

**'Taming the Wild West: Capturing Public Records Created
on Social Media Websites'**

By

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Abstract

Social media has become entrenched in public as well as private life. This new media defies recordkeeping conventions, creating a new set of challenges for records managers. This research project aimed to discover what methods government agencies in Australia are using to capture public records created on social media sites. It explored the effect of internal and external factors on social media recordkeeping and used the Records Management Continuum Model to examine the extent to which records are being captured. Using a quantitative design comprising a voluntary online questionnaire targeted at government records managers in Australia, it was found that so far only a minority of agencies are capturing social media records and even less believe that their methods are sustainable or compliant. Despite being limited by the sample size and design, this study contributes new knowledge to an emerging research area and, using the Continuum Model, traces how the dynamics of public sector information are changing. It suggests that the best way for records managers to respond to new media is by focusing on building internal relationships and adopting a big-bucket approach to appraisal. The findings provide an indication on how government agencies are currently performing; positing that more research is needed in how Public Records Offices can best support records managers.

1. Introduction

Recordkeeping is essential to the democratic process, but how can governments maintain public records when they are being created outside their realm of control? This is the predicament posed by government use of social media, an information environment that has been likened to the “Wild West” (Franks, 2010, p.15). This study investigates to what extent government agencies in Australia are capturing public records created on third party social media websites.

2. Problem Statement

2.1. Rationale

In less than a decade, social media has revolutionised the way we create and consume information on the internet. Despite initial caution, recent research shows that government use of social media is now widespread (Franks, 2010; QSA, 2010, Cumming, 2012). The transient nature of social media opposes traditional recordkeeping methods; consequently, most government agencies are not meeting their legal obligation to keep records. It has been predicted that social media records will increasingly become the subject of litigation and information requests, and will eventually replace email as the dominant form of communication (Bernhart Walker, 2011, para.2; Franks, 2010, p.17). It is clear social media is here to stay, and records managers need to find new and innovative methods for managing these records or risk non-compliance.

So far most of the research on the recordkeeping implications of social media has focused on identifying the challenges for recordkeeping. The only study to offer solutions on how to capture social media records provided a policy-based framework rather than practical techniques, demonstrating the need for further research (Franks, 2010). The main challenges for records managers identified in social media studies include: determining what constitutes a record, how and when to capture records, the lack of technical solutions available, and an internal ignorance of recordkeeping obligations. This study examines to what degree these challenges affect social media recordkeeping and exposes current practices in the hope of finding practical solutions.

The focus of this study is the Australian government community, who as of July 2012 have created over 550 Twitter accounts (Thomler, 2012c). Australia has been a pioneering force in electronic recordkeeping but at present there is a lack of practical guidance available to records managers in this emerging area. To date, most studies on social media recordkeeping have been limited to a particular state or focused on one

level of government; this study is the first to be conducted on a national scale and include agencies from all levels of government. It is hoped the findings of this study will benefit the participants as well as the broader records management community by enabling knowledge sharing amongst the profession.

2.2. Theoretical Framework

The majority of the formal literature comes from North America where Public Sector Information (PSI) is not considered a record until it has been declared, as opposed to the Australasian perspective where PSI is a record at the point of creation. This division in thinking is because the Lifecycle Model, which objectifies records in an insular, linear process from creation to disposal, is still a dominant force in North American recordkeeping ([appendix 11.1.1](#)). Conversely, in Australasia the Lifecycle Model has been superseded by the Records Management Continuum Model, in which records can exist anywhere in a matrix of time and space ([appendix 11.1.2](#)). The Continuum Model was developed in the 1990s by scholars at Monash University who were finding the traditional Lifecycle Model inadequate for managing the growing volume and complexity of electronic records (Upward, 1996, pp.271-274). The model consists of four dimensions plotted against four axes. The axes represent the people, purposes, processes and systems that create, shape and manage information; the dimensions comprise the spectrum from private to public in which information resides (Upward, 1996, pp.279-281). This study does not seek to test the Records Management Continuum Model but rather use it to frame the research questions and data analysis.

2.3. Research Objectives

Due to the recent nature of the subject matter, a broad range of objectives are encapsulated in this study, many of which are exploratory.

- To discover examples of Australian government departments implementing social media recordkeeping and expose current practices.
- To find practical solutions for capturing social media records that are extensible to the wider records management community.

- To discover how government records managers are adapting their methods to suit new technology.
- To explore the effect of different factors on the degree to which government agencies are capturing social media records, thus revealing priorities for records managers.
- To provide an Australasian perspective to the emerging literature.

2.4. Research Questions

The aim of this study is to examine how the challenges identified in the literature affect the degree to which social media records are being captured by Australian government departments. The barriers are conceptualised using the axes and dimensions of the Records Management Continuum Model. The following questions are addressed:

1. How does the level of internal support and external advice available to government records managers affect the degree to which social media records are captured? (authority axis)
2. How do government departments determine what social media content needs to be captured as public records and when? (transactional and evidential axis)
3. What recordkeeping systems are government departments using to capture social media records? To what extent are they able to capture evidence of social media interactions? (recordkeeping and evidential axis)

2.5. Definitions

<i>Public Record</i>	Information created, sent or received by a government agency in the course of business (PROV, 2010, p.1).
<i>Web 2.0</i>	Web-based tools that enable user-driven content publishing and sharing.
<i>Social Media</i>	A subset of Web 2.0 tools designed especially for networking.

<i>Capture</i>	The process of saving a record in a fixed format into a system that records the context in which it was created.
<i>Public Records Office (PRO)</i>	Agency responsible for the administration of public record legislation and the long term curation of public records.
<i>Government Agency</i>	Any agency that is subject to public records legislation.
<i>Metadata</i>	Structured data that provides contextual information about an object (NAA, n.d.).
<i>Preservation</i>	The active maintenance of a record for long term access and use (NAA, n.d.).
<i>Appraisal</i>	The process of identifying what information needs to be managed as records and how long they need to be retained for.
<i>Retention</i>	The period for which a record is kept and maintained.
<i>Disposal</i>	What happens to a record when it is no longer kept and maintained by an agency. Records are usually disposed of by transfer to another agency or destruction.
<i>Retention and Disposal Authority (RDA)</i>	A schedule endorsed by a PRO that dictates how long different types of records need to be retained before they can be disposed of.
<i>Electronic/Digital Record</i>	A record that is created or managed in an electronic or digital format and requires computer software and hardware to be accessed (NAA, n.d.).

3. Literature Review

This literature review examines the implications of social media for recordkeeping, the current recordkeeping landscape, the reaction to social media from both government and the records management community, summarises the research findings to date and

finally looks at the implications for theory. The current guidance available on social media recordkeeping is addressed in a separate section.

Recordkeeping Implications of Social Media

To serve as evidence, records need to be securely managed in a way that preserves their integrity and context throughout their existence (Reed, 2005, pp.118, 120). As social media websites are designed for public use they do not have recordkeeping standards or functionality built into their architecture. This inherent lack of descriptive and transactional information, as well as a dependency on external links, makes it difficult for social media content to meet the criteria of a record, especially over time as links become broken. Moreover, the terms and conditions of these websites often claim ownership over content created and make no promises about the length of time the data will be retained (Burger, 2010, p.1). A recent survey by the State Records Authority of New South Wales (SRNSW) found that 17% of agencies had lost social media records before they could be captured (Cumming, 2012, para.16). Users can also shape the meaning of social media content through a variety of interactive functions such as rating and re-posting, blurring the boundaries of the record. Together these factors make it hard for records managers to capture, manage and preserve social media records.

The Recordkeeping Landscape

The comparison of new technologies to the “Wild West” is familiar to the recordkeeping profession. In his 2005 article “The wild frontier ten years on”, John McDonald reflected on the progress of records managers in bringing electronic records under control, finding the situation to be much the same a decade on. McDonald (2005, p.7) believes the fault lies with the lack of leadership shown by records managers in implementing change. Fiorella Foscari (2010, p.398) came to a similar conclusion five years later, observing that too often recordkeeping best practice is applied without considering the individual needs of the organisation. The results of recent government recordkeeping surveys have shown that most agencies are still struggling to understand and manage electronic records (SRNSW, 2010, para.60; NARA, 2012, pp.7-8).

Commentators fear that the profession's response to social media will fail to have an impact, as was the case with the introduction of email (Cumming & Findlay, 2010, p.271; Bailey, 2008, p.55).

International Context

In the United States, the Obama Administration has encouraged social media adoption among federal agencies as part of a campaign for open government; by the middle of 2010, 22 out of 24 federal agencies were using social media (Franks, 2010, p.6). The same year, the Government Accountability Office (GAO) was engaged to investigate potential issues surrounding social media use. The resulting report highlighted the challenges of managing records on social media sites, in particular the difficulties in capturing, discovering and preserving records (GAO, 2010, pp.9-10). Subsequently, the federal government negotiated a special terms of service agreement with most of the major social media providers to ensure agencies can meet their recordkeeping obligations (Bertot, Jaeger & Hansen, 2012, p.31). Most recently, upon realisation of the general poor state of digital recordkeeping within government, the Obama administration, in collaboration with the National Archives and Records Administration (NARA), published a landmark Records Management Directive that requires federal agencies to manage all electronic records in their native format by 2019. Several other requirements in the directive are designed to ensure this main goal can be met, such as for NARA to update their guidance and tools for electronic recordkeeping, mandatory training of records managers and federal staff and the assigning of responsibility for recordkeeping at a senior level (OMB & NARA, 2012, p.3-6).

Local Context

In 2009, the Australian federal government established the *Gov 2.0 Taskforce* to investigate the benefits and risks of social media. One of the 13 recommendations for successful implementation in the Taskforce's final report was that the definition of a commonwealth record be extended to include records created in third party systems (Government 2.0 Taskforce, 2009, p.xxii). The Taskforce also commissioned a report to further investigate the recordkeeping implications of social media and potential

solutions. The report, written by local expert Barbara Reed, made several recommendations including providing training for records managers, negotiating a terms of service agreement for Australian federal government, and the need for the National Archives of Australia (NAA) to publish guidelines and keep a register of tools for managing social media records (Reed, 2009, pp.12, 20, 26, 28). Since then, local studies conducted at both the state and national levels have shown that the majority of government departments in Australia are using social media (Cumming, 2012, para.13; Thomler, 2012a, para.5). In 2012, prominent e-government blogger Craig Thomler revisited the Taskforce's report. He concluded that overall the federal government had implemented most of the recommendations, including those relating to recordkeeping (Thomler, 2012b, para.5); however, although NAA have published guidance on social media records, their progress on the other recommendations made by Reed is not yet evident.

Best Practice

In 2009, Miriam Lips and Anita Rapson conducted a comparative study into how New Zealand government departments were managing records created using Web 2.0 technology. Part of their research included a review of the guidance published by PROs in Australia, New Zealand, America, Canada and the United Kingdom. They found that there was very little advice available on how to deal with these new formats and that the advice varied considerably, with some agencies suggesting only general methods for managing electronic records and others offering format-specific strategies (Lips & Rapson, 2009, p.25). Three years on the situation has not changed much. Although advice on social media recordkeeping has been published, for the most part PROs have focused on reemphasising recordkeeping principles rather than presenting practical techniques. This lack of direction from PROs, which has left agencies to come up with their own solutions, has been criticised in the literature (Franks, 2010, pp.13-14; ACT-IAC, 2011, p.13). In a recent survey, SRNSW asked their constituents what guidance they wanted on social media records. Most respondents requested advice on what records need to be captured and how they should be captured, with many calling for specific examples and case studies (Cumming, 2012, para.34).

The Academic Debate

While some records managers see these challenges as no different from those already posed by electronic records (Dearstyne, 2007, p.28), increasingly social media is being seen as a sink-or-swim moment for the profession. In his 2008 book *Managing the Crowd: Rethinking Records Management for the Web 2.0 world*, Steve Bailey questioned the viability of traditional recordkeeping methods in the light of new technology. Bailey believes that rather than resisting Web 2.0, records managers should embrace these tools to help manage records. He also suggests that since the cost of digital storage has become negligible, all information should be managed as records (Bailey, 2008, p.64). Reaction to Bailey's text has been mixed; while most reviewers can appreciate the debate he is initiating, many find his proposals lacking (Clarke, 2008, p.58; Munzer, 2009, pp.51-52; Sanderson, 2009, para.3), and some scholars have questioned the credibility of his ideas in the absence of a theoretical background (Bak, 2009, p.516; Oliver, 2009, p.192). Kate Cumming and Cassie Findlay (2010, p.273) see the current information environment as a "tipping point" or culmination of all that has gone before. Like Bailey, they believe that records managers need to rise to the challenge or risk becoming redundant, a sentiment repeated by Cumming & Knight two years later (2012, pp.8-9). Alternatively, Rick Barry (2010, p.187), a veteran in the records management field, still sees internal factors as the biggest obstacle for records management rather than technology.

Barriers to Social Media Recordkeeping

The early literature focused on identifying the nature of social media use and the extent of its adoption by government. Despite most research being based on case studies of government agencies known to be using social media, few examples of agencies with implemented strategies for capturing social media records have been uncovered. Independent studies of government social media use in the United States found that most agencies were still in the process of formulating methods for capturing social media records (Franks, 2010; ACT-IAC, 2011). In Australia, two studies were conducted by PROs in different states to discover current recordkeeping practices

surrounding social media; the first a formal questionnaire administrated by the Queensland State Archives (QSA, 2010), the second a voluntary survey by SRNSW (Cumming, 2012). Both found that while social media use was widespread, the majority of departments were not capturing records. Together, these studies have discovered common challenges to social media and made recommendations, both of which are explored in detail below.

Determining What to Capture

The initial question faced by records managers is what, if any, social media records need to be captured. In 2010, NARA conducted a series of interviews with federal agencies. Their aim was to understand the purposes for which social media content was being created to determine its value as a record. Similar questions were asked in Australian studies by QSA and SRNSW. These studies found government agencies to be using social media to support a wide range of activities, some of which would result in the creation of records (QSA, 2010, p.4; NARA, 2010, pp.10-13, Cumming, 2012, para.28). Early adopters were found to be using social media primarily as an informal promotion tool, while later studies have shown government agencies to be using social media for public consultation and emergency responses, activities that produce records of long term value or with the potential to be used in litigation (Cumming, 2012b, para.6; Thomler, 2012, para.8). When reporting the results of their survey, SRNSW stressed the importance of assessing each use of social media to determine if and what type of records will be created (Cumming, 2012, para.25).

In contrast to the principle that records are determined by their content not their format, some public agencies have found current Retention and Disposal Authorities (RDAs) inadequate for social media (QSA, 2010, p.13; ACT-IAC, 2011, p.15, NARA, 2010, pp.19-20). Alternatively, the Smithsonian Institute, which is responsible for in excess of 500 social media accounts, has adopted a big-bucket approach to capturing and preserving content. They appraise each site as a whole, and use the amount of original information contained within to determine how often records are captured (Wright,

2012, para.1, 4, 5). One of the federal agencies interviewed in the Franks study was also found to be using a big-bucket method. The Inland Revenue Service (IRS) already use a streamlined retention schedule for managing emails, which they planned to apply to social media. The schedule consists of three broad categories; records that are retained permanently, records that are transient and held temporarily, and all other records which are kept for six to seven years (Franks, 2010, p.23). Following on from the NARA report, the American Council for Technology's Industry Advisory Council (ACT-IAC) also conducted a comparative case study of federal government agencies using social media. They found that many agencies were struggling to identify where and when a social media record ended, as discussion under a post could be ongoing (ACT-IAC, 2011, p.13-14). These studies show how the proliferation and diversity of social media use by government is making appraisal increasingly difficult.

