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The recipe for ERMS sustainability: a survey of how organizations have implemented electronic records systems

Danelle Court
Western Washington University

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**THE RECIPE FOR ERMS SUSTAINABILITY:
A SURVEY OF HOW ORGANIZATIONS HAVE IMPLEMENTED
ELECTRONIC RECORDS SYSTEMS**

By
Danelle Court

Accepted in Partial Completion
Of the Requirements for the Degree
Master of Arts

Moheb A. Ghali, Dean of the Graduate School

ADVISORY COMMITTEE

Chair, Dr. Randall C. Jimerson

Tony Kurtz

Barbara Benson

MASTER'S THESIS

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**The Recipe for ERMS Sustainability:
A Survey of how Organizations have Implemented
Electronic Records Systems**

A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

By
Danelle Court
February 2011

Abstract

Electronic records inundate our daily lives and our organizations. Management of these electronic records, however, is often inadequate. Electronic records management systems are a tool that can help effectively manage electronic records, and many organizations are starting to implement an electronic records management system in order to become more efficient and effective. How can one make the electronic records system successful and sustainable? To address these concerns, the author conducted an Electronic Records System Survey, with over four hundred participants. The responses suggest five components that can make an electronic records system sustainable in an organization:

1. Visible leadership and support from upper management;
2. Open communication between all parties in the organization;
3. Policies or mandates for use of the electronic records system (ERMS);
4. Basic records management foundation for the ERMS;
5. Ongoing education on how to use the ERMS and also on basic records management concerns.

This thesis examines the attitudes and experiences of records managers and suggests how a sustainable electronic records system can make organizations more efficient and effective.

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INTRODUCTION

Background: Why is the ERMS important?

The typical office horror story is the picture of a desk overflowing with papers, journals, and notes stacked every which way, spilling onto the floor. The clutter is hopeless and there is not one empty space on which to set even *more* papers. In the age of the desktop computer, there is now a digital counterpart to this horror story. In cyberspace, it is even easier to lose documents and records than in the whirlwind of papers surrounding one's cubicle. Not only might a record get lost in the infinite world of bits and bytes, but the record could become altered and irretrievable. Electronic records management is fast becoming a necessity in order to curb some of the atrocities caused by this nightmare that has become reality.

As a computer dependent and "info-centric" society, we have long since entered an era of electronic records. The most common form of communication is e-mail, with the newest trend consisting of e-mail combined with phone technology. Newspaper companies are going bankrupt and fighting to go "on-line" in order to keep up with what their clientele want: to read their newspapers electronically via internet. One of the biggest stories in the news of 2009 was centered on the Obama administration and universal health care options, which inevitably include electronic medical records. There was a story on national public radio in June 2009 about farmers using a new "i-phone application" to measure and record soil moisture, allowing them to calculate exactly how much they should water their crop to achieve ideal fruition.¹ There is so much digital information swirling around us in an uncontrolled, chaotic way that it is hard enough to

¹ Sasha Khokha, "Rainwater, iphone App Help Thirsty California Farms". June 29, 2009. National Public Radio. Available online at: <http://www.npr.org/templates/story/story.php?storyId=105838912>. Accessed Sept. 14, 2009.

capture it, much less classify, store and/or destroy it. Preston Shimer, a records management specialist wrote, “Because of the proliferation of applications, computer platforms, operating systems, and many other variables, information is being created, retained, and disposed of in an uncontrolled and undisciplined way. Everyone who creates and processes information using computers can relate to this problem.”²

Electronic records are an inherent part of our daily lives in ways that we aren’t even aware of. So why aren’t electronic records management systems (ERMS) and their counterparts more popular? Why aren’t they a common term in the business world’s vocabulary? Most importantly, why is there such resistance to installing ERMS in organizations whose central and essential business functions revolve around electronic records? The goal of this research is twofold: to identify some of the hurdles that organizations most commonly face in trying to implement electronic records systems; and to identify strategies that they can utilize during implementation in order to make those systems sustainable.

The goals of identifying the hurdles of implementing electronic records systems and building a sustainable system once implemented are important from many perspectives besides just records management. Archivists, genealogists, lawyers, business administrators, public administrators, emergency personnel, and the public at large should all be interested in the achievement of the above goals. This is important not just from the researcher’s perspective, but also from society’s perspective in order to ensure accountability by recording history and the daily transactions of government and publicly traded companies. Everyone creates records in their daily lives, and with the personal

²Preston W. Shimer, “Unified vs. Federated: Which has the proven track record for managing information?”, *Information Management Journal*, Vol. 43, Issue 6 (November/December 2009):34-38.

computer and e-mail being so accessible, a majority of those records are electronic. We need to be able to access those records to retrieve information on everything from prescribing medications to looking at a blueprint of a building during a re-model.³ It is our professional duty as records managers to ensure those records can be retrieved when required, whether that be next week or fifty years from today.

Electronic records have also recently taken up the spotlight with regard to litigations. Several guidelines and policies have recently been published that relate directly to electronic discovery and the admissibility of electronic records and their metadata in court. The most recent and influential is the Federal Rules of Civil Procedure. Rule 34(b), which states that

...unless otherwise stipulated or ordered by the court, these procedures apply to producing documents or electronically stored information: (i) A party must produce documents as they are kept in the usual course of business or must organize and label them to correspond to the categories in the request; (ii) if a request does not specify a form for producing electronically stored information, a party must produce it in a form or forms in which it is ordinarily maintained or in a reasonably usable form or forms;...⁴

Thus if a defendant is asked to produce an e-mail, then the e-mail must be produced and given to the plaintiff with corresponding metadata in the e-mail format in which it was originally maintained. There are no excuses if it cannot be reproduced. Many companies are feeling the affects of this rule.⁵ Most companies do not have the appropriate

³ For a list of benefits that an EDRMS can provide to individual users, the organization and society as a whole, see Gary P. Johnston and David V. Bowen's article "The Benefits of Electronic Records Management Systems: A General Review of Published and some Unpublished Cases", *Records Management Journal* Vol. 15 No. 3 (2005): 131-140.

⁴ Committee on the Judiciary House of Representatives 110th Congress. "Federal Rules of Civil Procedure". Washington D.C.: U.S. Government Printing Office (December 2008). Rule 34 (b) p 53. Online at: <http://www.uscourts.gov/rules/CV2008.pdf>. Accesed 4/14/2010.

⁵ See, for example, "Judge Rosenthal Issues Sanctions for Failure to Preserve E-mail." Weblog Entry. Legal Holds and Trigger Events. February 24, 2010. Accessed online at:

technology in place to capture, organize and preserve over time the e-mails and other electronic records that are being created by employees.

Additionally, rule 26(b) of the Federal Rules of Civil Procedures establishes that “...any matter, not privileged, that is relevant to the claim or defense of any party” is open to discovery requests. Thus no e-mail or electronic records are exempt from being requested if they are relevant to the case at hand.⁶ An influential opinion and order by United State District Court Judge Shira A. Scheindlin in *Zubulake vs. UBS Warburg* has also had a far reaching impact on electronic discovery and litigation. In a case that required the reproduction of backup tapes and e-mails, Judge Scheindlin set guidelines for what can be considered unduly burdensome - who can request what and to what extent.⁷ This is significant because it can cost thousands of dollars to reproduce electronic records - especially if they are unorganized and contain no classification guidelines. In a webinar given through ARMA International Martin Tuip cites *Toussie v. County of Suffolk* where “...the county argued search of backups was overly burdensome. The court narrowed the search request to 35 terms, but it still required an estimated 470 backup tape restorations at a cost of \$600,000 - \$900,000.”⁸

Discovery is expensive and can be devastating to even a large company. As Judge Scheindlin states: “The point is simple: technology may increasingly permit litigants to reconstruct lost or inaccessible information, but once restored to an accessible form, the

<http://legalholds.typepad.com/legalholds/2010/02/judge-rosenthal-issues-sanctions-for-failure-to-preserve-email-in-rimkus.html> February 10, 2011.

