Survey research on tasks and competencies to inform records management education

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Abstract

Purpose – The purpose of this paper is to report findings from research conducted to study the everyday work of information professionals, specifically records managers. This paper is a part of the "Research on the Work of 21st Century Information Professionals" study.

Design/methodology/approach – Researchers used the tailored design approach to create and increase response rate of our survey. Survey research methodology facilitated the development, pilot and launch of a survey instrument with a 20-question module specific to records management work.

Findings – The authors discovered the frequency of 11 tasks in records managers' daily work, as well as how important each of 11 competencies are to their success on the job. Professional development topics and format, job satisfaction, strategies for gaining compliance, desired skills for new hires and curricular recommendations are also presented.

Research limitations/implications – The survey generated 334 responses from records management professionals. This sample was based on graduate alumni, targeted professional groups and snowball strategy. Implications from this study include educating doctoral students to study information work and identifying particular areas for strengthening graduate curricula and professional training.

Practical implications – The authors obtained direct insight on what records managers do in their daily work that will inform curricular decision-making.

Originality/value – The study explores an interest in daily work activities through multiple quantifiable data measures to offer nuanced insight on the relationships between different aspects of records management work.

Keywords Skills, Graduate education, Records management, Competencies, Information professionals

Paper type Research paper

Introduction

During an ARMA International Conference presentation in Chicago, Susan Cisco and Sue Trombley argued that the most essential component in an organization's implementation of

new mandates regarding records management is people (Cisco and Trombley, 2012a). Records Coordinators, they argued, are the key component to organizational success, as they alone can capably ensure consistent application of records management policies through the concept and practice of "unified records management". This approach, which gained traction following its use in a widely read survey report (Iron Mountain, 2012), would unify paper and electronic records under a single set of policies and procedures, applied at the organizational level. Presently, organizations face increased pressure to achieve unified records management practices on three fronts. First, the issuance of mandates such as the US Presidential Directive on Managing Government Records, which instructed federal agencies to have "records management training in place for appropriate staff" by late 2014 (US National Archives, 2012b). Second, the launch of Project Open Data and related efforts in the private sector is compelling organizations to broaden public access to records. Finally, organizations of all sizes must devise approaches for managing the escalating volume of physical and electronic documents produced in the course of business. Records managers find themselves no longer on the sidelines of organizations as a mere "administrative requirement", but now at the center of an enterprise much larger in scope than ever before, with the authority and ability to impact an institution's total operations and strategic planning (Lamont, 2014).

While Cisco and Trombley (2012b) surveyed Records Coordinator Networks among a sample of certified records managers to obtain current guidance on electronic records, significant research into the interconnectedness between records managers' professional activities and their formal education has not been carried out. Additionally, a more nuanced understanding of what is meant by records management at present – in multiple industries – has not been put forward; that is, the work that records managers *do* has not been systematically analyzed. To address this gap, we designed a study to gather insights directly from records managers at work. Our research contributes to a discussion of tasks and competencies most useful in records management work and topics to emphasize in graduate records management education.

Educators and researchers in library and information science (LIS) are increasingly aware that graduates of information studies programs must assume expanded responsibilities around the tasks of information creation, organization, preservation and retrieval. Graduates of these master's programs are accepting employment in diverse settings as well as in traditional information institutions. The study presented here developed out of our interest in surveying these graduates and integrating their feedback into curricular decision-making. Our survey research is a product of a larger project to study the changing nature of the work of information professionals that was funded by the Institute of Museum and Library Services Laura Bush 21st Century Librarian Program. The focus of the project is the study of information work, including the technologies, institutions and knowledge production involved in workplaces. A survey design course offered to doctoral students in information applied this focus to the study of information workers such as records managers, data analysts and social media workers. The survey contained eight such modules (nine including "other"), and in this paper, we focus on the data from records managers. Below, we begin by reviewing prior scholarship on records management education and then detail the methods we used to conduct our research study. Following our profile of respondents, we discuss five groups of findings on daily records management work and our recommendations for curricula developers based on qualitative coding analysis. The study recommendations are structured in light of the educational context of the USA, specifically toward graduate schools of information responsible for master's and doctoral education. Still, in our focus on work tasks and competencies, we aim to speak to the state of records management education

internationally, and this is reflected in our employ of international literature, our use of email (and its forwarding potential) for recruitment and our targeting of participants in the ARMA International community. We did not gather respondents' geographic location, but the survey was administered from the USA. We conclude by presenting implications of this research for informing education that builds the professional expertise of tomorrow's records managers.