Organisational Factors

The literature has observed a lack of regard for recordkeeping within agencies to be a barrier to capturing social media records. When Lips and Rapson (2009, p.78) interviewed New Zealand government project managers responsible for implementing new technologies, they discovered that most of them did not consult their department's records managers prior to deploying their projects. NARA (2010, p.18) also observed how new technologies can be quickly adopted from the bottom-up, without the knowledge of records managers. The most recent study conducted by SRNSW in 2012 found that there is still a lack of awareness in government, even among records managers, that social media content can be records. Some respondents did not realise or see the need to capture; others, though aware of their recordkeeping responsibilities, were apathetic when faced with the technical difficulties of doing so, with over a third stating that they were not actively searching for solutions for capturing social media records (Cumming, 2012, para.16, 23, 25). At the same time, general surveys into the government use of social media have found the risks associated with a lack of recordkeeping to be one of the greatest areas of concern among agencies (Purser, 2012, p.8; NASCIO, 2010, p.14).

The literature has emphasised the importance of having social media policies and procedures that clearly assign responsibilities for recordkeeping. However, when QSA (p.4) conducted a systematic survey of public agencies under their jurisdiction in 2010, they found very few had policies and procedures in place for social media recordkeeping. NARA initially found similar results (2010, p.9), but a more recent survey showed that several agencies were making headway in this area (2012, p.8). Implementing recordkeeping policies and procedures for social media can also be a struggle, particularly with strained resources (ACT-IAC, 2011, p.14; Cumming, 2012, p.15). These internal barriers were explored in detail by Patricia Franks in her 2010 report “How federal agencies can effectively manage records created using new social media tools”, based on a combination of interviews and a content analysis of American government social media websites. Franks (2010, pp.7, 17) provides several recommendations for implementing social media use within government, including the importance of internal collaboration and training for staff as well as records managers. She finds raising the profile of recordkeeping at senior government levels to be crucial for achieving the priority and funding needed to bring the government’s digital recordkeeping up to standard, a recommendation that appears to have been met by the Records Management Directive (OMB & NARA, 2012, pp.3, 6).

Lack of Technical Solutions

These issues are compounded by the fact that as yet there are few technological solutions available for capturing social media records. Web harvesting or Enterprise Content Management (ECM) systems have been suggested as potential solutions, but the former requires a high level of technical knowledge and the latter has not been explored in depth (ACT-IAC, 2011, p.19; Franks 2010, p.39). What little advice exists for the capture of social media records consists of workarounds such as making screenshots, exporting data where possible and keeping a register of activity (Bennett, 2010, para.6; Horvath, 2010, para.2). Both the Lips and Rapson (2009, p.79) and ACT-IAC (2011, p.14) studies found that most of their participants were using traditional recordkeeping methods, such as printing and filing, to capture new record formats,

exactly what the Records Management Directive seeks to change (OMB & NARA, 2012, p.3).

In the SRNSW study, the main reasons cited by respondents for not capturing records were a lack of tools or know-how (Cumming, 2012, para.15). Of the agencies that were capturing records (a fifth of respondents), the two most popular methods were capturing screenshots and using a third-party archiving service, an increasing number of which have emerged over the last few years (Cumming, 2012, para.19). Unfortunately, neither method offers a perfect solution. Capturing screenshots is labour intensive and data can be lost during format conversion, compromising the integrity of the record (Lips & Rapson, 2009, p.82). Although automated, third party archiving services only capture as much contextual information as is built into social media websites and the data are still hosted externally (Reed, 2009, p.24). Unsurprisingly, when asked what qualities they would like in a solution for capturing social media records, the most sought after were simplicity, automation, compliance and extensibility (Cumming, 2012, para.33). The ACT-IAC study (2011, p.20) concludes with a “call to vendors” to step up and accommodate the recordkeeping needs of government. It is clear that traditional recordkeeping methods are unsustainable for supporting the growing government use of social media but technical solutions have not yet been fully realised.

Recordkeeping Theory Revisited

Faced with the increasing complexity of new technology, some records managers are beginning to explore alternative models for digital recordkeeping. In a discussion paper, Greg Bak used the Continuum Model to help understand how Web 2.0 differs from traditional information formats, in particular how content can exist in multiple locations at the same time and be reused. Bak (2010, pp.2-3) believes that the Lifecycle Model is no longer relevant and that the Continuum Model will be central to managing Web 2.0 records. Locally, a group of Australasian academics are looking towards the field of Informatics as a model for the new information environment typified by social media. In contrast to Records Management 2.0, Recordkeeping Informatics is a more

comprehensive term used to describe the how the profession describes, organises, stores and uses information (Oliver, Evans, Reed & Upward, 2009, p.19). In a paper presented at the ICA 2012 conference, the authors advocated the need for a “single-minded approach” to recordkeeping, in which recordkeeping does not exist as a separate discipline but is ingrained into everyday business (Oliver, Reed, Upward & Evans, 2012).

The international standard for records management (ISO 15489) has also been re-examined in light of the Web 2.0 phenomenon. In a 2012 article, three Australian academics discussed the effect of new technology on four of the eight records management principles that make up the ISO standard; metadata, classification, RDAs and security. All of these principles require user intervention and centralised administration, which is becoming increasingly difficult as users have less time and imperative for registering information (Joseph, Debowski & Goldschmidt, 2012, p.62). The authors echo many of the ideas raised by Bailey, such as using tagging for classification, as well as suggesting automation, embedded metadata, algorithms and a move to a simpler, big-bucket approach as potential solutions for managing information in the Web 2.0 age (Joseph et al., 2012, pp.64-67). The opinion piece concludes that the ISO standard should be updated with a new focus on the role of records managers, adopting a strategic, user-centred approach and working with technology rather than against it (Joseph et al., 2012, p.69).

Summary

Social media has proven to be a special case, and has caused the records management community to rethink many of their long-standing methods. At the same time, local and international governments are only now becoming aware of the recordkeeping implications of social media. So far, most of the literature has been exploratory, successfully clarifying the challenges posed by social media records, including the difficulty in determining what to capture, gaining internal recognition of the need to capture and the lack of guidance and technical solutions for how to capture. While some

best practice has been gleaned from case studies, practical solutions for capturing social media records remain elusive. Although offering recommendations for government use of social media, because of the timing of their research, both the Franks (2010) and ACT-IAC (2011) studies failed to discover agencies with implemented procedures for capturing social media records. The QSA (2010) survey was the first to study a large sample of government agencies but due to the research design the results did not reveal much detail about the few agencies that did have strategies in place for managing social media records. While the SRNSW (Cumming, 2012) survey went further than previous studies by examining how and why government agencies are or are not capturing social media records, it also repeated the analysis of business activities already carried out by NARA (2010) and QSA. This highlights the duplication of effort that exists between PROs within Australia. Mostly informal in nature, none of the research to date has been based in records management theory. This study examines in greater detail the degree to which government agencies are capturing records in the context of these challenges, using the Continuum Model as frame of reference.

4. Survey of Guidance

As part of this project, a survey of the guidance produced by Australian PROs was performed in May 2012. The survey focused on the advice specifically devoted to Web 2.0 tools and social media available via the agencies' websites. The following analysis examines the emergence of advice, common themes and gaps in the guidance.

Background

When Lips and Rapson conducted their review in 2009, only SRNSW (2009) had created guidance that addressed social media. As of May 2012, six of the nine Australian PROs had produced guidelines on the topic, but most have only been published in the last year (see [appendix 11.2](#) for timeline). The Tasmanian Archive and Heritage Office (TAHO, 2012) and the Australian Capital Territory Records Office (TRO, 2011) chose to adapt the forerunning advice published by SRNSW. In both

cases, the smaller states condensed the SRNSW guidelines and in doing so cut out most of the practical advice. Although the guidance shares a common emphasis on recordkeeping principles—in particular that records are evidence of business transactions, can exist in any format, and need to be properly managed from creation to disposal—among the four largest PROs in Australia (PROV, SRNSW, NAA & QSA) the guidance on social media recordkeeping varies both in terms of the level of detail and overall approach.

Analysis of Guidance

Despite their early publication, the SRNSW guidelines are very comprehensive and their use by other agencies demonstrates their continuing relevance. SRNSW (2009, p.8) used the well-established DIRKS (designing and implementing recordkeeping systems) model as a basis for their guidelines, which encourage agencies to conduct an appraisal of their social media activities to identify what needs to be captured as a record. It is noteworthy that although formerly a proponent of DIRKS, NAA has removed the manual from their website as it has been replaced by more up-to-date advice (NAA, 2011c). SRNSW has also published informal advice on social media recordkeeping via their [Future Proof](#) blog. In addition to reinforcing the formal advice, the blog posts raise awareness that social media can be records and invite feedback from NSW agencies (Cumming, 2011a, 2011b; Knight, 2012).

Additional advice was not published until 2011, when QSA released a series of short guidelines on new technologies following their 2010 survey. The QSA (2011, p.2) guidance advocates a “common sense, risk-based approach” similar to the model that has become standard for cloud computing (externally hosted computer services accessed via the internet), of which social media is a subset. QSA (2011, p.3) advises that the way social media records are captured should be determined by their level of risk, with higher risk records requiring more robust methods. The guidelines published by QSA are concise but highly practical because of their inclusion of case studies and examples. In response to the reports by Reed and the Gov2.0 Taskforce, NAA also published

advice on social media records in 2011. While their advice does well to define social media records, it mainly focuses on providing government agencies with a policy framework rather than practical advice (NAA, 2011a, 2011b).

The Public Records Office of Victoria (PROV) was the last of the major PROs to publish guidance on social media. Their issues paper released in April 2012 provides some advice, raises issues and seeks input on current practices. By virtue of being the most up-to-date, the PROV guidance (2012, pp.7-8) includes the most detailed discussion of what constitutes a social media record, including when comments and repostings should be considered records. In contrast to SRNSW (2009, p.14) and QSA (2011, p.4), who recommend creating file notes for capturing social media records, PROV (2012, p.9) sees taking screenshots as the only way to guarantee the integrity of social media records.

Common Themes and Gaps in the Guidance

There are several common themes in the guidance on social media (see [appendix 11.3](#) for summary). Many of these focus on planning for social media records rather than implementing methods for capturing them. All but one of the PROs (TRO, 2011) stress the importance of having policies and procedures outlining the responsibilities for capturing social media records. Many also detail the minimum amount of metadata needed for records to be usable as evidence, but do not specify formats for storage. Giving consideration to the information management risks of using a cloud-based service is a recurrent theme, with several PROs recommending that agencies closely read the Terms of Service of social media websites. All of the PROs promote collaboration between records managers and the business, either during the planning or implementation phase, via training and awareness. Some of the guidance recommends using in-house software where possible, but while this may be suitable for some Web 2.0 technologies like wikis it is not a viable alternative for social media (SRNSW, 2009, p.12; TAHO, 2012, p.6). Another proposed solution is for agencies to create a “bridge” between their systems and Web 2.0 systems but this relies on records managers having

an advanced understanding of technology and the financial and staff resources for development (SRNSW, 2009, p.10; TRO, 2011, p.2). The most practical and attainable suggestions include exporting data or taking screenshots and capturing them into a recordkeeping system, creating file notes or logs, and saving a master copy. The guidance is not very clear on when and how often social media records should be captured. PROV (2012, p.10) recommends records should be captured directly following creation or receipt, whereas QSA (2011, p.4) and SRNSW (2009, p.9) suggest that this needs to be determined by the agency based on their business needs.

Summary of Guidance

Overall, the guidance has successfully defined what social media content needs to be captured as a public record, but for the most part PROs have left agencies to come up with their own answers for how and when. The most common strategy for dealing with social media records is appraisal followed by risk assessment. Where PROs have given examples of capture methods, these have tended to require manual processes that are unsustainable in the long term. As Lips and Rapson (2009, p.25) noted in their survey, creating file notes is an adequate solution for technology that is used occasionally but not when used regularly, as is now the case with social media. So far, none of the PROs have supported using cloud-based services for archiving social media content despite evidence that they are in common use (Cumming, 2012, para.19). This survey shows that while agencies may be quick to provide procedural advice, the creation of practical advice can take much longer as PROs come to grips with new technology.

5. Research Design

The epistemology of this research study is positioned across both post-positivist and pragmatic knowledge claims. The study was motivated by a desire to examine the barriers that can influence whether social media records are being captured and measure their degree of impact. While these variables are conceptualised using the Continuum Model, in contrast to traditional post-positivist research, this study does not seek test

Continuum theory (Creswell, 2003, p.7). On the other hand, the study is also pragmatic in nature as it seeks to find a solution to problems posed by social media in the hope of discovering implications for recordkeeping practice (Creswell, 2003, p.6, 11).

Accordingly, a mixed methods approach was the preferred research design but it was decided that this would be too difficult to complete within the timeframe of the project. A quantitative research design was chosen instead, the rationale for which was three-fold. Firstly, the practicality of using a survey instrument allows collection of a large sample in a short amount of time with minimal cost and respondent burden. Secondly, to contribute a different research design to the literature, which for the most part has focused on case studies (Lips, & Rapson, 2009; Franks, 2010 NARA, 2010; ACT-IAC, 2011). Last and most importantly, to give the study the best possible chance of discovering a range of methods for capturing social media records by surveying a large population.

6. Research Methodology

6.1. Population and Sample

Because of the recordkeeping concepts that form the basis of this study, records managers rather than web or communications managers were selected as the target population. In hope of yielding a wider range of experiences, it was decided to make the population of the study national by appealing to records managers in all states and levels of government. Because there is no list of government records managers, this study used a convenience sample taken from members of the Records and Information Management Professionals Australasia (RIMPA) electronic mailing list and the [ArchivesLive!](#) professional networking website.

6.2. Data Collection

The survey was administrated via an online self-questionnaire using the *Qualtrics* software provided by the university. A summary of the study and a link to the survey were posted to the mailing list and networking site addressed to records managers

working in Australian government departments. The survey was open for two weeks from the 8th to the 22nd of June 2012, with reminders sent to the mailing list at the half-way point and just before the closure date (see [appendices 11.4.2-11.4.4](#)). An incentive was offered in the form of a chance to win supermarket vouchers. In an effort to maximize the response rate, the researcher contacted six of the nine Australian PROs that had a social media presence for help promoting the survey ([appendix 11.4.1](#)). Four of the PROs responded and two, PROV and State Records of South Australia (SRSA), agreed to help promote the survey. They were sent the same summary and survey link to distribute to their constituents. After a slow start, the remaining PROs were also approached to boost the response rate, which resulted in unofficial but beneficial support from Queensland representatives.

6.3. Questionnaire Design

As with the research questions, the survey questions were designed in line with the Continuum Model ([appendix 11.5](#)), and several steps were taken to maximise the response rate and data relevancy. Consideration was given to what questions records managers would realistically be able to answer, and a “don’t know” option was included where appropriate. The questionnaire was kept as short as possible and progressed from demographic to more technical questions. The number of open questions was also limited and only included at the end of the survey to avoid drop-out. To maximise the population base, agencies that were not yet using social media or capturing records were still given an opportunity to participate in the survey. Respondents were only shown questions that were applicable to them based on their previous answers; this was also made clear at the beginning of the survey so as not to confuse respondents. Because of the technical subject, examples and explanations were included for the benefit of respondents who were not familiar with the functionality of social media. As the software only allowed one “other” option for each question, the researcher was careful to make sure a comprehensive range of answers was included in the response list. Finally, to encourage completion, all questions were optional and a progress bar was included.

6.4. Pilot Testing

The questionnaire ([appendix 11.4.5](#)) was piloted on colleagues working outside the Australian records management community to test for clarity and length. On average, the survey was found to take just over five minutes; this information was used to provide an estimated completion time for respondents. As a result of the pilot testing the wording of some questions was altered to minimize confusion, including providing definitions for key terms. Question numbering was also added so that respondents could more easily tell how far through the survey they were. The main suggestion to come out of the pilot testing was to measure how social media records are captured for different social media applications. It was decided, however, that this was outside the scope of the study and may have been difficult for records managers to answer.