⁶Committee on the Judiciary House of Representatives 110th Congress. “Federal Rules of Civil Procedure”. Washington D.C.: U.S. Government Printing Office (December 2008). Rule 34 (b) p.53. Online at: <http://www.uscourts.gov/rules/CV2008.pdf>. Accessed 4/14/2010, p 36.

⁷ Shira A. Scheindlin, United States District Court Southern District of New York *Zubulake v. UBS Warburg LLC, UBS Warburg and UBS AG* Opinion and Order 02 Civ. 1243 (SAS) p. 28. Online at: http://www.jeffparmet.com/pdf/electronic_discovery.pdf , October 10, 2007. Accessed 10/10/2007.

⁸ “Firm Fined for Poor Records Management”, *Information Management Journal* Vol. 43, No. 6 (November/December 2009):15.

usual rules of discovery apply.”⁹ Due to the amazing feats of technology, the rules on access to electronic records have revolutionized and transformed the idea of discovery and the resultant litigations. Hence, companies private and public alike need to be able to better classify and sort their records in order to find them with little effort and with little associated cost. In a recent case *Phillip M. Adams and Associates v. Dell Inc., ASUSTEK and ASUS Computer International* were sued for destroying evidence illegally. That in itself is not unusual. The interesting part is that the judge sanctioned ASUS “...for what he considered an inadequate system for retaining documents in the absence of litigation.”¹⁰ The key words are, “*in the absence of* litigation.” Normally a company is not held liable for their record retention policies if they are not anticipating litigation. This may set new precedence for keeping compliant and updated records retention policies regardless of litigation which will deeply affect the records management world, electronic or not. Importantly, having compliant, accessible and accountable records management systems for both paper and electronic records is ultimately another way to keep our elected representatives and publicly traded companies accountable and transparent.

Electronic records present many challenges and benefits, many of which have just been briefly touched upon. The challenges include: being able to classify and easily search for electronic records both by subject/title and content; making sure that electronic records are secure and protected, especially as they are sent across cyberspace; making sure that electronic records are retained and maintained in their original format for the entire required lifetime, which may in some cases be permanent; ensuring that electronic

⁹ Shira A. Scheindlin, “Opinion and Order”, p 28.

¹⁰ “Firms Fined for Poor Records Management”, p 15.

records maintain their integrity by not being altered during their lifetime; and last but certainly not least, figuring out useful ways to capture all of the relevant metadata.¹¹

There is also the new issue of social media and how to classify and capture messages (that very well could be records) such as Twitter and Facebook messages.

On a daily basis, here are problems encountered by the State of Michigan Department of Management and Budget (DMB) in relation to their electronic records:

...records destroyed without authorization; records retained too long; historical records are not preserved; deleted records are not consistently destroyed; records are abandoned in obsolete software and are rendered inaccessible; disorganized records; lack of naming conventions; lack of version control; duplicate storage of records; electronic records are stored in a variety of locations and drives; file sharing is difficult; users only have access to records in their custody.¹²

DMB's solution was to find an RMA (Records Management Application) that met and sought to rectify some of the challenges listed above. They were seeking an RMA that

...will require state employees to classify the electronic records they create according to the appropriate Retention and Disposition Schedule, will store the records in a centralized repository that will monitor appropriate access and will automatically implement retention requirements.¹³

This specifically translates for DMB into:

[Requiring] that all electronic records be classified by the user; implement event and activity-driven retention requirements; completely destroy deleted records; maintain metadata about records; moderate access to users; and provide a seamless and user-friendly interface for users.¹⁴

¹¹ The State of Oregon released an Electronic Records Management System (ERMS) Community of Practice (CoP) Charter – v2 in 2007, part of which is giving a detailed list of risks involved in NOT doing anything with electronic records. For more details on their stated risks, visit http://www.ocjc.state.or.us/DAS/EISPD/ITIP/CoP/ERM/ERMS_CoP_Charter_v02.doc, October 10, 2007. Accessed 5/12/2009.

¹² Jim Kinsella, Michigan Department of Management and Budget "Final Report Records Management Application Pilot Project" December 30, 2002. Online at: http://www.michigan.gov/documents/HAL_MHC_RM_Final_Report_63480_7.pdf October 13, 2007.

¹³ Ibid.

¹⁴ Ibid.

The above challenges are not easy to solve and the proposed required functionality for a system is not easy to meet. There are no black and white templates for how to implement an ERMS, but with patience, determination, stubbornness and perseverance a solution can be molded for the unique qualities of each organization.

Electronic records are not all evil, however. Electronic records can be easily shared across all boundaries around the world. They ensure faster recovery if the paper equivalents are lost or damaged; they make business more efficient; they make communication to one person or many occur in an instance anywhere in the world; they benefit education and training; and the list goes on. The real point is, however, regardless of our personal opinions on electronic records, they are here and they are here to stay – until the next new paradigm of technology, at least. We must deal with electronic records instead of avoiding them and pretending they do not matter.

The best way to deal with electronic records on a large scale is to have a system that helps one manage them, from their declaration of being a record, to the point that they must be discarded because they are considered no longer relevant. Many people are realizing this and turning to electronic records management systems (ERMS) to help them cope. Since there is no one correct management stance, since many people don't want to change, since there are so many approaches and ideas when it comes to electronic records and how to classify them, ERMS sustainability is a big issue. A company can get the funds and spend thousands of dollars on a system, but if they don't have a records management foundation, if they don't have the proper communication and education networks and if they don't have the right support in the form of policies and senior management support, it will never work long term. The system will not be used and it

will fizzle out with time wasted and thousands of dollars lost. Thus, not just the importance, but the absolute necessity of this study is essential in exploring how to make an ERMS sustainable.

Why Use the ERMS?

First and foremost, what is an “electronic records management system” (ERMS)? An ERMS is specifically a type of records management application (RMA) utilized to manage records (either electronic and/or paper) in a computer software application. These applications are constantly becoming more and more sophisticated with more abilities to manage the records during their entire “lifecycle” from creation to destruction. RMA’s have many different kinds of functionality, but according to TAB (a vendor), they generally include: “actual storage, indexing and retrieval of electronic records stored on the system; indexing and tracking of the content and location of paper and other physical files; and application of records retention workflows based on an improved retention schedule.”¹⁵ This is not entirely accurate, because there are some RMA architectures where the ERMS is not an actual storage system for the electronic records, but instead provides a “link” to the record and when it is requested through the ERMS, it pulls up the record.¹⁶ ERMS is a very broad term and can cover many different types of software applications employed to aid in managing electronic records in all of their formats.

One may wonder why this study is focusing more on the ERMS instead of (or including) the electronic document management system, the electronic content

¹⁵ *Taming the Two-Headed Beast: Tips for Managing Paper and Electronic Records in the Hybrid Environment*. TAB. Available online at: <http://www.tab.com/ecms.aspx/HybridWhitePaper.pdf> p 5. Accessed 10/15/2010.

¹⁶ Julie Gable, “The Importance of Architecture in ERM Software Selection”, *Information Management Journal*, Vol. 42, No. 1 (January/February 2008):28-34.

management system, the electronic medical records system or even more simply, the e-mail archiving tools. The parameters of the survey did not discourage users of any of the above systems from responding. The reasons for including all of the above on this survey but focusing mostly on the ERMS in this study are manifold.

To begin with, a sense of how many people were using what types of systems was needed. By establishing the usage rate of the ERMS and then comparing it to the usage rate of all other types of systems, I could determine whether there was a need for a study such as this one. Of those who responded, if none of them had an ERMS, or if very few did, then obviously their importance and consequently the necessity of this survey was undermined. It was my suspicion that many organizations were using, or looking at implementing, an ERMS.