Literature on educating records managers

Scholars have traditionally examined the body of knowledge constituting records management through two lenses: education and training. Records management education is an example of "graduate professional" education (Gilliland-Swetland, 1998) that straddles both the academic and the practitioner arenas. Educators of records managers are concerned simultaneously with developing a body of disciplinary knowledge as well as transmitting that knowledge via career-preparatory curricula for students and new professionals. Existing studies argue that education for records managers is of vital importance for the creation and maintenance of records that preserve and document our world. Yet, the records management education literature is dominated by examinations of offerings in a particular region, even at the level of a single institution. Together, such educational studies point to an immense variety of situational contexts across nations, and the range of institutions that are at some level involved in the teaching of records management, including but not limited to "public and private agencies including national archives, universities, colleges, technical schools and public administration training institutes" (Katuu, 2009). At the regional level, particular Italo-Hispanic and French-German-Dutch educational models have been articulated, as well as educational practices in the USA and Australia (Katuu, 2009; Cox, 2004; Hoy, 2004), and these models inform current understanding of the practicalities of records management work. Particular studies of records management education have been carried out in the United Kingdom (Westwood, 1998; Moss and Ross, 2007; Rankin, 2003; Tomlin, 1994), Australia (Pember, 1998), Africa (Ngulube, 2001), Canada (Couture, 1989), China (An and Jiao, 2004), Finland (Huotari and Valtonen, 2003), Malaysia (Ismail and Jamaludin, 2011), Pacific island nations (Kaima, 1999) and South Africa (Katuu, 2012). Historically, the first European writings on the "creation, filing, retrieval, and care of records" appeared in Italy in the 1600s and were produced by jurists and religious authorities to guide the creation and preservation of records (Duranti, 1989).

Duranti's analysis of the development of a record keeping tradition traces the creation of a base of records management knowledge with relative stability until the time of the French Revolution. After this time, several European nations codified records management practices through various bureaucratic and legislative measures, with the result that particular approaches and classifications could be distinguished. Walters (1995) extends this trajectory to the present day, arguing that the records management tradition continues to exhibit more commonality with archival theory than with the development of library science. In the rich history of filing in American business, we see that Irene Warren (born 1875), founder of the Warren Filing School in Chicago, welcomed librarians and all records workers to her classes, as Pemberton (1995) notes. While distinctions are important for educating information professionals, presently, all three areas can often be taught in a single master's program. The importance of records creation and provenance as core principles, in both the records management and archival professions, further supports Walters' claim.

Records management studies have also focused on the identification of particular activities that are practiced on the job, and how this context creates an entirely different

professional learning experience than those tasks learned elsewhere such as through formal or professional education (Conway, 1993). In his study of employer preferences for entry-level positions based on job descriptions, Cox (2000) found a clear partiality that new hires exhibit "organizational and communications skills", a finding that included good writing skills. Interpersonal skills were also highly valued, as were word processing and physical abilities. This study also noted employers' inclination to enumerate particular archival functions in job descriptions, and noted that archival arrangement and description came out overwhelmingly on top of all other functions for entry-level professionals. Another study reported a broad range of activities and salaries within the records management field (Christensen, 1982). When records management educators engage in curriculum creation and revision, they often draw heavily on insights gained from post-appointment training opportunities, which can often include in-house training programs (Dearstyne and Barlow, 1999; SAA, 1997). Recent industry standards and government publications also articulate specific activities for records management education within different national contexts. Those that focus on people and their skills include the International Records Management Trust's (IRMT) "Training in electronic records management", the UK National Archives' "Organisational arrangements to support records management" the USA National Archives' Records and Information Management (RIM) Self-Evaluation Guide, a UNESCO study, and the DIRKS Manual (Designing and Implementing Recordkeeping Systems) developed in Australia (IRMT, 2009; UK National Archives, 2010; USA NARA, 2001; Cook, 1982; Macintosh and Real, 2007).