6.5. Data Analysis and Treatment

The data collected from the online questionnaire were automatically encoded by the *Qualtrics* software and exported into *Microsoft Excel 2007* for analysis. The data analysis consisted of three stages; descriptive statistics, univariate analysis and bivariate analysis. Because the sample was not representative and most of the response sets comprised nominal data, contingency tables were chosen to illustrate the relationships between variables. Non-responses were excluded from the overall analysis and described separately; “don’t know” responses were included as the inability of respondents to answer questions was considered significant.

7. Limitations, Validity and Ethical Considerations

7.1. Delimitations

Although social media presents challenges for the retention, preservation and disposal of records, the focus of this study was limited to the capture of records as this is the most pertinent issue for records managers.

7.2. Limitations

There were several limitations that influenced this study. Foremost, the findings are likely to have been affected by non-response bias in that records managers who are actively involved in their department's use of social media are more likely to have responded than those who are unaware of social media adoption. Unfortunately, because the responses were anonymous there was no way to test this. It is also possible that more than one person per agency filled out the survey. To mitigate this, the results were screened for duplication but none was found.

Many factors may have impacted the response rate of the survey. SRNSW published their survey on social media recordkeeping one month previously, which could have meant respondents from NSW were less likely to participate. It was also a busy time of year for government as the data collection period coincided with the end of the financial year. Finally, the Queensland government had recently held elections and was undergoing a review.

The survey instrument also provided a few technical limitations. The *Qualtrics* software allows questions shown to respondents to be filtered based on their previous answers, but only one filter can be applied per question. This affected questions five and six on social media policies, as only participants who had selected 'yes' to question five were given the opportunity to answer question six, neglecting participants who selected 'in development' (see [appendix 11.4.5](#)). Question 11 was originally two separate questions but was combined into one table. The consequence of this was that not all potential responses were correct, i.e. respondents could select that a response was captured before posting, which is not possible, but the software did not allow answers within a table to be conditional; this was taken into account in the analysis.

7.3. Validity

The main challenge to the validity of this study was the research design. This study used a non-probability survey sample, which means that the results are not able to be generalised and results in weak external validity. Due to the cross-sectional design, any variables found to impact the extent to which social media records are captured can only

be inferred, not claimed to be the cause, meaning the internal validity (significance) is also weak (Bryman, 2008, p.32-33). On the other hand, because the indicators used are based upon a combination of best practice identified in previous studies and concepts from the Continuum Model, the measurement quality or construct validity is strong (Bryman, 2008, p.152). An effort was made to show data collection and analysis in a transparent manner so as not to misrepresent the findings, for instance, by qualifying the numbers that make up a percentage. This also ensures the research could be easily repeated, but as the sample is not representative the result of a convergent study may be very different (Bryman, 2008, p.32).

7.4. Ethical Issues

Prior to the data collection, approval was sought and granted by the Victoria University Human Ethics Committee (HEC). The main ethical concern in undertaking this research is that although the survey respondents are anonymous, individual organisations could be identifiable from the results. To avoid this, care was taken during the data analysis and write-up phases so that variables that could identify an organisation are not presented together. In accordance with HEC policy all respondents were provided with a summary of the study detailing the research objectives, a privacy and ethics approval statement, contact details for the researcher and project supervisor, the amount of time required to complete the survey, and the intended use of the data (Research Policy Group, 2007, p.3). Respondents acknowledged and agreed to the terms laid out in the summary by submitting their completed survey (see [appendix 11.4.5](#)). The data from the survey is stored in password protected files and will be destroyed two years after the completion of the research in case of publication.

8. Findings

Response

In total, 98 responses were received. Twenty-five unfinished questionnaires and eight that had been submitted without answers were disregarded. A further two were excluded

from analysis as they did not come from respondents working in the public sector, leaving 63 responses for analysis. Many of the incomplete questionnaires possibly came from respondents wanting to trial the survey. All 63 respondents who contributed to the sample answered up to question 10, but as questions were not mandatory there were various levels of non-response throughout the survey, 3–11% for the closed questions and 32–68% for the open questions, which is why the total number of respondents (*n*) varies throughout the results. Question 17 had one of the highest rates of non-response for the closed questions, it asked whether respondents felt confident that their organisation was meeting legal obligations to capture social media records, which respondents may not have felt comfortable answering. Question 18, which asked respondents what sources they had consulted for advice on capturing social media records, also experienced some drop out as the table that it was presented in may have appeared overwhelming.

Sample Population

The majority of responses came from the state sector, accounting for 52.4% (33) of the sample. Despite outnumbering state agencies, local government only contributed 31.7% (20). As expected, federal agencies came in third at 14.3% (9). The only “other” response recorded was from the tertiary education sector (Figure 1). Most respondents belonged to large organisations (39.7%, 25), which were defined as having over 1000 staff. The remaining respondents were spread among small and medium sized organisations evenly (Figure 2).

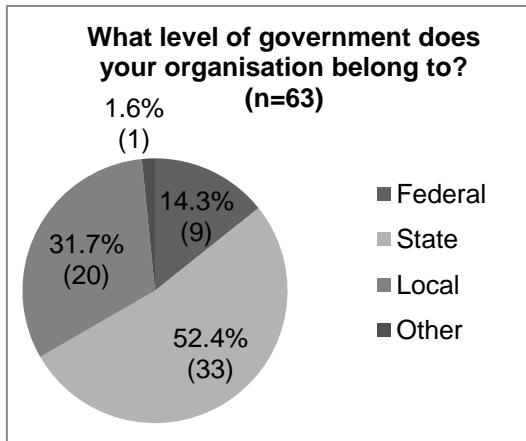


Figure 1: Level of government

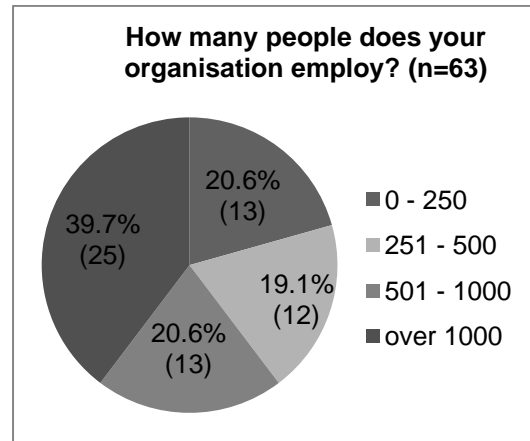


Figure 2: Organisation size

The promotion methods employed during data collection were successful, with the highest number of responses coming from states where the survey had been promoted by the relevant PRO, namely South Australia at 24.4% (16), Queensland at 19.1% (12) and Victoria at 15.9% (10). The smaller states, Tasmania and the Northern Territory, had the lowest number of responses, making up only 3.2% (2) each despite appeals for more participants in reminders posted to the RIMPA mailing list (Table 1, [appendix 11.4.4](#)).

	State (n=63)							
	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
#	6	8	2	12	16	2	10	7
%*	9.5	12.7	3.2	19.1	24.4	3.2	15.9	11.1
*percentages do not add up to 100 due to rounding								

Table 1: Respondents by state

Over two thirds of respondents (41) came from organisations that had been using social media for over a year. The number of respondents who didn't know how long their organisation had been using social media was less than expected at only 3.2% (2). The next largest response group (14.3%, 9) was from agencies that were planning to but had not yet started using social media, indicating that even records managers who are not actively using social media are aware of the recordkeeping challenges involved and are engaged to help find solutions (Table 2).

Does your agency have a social media policy? (n=63)	Length of social media adoption						
	Not using social media yet	0 - 6 mths	6 mths - 1 yr	1 yr - 2 yrs	2 yrs +	Don't know	Total
Yes	2	2	3	8	11	0	26 (41.3%)
In development	3	2	2	9	6	1	23 (36.5%)
No	4	0	2	5	2	0	13 (20.6%)
Don't know	0	0	0	0	0	1	1 (1.6%)
Total	9 (14.3%)	4 (6.3%)	7 (11.1%)	22 (34.9%)	19 (30.2%)	2 (3.2%)	63

Table 2: Effect of length of social media adoption on policy

The majority (77.8%, 49) of respondents stated that their organisation either had or was developing a social media policy. The longer an agency had been using social media, the more likely they were to have a policy in place (Table 2).

Capturing Social Media Records

In addition to the direct question “Does your organisation capture records created on social media websites?”, two other questions also provided an indication of the extent to which agencies were capturing records; whether they had a procedure in place and how confident they felt that they were meeting their legal obligations to keep records.

Of the respondents whose agencies were actively using social media (54), only 33.3% (18) were found to be capturing records. The majority, 42.6% (23), were not capturing records and 24.1% (13) were unable to say either way, which was the highest ratio of “don’t know” responses in the survey (Figure 3). In general, the characteristics of the agencies that were capturing social media records matched the sample demographics. It is interesting to note, however, that only one of the eight federal agencies that responded was capturing social media records. Unlike the implementation of social media policies, agencies that had been using social media for longer were not necessarily more likely to be capturing records. All respondents who were capturing social media records came from organisations that had a procedure in place or in development and 15 of the 18 had a policy in place/development.

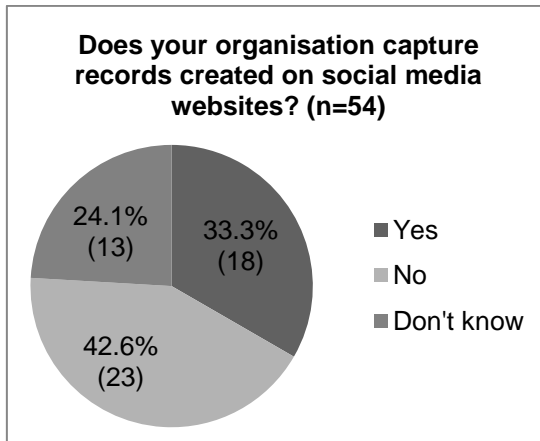


Figure 3: Percentage capturing

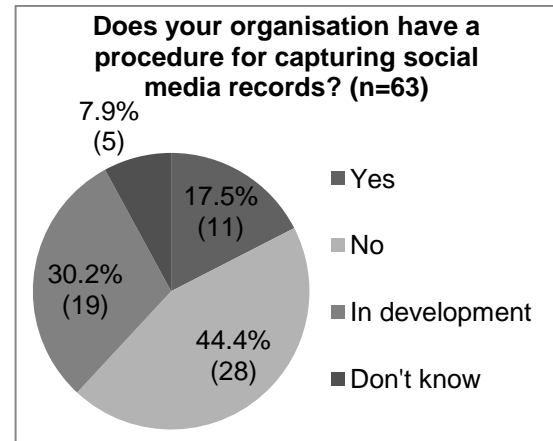


Figure 4: Percentage with a procedure

When asked whether they felt confident that their organisation was meeting their legal obligations to keep social media records, 60.4% (29) either disagreed or strongly disagreed, 18.8% (9) agreed and none strongly agreed. Of the 9 respondents who felt confident they were meeting their legal obligations, all but one had a policy in place/development, and the same was true for procedures. Only seven of the respondents who were capturing records felt confident they were meeting their legal obligations (Table 3).

I feel confident my organisation is meeting our legal obligations (n=48)	Policy		Procedure		Capture	
	Yes/In development	No/Don't know	Yes/In development	No/Don't know	Yes	No/Don't know
Strongly Disagree	9	4	4	9	1	12
Disagree	14	2	7	9	5	11
Neither Agree/Disagree	8	2	4	6	2	8
Agree	8	1	8	1	7	2
Strongly Agree	0	0	0	0	0	0
Total	39	9	23	25	15	33

Table 3: Effects on confidence in recordkeeping compliance

More organisations were capturing social media records (18) than had a formal procedure in place (11), showing that advice follows practice. Overall, respondents were more certain of what procedures their organisation had in place than whether they were being followed (Figures 3 and 4).

Internal Support

To establish whether agencies had given consideration to records, respondents were asked whether their agency's policy mentioned the recordkeeping implications of using social media. Of the 26 respondents whose organisations had a policy in place, 13 (50%) mentioned the recordkeeping implications of using social media, nine of which came from organisations that had been using social media for two years or more. None of the organisations who were planning to use or had only just started using social media (less than six months) had a policy in place that mentioned recordkeeping or a procedure for capturing records, showing that records are often an afterthought in organisations (Table 4).

Does the policy mention any recordkeeping implications of using social media? (n=26)	Length of social media adoption					Total
	Not using social media yet	0 - 6 mths	6 mths - 1 yr	1 yr - 2 yrs	2 yrs +	
Yes	0	0	2	2	9	13 (50.0%)
No	2	2	1	5	1	11 (42.3%)
Don't know	0	0	0	1	1	2 (7.7%)
Total	2	2	3	8	11	26

Table 4: Effect of length of adoption on policy that mentions recordkeeping

All but one of the agencies that had a social media policy covering recordkeeping had been approached internally for advice on capturing social media records. Fourteen of the 18 agencies that were capturing social media records had also been approached for advice (Table 5). However, only eight had a policy that mentioned recordkeeping. This could be because government policies can take a long time to finalise.

Does your organisation capture records created on social media websites? (n=54)	Has your records team been approached by anyone in your organisation to provide advice on social media?			
	Yes	No	Don't know	Total
Yes	14	3	1	18
No	10	13	0	23
Don't know	5	8	0	13
Total	29 (53.7%)	24 (44.4%)	1 (1.9%)	54

Table 5: Effect of internal awareness on capture

How proactive records managers had been in promoting the importance of social media recordkeeping in their organisation was also measured by whether they had created a procedure for capturing records, another question that received a high portion of “don’t know” responses at 7.9% (5). Over half (50.8%, 32) of respondents stated that they had been approached by internal staff for advice on how to capture social media records. Despite this, only 17.5% (11) had produced formal guidelines, although 30.2% (19) reported that a procedure was currently in development (Table 6 and Figure 3).

Does your organisation have a procedure for capturing social media records? (n=63)	Has your records team been approached by anyone in your organisation to provide advice on social media?			
	Yes	No	Don't know	Total
Yes	9	2	0	11
In development	13	5	1	19
No	9	19	0	28
Don't know	1	4	0	5
Total	32 (50.8%)	30 (47.6%)	1 (1.6%)	63

Table 6: Effect of internal awareness on procedure

External Support

All respondents, regardless of whether they were capturing social media records, were given the opportunity to rank sources they had consulted on capturing social media records on a scale from least to most useful. The question was presented in a table format that included seven different categories. Not all respondents chose to rank each category; consequently the results are reported as numbers rather than percentages.

Internal colleagues were rated the least useful, with 16 respondents finding them not useful at all, indicating that overall there is still little awareness and understanding of the status of social media as records within organisations. Local PROs were found to be the most helpful, with 33 respondents citing their advice as somewhat or very useful, followed by Other PROs in Australia, Professional Associations, and Records Managers in other Government Departments in a close group with 25, 24 and 23 positive ratings, respectively. Seven respondents entered in other sources they had used; these included mailing lists, consultants, vendors, the internet and other organisations, all of which proved to be at least slightly useful. Few respondents had consulted overseas PROs or

Records Managers outside of government for advice (Figure 5). Overall, local PROs seemed to be the preferred source for advice.