Next, what types of systems were being used in what types of industries was interesting because not only did it indicate the attitude of that industry, it also indicated their orientation and attitude toward records in general. For example, if the majority of a certain type of industry used electronic document management systems, this would indicate that they place more value on version control, drafts and document collaboration over the final record. If this was the case, the results would suggest that the company does not place value on public accountability or legal holds because they are unconcerned with producing records upon request. Instead, they are more concerned about the workflow of the records, and what actions are required by each set of records produced. Thus, one reason the question of who is using what types of system is important is because it hints at where one is going to find electronic records management systems and thus where the focus, education, and ultimately where the money should be. The

assumption is that the public companies are the ones that will have ERMS, whereas the private companies are the ones that will use an electronic document management system (EDMS). Is this true?

As it turns out, over half of the respondents who answered the question on what type of system they use had an ERMS (56.4%).¹⁷ Interestingly, 51.3% answered they had an EDMS, perhaps indicating an even more recent (and apparently popular) trend: the electronic document records management system (EDRMS). That is one place that this survey could have been better and more explicit, by including EDRMS as an option for the response to the question of what type of systems organizations are using.

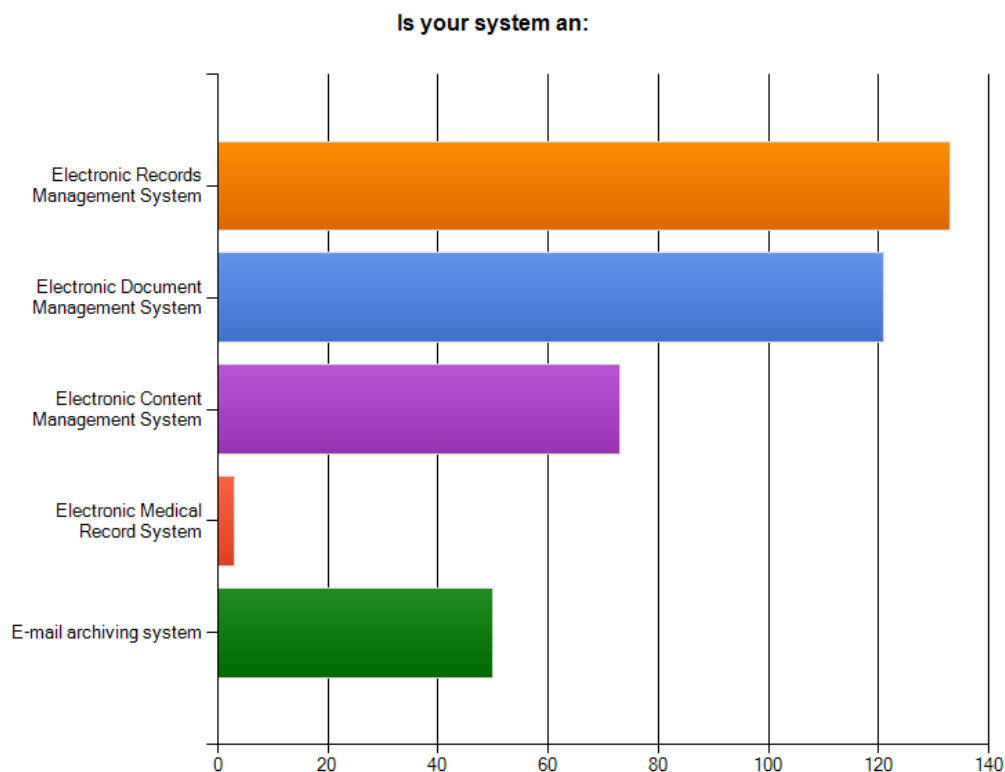


Figure 1. Type of electronic records system and number of organizations

¹⁷ Danelle Roath. Electronic Records System Survey. See Appendix I, question 12.

As shown above, the electronic medical record system was the least common in this survey. This may not necessarily be the case when all industries are taken into consideration, but is so here probably due to the audience that this survey was sent out to, which will be discussed next. E-mail archiving system is the second smallest, at 21.2% and electronic content management system is in third place.

Even though the Electronic Document Management System (EDMS) is a popular tool used by many organizations (51.3% in this survey), it was still not going to be the focus of the study. First and foremost this is due to the fact that most EDMS's do not apply retention to records in their application nor do they apply disposition, and since this study has a records management focus, retention and disposition are of the utmost importance in managing the official records. Secondly, an EDMS does not necessarily manage *records*; instead an EDMS manages documents. With an EDMS the main functionalities revolve around version control and check in/check out capabilities. In contrast, an RMA's main functionality is making sure that once records are in the system, they remain in the system as they are saved into the system until their proper disposition time. If the "records" (versus "documents", drafts, versions, etc.) could be checked out at any time, the integrity of the record is compromised because the changes may not necessarily be documented. Only the official record (the final version) should be declared into the electronic records system, and once declared it should never be deleted or altered until its retention is complete. This ensures that the official record is *retained* for the appropriate period of time in a secure manner with all metadata preserved.

A content management system (CMS) is similar, but again includes more than just the records created in an agency. Every format and information source in an

organization is captured and managed in a content management system. This includes document versions and records (including all various formats such as images and multimedia resources). Often the focus of a CMS, however, is not retention and disposition, but rather collaboration and management of the creation process of the content, not the management of the final record. An Enterprise Content Management System (ECMS) is a combination of an ERMS, EDMS and CMS. It is any and all “...strategies and technologies employed in the information technology industry for managing the capture, storage, security, revision control, retrieval, distribution, preservation and destruction of documents and content.”¹⁸ This is important because an ERMS is absolutely part of enterprise content management system. However, since enterprise content management includes so much more, this paper will not delve into all that ECMS entails. Keep in mind, however, that what is discussed here about electronic records management can be applied to enterprise content management.

Overall, as reinforced by the above bar graph, this study is indeed warranted due to the high percentage of respondents who do have either an ERMS or an EDRMS. The main reason for this study was the personal frustration experienced by myself and colleagues at the expense and time in implementing an RMA and not having even close to half the users utilizing the system after the system had been implemented and the users had been trained. There could be many factors influencing that usage rate percentage and many variables that make the sustainability chances higher or lower, which will be discussed in the body of this work.

¹⁸ State of Oregon. Electronic Records Management System (ERMS) Community of Practice (CoP). “ERMS Glossary”. July 24, 2007. Available online at: http://www.ocjc.state.or.us/DAS/EISPD/ITIP/CoP/ERM/ERMS_Glossary_v1.pdf . Accessed 5/12/2009.

Literature Review

Additionally, this study is warranted due to the lack of literature that is available. The published sources on electronic records management are extremely slim and there are only a few articles on implementing an electronic records management program; it is still a very new field with little data.

Northumbria University of Australia performed a project called *Accelerating Positive Change in ERM* (AC+erm) completed in 2010.¹⁹ The goal of the project was to answer the question, why has the pace of change been so slow with electronic records management? The outcome of the first phase of the project was an extensive literature review on the electronic records management field that covers the period from 1996 to 2009. The literature review covers different aspects of electronic records management from Case Studies, People Aspects, Process Aspects and Technology Aspects. This literature review I found very helpful with my own research by broadening my sources. In addition, this study was beneficial because it examined the people, the process and the technological facet of managing electronic records. Several articles focus on just one of these facets, but it was advantageous to have a study that included and interrelated all combined facets of an e-records program.

Many “lessons learned” case studies have been published regarding one specific company or one specific RMA implementation.²⁰ There have not, however, been many articles published on the overarching state of the RMA field and how organizations are

¹⁹ Julie McLeod, Project Director. Also called the *AC+erm Project* at Northumbria University. CEIS: Northumbria University (2010): 1-19. Available online at: <http://www.northumbria.ac.uk/acerm>. Accessed 9/8/2010.