Recent research applies definitions of education, training and competencies to the records management profession and identifies current and future roles for professional associations with regard to each of these knowledge sources (Anderson, 2007). Anderson argues that competencies are driven by developments in the profession and are principally germane to training tasks. The core competencies identified by ARMA International specify task statements that comprise the work activities within one of six domains or areas of practice; for example migrating data or media, in the information technology domain (Shaffer, 2007). Related work has translated these definitions globally (Ngulube, 2001; Wilson, 1995) and has surveyed institutional course offerings (Yusof and Chell, 1998). Yusof and Chell (1998) compared university frameworks in 25 countries within which records management was taught; to the extent it functions as a snapshot of the state of records management education worldwide, we note the continuing existence of many of the programmatic courses they identify. One of the institutions described in their study, the University of Texas, introduced Records Management as a regular class in its then Graduate School of Library and Information Science in 1980. By the time of the institution's 1989-1991 curriculum bulletin, both this class and a second Seminar in Records Management had been incorporated into the set of classes called Archival Enterprise (Galloway, 2014). In 1993, this set became an "archival and records enterprise" track – at present known as a specialization – available within the MLIS (now MSIS) program. Through this example, we see that records management is often present as a component of archival education. Still, as one author has asserted, the two programs complement each other (Brumm, 1992). It was from this institutional background that the present study developed as a means of understanding areas in which current curricula does and could support new records professionals. Scholars from within the information field have also challenged records management educators to design curricula that takes into account both the multiplicity of record-keeping practices in contemporary life as well as the transformative impact of digital technologies on the management and display of digital objects (Currall and Moss, 2008); this paper provides new data upon which such curricular decisions might be based.

Methods

Survey development

To answer our research questions, we developed and administered a survey in spring 2014. The basis of the survey questions was two sources of information about records managers' work and education. First, as discussed above, a review of relevant literature resulted in identification of several themes, including records managers' use of technology, skills and practices surrounding digital records, and the professional development of records managers. Second, we used data from workplace observation and semi-structured interviews of records managers; the data were collected as part of a related research study conducted during spring 2013. We examined the qualitative data to help us refine themes from the literature or present additional themes not present in the literature. The main survey themes were frequency of tasks and interactions with colleagues and others at work; importance of different competencies for performing that work; information technology use, adoption and advocacy; professional development; overall satisfaction with work and career; educational preparation for competencies and tasks; and importance of topics in formal educational preparation programs.

The survey instrument was developed iteratively, including multiple reviews by colleagues and piloting with members of the target audience. Our development process was influenced by the recommendations of Fowler (2014) and Dillman (2007) with regard to writing and revising question formats. First, eight persons participating in a graduate course in survey research methods reviewed the survey questions, flow and design. After revision, we piloted the survey with two records managers to ensure that the constructs we asked about and words used to present them were relevant and understood as we intended. The resulting instrument included 20 questions specific to records management (33 total), though in many cases, fewer questions were answered by respondents, depending on the branching options applied given their responses. The survey took respondents approximately 20 min to complete.

Sample development

We used three strategies to develop the sample. First, we obtained a list of contact information for 2,260 alumni of a graduate master's program in information studies (years 1951-2013), an unknown proportion of whom worked as records managers. The longevity of this American Library Association-accredited program and the depth of its curricular offerings in such current areas as records management, knowledge management and business analysis corroborated this choice of initial sample. Second, we reached out directly to records managers associations through Web posting and social media, and focused particularly on members of ARMA International (Pemberton, 1984). We received permission from the Austin, Texas, US chapter of ARMA International to distribute a survey link through their Web page. We also publicized the survey to 29 professional records management organizations and groups via email and social media (Table I). Finally, we used a snowball approach to increasing the sample size and diversity. Both in the invitation email and on the last page of the survey, we encouraged respondents to send a survey link to other records managers. Within the survey itself, respondents were asked to select which of several information work roles they wanted to answer questions about. In other words, they did not need to be working as records or digital assets managers 100 per cent of their time, but instead to tell us what they did when they took on that role.