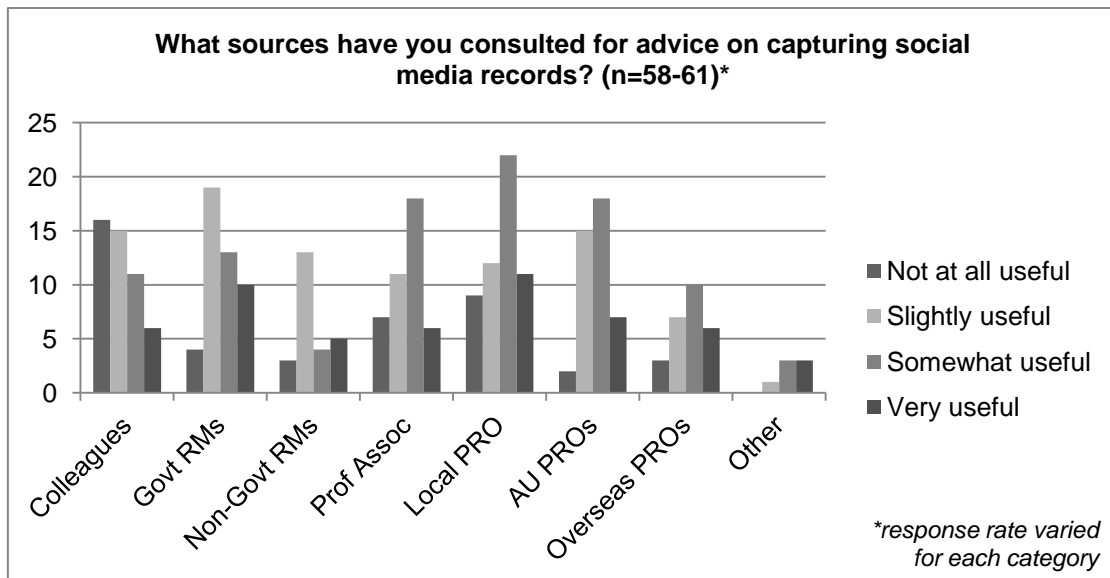


Figure 5: Usefulness of sources consulted for capture advice

The responses were analysed by state to see if PROs that had published guidance on capturing social media records received more positive ratings. SRNSW received the best review, with all respondents from NSW finding their advice at least slightly useful; they also had the highest number of very useful rankings (3). Despite not having any published guidelines, some respondents still found the advice from the Northern Territory Archive Service (NTAS) and the State Records Office of Western Australia (SROWA) useful (Table 7).

Please rate how useful you found your local PRO (n=60)	State								Total
	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	
Not used	1	0	1	0	3	0	0	1	6
Not at all useful	1	0	0	2	3	0	2	1	9
Slightly useful	1	2	0	3	4	0	0	2	12
Somewhat useful	2	3	0	3	4	1	6	3	22
Very useful	1	3	1	2	1	1	2	0	11
Total	6	8	2	10	15	2	10	7	60

Table 7: Usefulness of local PRO as a source of capture advice

The quality of guidance provided by PROs did not guarantee better recordkeeping practices, with only 24.3% (8) of respondents who found the advice from their local PRO very or somewhat useful (33) coming from organisations that were capturing records. Despite the advice from SRNSW being highly regarded, just one of the respondents from NSW was capturing social media records. PROs for which there were more respondents received a poorer average rating, with the exception of Victoria, possibly by virtue of having the most recent advice (PROV, 2012). Unfortunately, there were not enough respondents to gain significant insight into how each PRO was performing.

The remaining sources were examined to determine whether they also affected the degree to which social media records were being captured. Government records managers were the most highly rated source by respondents with policies or procedures in place/development. A third (6) of the respondents from agencies who were capturing records ranked fellow government managers as very useful, showing the importance of collaboration amongst the profession. Nine of the 49 agencies that either had a policy or were developing one gave their local PRO a very useful rating. However, respondents who were capturing social media records or had procedures in place/development did not rate their local PRO as highly, hinting at gaps in the guidance. Although most respondents found internal colleagues to be unhelpful, all six respondents who found internal colleagues very useful had a policy and procedure in place/development (Table 8). Conversely, of the 13 respondents who had not consulted internally, only three had a social media policy and none had a completed procedure for capturing social media records, demonstrating the impact internal relationships can have on recordkeeping.

Degree to which records are captured	# of "very useful" ratings							
	Colleagues	Govt RMs	Non-govt RMs	Prof Assoc	Local PRO	AU PROs	Overseas PROs	Other
Respondents with a policy in place or development (n=49)	6	9	3	5	9	6	5	2
Respondents with a procedure in place or development (n=30)	6	9	3	3	4	4	3	1
Respondents capturing social media records (n=18)	3	6	2	1	3	3	3	1
Total for all respondents (n=58-61)*	6	10	5	6	11	7	6	3
<i>*response rate varied for each category</i>								

Table 8: Sources with a positive effect on the degree to which records are captured

There was no apparent relationship between how confident respondents felt that their organisation was meeting their legal obligation to keep records and sources consulted.

What and How to Capture

Respondents who indicated that they were actively capturing social media records were asked a further seven questions to uncover more details about what and how records were being captured. When asked how they determine what records to capture, 38.9% (7) of respondents replied that they decided on a case-by-case basis, 27.8% (5) were capturing all records and 22.2% (4) were capturing everything except what comes under Normal Administrative Process (NAP), which includes transitory material and duplicates (NAA, n.d.). Only one respondent had applied their organisation's RDA to social media and the one "other" response stated that they were only capturing Twitter records at present (Figure 6). This highlights the different approaches to capturing social media records; some organisations adopt a big-bucket approach, perhaps because either they are unclear of what records need to be kept or for convenience, while others are applying more traditional methods.

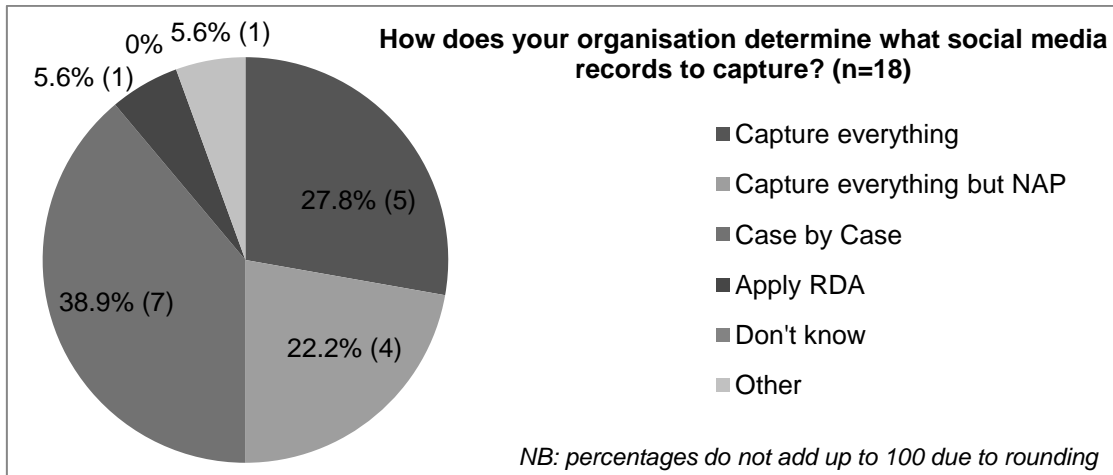


Figure 6: Appraisal approaches

Respondents were then asked what type of social media records they capture and when. All respondents (17) were capturing posts made by the organisation and 15 were also capturing responses and direct messages (DMs) sent and received. The majority (9) were capturing posts made by the organisation at regular intervals rather than before or at the time of posting. One respondent answered that responses received were captured before posting, which is of course impossible but was unfortunately part of the limitations of the questionnaire. Only five were capturing ratings or tags on social media sites, which in most cases (4) was done at regular intervals. Respondents were most unsure about whether re-postings were captured, probably because the re-use of social media content is usually the focus of web and communications teams (Figure 7).

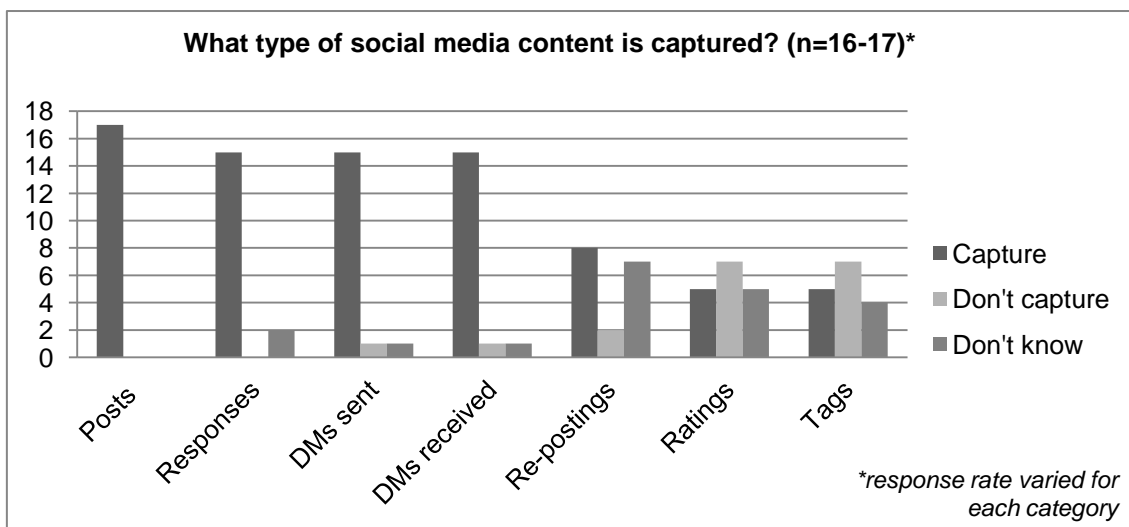


Figure 7: Range of content captured

None of the respondents were capturing records when an application was decommissioned, showing that either records managers are aware that the longevity of their data is not guaranteed or that because government use of social media is still in its infancy, organisations are yet to experience this (Figure 8). Length of adoption did not affect whether interactions were captured as this may be more dependent on how applications are being used. There was no relationship between the advice provided by the respondent’s local PRO and when records were captured as agencies seem content to use methods that are suited to their needs rather than following best practice.

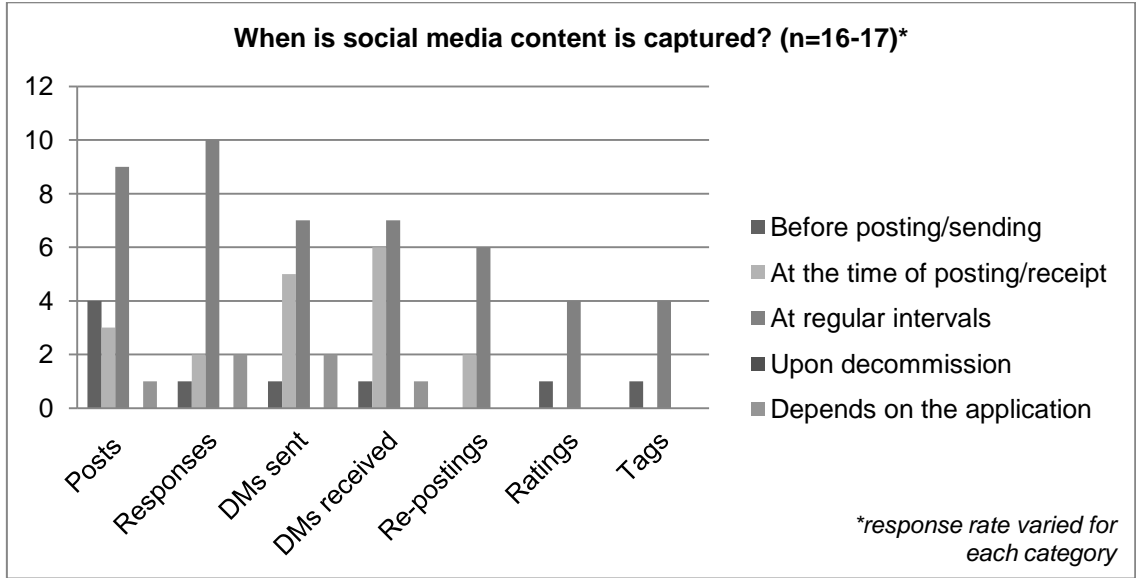


Figure 8: Point of capture

Respondents were asked to indicate what contextual information, adapted from the mandatory elements of the AGLS metadata standard (2010, pp.13-14), was captured with the records. The most common information captured was “author” and “time and date”, which enable agencies to track when and by whom a post was made. Organisations were less likely to record information about the context in which the record was created, such as on what application and in response to whom, possibly because this requires manual intervention. For example, one respondent remarked that the information they captured was only what was present within screenshots. One respondent stated that they also recorded the function to which the record related, but this was not the same respondent who had employed their RDA to determine what to capture (Table 9).

What, if any, additional information (metadata) is recorded at the time of capture? (n=17)	#	%
Time and date	14	82.4
Application (i.e. Facebook, Twitter)	11	64.7
Author	15	88.2
Recipient	10	58.8
Subject	12	70.6
None	0	0.0
Don't know	2	11.8
Other	2	11.8

Table 9: Metadata captured

Sixteen of the 18 respondents who said they were capturing records indicated what methods they used. Over a third (37.5%, 6) were only using one method to capture social media records, 25% (4) were using two methods and 31.3% (5) were using three or four different capture methods (all of whom came from organisations that had been using social media for more than two years). Lastly, one respondent did not know what capture methods were being used. Five of the six respondents who said their capture method changed based on the application had also been using social media for more than two years, which could indicate that as an organisation grows more confident in their use of social media they start to use more applications (Table 10).

Does the method used to capture social media records change depending on the application? (n= 16)	Length of social media adoption				
	0 - 6 mths	6 mths - 1 yr	1 yr - 2 yrs	2 yrs +	Total
Yes	0	1	0	5	6 (37.5%)
Not applicable (only using one application)	1	0	1	0	2 (12.5%)
No	1	1	1	3	6 (37.5%)
Don't know	0	0	1	1	2 (12.5%)
Total	2	2	3	9	16

Table 10: Effect of length of adoption on number of capture methods

The three most common methods for capturing social media records were taking screenshots, subscribing to syndication feeds and using a third party service (Table 11). Surprisingly, only one respondent was keeping a register of posts in a document despite QSA (2011, p.3) and SRNSW (2009, p.14) offering this as a capture solution in their guidelines, presumably because of the manual process involved. Using a third party service was no perfect solution, however, as four of the seven respondents who were using the more automated method also employed other capture methods. The two

respondents who were printing social media records and managing them as paper records came from smaller organisations (under 500) in states that had not produced guidance on social media records. Queenslanders were the greatest users of third party services even though this is not a recommendation in their guidance. Only one “other” selection was made and it was used to comment that screenshots had been used to record posts but had been deleted after moderation.

What tools and methods is your organisation currently using to capture social media records? (n=16)	#	%
Printing and creating a paper file	2	12.5
Printing to PDF or taking screenshots	7	43.8
Using the application's export function	5	31.8
Downloading usage reports	3	18.8
Subscribing to syndication feeds	7	43.8
Conducting web harvests	0	0.0
Using a third party service/application to archive and export data	7	43.8
Keeping a register of posts in a spreadsheet or document	1	6.3
Don't know	1	6.3
Other	1	6.3

Table 11: Capture methods

Over half of respondents (10) were using two or more formats to store social media records. PDF was the most common format for storing social media records, with Office-type applications and XML following close behind (Table 12). The predominance of PDF is probably because many agencies are using print to PDF to capture social media records. However, this means that any links contained within the records will be broken and the data are not reusable. The only other format used was CSV.