²⁰ See, for example: Jaana Kikki, “A New Model for Electronic Recordkeeping in the Finnish Defense Forces”, *Records Management Journal* Vol. 10 No. 3 (December 2000): 150-160; Rachael Maguire’s “Lessons Learned from Implementing an Electronic Records Management System”, *Records Management Journal* Vol. 15 No. 3 (2005): 150-157; and Mimi Dionne, “How to Successfully Implement an E-Records Management Program”, *Information Management Journal* Vol. 43 Issue 2 (March/April 2009): 49-53.

utilizing and/or implementing RMA. As the Northumbria AC+erm project concluded in one of their findings, “There are few published in-depth critical case studies of success or failure, or post-implementation evaluation.”²¹

Cohasset Associates performed a comprehensive records management survey in 2009.²² The difference between this survey and mine, however, is that Cohasset’s survey asked questions and consequently focused more on certain aspects of a records management program such as retention schedules, discovery and long term digital preservation, which they deemed necessary for a sustainable program. My survey, however, focused more on the actual act of implementing an electronic records system and what the organizations had (or didn’t have) in place that could have or did make that implementation successful and potentially sustainable.

Mimi Dionne, CRM and project management professional, published a case study of how to successfully implement an e-records management program in 2009.²³ This article is probably closest to the research that I have done, and Dionne comes to similar conclusions as well. The difference, however, is that this article is only one case study of one office. Thus the source of information is much more limited than performing a survey with over 400 respondents.

Michigan State’s Department of Management and Budget (DMB) case study was of particular use to me in analyzing the results of my survey.²⁴ The report detailed their

²¹ Julie McLeod, “Accelerating Positive Change in ERM” p ii.

²² Lori J. Ashley, and Robert F. Williams. “2009 Electronic Records Management Survey: Call for Sustainable Capabilities”. White Paper Cohasset Associates co-sponsored by ARMA International (2009). Available online at: <http://www.cohasset.com/whitepapers.php> . Accessed 7/14/2010.

²³ Mimi Dionne, “How to Successfully Implement an E-Records Management Program”, *Information Management Journal*, Vol. 43 Issue 2 (March/April 2009): 49-53.

²⁴ Jim Kinsella, *State of Michigan Final Report: Records Management Application Pilot Project* (2002): 1-20. Available online at: http://www.michigan.gov/documents/HAL_MHC_RM_Final_Report_63480_7.pdf.

implementation process from inception to deployment and lessons learned. They did a thorough review of the people aspect of the implementation and how it affected the potential users of the system. They discussed their training efforts, as well as their business process and cultural change analysis, which I found very useful in analyzing parts of my survey. As such, this is a base case study that I refer to quite often in the body of this work.

There are several books on how to manage electronic records. Some of these books focus on the concept and theories behind e-records, which I use as a base for my assumptions in reading the survey results, as discussed in chapter one.²⁵ Other books that fall into the managing e-records topic relate to how to develop policies and procedures related to e-records.²⁶ These books are very useful and should be required reading for anybody implementing an electronic records system, but while policy development is a very important facet of any e-records program, the implementation is far more complex and requires study of several elements.

There have been many surveys conducted to find out information in the archives/records management field in general. Surveys seem to be a useful tool for gathering data on how different organizations are approaching their records in general, and to get a broad picture on what records management professionals are doing to

²⁵ See, for example, William Saffady's *Managing Electric Records* 4th edition. (Lenexa KS: ARMA International, 2009); David O. Stephens's *Records Management: Making the Transition from Paper to Electronic* (Lenexa, Kansas: ARMA International, 2007) and ISO 23081-1 Information and Documentation- Records Management Processes-Part 1: Principles 2006.

²⁶ See, for example, "Guidelines for Managing Electronic Messages as Records" (Lenexa, KS: ARMA International, 2004) and "Procedures and Issues for Managing Electronic Messages as Records: ARMA TR-02-2007" (Lenexa, KS: ARMA International, 2007).

manage their records. A survey helps to “...establish a benchmark of current practices from which we could collect a general or comprehensive view” of data.²⁷

There have been a handful of surveys conducted relating to electronic records, but no surveys have been published surveying those who are implementing or who have implemented an electronic records management system, and their consequent trials and errors. The trend of surveys and case studies relating to electronic records (e-records) is instead concerned about the lack of management of e-records, and the associated risk.²⁸ The existing condition of the electronic records field seems to be trying to convince the company stakeholders and the public at large of the importance of managing electronic records. The status quo (as revealed by the lack of surveys and literature) has not yet determined how to appropriately and effectively manage e-records and minimize associated risk. A recent trend in articles seems to relate to e-discovery and vital records protection. It seems that first the focus should be on how to manage the e-records with the appropriate software, and *then* how to use that to aid in e-discovery and vital records protection. A foundation of an e-records management needs to be emphasized first before other major (and related) problems can be solved. As the United States Government Accountability Office (GAO) stated in their paper on the challenges of managing electronic records, “Technology alone cannot solve the problem without a commitment from agencies. Electronic recordkeeping systems can be challenging to implement and

²⁷ University of British Columbia School of Library, Archival and Information studies, “The InterPARES Project”. <http://www.interpares.org> . Accessed 4/14/2010.

²⁸ See for example: “Survey: Companies Must Control E-mail Use, Storage”, *The Information Management Journal*, Vol. 41 Issue 4 (July/Aug 2007): 18; and Nikki Swartz, “Putting Records Management on the Right Track”, *Information Management Journal*, Vol. 41 No. 6 (Nov/Dec 2007): 24-28. More recent surveys don’t even seem to focus on these issues but rather e-discovery and vital records protection seem to be a recent trend in 2009.

can require considerable resources for planning and implementation, including establishing a sound records management program as a basis.”²⁹

On a side note that should be emphasized here, success and sustainability are two different situations. Success can have many definitions depending on the implementation scope and the environment in which the system was implemented. Success for one organization could be implementing the system in one office and having 25% of the staff members using the system consistently. Success for another organization could be implementing the system in an organization that is world wide and one person per location using the system. Success for yet another organization could be having every single staff member actively using the system. Sustainability however, means keeping that success rate at a constant level over a permanent period of time. Thus for one organization a sustainable system means keeping those fifty out of five hundred staff members consistently using the system where for the other organization it means having every single staff member using that system. Also, just because an organization has one of the above systems, does not mean that it is implemented across the entire organization, or that it has been successful in the areas that it has been implemented. Success and sustainability both depend on the original goals and the intent behind the system implementation, and they are intimately related. In this survey, that was one thing that should have been clarified more, the difference between success and how to make that success sustainable.

²⁹ Melvin, Valerie C. *Information Management: The Challenges of Managing Electronic Records: Testimony before the Subcommittee on Information Policy, Census and National Archives, Committee on Oversight and Government Reform, House of Representatives*. (United States Government Accountability Office, 2010). p. i.

The Survey Process

The online survey I created was distributed in three ways.³⁰ The first way was through the research office of ARMA International. The survey was sent to the ARMA International research coordinator, and that person then distributed the survey to all of the ARMA members that are signed up to receive e-mails - all over the world. Several hundred people were contacted this way. The second process to distribute the survey was through listervs. The survey was placed on both the Records Management Listerv³¹ and the Electronic Records Listerv.³² This manner also reached hundreds of people. The third, and most casual, way of distribution was through personally e-mailing contacts in the records management field that were known to have some type of electronic records system.³³ The survey remained open from August 17 to August 28, 2009 and a reminder was sent out half way through to get a higher response rate.

Survey takers had the option on several of the survey questions to select multiple choices. I did this because often times there is more than one approach taken when implementing a system organization wide, and I wanted to know the combinations that organizations were employing. One group in an organization may have the system implemented in one way in order to best meet their needs, and another part of the organization may be approached with a completely different implementation style. There

³⁰ The survey was first approved by the Western Washington University Office of Research and Sponsored Programs. The survey itself and the survey process and research was reviewed and accepted by the Human Subject Review Committee. The survey was built on-line through SurveyMonkey.com.

³¹ <http://lists.ufl.edu/cgi-bin/wa?A0=RECMGMT-L> University of Florida

³² ERECs-L@LISTSERV.ALBANY.EDU University of Albany.