Method of contact	Organization or group
Email	ARMA Austin (TX) Chapter
	ARMA Southeast region
	ARMA Southwest region
	ARMA Mid Atlantic region
	ARMA Great Northwest region
	ARMA Midwest/Rocky Mountain region
	ARMA Pacific region
	ARMA Canada
	ARMA Europe
	University of Florida Records Management listserv
	Association for Information Science & Technology (ASIS&T)
	Los Angeles Chapter of ASIS&T
	Arts & Humanities Special Interest Group of ASIS&T
	Society of American Archivists Archives & Archivists List
	Society of American Archivists Students and New Professionals Roundtable
	Society of American Archivists Preservation Section
	Society of American Archivists Public Library Archives/Special Collections Roundtable
	Society of American Archivists Archives Management Roundtable
Website	ARMA Austin Chapter
	Orange County Chapter of ARMA International
Facebook	Society of American Archivists
	ARMA International
	OSG Records Management
	Admiral Records Management
	Business Records Management
LinkedIn	RIM Professionals
	Records Management and Records Information Management
	Records Managers
Twitter	ARMA International

Survey administration
We obtained IRB approval (#2013-09-0103, University of Texas at Austin Institutional
Review Board) to distribute our survey as the key quantitative component of a study titled
"Research on the Work of 21st Century Information Professionals". The survey was created
and administered using SurveyMonkey online software. We sent an email invitation to
alumni that included a unique link for each email address. We sent email to more than 20
records managers chapters and special sections with a non-unique link and used Twitter to
publicize the survey link. The survey opened on March 26, 2014, and we sent two reminders
to the non-responders of the alumni list within 10 days of the original invitation. Upon
closure of our survey on June 2, 2014, we ended up with 334 usable responses from records
managers. As we did not require respondents to answer every question, in the results below
we specify the respondent count for each survey item with N = (in many cases, this is lower
than 334). The 334 records managers' responses are a subset of the total number of responses
received over two months for all nine modules in the survey combined: over 2,000
information professionals (89 per cent of our initial sample).

Profile of respondents
Records managers constituted one of nine groups of information workers surveyed, among
them archivists, librarians, data analysts and social media workers (Barker *et al.*, 2015;
Carter and Sholler, 2016; Simons *et al.*, 2016). In total, 334 respondents who identified as

records managers were routed to our survey module about records/digital assets management work, training and education. Our 334 responses constitute the third largest respondent group in our survey after librarians and archivists. Of these 334 records managers, 46 people (14.7 per cent) reached our survey from the information studies alumni email list, and we reached the rest (85.3 per cent) of our respondents through other channels (e.g. ARMA Austin Chapter, Facebook groups and forwarding of the initial survey invitation). Regarding the respondents' employment status, 172 (80 per cent of 215 answering) reported full-time employment, 43 (20 per cent) reported part-time employment, and only one respondent was retired. 60.9 per cent of respondents (N = 215) identified themselves as female, while 37.7 per cent of respondents identified as male and three respondents declined to supply this information. A sizable number of our respondents (44.6 per cent, N = 177) reported that they worked for government, while 24.9 per cent worked in education and 18.1 per cent worked in business or financial operations. Most respondents (84.1 per cent, N = 214) reported that they were neither consultants nor did they work at firms with the primary business function of consulting.

Our sample also presents variety with respect to the length of time that respondents reported working as records/digital assets managers and the amount of time they spent in a workweek performing this type of work. Respondents reported their tenure in the field (N = 306), with approximately half of the sample reporting experience of over 10 years. About 33 per cent of respondents reported working for less than five years as records managers, an important demographic for understanding how current and recent educational experiences are relevant to the respondents' work. Not all of our respondents spent all of their time performing records/digital assets management. Regarding the hours per week worked as a records manager, most respondents (40.1 per cent, N = 304) reported working on records management for 40 or more hours per week, while 27 per cent did records management work for 30 to 39 h per week, and 18.4 per cent did this work for 20 to 29 h per week. Respondents also selected a single option to indicate whether they worked with more paper records than digital records (34.2 per cent, N = 298), about equal amounts of paper and digital records (25.8 per cent), or more digital records than paper records (39.9 per cent). Most of the respondents (69.1 per cent, N = 207) reported that they held a Master's degree, and the top three disciplines represented by their highest earned degree were in the fields of LIS (55.8 per cent, N = 197), humanities (24.9 per cent) and business (18.8 per cent).