What formats does your organisation use to store social media records? (n=16)	#	%
XML	5	31.3
PDF	7	43.8
Paper	2	12.5
MS Office type applications	6	37.5
Don't know	3	18.8
Other	2	12.5

Table 12: Storage formats

Finally, respondents were asked whether they believed their capture methods were sustainable. Respondents were split, with 50% (8) agreeing or strongly agreeing and 37.5% (6) disagreeing or strongly disagreeing; 12.5% (2) were undecided. Four out of five respondents who stated that they were capturing all social media records believed their methods were sustainable. None of the six respondents who decided what to capture on a case-by-case basis thought their methods were sustainable (Table 13).

Our capture methods are sustainable (n=16)	How does your organisation determine what social media records to capture?					Total*
	We capture everything	We capture all but NAP	Case by case basis	We apply our RDA	Other	
Strongly Disagree	0	0	1	0	0	1 (6.3%)
Disagree	1	1	3	0	0	5 (31.3%)
Neither Agree/Disagree	0	0	2	0	0	2 (12.5%)
Agree	3	2	0	1	1	7 (43.8%)
Strongly Agree	1	0	0	0	0	1 (6.3%)
Total	5	3	6	1	1	16
*percentages do not add up to 100 due to rounding						

Table 1: Sustainability of appraisal approaches

Respondents who believed their methods for capturing records were sustainable tended to use more automated methods of capture such as a third party service or subscribing to a syndication feed (Table 14).

Capture method	Our capture methods are sustainable	
	Agree/Strongly Agree (n=8)	Total (n=16)
Printing and creating a paper file	0	2
Printing to PDF or taking screenshots	2	7
Using the application's export function	3	5
Downloading usage reports	2	3
Subscribing to syndication feeds	5	7
Conducting web harvests	0	0
Using a third party service/application to archive and export data	5	7
Keeping a register of posts in a spreadsheet or document	0	1
Don't know	0	1

Table 14: Sustainability of capture methods

There was no correlation between how sustainable respondents believed their capture methods were and whether they felt they were meeting their legal obligations.

Open Questions

At the end of the survey, respondents were asked two open questions. The qualitative data were categorised using representational coding, which presents the responses at face value rather than trying to uncover hidden meaning (Sapsford & Jupp, 2006, p.170). Responses that fell into more than one category were counted again, such that the total count for all categories does not match the total number of respondents; irrelevant responses were excluded from analysis.

The first open question asked what gaps respondents thought existed in the current guidance on social media records. The total number of irrelevant and non-responses was 23, leaving 40 responses for analysis. The responses were grouped into 11 categories to show the variety contained within the feedback (Table 15). The most common gap, identified by 52.5% (21) of respondents, was a lack of practical methods for capturing and managing social media records.

“Policy is strong but the availability of procedural guidelines are [sic] very limited.”

“Specific advice detailing different options/scenarios for capturing and sentencing records of social media is definitely a gap at the moment”

Eight of the respondents that called for practical methods came from South Australia. This could be because SA had the highest number of respondents (16) in the survey, but also because SRSA is yet to publish guidance on social media. In contrast, respondents from Queensland, who comprised a sizable part of the sample (12), made only two comments on the need for more practical methods, possibly because QSA have recently published several guidelines on the subject. Victoria also had a high number (4) for the level of total responses (10) as PROV had only just published their issues paper. Despite benefiting from the earliest guidance on social media (SRNSW, 2009), five of the eight respondents from NSW thought that more advice was needed on how to capture social

media records and three of the eight were still struggling with what records need to be captured—another gap identified by a third of respondents (13).

“It is neither feasible nor realistic to capture all social media interactions as many of these aren't 'records'”

In addition to wanting practical methods, 30% (12) of respondents also noted a lack of sustainable solutions for capturing social media records, namely automated and cost-efficient methods.

“[There is a lack of] practical and useful tools (or knowledge of existing tools) that make the capture of social media records easy and efficient”

Nine respondents (22.5%) commented that social media records are still not regarded as official and wanted advice on how to raise awareness of the need for social media to be treated as such. Many of these came from NSW, which is consistent with the SRNSW study that also found lack of awareness to be a barrier to capturing social media records (Cumming, 2012, para.16).

“I think a major gap is people having a basic understanding that social media posts are in fact public records if posted in the capacity as an officer of an agency and need to be managed accordingly.”

“Social media is being considered as a passing phase and therefore not being taken seriously”

Finally, 10% (4) commented that the advice was lagging behind practice and that PROs need to be more proactive in providing guidance on new media. Half of these comments came from Victoria, again potentially because PROV has only recently released advice on social media recordkeeping (PROV, 2012).

“[The guidance] only covers the types of social media currently in use... so is reactive rather than proactive.”

“Records offices...are reactive to these issues rather than pre-emptive”

Common issues and gaps in the current guidance (n=40)	State								
	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Total
Practical methods for capturing & managing social media records	1	5	0	2	8	1	4	0	21 (52.5%)
Consistency	0	0	0	0	0	0	0	1	1 (2.5%)
Moderation (of both internal and external use)	0	0	1	0	1	0	0	0	2 (5.0%)
Lack of awareness of social media as records	0	4	0	1	2	0	2	0	9 (22.5%)
Profession lagging behind	0	0	0	0	0	0	1	0	1 (2.5%)
Sustainable capture solutions	2	1	1	1	4	0	3	0	12 (30.0%)
What & when to capture records	2	3	0	1	6	0	1	0	13 (32.5%)
Lack of governance	0	1	0	1	0	0	0	0	2 (5.0%)
No easy solution	0	0	0	1	2	0	1	0	4 (10.0%)
Proactive advice	0	0	0	1	1	0	2	0	4 (10.0%)

Table 25: Common issues and gaps in the guidance by state

The final question in the survey asked respondents if they had any other comments to add. Responses were grouped into nine categories, some of which repeated themes in the previous question. Forty-four irrelevant or non-responses were excluded from the analysis, leaving 19 responses. Some respondents used the opportunity to provide advice, citing the importance of internal collaboration or risk-based approaches. Most, however, talked about the challenges of social media recordkeeping and offered reasons why the profession is struggling to adapt to this new media. There was no overwhelming topic in the responses, with four categories each receiving equal counts; lack of awareness, lack of governance, lack of guidance and no easy solution (Table 16).

Other comments (n=19)	#
Need to work with the business	1
Lack of awareness	3
Lack of governance	3
Lack of guidance	3
Profession lagging behind	2
No easy solution	3
Little value in social media records	2
Not a priority	1
Need risk-based approach	1

Table 36: List of additional feedback

Respondents in the “lack of governance” category believed leadership to be important to managing social media records but were not clear on where this should come from.

“Leadership on social media needs to come from areas other than traditional records management disciplines.”

Respondents who fell into the “no easy solution” category described difficulties that social media presented including the need to find different solutions for different applications and formats, the lack of automated solutions, and the potential loss of ownership and context.

“We have restricted the use of Social Media...as we simply don't have an efficient method to record what we do on these sites.”

Similar to the previous question, those in the “lack of guidance” category expressed dissatisfaction with the advice currently available, in particular the lack of detailed and practical advice. This aligns with the findings of previous surveys that records managers are in need of more training and instruction on digital records (NARA, 2012, p.7; SRNSW, 2010, para.60).

“As with most advice issued by Public Records Offices, they focus on [the] need to capture but don't advise how to capture”

“I found the guidance from archives & records people very poor - capture only relevant etc...I don't have time to filter posts to just find the ones that are relevant”

While some respondents talked about the difficulty in making their organisations understand that social media can be records and need to be captured (3), some did not see the value of social media records (2) or saw them as a low priority (1).

“Social media has no useful place in government communication.”

“When we can get users to capture all the real business records correctly then we can look at social media as a record.”

Some respondents (2) were quite scathing of their profession’s inability to keep up with new technology.

“Records Managers did not do enough with regards [to] managing emails. We should have learnt our lesson.”

“I find most records people to not understand technology at all well, and disengage when confronted with new information systems or styles of communication.”

Ultimately, regardless of whether they were capturing records or how useful they had found the guidance from their local PRO, several respondents felt strongly about the need for more practical and timely advice.

9. Discussion

Main Findings

In this study, only a minority of government agencies were found to be capturing social media records. Most of those capturing records were not very confident that they are meeting their legal obligations or that their methods are sustainable. Within the sample, the level of internal support, be it strong or lacking, was found to affect the degree to which social media records were being captured. Although well regarded as a resource, the guidance provided by PROs did not seem to have an impact on whether or how agencies were capturing records, with several respondents expressing a desire for more practical advice. When it came to deciding what and when social media records should be captured, agencies were split as to whether they adopted a big-bucket or case-by-case

approach. The longer agencies had been using social media, the more capture methods they were employing, suggesting that social media recordkeeping is becoming more complex as government use develops. Despite many respondents being aware of the use of social media, only a small number had created procedures for capturing records, possibly because—as illustrated by some of the comments—they are still struggling with day-to-day recordkeeping.

On a Continuum

To provide a theoretical lens to view the extent to which social media records were being captured, the answers from the 18 respondents who were capturing social media records were mapped against the axes and dimensions of the Records Management Continuum Model (Figure 9). One question was chosen as a key indicator for each of the four axes; the responses for each question were coded against the four dimensions (see [appendix 11.6](#)). In Continuum theory, the first dimension (create) is where records are created, and progression to the second dimension (capture) is made when the record is registered. Records in the third dimension are managed within a business system, and finally, records in the pluralise dimension are accessible by the public (Upward, 1996, p.280). The most frequent value for each question (mode) was used to determine at which intersection of the matrix the responses resided. “Other” responses were mapped to a dimension on a case-by-case basis. In the case of question 12, where the mode was shared among two dimensions, create and capture, the more outward dimension was represented (see [appendix 11.7](#)).

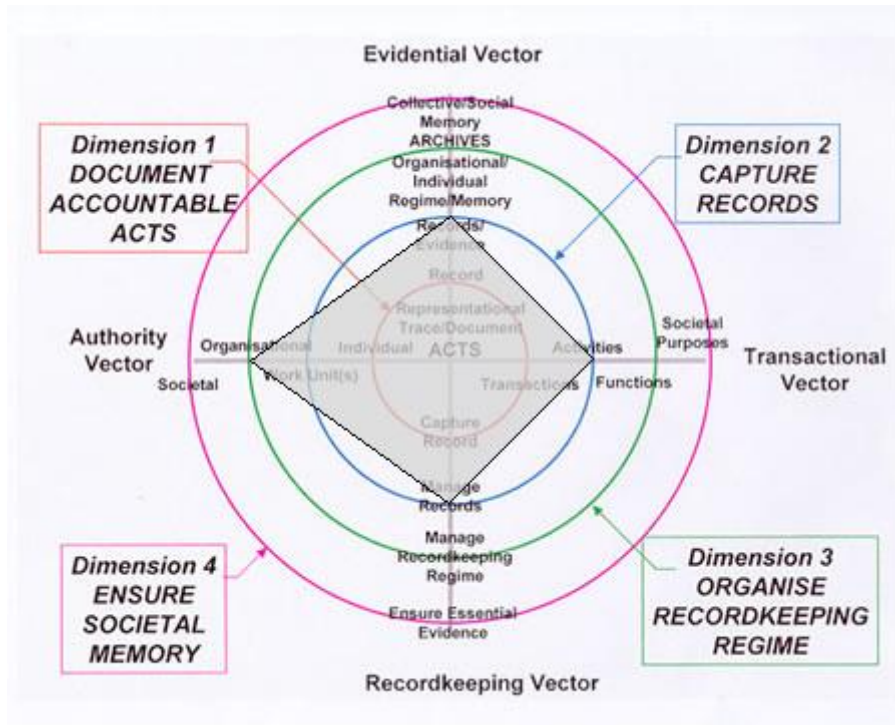


Figure 9: Key indicators mapped to the Continuum Model

For three out of the four indicators, respondents were found to be operating in the capture dimension. All 18 respondents who indicated their agency was capturing records had a formal procedure either in place or in development, putting them in the organise dimension on the authority axis. As they were actively capturing records, all respondents were placed in the capture dimension on the recordkeeping axis. While it is likely most respondents would also be saving these records into a recordkeeping system, thus putting them into the organise dimension, unfortunately the questionnaire did not confirm this. When it came to determining what records to capture, only one respondent had applied their RDA, putting them in the organise dimension on the transactional axis. The remaining respondents (17) who had not employed such a formal approach to appraisal were placed in the capture dimension. The results for the evidential axis were mixed, with seven respondents each capturing the minimum metadata or less than the minimum, putting them in the capture and create dimensions, respectively. A handful (2), did not know what metadata fields were being captured, perhaps because this was being done by the business owners; these respondents could not be placed in any dimension of the model. Lastly, one respondent was also capturing the function of the records, placing them in the organise dimension. It is unclear whether contextual

information was being captured automatically or manually, which in retrospect could have been included in the questionnaire. The majority of agencies who were capturing records were doing so at regular intervals rather than at the point of creation. This is indicative of how social media has changed the dynamics of electronic recordkeeping; records are no longer created internally and disseminated outward but rather created in the public domain and then herded back into the fold of corporate records systems.

Research Context and Relevance

This study has shown that many of the barriers to capturing social media records identified in the literature are still prevalent. As in Lips and Rapson (2009, p.79), who found each case study had developed their own capture methods, this study found that respondents were using different combinations of capture methods, demonstrating that there is no easy solution. In the ACT-IAC study (2011, p.15), agencies were divided as to whether their existing RDA could be applied to social media or if it was a special case. The respondents in this study were also using a range of appraisal strategies, with respondents deciding what to capture on a case-by-case basis finding their methods less sustainable. The big-bucket approaches being utilised by the Smithsonian and the IRS might help provide a practical solution that other agencies can adapt to their needs. Comments from respondents showed that some records managers are still struggling to raise awareness among their colleagues that social media can be records, one of the major challenges identified in the literature. As in the ACT-IAC (2011, p.11) and Franks (2011, p.12) studies, this project found that internal relationships are important to the success of recordkeeping initiatives and that the current guidance from PROs is not meeting the needs of records managers at the coal face. This gap in the guidance was also explored in the QSA (2010, pp.14-15) and SRNSW (Cumming, 2012, para.34) surveys; many of the same concerns were repeated by the respondents in this study, in particular a lack of practical examples of what and how to capture.

For the most part, the findings of this survey mirrored the results of the other Australian studies. Although not directly comparable due to different sampling methods, this study

found a higher percentage of respondents with implemented formal policies and procedures on social media recordkeeping than did the QSA study (QSA, 2010, pp.12-13). This increase is perhaps a result of the timing of this study, which was conducted two years later. Due to the proximity in which the studies were held, the two most popular methods among those who were capturing records—using a third party service and taking screenshots—were the same as in the SRNSW study (Cumming, 2012, para.19). Respondents in this study also shared a similar wish list to those in the SRNSW study, namely an easy, automated capture solution that can be used for multiple applications (Cumming, 2012, para.33). While SRNSW found that over a third of respondents were not investigating capture methods, this study showed that most respondents had consulted several sources (Cumming, 2012, para.23). The discrepancy could be because agencies had given up after finding the current advice unhelpful. One of the reasons cited by respondents in the SRNSW study for only capturing some records was that records managers simply weren't aware how or if their department was using social media, and this lack of internal awareness was also illustrated here by the high number of "don't know" responses. Finally, in the SRNSW study, some respondents stated that they were not capturing social media records because they did not see the need (Cumming, 2012, para.16). This study also found records managers to have differing views on the need to capture social media records; while most respondents didn't feel confident they were meeting their legal obligations, one respondent whose agency was not capturing records still felt they were compliant because, as indicated in their comments, they did not see the long term value of social media records. This glimpse into not only how records managers are adapting to new media but also how they feel they are performing is perhaps the most interesting contribution of this study.