³³ All in all, 479 people responded to the survey. The survey participants had the option to skip questions they did not want to answer, and also skip sections of the survey that were not relevant to their business. The survey was also anonymous unless the survey participants optionally gave their name at the end of the survey.

are so many tools in an implementation toolbox that often times it is a trial and error task to decide which set of tools will achieve the highest usage rate after implementation.³⁴

The survey organized questions into thematic groups. Each group was its own unit of analysis in that I tried to first look at the grouping of questions and its responses together. To illustrate, the first grouping of questions one encounters in the survey is related to what type of organization the respondent is affiliated with. By looking at all questions and responses in the specific grouping, I could understand the demographic of respondents as well as what type of organizations were interested in the electronic records management field. The analysis of this paper follows the same thematic organization of the survey from establishing who the institutions were that responded and how they are organized to how they chose their system and how they implemented it.

In addition, I organized the questions into groups in order to see if any of these thematic “groups” were an element in the success and sustainability of an ERMS implementation. I had hypothesized that some elements would be more significant than others in the success and sustainability of an implementation, most specifically the training and implementation methods. Factors that one would assume would affect the success and sustainability of a system were not consistent, such as size, training methods, system type and the issues that the ERMS was intended to resolve. Most of the factors that were looked into were measured against the usage rate and level of satisfaction of the system implemented. By analyzing factors against the usage rate and satisfaction level, one can start evaluating what worked and what didn’t work. My hypotheses were negated, however, by the surprising results of the survey which suggested instead that

³⁴ Allowing respondents to select more than one answer in some cases made the response rates equal more than 100%.

existing infrastructure and “the people factor” were more important in determining the success and sustainability of an ERMS than the technological factors.

Survey Results and Conclusions

The results and consequent conclusions were certainly not expected. Some approaches were definitely more popular than others (and presumably more successful if they were used by so many); but there was no set approach that would seem to guarantee a successful and sustainable implementation. Instead, what seemed to influence success and sustainability most were these five components:

1. Whether or not there was a solid records management foundation that the RMA was being integrated into
2. Whether or not there was a robust and continuous education campaign
3. Whether or not there were bi-directional solid communication channels
4. Whether or not there were mandatory policies (or some form of “coercion”)
5. Whether or not there were visible senior management support and leadership

The analysis of the results of the survey have led me to conclude that without these five essential components of the implementation, the electronic records program most likely would not gain long term sustainability. There may be a short period of “success”, but without the five components, the use of the system would be ephemeral. The survey revealed that other components can and do affect the success of the electronic records program, such as office culture and training methods, but if one of the above listed five ingredients is missing, the survey indicates that the foundation on which an

electronic records management program should be built would be shaky and less likely to succeed long term. Certified Records Manager (CRM) Mimi Dionne notes, “One thing is certain: There is no cookie-cutter approach that results in an ECMS implementation’s success.”³⁵

There are, however, a few essential requirements as this survey and related literature demonstrate. In order to implement a sustainable electronic record keeping system, there must first be a solid records management foundation, which can only be achieved through a strong education campaign and making records management be a presence (awareness) in an organization. In addition, there must be a strong and visibly supportive upper management leadership (which includes constant open communication); and some source of motivation, which the survey indicates comes through mandatory policy. Organizational culture should be taken into consideration when implementing a new form of technology and attempts made to work through and around it, but never against it. In working through, around and with the organizational culture, employees will come to respect the implementation process and goals, and one hopes change their mindsets to a more accommodating posture towards the new records management applications.

In Chapter One the theories that provide background to the ideas and assumptions made in the analysis of the survey will be discussed. The theories that will be expounded upon relate to what the definition of an electronic record is; what the differences between electronic and paper records are; how electronic records affect the office culture and

³⁵ Mimi Dionne, “How to Successfully Implement an E-Records Management Program”, *Information Management Journal*, Vol. 43, No. 2 (March/April 2009):49-53. p 53.

consequently how to best manage an environment where an electronic records system is being implemented.

In Chapter Two the results of the survey will be discussed in further detail and concurrently analyzed. The results will be discussed by the thematic order that the survey was organized into: Type of organization responding to the survey/using an ERMS; their organizational policies; what types of systems they are actually using; the implementation process; the training process and ultimately their satisfaction with the system itself and its implementation. Unless otherwise noted, all references to “the survey” are to the “Electronic Records Management Survey” that I conducted. Therefore each reference to a survey result or comment will not be footnoted.

In Chapter Three the “ERMS Recipe for Sustainability” will be revealed. This chapter briefly reviews each element needed for sustainability.

CHAPTER 1: BACK TO BASICS – THEORY FIRST

Introduction

Before embarking on a discussion of the reality of the world of electronic records, it is important to discuss theory first in order to place the discussion within the context of current scholarship. Of course, theory is only a concept until connected to actual experience, and the rest of this paper will be tying the two elements together.

The theories that will be discussed relate to the definition of what a record and more specifically an electronic record is; the difference between paper and electronic records – if any; how electronic records and emerging technology in general affect the office culture and the business world; and also how to best manage a records management office.

What is a Record?

At the most basic and fundamental level, it is essential to first discuss and define what a record is. This a difficult question to tackle in a summary form, and is an issue that is debated and contested not only in the professional field of archivists and records managers, but also by information technology professionals, librarians and politicians, just to name a few. The definition of a record as defined by ARMA International, the professional organization of records managers, is that a record is “[R]ecorded information, regardless of medium or characteristics, made or received by an

organization in pursuance of legal obligations or in the transaction of business.”¹ This definition is very business and organization centric. It assumes that records are only generated by businesses and organizations, but what about personal papers? Are those not a record of an individual’s life, actions, business and accomplishments? Is a diploma received by a graduate not a record? Is a cave painting documenting the patterns of the sun and moon not a record? Right away then, one can see that definitions often limit the concept of what a record can be, and may not take into account cultural context. Borders are drawn around the definition that makes it very hard to accept in every circumstance.

The Society of American Archivists defines a record as, “1. a written or printed work of a legal or official nature that may be used as evidence or proof; a document.”² This definition is also slightly problematic.³ Again, it draws boundaries around only one concept of a record and assumes only one source, the organization, is creating a record.

The concept that a record is “...a written or printed work...” can sometimes be problematic. Taken in the literal sense, “written” is inconsistent with the concept of electronic records. Electronic records are not “written” and don’t have to be printed to be considered an official record. Nor is an electronic record always a “document”. It may be a conglomeration of data automatically generated by the computer that once put together

¹¹ ARMA International. “Glossary of Records and Information Management Terms” 3rd Edition. www.arma.org accessed on November 10, 2009.

² Society of American Archivists. “A Glossary of Archival and Records Terminology” by Richard Pearce-Moses. www.archivists.org accessed on November 10, 2009.

³ There are seven parts to the definition of record through the Society of American Archivists, some of which do encompass the idea that a record is more than for organizational uses and can be more than “written” in the conventional terms. However, for the purpose of this paper, I was trying to find an all-encompassing, one sentence definition of a record that can be applied to any and all situations. In the case of the Society of American Archivists’ definition, there are seven parts of the definition, each of which can be taken individually in its own right.

can create a report, or evidence of an action taking place, for example.⁴ In fact, in Washington State, a Washington Administrative Code (WAC) 434-662 was passed in January 2009 that states that a record that is created as an electronic record must be maintained as a digital record throughout its entire lifetime. “[The record] must be retained in electronic format and remain usable, searchable, retrievable and authentic for the length of the designated retention period. Printing and retaining a hard copy is not a substitute for the electronic version unless approved by the applicable records committee.”⁵ In other words, if the record is originally an electronic record, then the electronic record is the official record. The electronic record cannot be printed out and saved while the original electronic record is deleted. Instead, the electronic record must remain available to be searched, retrieved and authenticated. By having the term authentic in the statement, Washington State is implying that it must be proven that the original record has not been altered in any way. Thus the electronic record should ideally be retained in a location where the original record cannot be altered or deleted, which ultimately leads to the importance of an ERMS.