The daily work of records management

A primary goal of our survey was to understand the tasks that records managers perform regularly at work as well as the competencies they find valuable in their work. In this section, we present five groups of survey findings: tasks, collaborations, competencies, training and job satisfaction.

Task frequency and use of technology

Based on our readings of prior qualitative data and literature, we identified 11 key tasks involved in records management and asked our respondents how frequently they perform them at work. Figure 1 presents these tasks in order of how often respondents perform a task "once a day". We were particularly interested in tasks involving interactions with colleagues, which we discuss further below and have marked these four tasks in Figure 1: with (I) for Interaction. Figure 1 shows that for 252 respondents, the two most frequently performed tasks at work do involve interacting with colleagues: negotiating others' compliance with policies and providing advice to others. We also conducted inferential analysis to differentiate task frequency by years of experience and found that records managers with

10+ years of experience in this field more frequently negotiate others' compliance and
provide advice to others than do newer records managers.

Our respondents reported frequent use (multiple times per day) of several types of
software, including off-the-shelf software (52.7 per cent, N = 239) and proprietary tools
created specifically for their organizations (45.5 per cent, N = 235). In contrast to these tools,
publicly available Web services (e.g. Dropbox or other cloud-based providers) were less used
in the respondents' daily work, with over half of the total respondents (59.5 per cent, N = 217)
stating that they only used this type of technology less than once a month or never.

Prior research in the records management field has examined the issue of technology
implementation from the perspective of a single records management professional steering
the course (Shupe and Behling, 2006; Shamir, 1996). To understand technological changes at
work, we asked respondents to report how often they proposed the purchase and
implementation of new technologies (e.g. new versions of software and new hardware) to
their organizations. Additionally, we asked respondents to report how frequently their
proposals were accepted by their organizations. Records managers who reported working
with primarily paper formats of records reported less success in technology proposal
acceptance than those who worked with more digital records or equal amounts of either
format ($N = 176$, $df = 2$, $p = 0.051$, using one-way ANOVA, which identifies any significant
differences between the means of three or more groups). The frequency of an organization
adopting a new technology is positively correlated with the acceptance rate of such proposals
made by employees ($r_{N = 174} = 0.308$, $p < 0.001$, using Pearson Correlation, which measures
the strength between two variables), and there is no significant difference in frequency of
proposing use of new technologies with the type of records used. We therefore find it
advisable for educators and employers to continue to train records managers to work with all
types of record formats.

Collaboration skills
To better understand the ways in which records managers participate in the everyday work
of their organization, we asked respondents about the frequency of interacting with others in
different ways at work. Figure 1 shows that records/digital assets managers interact with
people in their workplace most frequently through negotiating others' compliance with
records/digital assets management policies (multiple times per day, 34.1 per cent, N = 249)
and providing advice to groups trying to manage records or digital assets (multiple times per
day, 30.7 per cent, N = 244), compared with the other two categories (conducting training for
other employees, and attending training themselves). This finding demonstrates that one of
the most frequently exercised components of records management work in organizations is
negotiating compliance with records policies. While many organizations have records
policies in place, our results provide further support for Cisco and Trombley's (2012a) claim

Negotiate others' compliance with policies (I)
Provide advice to others (I)
Store digital records/assets
Implement policies
File paper records
Dispose of or delete records
Create inventories
Develop policies
Conduct training for other employees (I)
Create retention schedules
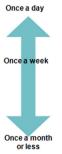Attend records management training (I)

Once a day

Once a week

Once a month
or less

Figure 1.
Frequency of tasks
and interactions at
work (N = 252)

that a skilled records manager is essential to the success and enforcement of these policies to the fullest extent possible.

Competencies
To understand what skills records managers find most useful, we asked our respondents how important each of our proposed 11 competencies were for their work. The highest rated competency was consulting (taken to mean the advising of clients and co-workers) (with 78.3 per cent rating as very important, N = 251), followed by organization skills (73.9 per cent), adapting standards (69.2 per cent), data management (61 per cent) and creating standards (59.4 per cent). Figure 2 depicts the 251 responses related to competencies on the job. Public relations (36.7 per cent), public speaking (29.2 per cent) and statistical analysis (18.6 per cent) were considered to be less important than other competencies.