Comparison to Guidance

In comparing the findings to the best practice produced by the Australian PROs, it is clear that although advice is valued, it is not always followed and does not appear to directly affect the degree to which social media records are being captured. The PROs are united in their emphasis on the importance of planning ahead, but the results of this

study indicate that policies and procedures are following implementation. Similarly, while all of the guidance on social media recordkeeping published so far has encouraged internal collaboration, the comments in this study show that records managers are struggling to get their business to care, suggesting that perhaps records managers need more training in how to influence their peers. To date, none of the PROs have advocated using a third party service to capture social media records despite this proving a popular solution among respondents. Although five of the six PROs (all but TAHO) that had published guidance advised that organisations do not need to capture duplicate records, seven out of 18 were capturing all social media records. This is perhaps because social media is still a relatively unknown technology and, for the moment, agencies prefer to err on the side of caution by capturing too much rather than not enough. When it comes to capturing records, the methods being used seem to be motivated by convenience, as the majority of agencies are capturing records at regular intervals rather than at creation, and the most common metadata captured appears to be information that is already embedded in the record.

Overall, no relationship was found between which state respondents were from and what methods they were using to determine what and how to capture social media records, suggesting that agencies in this study were coming up with their own solutions to suit their business needs. Some respondents commented on the lack of proactive advice available from PROs, as many have been hesitant to endorse capture methods, leaving agencies struggling to come up with their own methods. A potential solution to this could be for more PROs to publish informal advice, as SRNSW are already doing on their [Future Proof](#) blog, which can then be revised into more formal guidelines as more is learned about new media.

Suggestions for Further Research

As government use of social media is still evolving, there is great potential for further research on its implications for recordkeeping. Due to its timing and scale, this project focused on the capture of social media records but the long term preservation and

storage of these records is also a challenge for records managers. While this study has provided insight into the methods agencies are using to capture social media records there is certainly scope for more detailed research, such as what methods are being used for each application, whether capture methods are chosen based on the application or the risk level of the records, and which third party tools are being used and how they rate. It will be interesting to observe what happens to records when the social media applications currently being used are no longer the most popular or relevant and organisations have to migrate their social media presence and records to other providers.

The lack of confidence among respondents that they are meeting their legal recordkeeping obligations shows that capturing social media records in a way that allows them to serve as evidence is an issue. Looking to how other electronic records have been used in litigation could provide insight into how social media records could be captured so that their integrity is maintained. This study found that internal relationships can influence the degree to which social media records are captured, so the role of individual records managers is also a factor that could be further explored, in particular what impact qualifications may have. Finally, this study has highlighted the gap between the training needs of records managers and the current guidance available from their local PRO. More research into how PROs can better support records managers could help prioritise the efforts of these agencies.

Summary

This study has built upon the literature, finding internal and technical challenges are still the greatest barriers to social media recordkeeping. Within the sample, this study found that the capture of social media records is still developing, with most agencies capturing social records at a basic level. However, to be able to answer information requests and preserve social media records for future use, agencies need to graduate from the capture to the organise dimension of the Continuum Model. Government use of social media looks set to expand and become more complicated, meaning records managers need to find appraisal and capture solutions that are sustainable but as yet no such solutions

exist. To aid records managers, PROs need to be more proactive in providing advice, even while practices are still developing. There is much uncertainty about the future of these applications as government tools, creating opportunities for future research.

10. Conclusions

Social media has become part of both our private and public lives; the question of whether these sites contain records of value has become redundant. The focus now is on how government agencies capture and manage the information created in these online spaces as records, which is the question this research project has sought to answer. Only a handful of the Australian government agencies in this study were found to be capturing social media records, and those that are capturing are doing so in a limited way that does not preserve their integrity or wider context.

The results presented here also show that many records managers are still struggling to get their peers to care about social media records; however, respondents that came from agencies with a greater awareness of the recordkeeping implications were more likely to be capturing social records. The guidance from PROs does not seem to have affected the way or extent to which agencies are capturing social media records, and while PROs are still the main authority for records managers, so far the available advice is missing the mark. The majority of agencies found to be capturing records were using multiple methods, suggesting that there is no 'one size fits all' solution. This combined with the constantly evolving landscape of social media raises the question of how PROs' efforts are best spent, an area that warrants further research. Perhaps instead of prescribing how agencies should be capturing records, PROs could have more impact by negotiating with vendors to develop technical solutions and empowering records managers to come up with their own methods by facilitating training and collaboration. A more long term solution could be to introduce registration to the records management workforce, as has been done in the library sector. This would encourage records professionals to up-skill

so that they would be in a better position to tackle new technology and communicate the importance of recordkeeping to their colleagues.

Respondents were divided in their use of appraisal strategies, with a big-bucket approach proving to be the more sustainable method. While this may seem in contrast to the principle of format independence, in an environment where public servants are constantly required to deliver more for less this change seems inevitable. Similarly, most agencies were capturing records as part of regular snapshots, presumably to minimise manual processes. As social media is transitory in nature, appraisal decisions need to come not at the end of the record's use, as prescribed in the traditional Lifecycle Model, but during the planning stages as underlined in Continuum Model thinking. This requires records managers to be actively involved in the adoption of new media. Practical advice on what records need to be captured, in the form of an RDA for social media, could provide the basis for early engagement between the business and records managers. Developing an RDA requires PROs to predict how social media records will be used now and in the future and designing recordkeeping processes and systems to meet those needs. Translating this into theoretical terms using the Continuum Model, we need to shift our thinking from being inwardly focused looking out, to being outwardly focused looking in.

The impetus for this research project was a desire to understand how social media records are being captured as this is an area with little knowledge. Agencies were found to be using a mix of traditional and new methods to capture records. Methods that make use of new technology were found to be more sustainable but the results have not yielded a perfect solution for capturing these records. Most agencies were only recording basic metadata and interactions, probably because these are not automatically captured by current methods. The lesson of email has taught us that even technical solutions that meet recordkeeping compliance can fail if they do not have the support of the business and this study has shown social media records to be no different. As technology is constantly evolving it seems that finding a fit-for-purpose solution for

capturing social media records may be unrealistic and that records managers efforts are better spent on what we can influence, i.e. the way our organisations understand and value recordkeeping.

The problems posed by social media, be they internal or technical, are not new, but the nature and abundance of information produced on these sites has amplified these issues leading to the current “Wild West” environment. Digital records will only become more complex, meaning records managers need to adapt to meet the challenge. All records managers have the opportunity to influence how records are captured and managed in their agencies and thus contribute to both the democratic process and social memory. One small step we can all make is to ensure that our development continues throughout our careers and share our experiences, failures and lessons for the benefit of the profession. In other words, we all need to become pioneers of our own frontiers.

Word Count: 14970 (includes everything except tables, figures and appendices)

11. Appendices

11.1. Records Management Models

11.1.1. The Lifecycle Model

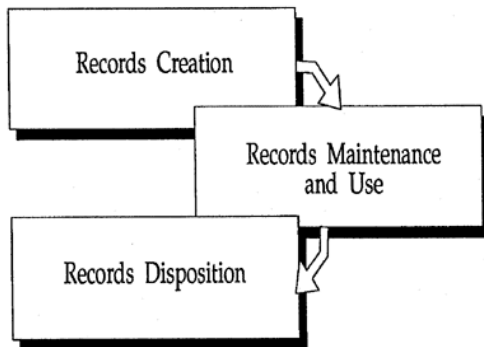
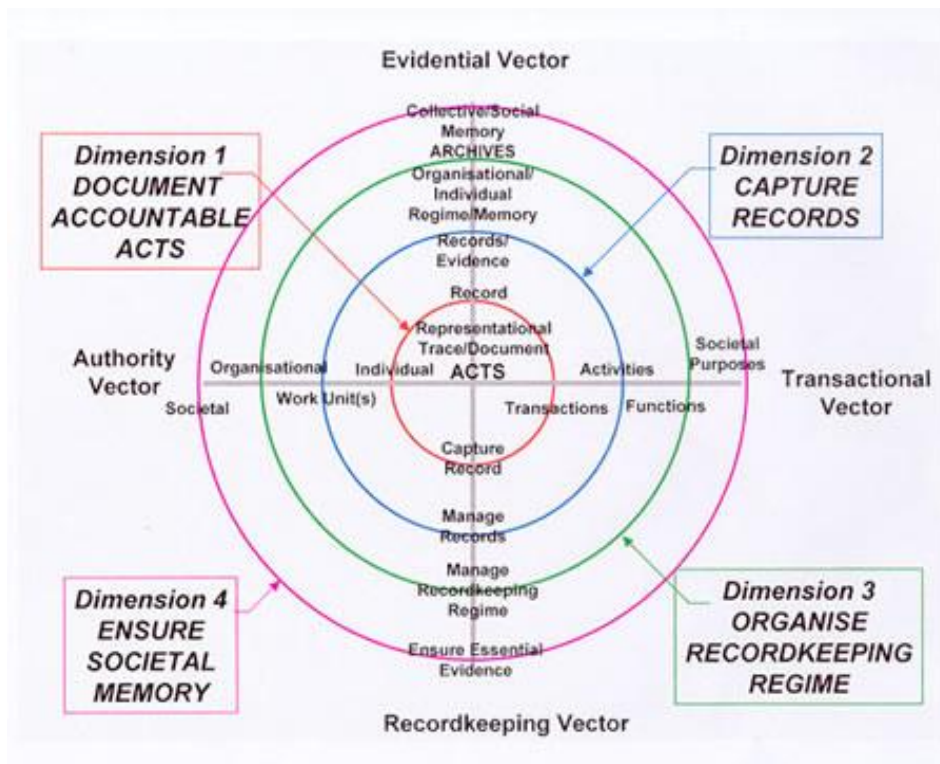


Figure 1-2. The Records Life Cycle

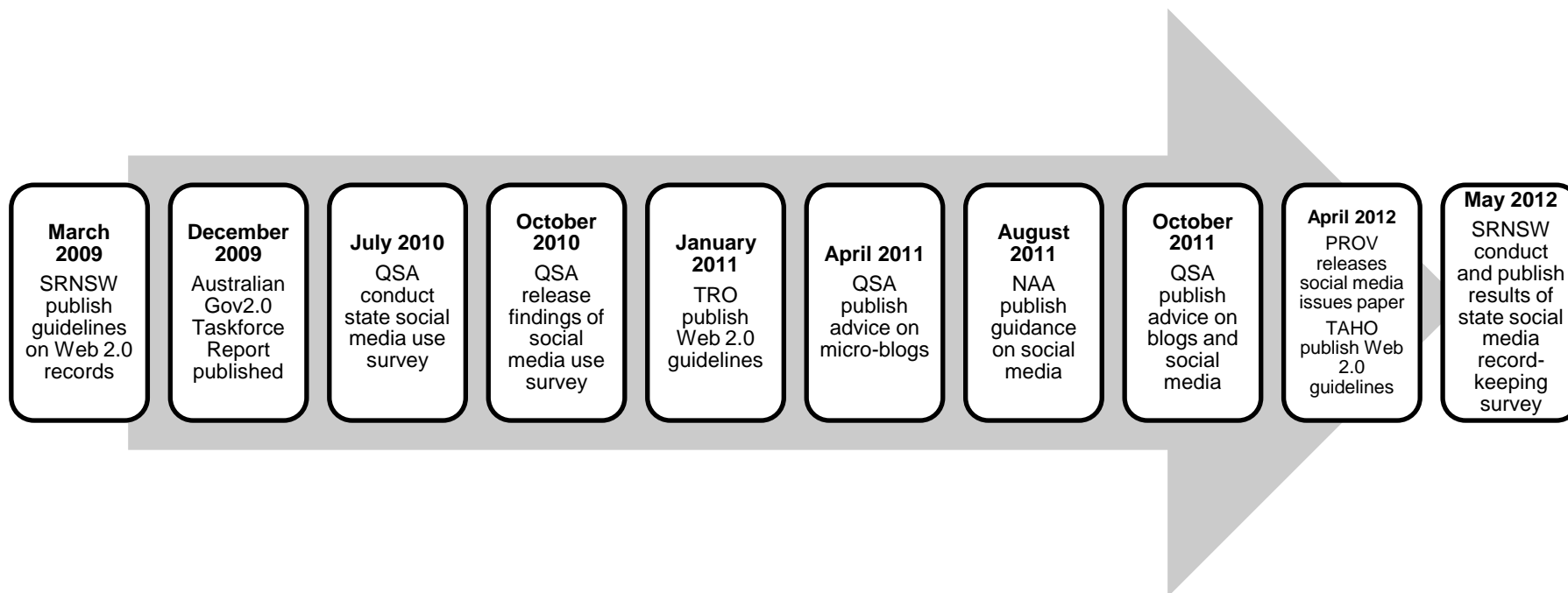
(NARA, 2000, para.8)

11.1.2. The Records Management Continuum Model



(Pederson, 2004, para.1)

11.2. Timeline of the Release of Social Media Recordkeeping Guidance



11.3. Common Themes in the Guidance on Social Media

Recordkeeping

Practical and Procedural Advice	Public Record Office					
	NAA	SRNSW	QSA	TRO	TAHO	PROV
Consider and mitigate the risks of using a cloud service						
Create policies and procedures for social media that detail recordkeeping requirements						
Conduct a risk assessment of social media records						
Identify which records need to be captured and create a strategy for how and when they will be captured						
Collaborate with the business						
Make a file note						
Only capture/retain original records						
Export data/Take screenshots						
Create a “bridge” to internal systems						
Use in-house solutions where possible						
Attach minimum metadata to records						
Use automated solutions where possible						
Promote awareness/provide training						

11.4. Data Collection Instruments

11.4.1. Appeal to PROs for support

Hello

My name is Rebecca Stoks and I am a Masters of Information Studies student at Victoria University of Wellington. I also work in the Australian public sector. As part of my degree I am conducting research into how government agencies in Australia are capturing public records created on third party social media websites.

My research questions are:

- How much does the level of internal support and external advice available to government records managers affect the degree to which social media records are captured?
- How do government departments determine what social media content needs to be captured as public records and when?
- What recordkeeping systems are government departments using to capture social media records? To what extent are they able to capture evidence of social media interactions?

To answer these questions I have created a survey directed at records managers working in all levels of Australian government. I would like your help to maximise my response rate by encouraging records managers in your jurisdiction to complete my survey.

Responses to the survey are anonymous. It should take less than 10 minutes to complete.

My survey is currently undergoing a human ethics approval process. I am aiming to publish it on Friday the 15th of June to the RIM Professionals Australasia mailing list, subject to approval. Any assistance you could offer through additional promotion on blogs, websites or social media would be greatly appreciated.

Please let me know if this is something you would be willing to help with or if you would like more information on my research.

Thank you for your time

Rebecca

Rebecca Stoks | +61 426 895 170 | stoksrebe@myvuw.ac.nz

Masters of Information Studies Student, School of Information Management, Victoria University of Wellington

11.4.2. Survey Invitation

Attention Government Records Managers! Help improve knowledge of social media recordkeeping and go into the draw to win a \$100 Coles voucher.

*Did you know over 470 Twitter accounts have been created for government departments across Australia?**

Social media is here to stay and records managers need to get to grips with this new technology. To help shed some light on this area, I am conducting research into how government agencies in Australia are capturing public records created on third party social media websites.

I would like to invite **records management professionals employed in all levels of Australian government** to participate in my survey. It doesn't matter if you are unsure of if or how social media is being used in your department, your answers are still needed.

This survey has been approved by the Human Ethics Committee at the Victoria University of Wellington.

Responses to the survey are anonymous. No personal information is required and responses will be aggregated so organisations cannot be identified.

The survey should **take less than 10 minutes to complete**. At the completion of the survey participants will be given the opportunity to **enter the draw for a \$100 Coles voucher**. The survey will be open from now until **Friday the 22nd of June** but may be extended subject to response rate.