Another problem with the Society of American Archivists’ definition is that it assumes the only purpose of the record is to provide evidence or proof. Some records may be created to just provide information. Some records may have faulty evidence, or false evidence altogether. What if a “record” is used in court, and it doesn’t provide

⁴ Some definitions of a record, for example, Washington State’s definition of a record says that “writing” means ‘handwriting, typewriting, printing, photostating, photographing, and every other means of recording any form of communication or representation including, but not limited to, letters, words, pictures, sounds, or symbols or combination thereof, and all papers, maps, magnetic or paper tapes, photographic films and prints, motion picture, film and video recordings, magnetic or punched cards, discs, drums, diskettes, sound recordings and other documents including existing data compilations from which information may be obtained or translated.’ Washington State Revised Code of Washington (RCW) 42.56.010 (3). Online at: <http://apps.leg.wa.gov/rcw/default.aspx?cite=42.56.010>

⁵ Washington State Legislature. “Washington Administrative Code 434-662-040: Agency Duties and Responsibilities”. <http://apps.leg.wa.gov/wac/default.aspx?cite=434-662-040> .Accessed 11/10/2009.

relevant evidence? Does that mean it's not a record in that situation? Once again, this definition may be helpful for some, but for the purposes of "what is a record" something broader and more portable is needed.

Geoffrey Yeo has written a two-part article that addresses all of the above issues and suggests another, more inclusive definition that examines records not as a result of a business process but rather as a concept. Yeo describes records in two parts. One aspect is the psychological image of "what is a record?" He examines what image comes to mind when "record" is mentioned to the average person. In the western culture, at least, the "prototypical" record would be a "document" for most people. One may picture, for example, a marriage license, or a piece of paper with important information on it. Of course, a prototype is culturally and often individually specific, so once again, there is no hard and fast boundary on the concept of a "document" as the prototypical record.⁶ This is interesting because this indicates that electronic records are still not the conventional concept of a record. This would be one major hurdle, and perhaps the first hurdle, to clear when implementing an electronic records management system. If one is to "declare" an "electronic record" into the system, the end user must understand what an "electronic record" is. As indicated by the survey responses many people still have a hard time grasping the concept that e-mail is considered a record and thus has retention tied to it.

The definition of a record that Geoffrey Yeo suggests as all-inclusive is, "...persistent representations of activities, created by participants or observers of those activities or by their authorized proxies."⁷ Persistent representations are emphasized as

⁶ Geoffrey Yeo, "Concepts of Record (2): Prototypes and Boundary Objects", *American Archivist*, Vol. 71 No. 1 (Spring/Summer 2008):118-143.

⁷ Geoffrey Yeo, "Concepts of Record (1): Evidence, Information, and Persistent Representations", *American Archivist*, Vol. 70 No. 2 (Fall/Winter 2007):337.

meaning something that does not last just for one moment in time, but lasts into the future. Records do not last forever, but they last until their retention is finished and they are destroyed, or until their medium's life span has ended. This is interesting to relate to electronic records, because some electronic records are not always persistent in their existence. This brings up a two-fold point: One, data compiled into a report, for example, is considered a record, but if one piece of data changes, the entire report becomes a new record. Secondly, a record, if the data is constantly changing, is in essence a "live" record. It is constantly evolving. This is true, for instance, for many spreadsheets created in most organizations. There is often no hard and concrete "cut-off date"⁸ for those records, especially if that record is constantly changing because new data is constantly being updated. How does one handle that in relation to a definition of a record? Is it even a record? According to Yeo and all of the other authors, a record is a "persistent representation", or a "document" meaning it is fixed in time. Do electronic records provide an entirely new paradigm that needs to be further examined and studied in order to define electronic records specifically? Or can electronic records be defined in such a manner that they can be accommodated into the new paradigm? More questions have been raised than answered on the definition of a record, but this is just to show that there is no hard and fast definition that encompasses all records in every situation encountered.

Since this paper is focused on organizational electronic records, and since most organizations encountered in this survey would follow the first definition mentioned by ARMA International, this definition is the one that will be used in this paper.

⁸ By "cut-off date" I mean that period in time when the record goes from active to inactive, and when the retention starts to count on that record. A cut-off date for correspondence in an organization may be "year end".

The question of the definition of a record flows naturally into the next debate in the records management world: Are paper records the same as electronic records? Further, should they be treated the same or differently? The current consensus in the records management and archival field is that paper and electronic records fall in the same “record-ness” paradigm, regardless of format, because they have the same basic “record” characteristics. The same theory that has worked for centuries for paper records can also be applied to manage electronic records because both paper and electronic records contain the same fundamental elements.⁹

Even though e-mail and a hand-written letter have different media, they both have the same purpose or message. Both types of records provide evidence of a transaction, or can be used as evidence in court. Both types of records can provide references and context. Both occur in the same hierarchy of descriptions and fit into the same file plan. Someone (or something) had to author both types of records. One can have an official “signature” on either format and both types memorialize some piece of information beyond one instance of time.¹⁰ This does not mean, however, that there are no challenges in dealing with electronic records, or that new technologies or methodologies are not required to deal effectively and efficiently with electronic records.

One challenge in dealing with electronic records, for example, that does not necessarily exist with paper records is how to capture and maintain in context the

⁹ See, for example, Luciana Duranti, “The Impact of Technological Change on Archival Theory” available at: http://www.interpares.org/documents/ld_sevilla_2000.pdf, and the work of InterPARES at www.interpares.org.

¹⁰ See Terminology Cross-domain Task Force, “Appendix 22: InterPARES 2 Project Ontologies,” [electronic version] in *International Research on Permanent Authentic Records in Electronic Systems (InterPARES) 2: Experiential, Interactive and Dynamic Records*, Luciana Duranti and Randy Preston, eds. (Padova, Italy: Associazione Nazionale Archivistica Italiana, 2008). <http://www.interpares.org/display_file.cfm?doc=ip2_book_appendix_22.pdf> “Ontology A: Concept of a Record” p. 1 for a map of the seven required components of a record according to the InterPARES research.

metadata of a record. On a paper record, one can see where different handwritings occur to signal someone else's opinion; or one can see where a word is scratched out or written over. One can also date with special technology how old a piece of paper is, what area the writer came from by analyzing the handwriting, type of paper and so forth. For an electronic record, if one does not have metadata, there may be no context because one does not necessarily know when it was created, modified, or where it was saved unless that information is purposefully put on the electronic record. The computer systems automatically capture that information and more in metadata, but retaining it and maintaining context to the actual document is a challenge. Oftentimes metadata is not saved with the document. If the link between metadata and record is lost, then so is all information relevant to the record. If the system that the metadata is saved in is corrupted or deleted, then once again, relevant information to that document is lost. A recent Washington State Supreme Court ruling stated that e-mail metadata is a public record and can be requested through public disclosure.¹¹ Metadata was ruled as essential to an electronic record because it provides context and information about a situation, such as who received the e-mail and when, that may not necessarily be in the body of the e-mail. This is an area where a specific effort is required to ensure that precautionary measures and proper technology are harnessed to ensure that context, integrity, and authenticity are retained. This is but one challenge in the electronic record world.

In the beginning of paper technology, there were hypothetically an equal number of challenges with paper when it appeared, as there probably was with microfilm and

¹¹ Gene Johnson, "State Supreme Court: E-mail Metadata is a Public Record," *The Seattle Times* October 7, 2010, http://seattletimes.nwsources.com/html/localnews/2013102243_apwascowemailmetadata1stldwritethru.html Accessed 10/8/2010

now there will be with electronic records. There is a popular You Tube video called “Medieval Helpdesk,”¹² which depicts a monk staring at a tome, unable to figure out how to use it. The monk calls his version of the IT helpdesk (another monk) who comes in and shows the first monk that all he needs to do is open the book. Of course this is all in jest, but it presents the idea that the book was once a new technology and confounding to those who were using it for the first time. Yet paper has become so familiar and common in our daily lives that it is the default technology for anything important that we want to be sure is safe and stable. This video reminds us that this was perhaps not always the case, and one hopes the same will one day happen with electronic records.