Professional development training
Respondents indicated that they most preferred receiving training through outside or external organizations (56 per cent, N = 226), followed by on-the-job training (30.5 per cent) and self-guided training (18.4 per cent). Additionally, more respondents stated that their on-the-job training had helped improve their performance on each of our tasks, than not. Most respondents had experience with multiple formats or sources of training delivery for professional development outside the regular workplace, including through professional associations (85.1 per cent, N = 214), from other types of outside organizations (72.9 per cent), and through webinars (71 per cent). The topics covered by these multiple sources were most frequently electronic records management (88.3 per cent, N = 213), followed by basic skills (70.9 per cent), new information technologies used in the organization (65.3 per cent), developing and implementing policy (62.4 per cent), project management (53.5 per cent) and gaining the compliance of records creators (46.5 per cent), and all of these topics were rated between very and somewhat useful.

Job satisfaction
Records managers reported high levels of satisfaction with both their job and career advancement so far (86.6 and 79.5 per cent agree or strongly agree, respectively, N = 216). In addition to the results presented in Table II, we observed no significant difference among groups (field of highest degree, gender and years of experience). Additionally, many respondents would recommend records management to others (82.3 per cent). From an inferential analysis, we found that records managers with 10+ years of experience reported both very high and low ratings of overall satisfaction.

Figure 2.
Perception of competencies as "Very Important" for work (*N* = 251)

Recommendations for records management curricula
From our identification of key issues in the records management literature, we included in our survey instrument three questions on particular strategies, desired skills and advice which collected free-text responses. We carried out open-ended coding of the responses to arrive at a data-driven understanding of records managers' individual approaches to these key issues. In addition to our qualitative analysis, we also present quantitative results from our survey questions related to formal education.

Strengths of formal education and on-the-job training
To understand where our respondents learned to perform records management tasks, we tested some of the task frequency variables against the coverage of tasks learned in graduate school and rating of tasks after on-the-job training for each topic. With these, we sought to heed calls in the research literature for more nuanced understandings of the relationships between different aspects of professional records management work (Walch *et al.*, 2006). To achieve these nuances, we used basic statistical tests to surface the relationships present within our response data which would not have otherwise been apparent. As an aside, familiarity with these and other statistics is a prerequisite for some information master's programs in the USA. We hope that in demonstrating their usefulness here, we encourage further quantitative research on these themes. One surprising result we found was that there is no correlation between the topics that respondents reported learning about in detail in formal educational (i.e. degree) programs and the reported frequency at which they perform regular tasks. This may highlight an opportunity for curriculum developers to align and connect their topical coverage more closely with what records managers are reporting as both the most frequently performed tasks (Figure 1), and the most important competencies at work (Figure 2). On constructing the eight educational topics into a scale called "Formal Education" (with Cronbach's *alpha* = 0.943 for $N = 203$, suggesting internal consistency of the topics), we found that the more formal education a records manager has, the less public relations ($r_{N = 194} = -0.143$, $p = 0.047$, using Pearson Correlation) and teaching ($r_{N = 193} = -0.168$, $p = 0.019$, using Pearson Correlation) competencies are important. Our use of this Formal Education scale also indicates that the work competencies of public relations and teaching are highly variable across the range of workplaces represented in our study.

Similarly, we also tested for the relationship between the usefulness of on-the-job training "for improving performance of the following tasks" and educational topic coverage. We found that records policy development was negatively correlated with on-the-job training usefulness ($r_{N = 167} = -0.158$, $p = 0.041$, using Pearson Correlation). While quality on-the-job training exists for this specialized knowledge area, our finding may also indicate an area where curricular topic coverage could be strengthened.

Agree or Disagree	Minimum	Maximum	Mean	SD
I am satisfied with my career advancement so far	1	4	3.08	0.922
I would recommend my job to others	1	4	3.17	0.802
In general, I am satisfied with my job	1	4	3.28	0.830
Notes: Scale: 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = Strongly agree				

Table II.
Job and career
advancement
satisfaction ($N = 216$)