By submitting the survey you are agreeing to participate in the study

Please click on the following link to complete the survey

http://vuw.qualtrics.com/SE/?SID=SV_em77ZdVJWlvkUGU

If you have any questions or would like to know more about the study, feel free to contact myself or my research supervisor, Dr Gillian Oliver.

Thank you for your time,

Rebecca

Rebecca Stoks | +61 426 895 170 | stoksrebe@myvuw.ac.nz

Masters of Information Studies Student,

School of Information Management, Victoria University of Wellington

Dr Gillian Oliver | +64 4 463 7437 | gillian.oliver@vuw.ac.nz

Senior Lecturer, School of Information Management, Victoria University of Wellington

* = As of June 2012. Data source: <http://egovau.blogspot.com/p/australian-government-twitter-accounts.html>

11.4.3. Mid-way Reminder

Reminder: Top 5 reasons to fill out my survey on AU Govt social media recordkeeping

Thank you to everyone who has already filled out my survey.

Remember the survey is open to Australian **records managers in all states and levels of government whose agency is either using or thinking about using social media. This includes universities, public health agencies and any other organisation that is subject to Public Records legislation.**

I would really love to get more responses from Tasmania, New South Wales & Queensland.

If you have not had the chance to fill it out yet, here is the link again

<http://goo.gl/iy2mQ>

If you are wondering why you should bother, please read my top 5 reasons for participating:

1. It's short

The survey is only 20 questions long and you may not have to answer them all. So far it has taken most people less than 6 minutes.

2. You will be helping to increase knowledge of social media recordkeeping

To date, there has been little formal research on this topic. Sharing your experiences will help others and highlight priorities for future work.

3. It's a first

So far most studies have focused on one state or level of government; this is the first to be conducted on a national scale.

4. It's anonymous

No personal information will be collected and the results will be aggregated so organisations cannot be identified.

5. Social media is here to stay

Research firm Gartner has predicted that by the end of 2013, half of all companies will be required to produce social media records for litigation purposes.* In the UK, an increasing number of FOI requests are being submitted via social media.**

The survey is open until **Friday the 22nd of June**. At the completion of the survey participants will be given the opportunity to **enter the draw for a \$100 Coles voucher**.

If you have any questions or would like to know more about the study, feel free to contact myself or my research supervisor, Dr Gillian Oliver.

Thank you for your time,

Rebecca

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* <http://goo.gl/SriAT> ** <http://goo.gl/gMlmg>

11.4.4. Last Chance Reminder

Last Chance: AU Govt Social Media Recordkeeping Survey

Thanks to everyone who has already filled out my survey. If you haven't had a chance yet, there is still time.

The more responses I am able to collect the better picture I will be able to build of what agencies are doing and where they need help.

Remember the survey is open to **records managers from all levels of Australian government whose agency is either using or thinking about using social media.**

All responses are welcome but I would particularly like to get more representation from the Northern Territory and Tasmania.

The survey is anonymous and should take less than 10 minutes to complete.

Here's the link one last time in case you missed it:

<http://goo.gl/iy2mQ>

The survey will close on **Friday the 22nd of June**. Upon completion of the survey participants will be given the opportunity to **enter the draw for a \$100 Coles voucher**.

If you have any questions or would like to know more about the study, feel free to contact myself or my research supervisor, Dr Gillian Oliver.

Thank you for your time,

Rebecca

Rebecca Stoks | +61 426 895 170 | stoksrebe@myvuw.ac.nz

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11.4.5. Information Sheet and Questionnaire

My name is Rebecca Stoks and I am a Masters of Information Studies student at Victoria University of Wellington. As part of my degree I am conducting research into how government agencies in Australia are capturing public records created on third party social media websites.

I would like to invite **records management professionals employed in all levels of Australian government** to participate in my survey. The results of this study will hopefully identify practical solutions for capturing social media records which can be shared among the records management community.

This survey has been approved by the Human Ethics Committee at the Victoria University of Wellington. **Responses to the survey are anonymous**. No personal information is required and responses will be aggregated so organisations cannot be

identified. The data will be stored securely in password protected files, only viewed by my supervisor and myself, and destroyed after 2 years.

The resulting research report will be submitted to the Research Archive at Victoria University of Wellington. The findings may also be presented at industry conferences or in an academic publication. A summary of the results will be posted to the RIM Professional Australasia mailing list in November.

The survey should **only take 10 minutes to complete, there are 20 questions in total**. By submitting the survey you are agreeing to participate in the study. At the completion of the survey participants will be given the opportunity to enter the draw for a \$100 Coles voucher. The survey will be open from now till **Friday the 22nd of June**. Please click NEXT to start the survey.

If you have any questions feel free to contact myself or my research supervisor, Dr Gillian Oliver

Thank you for your time,

Rebecca

Rebecca Stoks | +61 426 895 170 | stoksrebe@myvu.ac.nz Masters of Information Studies Student, School of Information Management, Victoria University of Wellington

Dr Gillian Oliver | +64 4 463 7437 | gillian.oliver@vu.ac.nz Senior Lecturer, School of Information Management, Victoria University of Wellington

Q1 What level of government does your organisation belong to?

- ☐ Federal
- ☐ State
- ☐ Local
- ☐ Other, please specify: _____

Q2 How many people does your organisation employ?

- ☐ 0 - 250
- ☐ 251 - 500
- ☐ 501 - 1000
- ☐ over 1000

Q3 Which state/territory is your organisation located in?

- ☐ ACT
- ☐ NT
- ☐ QLD
- ☐ NSW
- ☐ SA
- ☐ TAS
- ☐ VIC
- ☐ WA

Q4 Does your organisation use social media?

- ☐ Yes
- ☐ No
- ☐ We are planning to but have not started yet
- ☐ Don't know

If “No” is selected, then skip to Q17

If “We are planning to but have...” or “Don't know” is selected, then skip to Q5

Answer if “Yes” is selected for Q4

Q5 To the best of your knowledge, how long has your organisation been using social media? (Social media are any third party websites used for external communications, e.g. Twitter, Facebook, YouTube)

- ☐ Less than 6 months
- ☐ 6 months or more, but less than 1 year
- ☐ 1 year or more, but less than 2 years
- ☐ 2 years or more
- ☐ Don't know

Q6 Does your organisation have a specific policy on social media? (The policy could be for a particular social media website such as Twitter or a general policy on social media)

- ☐ Yes
- ☐ No
- ☐ In development
- ☐ Don't know

If “No”, “In development” or “Don’t know” is selected, then skip to Q8

Answer if “Yes” is selected for Q6

Q7 Does the policy mention any recordkeeping implications of using social media?

- ☐ Yes
- ☐ No
- ☐ Don't know

Q8 Has your records team been approached by anyone in your organisation asking for advice on social media records?

- ☐ Yes
- ☐ No
- ☐ Don't know

Q9 Does your organisation have a procedure for capturing social media records?
(Capture means to save records in a fixed format into a recordkeeping or business system)

- ☐ Yes
- ☐ No
- ☐ In development
- ☐ Don't know

Q10 Does your organisation capture records created on social media websites? (Records could be captured regularly or ad hoc)

- ☐ Yes
- ☐ No
- ☐ Don't know

If “No” or “Don't know” is selected, then skip to Q17

Answer if “Yes” is selected for Q9

Q11 Please select the option that best describes how your organisation determines what social media records to capture

- ☐ We capture all social media records
- ☐ We capture all social media records except for those that fall under Normal Administrative Process (NAP) i.e. duplicate information etc
- ☐ We decide what needs to be captured on a case by case basis
- ☐ We apply our Retention and Disposal Authority (RDA) to social media
- ☐ Don't know
- ☐ Other, please specify: _____

Answer if “Yes” is selected for Q9

Q12 Please indicate at what points your organisation captures the following social media records (Records could be captured from any social media website)

	Don't capture	Before posting/sending	At the time of posting/receipt	At regular intervals	When the website is decomm-issioned	Depends on the application	Don't know/ Not applicable
Posts made by the organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responses to posts made by the organisation (e.g. comments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct messages sent by the organisation (e.g. Facebook or LinkedIn messages)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct messages received by the organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Re-postings (e.g. re-tweeting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ratings (e.g. likes, dislikes, diggs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tags	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer if “Yes” is selected for Q9

Q13 What, if any, additional information (metadata) is recorded at the time of capture?

Please tick all that apply

- ☐ Time and date
- ☐ Application (i.e. Facebook, Twitter)
- ☐ Author
- ☐ Recipient
- ☐ Subject
- ☐ None
- ☐ Don't know
- ☐ Other, please specify: _____

Answer if “Yes” is selected for Q9

Q14 What tools and methods is your organisation currently using to capture social media records? Please tick all that apply

- ☐ Printing and creating a paper file
- ☐ Printing to PDF or taking screenshots
- ☐ Using the application's export function
- ☐ Downloading usage reports
- ☐ Subscribing to syndication feeds, i.e. RSS, email alerts
- ☐ Conducting web harvests
- ☐ Using a third party service/application to archive and export data e.g. Hootsuite
- ☐ Keeping a register of posts in a spreadsheet or document
- ☐ Don't know
- ☐ Other, please specify: _____

Answer if “Yes” is selected for Q9

Q15 Does the method used to capture social media records change depending on the application? e.g. methods for capturing Facebook records differ from methods for capturing Twitter records

- ☐ Yes
- ☐ No
- ☐ Not applicable (only using one application)
- ☐ Don't know

Answer if “Yes” is selected for Q9

Q16 What formats does your organisation use to store social media records? Please tick all that apply

- ☐ XML
- ☐ PDF
- ☐ Paper
- ☐ MS Office type applications (e.g. Word, Excel, Open Office suite)
- ☐ Don't know
- ☐ Other, please specify: _____

Answer if “Yes” is selected for Q9

Q17 Please indicate how much you agree or disagree with the following statement: The methods my organisation are currently using to capture social media records are sustainable

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

Q18 Please indicate how much you agree/disagree with the following statement: I feel confident that my organisation is meeting our legal obligations to keep social media records

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

Q19 What sources have you consulted for advice on capturing social media records?
Please rate how useful you found each source

	Not used	Not at all useful	Slightly useful	Somewhat useful	Very useful
Internal colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Records managers in other government departments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Records managers outside of government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional association	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The agency responsible for public records in my jurisdiction (e.g. The National Archives of Australia if you work for the federal government)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other public records agencies in Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overseas public records agencies (i.e. Archives New Zealand, The UK National Archives)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 What gaps do you think exist in the current guidance available on capturing social media records?

Q21 Do you have any other comments to make?

If you would like to enter the draw to win a \$100 Coles voucher please [click here](#)

11.5. Relationship between Research Questions and the Continuum Model

Research Question	Variable	Variable Type	Related Axis	Direct Indicators	Indirect Indicators
To what extent are Australian government departments capturing public records created on third-party social media websites?	Degree to which social media records are captured	Dependent	All	Q8, Q9	Q17
How much does the level of internal support and external advice available to government records managers affect the degree to which social media records are captured?	Level of internal support/ external advice	Independent	Authority axis	Q7, Q18	Q6, Q19
How do government departments determine what social media content needs to be captured as public records and when?	Record-keeping methods	Independent	Transactional and Evidential axes	Q10, Q11	
What recordkeeping systems are government departments using to capture social media records? To what extent are they able to capture evidence of social media interactions?	Record-keeping systems	Independent	Record-keeping and Evidential axes	Q12, Q13, Q14, Q15	Q16

11.6 Coding Schedule for Mapping Key Indicators to the Continuum Model

No.	Question	Axis	Response and corresponding dimension				
			Origin/Centre (code=0)	Create (code=1)	Capture (code=2)	Organise (code=3)	Pluralise (code=4)
8	Does your organisation have a procedure for capturing social media records?	Authority	No, Don't Know			Yes, In development	
9	Does your organisation capture records created on social media websites?	Record-keeping	No, Don't Know		Yes		
10	Please select the option that best describes how your organisation determines what social media records to capture	Transactional	Don't Know		Everything, All but NAP, Case by Case	Mapped to our RDA/s	
12	What, if any, additional information (metadata) is recorded at the time of capture?	Evidential	Don't Know, None	If only capture some of the min metadata	If capture min metadata (creator, time & date, subject & application)	If also includes business activity or function	If also includes access and use information

11.7. Modes for Key Indicators Mapped to the Continuum Model

Question #	Continuum Model dimension					Total
	Origin/ Centre	Create	Capture	Organise	Pluralise	
8				18		18
9			18			18
10			17	1		18
12	2	7	7	1	0	17

12. References

American Council for Technology Industry Advisory Council (ACT-IAC). (2011). *Best practices study of social media records policies*. Retrieved from <http://www.actgov.org/knowledgebank/whitepapers/Documents/Shared%20Interest%20Groups/Collaboration%20and%20Transformation%20SIG/Best%20Practices%20of%20Social%20Media%20Records%20Policies%20-%20CT%20SIG%20-%2003-31-11%20%283%29.pdf>

Australian Government Locator Service (AGLS). (2010). *AGLS metadata standard part 2 – usage guide: version 2.0*. Retrieved from <http://www.agls.gov.au/pdf/AGLS%20Metadata%20Standard%20Part%202%20Usage%20Guide.PDF>

Bailey, S. (2008). *Managing the crowd: Rethinking records management for the Web 2.0 world*. London: Facet.

Bak, G. (2009). Book reviews [Review of the book *Managing the crowd: Rethinking records management for the Web 2.0 world* by Bailey, S.]. *The American Archivist*, 72(2), 515-517.

Bak, G. (2010). *Impacts of Web 2.0 on information models: Life cycle and continuums* (Web 2.0 Thought Papers). Retrieved from Libraries and Archives Canada: <http://www.collectionscanada.gc.ca/obj/012018/f2/012018-3403-e.pdf>

Barry, R. (2010). Opinion piece – electronic records: Now and then. *Records Management Journal*, 20(2), 157-171.

Bennett, C. (2010, March 26). Apps.gov needs to carry the public records torch [Web log post]. Retrieved from <http://www.govloop.com/profiles/blogs/appsgov-needs-to-carry-the>

Bernhart Walker, M. (2011, October 11). Social media archiving policies must be realistic. *Fierce Content Management*. Retrieved from <http://www.fiercecontentmanagement.com/story/social-media-archiving-policies-must-be-realistic/2011-10-20>

Bertot, J. C., Jaeger, P. T., & Hansen, D. (2012). The impact of policies on government social media usage: Issues, challenges, and recommendations. *Government Information Quarterly* 29(1), 30-40.

Bryman, A. (2008). *Social research methods* (3rd ed.). New York, NY: Oxford University Press.

Burger, K. (2010). *Re-examining the foundations of information management in a Web 2.0 world* (Web 2.0 Thought Papers). Retrieved from Libraries and Archives Canada: <http://www.collectionscanada.gc.ca/digital-initiatives/012018-3402-e.html>

Clarke, S. (2008). Two views on a new view of the world of Web 2.0: A New Zealand view [Review of the book *Managing the crowd: Rethinking records management for the Web 2.0 world* by Bailey, S.]. *Records Management Association of Australia Quarterly*, 24(4), 57-58.

- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Cumming, K. (2011a, September 16). Recordkeeping, Web 2.0 and social media [Web log post]. Retrieved from <http://futureproof.records.nsw.gov.au/recordkeeping-web-2-0-and-social-media/>
- Cumming, K. (2011b, 21 December). Social media in government and recordkeeping [Web log post]. Retrieved from <http://futureproof.records.nsw.gov.au/social-media-in-government-and-recordkeeping-socialmediagov/>
- Cumming, K. (2012, May 24). State Records social media recordkeeping survey results [Web log post]. Retrieved from <http://futureproof.records.nsw.gov.au/state-records-social-media-and-recordkeeping-survey-results/>
- Cumming, K. & Findlay, C. (2010). Digital recordkeeping: Are we at a tipping point?. *Records Management Journal*, 20(3), 265-278.
- Cumming, K., & Knight, J. (2012). *Can archives survive in a climate of change? Adapting to the modern recordkeeping crisis: Australian perspectives*. Paper presented at the International Council of Archives Congress, 20 – 24th August 2012. Retrieved from <http://www.ica2012.com/files/data/Full%20papers%20upload/ica12Final00393.pdf>
- Dearstyne, B. (2007). Blogs, mash-ups, & wikis: Oh my!. *Information Management Journal*, 41(4), 24-33.

