can blur with a single application combining the two.</p>	<p>emails, there is also no reason to save social interactions from web 2.0 applications used within your organisation. Be sure that staff understand the purpose of each application and use them responsibly. All collaborative tools should be used for business purposes. It may be acceptable to announce and plan work-related social events such as a picnic day via collaborative tools; however such use should be outlined in the code of conduct and other corporate policies.</p>
<p>Frequency of change</p>	<p>Using web 2.0 tools means that many sites and systems may change rapidly, many times a day.</p>	<p>Ensure an analysis of the purpose of the application has been completed with set times to capture. For the more high risk records, it may be necessary to have all changes recorded into an EDRMS using a technology 'bridge'.</p>
<p>Continuity and reuse</p>	<p>Web 2.0 encourages users to control and contribute content as well as reuse it. One implication of this is that content from collaborative tools such as a wiki or a blog used for one project may suddenly disappear and show up in another project. With the ease of moving entire websites and transforming them into something else, how is it possible to retain a record?</p>	<p>Each of the contexts in which the information is used presents a different set of recordkeeping requirements. The organisation should determine what records will be kept of the business conducted using each tool.</p>
<p>Resources for capture and retention</p>	<p>Who will have the responsibility of ensuring records are created. Where will the records be stored? What requirements are there in regards to digital recordkeeping systems. How long will resources need to be kept and where?</p>	<p>Recordkeeping requirements for business conducted using web 2.0 technologies should be integrated into organisational policy and procedures, including responsibilities for creation, capture and management of the records. Within your organisation recordkeeping</p>

		systems need to be in place to accept digital records in accordance with the <i>Standard on digital recordkeeping</i> .
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Web 2.0 records management tips

Be involved

Web 2.0 applications are changing the way NSW government does business. This means for records professionals that it is vitally important to not only be aware of these technologies and their uses within your organisation, but devise ways of capturing records created by these tools. To be able to do this, record professionals must begin to develop relationships with many different areas of their organisations. Records management can not be left to the people who create the data or control the technology as they may not have the skills required for good records management. A joint effort is required and relationships between web masters, system administrators, knowledge managers, information managers and records managers must be formed. Records professionals must be involved as early as possible in the adoption of any web 2.0 application in order to ensure that records are made and preserved where needed and that these technologies benefit the organisation and not pose unreasonable risks.

Policies and procedures

Not only technical controls but administrative controls are required for any organisation using web 2.0 tools for business. Administrative controls will include the policies and procedures within an organisation to manage involvement in web 2.0 applications. These controls may also limit the circumstances under which such technology is permitted for purposes of transacting agency business and generating records of that business activity.

As web 2.0 is not confined to a single user, the procedures should represent many users within the organisation. Not only will records management policies and procedures be required to be updated or reinforced, so too will many others. For example the:

- code of conduct may need to be revised to demonstrate that whilst staff work with web 2.0 applications they are representing the public office and should behave accordingly.
- human resources policy will need to reflect the adoption of web 2.0 applications and outline the boundaries between personal and professional.
- ICT guidelines may need to be updated to incorporate appropriate access measures and acceptable use policy.
- information security policy will need to be revised to dictate the security requirements of collaborative tools used within the organisation.

It is important that all users of web 2.0 applications know the purpose of the adoption of the technology. This will in turn make it easier to know what records are created and from where they need to be captured. Each application may behave in many different ways, yet the purpose of their use must be understood. For example, instant messaging may be used to connect people for an online meeting. Procedures and required practices must be known to all users involved so that all relevant records are created, including minutes, agenda and a record of who participated.

Risk assessment

The use of web 2.0 application may involve some risk to the organisation. These risks include security, integrity and long term accessibility of data.

It is a good idea to conduct risk assessments on the web 2.0 applications used and identify recordkeeping requirements related to the use of the particular tool. These requirements are then documented into the acceptable usage policies and workflows.

A good risk assessment will help in determining the appropriate user and management of the application.

Keep it in-house

Encourage creation and use of wikis and blogs to be hosted on the organisation's web server. Make requesting a blog or wiki a simple process to encourage use. It is much easier to keep a record when it is on your organisation's server.