Strategies and recommendations to gain records management compliance

In Q20 of our survey module, respondents were provided a short statement with regard to records management compliance and then asked to share strategies and recommendations for "dealing with records creators that may not follow records management policies and procedures, knowingly or unknowingly, in the course of work". The two most common strategies expressed by far constitute individual meetings and coaching ($n = 31$) and training ($n = 28$). An example of individual meetings is seen in this comment: "Individual, hands-on training at the person's desk where we can work through their process and incorporate records management into it" (RM50, that is Records Manager response 50). Other respondents explain training as "Self-assessment, scorecards, reporting to upper management", or as "Information, education, and persuasion" (RM72, RM123). The other strategies expressed in these responses include the use of documentation ($n = 13$), appeal to management ($n = 9$), showing consequences ($n = 9$), an audit ($n = 8$), being flexible ($n = 7$), alliances ($n = 6$), centralizing records management ($n = 2$), designing better software ($n = 2$), stakeholder integration in system ($n = 2$), as well as decentralizing records management ($n = 1$), and using best practices ($n = 1$). Several other responses presented more personal approaches.

Desired skills of new records manager hires

We asked our respondents to share what skills are most desired when a new records or digital asset manager is hired in their organization in Q21. Our coding results demonstrate that domain knowledge is by far the most desired skill for new hires ($n = 53$). Many of these respondents each specified a different knowledge subject – ranging from "freedom of information" to "GAR Principles [Generally Accepted Recordkeeping]" (RM107, RM58) – but several others specified LIS and records management principles. "People skills" were also expressed as very highly desired among our respondents ($n = 24$). Other desired skills that were identified through these responses are: technology skills ($n = 20$), communication ($n = 17$), experience ($n = 16$), organization ($n = 12$), attention to detail ($n = 10$), project management ($n = 9$), creativity ($n = 2$), leadership ($n = 2$), cultural fit ($n = 1$), flexibility ($n = 1$) and research skills ($n = 1$). Related observations on their organizations' staffing for records management positions were also presented by respondents; one respondent noted the lack of recent turnover or job creation, and two others noted: "I am a luxury here", and "email, is the next major issue to tackle, so technical skills are the most important to hone in on at the moment" (RM108, RM150). We observed a clear preference for new hires to possess general technical skills and the ability to collaborate, than to possess specific expertise in, e.g. "R&D [research and development] schedules and records management practices" (RM127).

Advice for records management curriculum developers

Respondents were asked in the final question of our survey module to provide their advice "to a degree program that educates future records managers". Respondents provided plain-spoken recommendations that could or should be used to inform curriculum development. The most prevalent advice, again, involved cultivating domain knowledge among records management students ($n = 17$). Within the records management domain, respondents mentioned specific important issues: "Cover all complex issues and use real life challenges for the students. Don't forget the paper records, since most organizations are still required to manage their paper files properly" (RM144). Another respondent recommended to:

> […] incorporate coursework in the IG [information governance] disciplines, the most important of
> which are legal, compliance, and information security. Focus less on teaching mechanics and more
> on teaching students how to research and interpret standards and best practices (RM85).

A similarly prevalent area of recommendation constituted practical experience ($n = 17$), in which respondents stressed the need for "hands-on experience", "taking into account what real-world employers want", "vendor visitations" and "implementation strategies" (RM23, RM104, RM137, RM135). The role of records management mentorship also is evidenced here and partly accounts for another common curricular recommendation: cultivating people skills ($n = 15$). Other specific areas of educational advice include: technology skills ($n = 14$), project management ($n = 11$), teaching flexibility ($n = 10$), justifying records management ($n = 6$), digital skills ($n = 5$), conflict negotiation ($n = 4$), current practices ($n = 4$), information lifecycle ($n = 4$), legal aspects ($n = 3$), teaching problem solving ($n = 2$), communication ($n = 1$), compliance ($n = 1$), continuing education ($n = 1$), leadership ($n = 1$), management ($n = 1$), organization ($n = 1$), statistics ($n = 1$) and teaching skills ($n = 1$). There were also several more affective responses, including "The prayer of St. Francis" (RM88).