Foscarini, F. (2010). Understanding the context of records creation and use: 'Hard' versus 'soft' approaches to records management. *Archival Science*, 10(4), 389-407.

Franks, P. (2010). *How federal agencies can effectively manage records created using new social media tools*. (IBM Center for The Business of Government: Using Technology Series). Retrieved from <http://www.businessofgovernment.org/report/how-federal-agencies-can-effectively-manage-records-created-using-new-social-media-tools>

Government 2.0 Taskforce. (2009). *Engage: Getting on with government 2.0*. Retrieved from Australia Government Information Management Office <http://www.finance.gov.au/publications/gov20taskforcereport/index.html>

Horvath, S. (2010, October 6). Is Facebook's new "Download Your Data" government's record management answer? [Web log post]. Retrieved from <http://www.govloop.com/profiles/blogs/is-facebooks-new-download-your>

Joseph, P., Debowski, S., & Goldschmidt, P. (2012). Paradigm shifts in recordkeeping responsibilities: implications for ISO 15489's implementation. *Records Management Journal*, 22(1), 57-75.

Knight, J. (2012, June 5). Key digital recordkeeping enquires May 2012 [Web log post]. Retrieved from <http://futureproof.records.nsw.gov.au/key-digital-recordkeeping-enquiries-may-2012/>

- Lips, M. & Rapson, A. (2009). *Emerging records management in 21st century New Zealand government - Part 2*. (Unpublished research report, Victoria University of Wellington, 2009).
- McDonald, J. (2005). The wild frontier ten years on. In Julie McLeod & Catherine Hare (Eds.), *Managing electronic records* (pp.1-17). London: Facet.
- Munzer, T. (2009). Rethinking records management for the Web 2.0 world [Review of the book *Managing the crowd: Rethinking records management for the Web 2.0 world* by Bailey, S.]. *Information Management*, January/February, 51-52.
- National Archives of Australia (NAA). (n.d.). *Glossary*. Retrieved 3 June, 2012, from <http://www.naa.gov.au/records-management/publications/glossary.aspx>
- National Archives of Australia (NAA). (2011a). *Your social media policy: What about records?* Retrieved 15 October, 2011, from <http://www.naa.gov.au/records-management/agency/digital/socialmedia/social-media-policy.aspx>
- National Archives of Australia (NAA). (2011b). *Social media: Another type of Commonwealth record*, Retrieved 15 October, 2011, from <http://www.naa.gov.au/records-management/agency/digital/socialmedia/index.aspx>
- National Archives of Australia (NAA). (2011c). *DIRKS Manual*. Retrieved 6 May, 2012, from <http://www.naa.gov.au/records-management/publications/DIRKS-manual.aspx>

National Archives and Records Administration (NARA). (2000). *Disposition of federal records: A records management handbook*. Retrieved 15 October, 2011, from <http://www.archives.gov/records-mgmt/publications/disposition-of-federal-records/chapter-1.html>

National Archives and Records Administration (NARA). (2010). *A report on federal Web 2.0 use and record value*. Retrieved from <http://www.archives.gov/records-mgmt/resources/web2.0-use.pdf>

National Archives and Records Administration (NARA). (2012). *2011 Records management self assessment report: an assessment of records management programs in the federal government*. Retrieved from <http://www.archives.gov/records-mgmt/resources/self-assessment-2011.pdf>

National Association of State Chief Information Officers (NASCIO). (2010). *A national survey of social media use in state government: Friends, followers, and feeds*. Retrieved from <http://www.nascio.org/publications/documents/NASCIO-SocialMedia.pdf>

Office of Management and Budget (OMB) & National Archives and Records Administration (NARA). (2012, August 24). *Managing Government Records Directive [Presidential Memorandum]*. Retrieved from <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf>

Oliver, G. (2009). Reflecting on recordkeeping 2.0 [Review of the book *Managing the crowd: Rethinking records management for the Web 2.0 world* by Bailey, S.]. *The Australian Library Journal*, 58(2), 191-192.

Oliver, G., Evans, J., Reed, B. & Upward, F. (2009). Achieving the right balance: recordkeeping informatics - part 1. *Records Management Association of Australia Quarterly*, 25(4), 18-22.

Oliver, G., Reed, B., Upward, F., & Evans, J. (2012). *A Background Paper for a Conversation on a Single Minded approach to Recordkeeping Informatics*. Paper presented at the International Council of Archives Congress, 20 – 24th August 2012. Retrieved from <http://www.ica2012.com/files/data/Full%20papers%20upload/ica12Final00200.pdf>

Pederson, A. (2004). *Australian contributions to recordkeeping*. Retrieved 15 October, 2011, from John Curtin Prime Ministerial Library: <http://john.curtin.edu.au/society/australia/>

Phillips, M. (2009, September 19). Reality check: The Presidential Records Act of 1978 meets web-based social media of 2009 [Web log post]. Retrieved from <http://www.whitehouse.gov/blog/Reality-Check-The-Presidential-Records-Act/>

Public Records Office of Victoria (PROV). (2010). *Public Record Office Standard (PROS) 10/10 Factsheet (FS)2: Recordkeeping Responsibilities for Public Sector Employees*. Retrieved from <http://prov.vic.gov.au/government/standards-and-policy/all-documents/pros-1010-fs2>

Public Records Office of Victoria (PROV). (2012). *Recordkeeping implications of social media: Issues paper*. Retrieved from <http://prov.vic.gov.au/wp-content/uploads/2012/03/PROV-Social-Media-Policy-Issues-Paper-2012.pdf>

Purser, K. (2012) *Using social media in local government: 2011 survey report*.
Retrieved from Australian Centre of Excellence for Local Government
http://www.acelg.org.au/upload/program2/1340860323_SocialMediaReport_web.pdf

Queensland State Archives (QSA). (2010) *Recordkeeping and Web 2.0 survey report*.
Retrieved from
http://www.archives.qld.gov.au/downloads/recordkeeping_web_survey_report.pdf

Queensland State Archives (2011). *Social media and public records* (Public Records Brief). Retrieved from
<http://www.archives.qld.gov.au/publications/PublicRecordsBriefs/socialmediapublicrecords.pdf>

Reed, B. (2005). Records. In McKemmish, S., Piggott, M., Reed, B. & Upward, F. (Eds.). *Archives: Recordkeeping in society* (1st ed., pp.101-130). Wagga Wagga: Centre for Information Studies.

Reed, B. (2009). *Project 9: Preservation of Web 2.0 content* (Commissioned Report).
Retrieved from the Government 2.0 Taskforce:
<http://gov2.net.au/projects/index.html>

Research Policy Group. (2007). *Human ethics committee guidelines*. Retrieved from
<http://policy.vuw.ac.nz/Amphora!~policy.vuw.ac.nz~POLICY~000000001958.pdf>

Sanderson, K. (2009). Managing the crowd: Rethinking records management for the Web 2.0 world [Review of the book *Managing the crowd: Rethinking records*

management for the Web 2.0 world by Bailey, S.]. *Electronic Library*, 27(1), 189–190. Retrieved from Emerald Database.

Sapsford, R. & Jupp, V. (Eds). (2006). *Data Collection and Analysis* (2nd ed). London, United Kingdom: Sage Publications.

State Records New South Wales (SRNSW). (2009). *Guideline No. 24: Records management and Web 2.0*, Retrieved from <http://www.records.nsw.gov.au/recordkeeping/government-recordkeeping-manual/guidance/guidelines/guideline-24>

State Records New South Wales (SRNSW). (2010). *2010 Digital recordkeeping survey report* . Retrieved from <http://www.records.nsw.gov.au/recordkeeping/state-records-act-1998/your-obligations/monitoring-compliance/2010-digital-recordkeeping-survey-report>

Tasmanian Archive & Heritage Office (TAHO). (2012). *State records guideline no 1: managing Web 2.0 records*. Retrieved from http://www.linc.tas.gov.au/__data/assets/pdf_file/0004/343309/TAHO_Guideline_-_Web_2_0_-_May_2012.pdf

Territory Records Office. (TRO). (2011). *Records advice no 55: Web 2.0 - social networking and collaboration applications and recordkeeping*. Retrieved from http://www.territoryrecords.act.gov.au/__data/assets/pdf_file/0018/215091/Records_Advice_No_55_-_Web_2_0_-_Social_Networking_and_Collaboration_Applications_and_Recordkeeping_v_2.pdf

Thomler, C. (2012a, April 23). What are Australian government agencies using social media to achieve? [Web log post]. Retrieved from <http://egovau.blogspot.com.au/2012/04/what-are-australian-government-agencies.html>

Thomler, C. (2012b, April 30). Two year review - has the Australian government delivered on its Government 2.0 commitments? [Web log post]. Retrieved from <http://egovau.blogspot.com.au/2012/04/two-year-review-has-australian.html>

Thomler, C. (2012c, July 13). Australian government Twitter list expanded to 553 accounts [Web log post]. Retrieved from <http://egovau.blogspot.com.au/2012/07/australian-government-twitter-accounts.html>

United States Government Accountability Office (GAO). (2010). *Challenges in federal agencies' use of Web 2.0 technologies* (Testimony before the Subcommittee on Information Policy, Census, and National Archives, Committee on Oversight and Government Reform, House of Representatives) Retrieved from <http://www.gao.gov/products/GAO-10-872T>

Upward, (1996). Structuring the records continuum - Part one: Post-custodial principles and properties. *Archives and Manuscripts*, 24(2), 268-285.

Wright, Jennifer. (2012, June 13). To preserve or not to preserve: social media [Web log post]. Retrieved from <http://siarchives.si.edu/blog/preserve-or-not-preserve-social-media>

13. Bibliography

- Bailey, S. (2008). *From YouTube to YouManage: The need to democratise the management of records*. Paper presented at the Records Management Society Conference 20-22 April 2008. Retrieved from https://docs.google.com/Doc?id=dc52qjism_0grjtwzdx
- Bak, G. (2010). *Managing business value in Web 2.0 environments*, (Web 2.0 Thought Papers). Retrieved from Libraries and Archives Canada: <http://www.collectionscanada.gc.ca/obj/012018/f2/012018-3404-e.pdf>
- Cunningham, A. (2009, September 14). Capturing and preserving authentic and accessible evidence of Government 2.0: Part two [Web log post]. Retrieved from <http://gov2.net.au/blog/2009/09/14/capturing-and-preserving-authentic-and-accessible-evidence-of-government-2-0-part-two/index.html>
- Deamer, K. (2011). States get social: Government use of social media is popular, but is it following state laws. *The news media & the law*, 35(1), 24-26.
- Franks, P. (2009) Understanding Web 2.0 and challenges for the records manager. *iRMA: Information and Records Management Annual 2009*, 107-121.
- Franks, P. (2011). *How federal agencies can effectively manage records created using new social media tools*. Paper presented at the Records Administration Conference, 25 May 2011. Retrieved from <http://www.archives.gov/records-mgmt/training/raco/2011/raco11-franks.pdf>

Griffiths, E. (2009). Managing the crowd: Rethinking records management for the Web 2.0 world [Review of the book of same the title by Bailey, S.]. *Library Management*, 30(3), 210–212.

Henhoeffter, S. (2010). *Web 2.0 and recordkeeping: Context and principles*. (Web 2.0 Thought Papers). Retrieved from Libraries and Archives Canada:
<http://www.collectionscanada.gc.ca/digital-initiatives/012018-3401-e.html>

Jaeger, P. & Bertot, J. (2010). Transparency and technological change: ensuring equal and sustained public access to government information, *Government Information Quarterly*, 27(4), 371-376.

Kennedy, J. & Schauder, C. (1998). The records life cycle model and the records Continuum Model. In *Records management: A guide to corporate recordkeeping* (2nd ed., pp. 9-12). Melbourne: Addison Wesley Longman.

National Archives and Records Administration (NARA), (2010). *Interim guidance 831-2: rules of behavior for using Web 2.0 and social media web sites and responsibilities for content management*. Retrieved from
<http://www.archives.gov/social-media/policies/831-2.pdf>

National Archives and Records Administration (NARA), (2010). *NARA Bulletin 2011-02: Guidance on managing records in Web 2.0/social media platforms*. Retrieved 15 October, 2011, from <http://www.archives.gov/records-mgmt/bulletins/2011/2011-02.html>

Oliver, G., Evans, J., Reed, B. & Upward, F. (2010). Achieving the right balance: recordkeeping informatics - part 2. *Records Management Association of Australia Quarterly*, 26(1), 42-45.

Oxford University Press. (2008). Student Researcher's Toolkit. Retrieved 9 April, 2012, from <http://www.oup.com/uk/orc/bin/9780199202959/01student/toolkit/index.htm>

Perrit, R. (2012). Pocket guide to APA style (4th ed.). Boston, MA: Wadsworth.

Queensland State Archives (2011). *Capturing short messages: managing records of micro-blogs, short message service (SMS) and multimedia message Service (MMS) communications* (Public Records Brief). Retrieved from <http://www.archives.qld.gov.au/publications/PublicRecordsBriefs/capturing-short-messages.pdf>

Queensland State Archives (2011). *Recordkeeping and blogs* (Public Records Brief). Retrieved from <http://www.archives.qld.gov.au/publications/PublicRecordsBriefs/recordkeepingandblogs.pdf>

Reed, B. (2008). Two views on a new view of the world of Web 2.0: An Australian view [Review of the book *Managing the crowd: Rethinking records management for the Web 2.0 world* by Bailey, S.]. *Records Management Association of Australia Quarterly*, 24(4), 56-57.

Research Policy Group. (2007). *Human ethics policy*, Retrieved from <http://www.victoria.ac.nz/documents/policy/research-policy/human-ethics-policy.pdf>

Survey Question Bank. (n.d.). *Factsheet 3: Questions and answers in surveys*. Retrieved from <http://survey.net.ac.uk/sqb/datacollection/questionsandanswersinsurveysfactsheet.pdf>

Survey Question Bank. (n.d.). *Factsheet 4: Evaluating survey questions*. Retrieved from <http://survey.net.ac.uk/sqb/datacollection/evaluatingurveyquestionsfactsheet.pdf>

Trochim, W. M. K. (2006). *Descriptive statistics*. Retrieved 26 May, 2012, from <http://www.socialresearchmethods.net/kb/statdesc.php>

Upward, F. (1997). Structuring the records continuum - Part two: Structuration theory and recordkeeping. *Archives and Manuscripts*, 25 (1), 10-35.

Upward, F. (2005). The records continuum. In McKemmish, S., Piggott, M., Reed, B. & Upward, F. (Eds.). *Archives: Recordkeeping in society* (1st ed., pp.197-222). Wagga Wagga: Centre for Information Studies.

Upward, F. (2000). Modelling the continuum as paradigm shift in recordkeeping and archiving process, and beyond: a personal reflection. *Records Management Journal*, 10(3), 115-139.

Walonick, D. (1997-2000). *A selection from survival statistics*. Retrieved from <http://www.statpac.com/surveys/surveys.pdf>

Writing Tutorial Services. (2010). *Writing Conclusions*. Retrieved 21 August, 2012, from <http://www.indiana.edu/~wts/pamphlets/conclusions.shtml>