New technologies are required to deal with a “modified” and “updated” version of a “record”. This does not necessarily mean that new approaches or theories are required. New technology does require that people be willing to deal with the challenges and that the records management (and especially archival) field come together to confront those challenges together. Avoiding the problem does not make it go away. Electronic records are here to stay and now it’s time to use what we know and solve the problems. People are often skeptical and afraid of having new technologies implemented into their workplace. Richard E. Rubin discusses this syndrome as “technostress”. It is defined as “a condition resulting from the inability of an individual or organization to adapt to the introduction and operation of new technology. New technologies sometimes create irrational fear, but many of the concerns are justified and need to be anticipated and dealt with”.¹³ It is important to note, however, as mentioned earlier in the paper, that it is not

¹² “Medieval Helpdesk with Subtitles” <http://www.youtube.com/watch?v=pQHx-SjgQvQ> Accessed March 21, 2010.

¹³ Richard E. Rubin, *Foundations of Library and Information Science* Third Edition. (New York: Neal-Schuman Publishers, Inc., 2004): 261.

the *technology* that is the solution to the electronic records challenges, but rather technology is but one tool from an entire toolbox of a records management program that can help an organization more effectively manage electronic records.

Many people are afraid that technology will take their jobs from them, or that it will make their office a “paperless” office and their comforts (of paper) will disappear. Although technology has advanced and jobs have altered as a result, the opposite has proven to be true. Paper has exploded exponentially since the rise of electronic records due to printing those records that are so easily created and sent all over the world. Many records are duplicated, as a matter of fact, because multiple people receive them and print them. All one needs to do is read *Myth of the Paperless Office* by Abigail Sellen and Richard Harper to be convinced that paper is not going anywhere anytime soon.¹⁴ By having strong leadership, effective communication, and staff involvement from the beginning, however, these problems can be alleviated and the staff/potential users of the system will be more willing to accept the new technology changes.

The Importance of Leadership

The next issue to discuss is that of management and leadership for a project to implement an electronic records system. Leadership, especially at a higher management level, is a vital trait to possess in the records management department and in those who are helping to implement the electronic records system to the end users. Not only is records management (and especially electronic records management) something that most people don’t want to deal with in their daily jobs along with all of their other tasks;

¹⁴ Abigail J Sellen and Richard H.R. Harper, *The Myth of the Paperless Office*. (Cambridge, Massachusetts: Institute of Technology, 2002).

records management is a task and a field that most people know nothing about. Hence, not only is good leadership essential in order to provide education and awareness; it is also imperative to have good leadership in order to provide motivation, trust, and professional expertise.

A Cohasset Associates survey *2009 Electronic Records Management Survey – Call for Sustainable Capabilities* concluded, “Much greater engagement from the ‘C Level’¹⁵ down is needed to break down traditional barriers between stakeholders and encourage new approaches to designing and integrating retention and other recordkeeping requirements into business processes and systems.”¹⁶ Not only is leadership a pre-requisite in the records management field, but it is also a necessity to have leadership and support from the higher management level. There need to be “torch-bearers” so to speak who stand out on a platform and support electronic records management. Senior level management carries a lot of weight in their words and actions, and getting them to promote the use of the system means getting over one hurdle that can help guarantee a sustainable ERMS. By having a top level manager actively supporting the program and actively being a strong leader, users may feel more pressure to use the system. The key word in the previous sentence is “actively” support. Senior management can support the implementation in letter, but if they are not actively, verbally supporting the system or leading by example in adopting the system, the end user will see no real need to make the effort to adopt the system either. They will take their actual job duties as their priorities, and not the using of the system, because it will appear to be unjustified. Once office staff

¹⁵ “C Level” refers to the chief staff of an entity including, Chief Executive Officer (CEO); Chief Financial Officer (CFO, Chief Informational Officer (CIO) and so forth.

¹⁶ Lori J. Ashley, and Robert F. Williams, “2009 Electronic Records Management Survey: Call for Sustainable Capabilities” Cohasset Associates, (2009). Available online at: <http://www.rimeducation.com/main/getDownload.php> , p 47. Accessed 7/14/2010.

start to use the system, they will (ideally) realize the system is easy to use and helpful and begin to use it without any encouragement.

Office culture is an area in which strong leadership is required. “The signals, on which to behave, come largely from the company’s culture, which is established by the leadership.”¹⁷ First of all, what is office culture? “Culture is the sum total of all shared, taken-for-granted assumptions that a group has learned throughout its history” and as such it is difficult to change because it “represents the *accumulated learning of a group*” and it is “essentially invisible.”¹⁸ Also, Edgar Schein describes culture as stable. As such, “...you must recognize that you are tackling some of the stablest [sic] parts of your organization.”¹⁹ The problem becomes that each individual within this collective mindset has to collaborate, deal with unpredictability, and work to un-learn a process and then re-learn a new way of doing something. This is difficult enough for one person, but for an entire “culture”²⁰ to adjust can be quite a daunting task.

One of the biggest challenges for many records managers is not the actual task of dealing with the electronic records, but getting the end users to understand and accept the fact and reality of electronic records. One survey respondent described their major challenge as “...dealing with an aging workforce, many people are technologically challenged...we have a big turnover as employees retire. Training is a major issue.”²¹ One of the most obvious places that this “wall” appears is in the generational gap

¹⁷ Barry Phegan and Meridian Group. “What is Company Culture?” Meridian Group (2010). <http://www.companyculture.com/basics/whatis.htm>. Accessed September 3, 2010.

¹⁸ Edgar H. Schein, *The Corporate Culture Survival Guide: Sense and Nonsense about Culture Change*, (San Francisco: Jossey-Bass Publishers:, 1999): 21.

¹⁹ Ibid. p 26.

²⁰ Culture can mean any group with the previous description as micro as one team within an office to as macro as an entire ethnic people.

²¹ Danelle Roath. “Electronic Records System Survey.” Survey. *SurveyMonkey*. Website: http://www.surveymonkey.com/s.aspx?sm=6fAvCIk_2bCf0YMOdmibRrmg_3d_3d

between the older work force (baby boomers) and the younger up-and-coming work force (Generation Y). Neil Simons relates that "...it's important to consider generational differences and how they may affect an organization's ability to function effectively, particularly with regard to RIM (Records and Information Management). Developing strategies that bridge generational gaps can help ensure a productive RIM environment."²² Simons describes the generational differences relating to technology between the Baby Boomers, Gen. X and Gen. Y. He generalizes the Baby Boomers as valuing institutionalization and viewing technologies that manage "records" (not information) as "artifacts". Generation X in contrast, perceives technology and RIM as just a few of many resources from which to gain institutional information. Generation Y not only respects technology (like Generation X) but expects technology, and they expect it to be fast and efficient. "Gen. Y workers have such a high expectation of instant access to information and records – not just the records themselves, but the data and information within those records – that the available tools and technologies have not yet met their demands."²³ I bring up this comparison not to say that the Baby Boomers are out-of-date and should be kicked out of the work force, nor that Generation Y is superior, but instead to show the different perspectives and needs of different generations encountered in the work place. If records managers are aware of these differences, they can better reach out to and relate to all employees. Additionally, they can speak to each user's needs and expectations, as well as fears and unease by knowing where each generation comes from. Of course this is a generalization and does not apply to every situation. In many cases, the struggle with technology is not one of a "generational gap" per se but rather a struggle of

²² Neil Simons, "Leveraging Generational Work Styles to Meet Business Objectives", *Information Management Journal*, Vol. 44 No. 1 (January/February 2010):28-33, p 29.

²³ Neil Simons, *Leveraging Generational Work Styles to Meet Business Objectives*, p 32.

dealing with change. Being aware of generational gaps is important because it is the context of the organization that one is working within. One cannot implement a sustainable program of any sort without knowing the environment one is working within and ideally how to leverage that to one's advantage.

The theories discussed in this first chapter provide a backbone to the results and conclusions drawn from the survey. The concept of what is a record is fluid and forever changing based on the newest technology, but there are basics that we must follow when deciding the scope of implementation and when teaching the end users what to save into the ERMS. The office culture and generational differences are challenges that most if not all organizations face to some degree and one reason why strong and visible leadership is important. Thus there are basic theories which we should work from which to build a solid records management program on which to base the electronic records application implementation.