Implications for education

Training for records managers is a significant element of a records management program, as seen in the recent requirements for Federal agencies to have such training in place. The 2011 Records Management Self-Assessment Report of the US National Archives demonstrated that while a majority of agencies have an in-house training program for employees assigned records management responsibilities, much of this training is broadly general and unspecified to particular organizational needs. Additionally, only half of agencies provide such training for senior officials, with the other half receiving only some or no training at all (US National Archives, 2012a). In-house, or on-the-job, training however, constitutes only one of three ways by which new records managers learn the practice of records management; other avenues are through formal education and through professional development by external providers or self-guidance. Ours is one of the few studies designed to examine the profession of records management from various aspects (e.g. work tasks, competencies, education preparation and professional development). Using a survey instrument allowed us to quantify our data and use statistical tools and methods to better mine and explore the relationships between variables and the discrepancies between particular groups separated according to their work nature and work experiences.

Although we recognized directives for RIM programs to train government employees and promote compliance with records regulations, in designing this study far less apparent to us were the specific workplace activities (and their frequencies) upon which these directives and programs rest – activities for which individuals responsible for delivering this education might prepare their students. For example, the RIM certificate at the University of Liverpool, developed in consultation with the UK National Archives in 1999, emphasizes the importance of organizational context through an understanding of principles such as function analysis and information mapping (University of Liverpool, 2016). Our study generally sought to examine what practical applications of these and other records management principles are encountered in records managers' daily work, hence our detailing of tasks. Our graduate educational context motivated us to identify and query these workplace activities, though such context is not new to the field (Johare, 2006; McLeod et al., 2004). As doctoral students interested in understanding information work, we designed and implemented this study of records managers, and we believe there are many benefits to further expanding this pedagogical approach in other

doctoral information education settings. After completing our study, we shared our findings with program faculty (Barker *et al.*, 2014) and used particular qualitative comments to draw out possible areas for refining master's curricula. Based on our survey results, we support integrating hands-on experiences into existing course syllabi wherever possible and argue that teaching students "strategies" and ways of thinking rather than mechanics will benefit both their long-term career trajectories and their current employer. Additionally, continued attention to task frequencies in the context of records managers' technology work environments might enable future researchers to design processes attuned to the specific needs of records in print or digital formats. The high importance of domain knowledge among records managers presents a strong case for curriculum developers to pursue and formalize joint or dual degree arrangements between records management programs and these other domains. Finally, since records managers and supervisors value soft skills and direct experience with particular tools and technologies, we would encourage doctoral research on these aspects. Future study of records managers by doctoral students would reiterate Cisco and Trombley's claim that it is only through these people's skills and expertise that the aspirational goals of any records management program are realized.

Records management is presently taught and practiced within the broad domain known as the information field. Educators have incorporated converging practices among institutions such as libraries, archives and museums that facilitate the access and management of records for the past two decades (Pemberton and Nugent, 1995). The principles of records management thus have wide applicability across the information sector, and the perspectives gathered from current professionals provide a vivid illustration of different work environments. While the largest proportion of our respondents characterized the industry in which they work as government (44.6 per cent, N = 177), many others work in education (24.9 per cent) and in business or financial operations (18.1 per cent). This finding indicates that the records management practices observed and promulgated in government – whether at the Federal, state or local levels – are very relevant to discussions of records management policy-making or curricular refinement.

It is instructive to note that more of our respondents (40 per cent, N = 298) work with mostly digital records than with paper records. While we are mindful of our total sample size, we argue that this finding provides quantitative support for adopting the "unified records management" approach; incoming professionals can no longer expect to have responsibilities for mainly paper-based materials, as the balance of formats to be managed has shifted. Inferential analysis yielded a further interesting result. We found that records managers who worked with more digital records reported a higher frequency of dealing with records management policy compliance among organization employees.

Conclusion

Records managers are valued for their skilled knowledge in carrying out records policies and procedures, and their role in helping an organization achieve compliance with various mandates and workplace pressures cannot be overstated. This claim is substantiated by at least three key data points from our study. Records managers spend the largest majority of their time at work negotiating others' compliance with records/digital assets management policies (34.1 per cent, N = 251). "Consulting" (the advising of clients and co-workers) is also the competency rated by records managers as the single most important for their work. Finally, when asked to identify the most desired skill for new records managers to possess, over 50 respondents identified particular "domain knowledge" areas as the most significant.

Together, these data paint a detailed and wide-ranging portrayal of the activities that records managers carry out in their everyday work as well as the ways in which core concepts from one's formal education relate to work competencies and the use of professional development and on-the-job training to meet particular knowledge areas.

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Further reading

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