Records generated by your organisation should be under your control. Ideally they will also be in your custody. Therefore it is a good idea to use in-house technology as much as possible when adopting web 2.0 applications. It may seem easier at the time to use third party sites and software. However this can lead to loss of intellectual property, copyright issues and a general lack of control such as continuity issues. If it is not possible to use in-house technology, be wary of third party sites and software, read the fine print and perhaps set more stringent capture requirements. The Panel Contract for the supply of Information Asset Management Systems (IAMS) software applications under the Government Selected Application Systems (GSAS) program for NSW Government includes collaborative and web content management tools that may be appropriate for your organisation.

To keep business in-house it may be necessary to encourage and assist with large outputs of online work being exported and managed locally. This may be the only way to manage record requirements of information made on third party sites or software.

For all technologies managed in-house, try to integrate them with recordkeeping systems as much as possible. For requirements on recordkeeping systems, please refer to the *Standard on digital recordkeeping*. By integrating with recordkeeping systems, the recordkeeping processes may be easier for the user.

Keep an open mind. As is outlined in the *Standard on Digital Recordkeeping*, a digital recordkeeping system does not have to be a dedicated records management system. Liaise with your ICT department and discover what business systems used in a collaborative manner may have suitable recordkeeping functionality or can be linked with the dedicated records management system. Once you have ascertained what needs to be kept as a record, an automated process will make the procedure much easier.

No perfect solution

Currently there is no perfect solution. The advice available for the management of web 2.0 records is continually evolving. Records professionals are asked to not ignore the concept but encourage its use, albeit with caution. There are many positives to using web 2.0 technologies and it appears that they are here to stay.

Some questions to consider when implementing web 2.0 applications

- What is the purpose of the activities?

- What business, accountability and cultural needs exist for records of these activities?
- What would these records need to consist of?
- How will the records be captured into a recordkeeping system?
- How long do we need the records for?
- Can the web 2.0 application currently create and store records?
- Will the web 2.0 application serve as a recordkeeping system or will it interface with an IAMS tool (e.g. an EDRMS)
- Is the application creating original material not captured elsewhere in the organisation?
- Is the application available in-house or externally?
- Will the records need preserving at intervals, or at a completion date e.g. end of a project?
- Is it necessary to maintain the content, or its complete look and behaviour?
- Will the links still work (and do they need to work) when the record is captured in the recordkeeping system?
- If the captured record includes raw wiki mark-up, do you have the capabilities to re-render this as HTML?

Sample case studies

Below are three sample case studies that demonstrate how an agency may be using web 2.0 technologies, an example of a recordkeeping requirement based on a retention and disposal authority and the strategy for capturing the record.

Case Study 1

SCENARIO	Agency X has created a wiki for public consultation on a new proposal.
RECORDKEEPING REQUIREMENT	Agency X has a functional retention and disposal authority that requires records of public consultation are retained for 5 years.
STRATEGY	Agency X has developed a 'bridge' between the wiki and their recordkeeping system. All changes to the wiki are automatically captured into the recordkeeping system.

Case Study 2

SCENARIO	A State authority has created a blog to be used for discussion between agency professionals in the authority's area of expertise.
RECORDKEEPING REQUIREMENT	The <i>General retention and disposal authority: administrative records</i> (GA 28) requires that records relating to liaison activities undertaken with professional associations, professionals in related fields, private sector organisations and community groups that are not joint ventures are retained for 3 years. Includes collaboration on projects, exchange of

	information and membership issues. (2.13.1)
STRATEGY	The State authority exports an XML copy of the blog to their recordkeeping system every two weeks.

Case Study 3

SCENARIO	An agency has developed a video that has been placed on YouTube for promotional purposes.
RECORDKEEPING REQUIREMENT	Under <i>General retention and disposal authority: audio visual programs and recordings</i> (GDA 11), the agency is required to keep the original version of the production as a State archive. (1.3.1)
STRATEGY	The master copy of the video is managed as a record and eventually transferred as a State archive. A file note may also be created that outlines when the video was placed on YouTube, by whom and for what purpose. This note is captured on the electronic file about the production and distribution of the video

For more information

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