CHAPTER 2: SURVEY RESULTS – THE STORY THEY TOLD

Introduction

This chapter discusses the survey results. As the results are laid out, the thought process for the conclusions made based on the results is outlined. The results are both the direct summary of the results and also the results of cross-tabs that SurveyMonkey.com allows users to perform. Also note that unless otherwise stated, all references to “the survey” are directly taken from the “Electronic Records Management” survey sent out in August of 2009 administered by Danelle Roath.¹ The actual summary result graphs are in Appendix I and the cross-tabbed results are in Appendix II.

Additionally, the last question of the survey, “What percentages of users, after implementation, are actually actively using the system?” was my measuring point for all of my analysis. By using this as my base measurement, I could analyze what an organization did that gave them a higher percentage of active users, and what organizations did that gave them a low percentage of active users after implementation. In asking a question, I would look at what organizations that had low usage rates (under 50%) did, and what organizations that had 100% usage rate did.² Was there a difference? What? How does this make sense? These are all questions I asked myself when comparing answers.

This chapter is organized into sections of analysis based on the groupings of questions from the survey. For example, questions number two through seven in the

¹ Danelle Roath’s name changed to Danelle Court mid-thesis August 2010.

² Danelle Roath. Electronic Records System Survey. See Appendix I, question 38.

survey all relate to information about the responding organization itself; questions number twenty-one through twenty-seven deal with the implementation process that the organization went through. I organized the analysis this way for two reasons. The first reason is that when I was analyzing the results, I looked at a whole section of related questions together to try to get a big picture of the context for the implementation. To illustrate, I looked at all answers related to organizational description so I could figure out the average, or not-so-average, profile of the organizations that responded. The second reason I chose to organize the analysis chapter this way is to demonstrate how I came to the conclusions that I have drawn from the survey. In illustrating my thought process as I systematically went through the survey questions, one can see how I came to the conclusions I made.

The first section of this chapter, “Organization Descriptions” examines and studies the questions that related specifically to the company profile. This section answers what types of organizations responded, why other types of organizations didn’t respond, and how these types of organizations affect the rest of the analysis. This section contains data about industry type, size, where the records management program resides in the organization, and where funding comes from for the RMA implementation.

The next section, “Organizational Policies” analyzes the types of policies that the organizations have and how they either positively or negatively affected the implementation and on-going sustainability of the RMA. Also briefly touched upon in this section is organizational culture, and how policy plays a role in getting the users to utilize the system.

The following set of analysis, “The Electronic Records System” studies what the organizations purchased, why, and whether or not they are satisfied with their product. By analyzing this set of questions together, I was searching for an answer on whether or not the reasons a system was purchased affected the success and sustainability of the RMA.

“The Implementation Process” section discusses how organizations were implementing the system with the ultimate goal of finding out whether or not how the system was implemented affected success and/or sustainability. This section examines whether or not a pilot was used, and whether or not the leaders took into account lessons learned. Also analyzed are how the system was implemented (all at once or per business group) and consequently how the implementation process was communicated.

The “Training” section discusses how the end-users were trained and whether or not there was one approach to training that was more successful than another. This section also analyzes the records management basic education that users may or may not have received and whether or not that helped the users respond better or not to the implementation of the system. I also looked at size and how that affected the training as well as people’s responses to training to see if there was one way that seemed to help users learn better. This section also discusses work processes and user skill levels and organizational culture, all of which could potentially affect the training and learning of the individual users.

Lastly, the “Satisfaction” section covers questions and answers from the entire survey. Survey participants added comments throughout the survey so I pulled all of those responses out and created a separate section. Analyzing the questions in this

manner, I had hoped to find out what organizations liked and were disappointed in to see if there was an answer here on the organization's perception of what made a system successful and sustainable.

Organization Descriptions

To begin with, it is important to get a basic understanding of what kind of organizations responded. Most people who responded to the survey were part of a for-profit organization (48.2%).³ However, if all of the governmental agencies are combined (federal, state and local), they come into a close second at 44.2%. Not-for-profit organizations were the least represented in the survey at 8%. This is logical due to the fact that implementing electronic records systems is incredibly expensive; consequently business and government agencies would be more likely to afford the expenses of an electronic records system. In addition, for-profit and government agencies are more often held accountable for their records by the public and other government agencies. Thus, there is more liability for those organizations if they are unable to reproduce the required records.

³ Danelle Roath. "Electronic Records System Survey." Survey. *SurveyMonkey*. Website. http://www.surveymonkey.com/s.aspx?sm=6fAvCIk_2bCf0YMOdmibRrmg_3d_3d. Each following reference to "the survey" will not be footnoted in this chapter. Appendix I, 2.

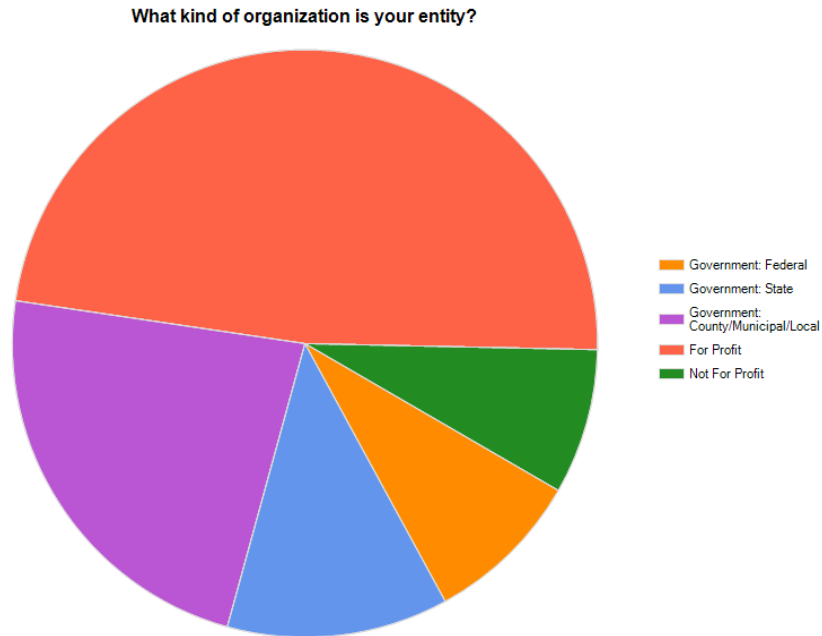


Figure 2. Organizational types that responded to the survey

Over half (55.6%) of the organizations had 1000 or more employees.⁴ The organizations with 500-999 employees were the least represented in the survey at 10.4%. Organizations fewer than 100 employees had 12.2% response rate indicating that the smaller the organization in terms of employees, the least likely they are to have an ERMS, and the larger the organization, the more likely they are to have an ERMS. The more employees an organization has, then presumably the more resources it has to be able to purchase an electronic records keeping system (ERKS).

Also, theoretically, the larger the organization, the more liability it contains in relation to records and thus implementing a system holds potentially more advantages than for smaller organizations. Additionally, presumably the larger the organization, the higher the chance that the organization may be more de-centralized in locations. According to the survey, one of the top reasons for wanting to implement and ERMS or

⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 4.

EDMS in the first place was to help centralize electronic records. Since most of the respondents were from larger organizations, and since one of the top reasons for implementing a system was due to de-centralized records, it can be concluded that perhaps larger organizations might have more incentive to have an electronic records system in order to help centralize the electronic records over several locations.

The next thing to explore is where the records management program stands (if there is one) in the company and their relationship with management and the rest of the employees. The good news is that most (87.4%) of those who responded do have a formal records management program.⁵ This is consistent with *Cohasset Associates 2009 Electronic Records Management Survey: Call for Sustainable Capabilities*. In response to their question, “Does your organization have a formal records management program?” 83% responded yes.⁶ There does not seem to be a pattern between where records management stands in the organization and the user percentage rate once implemented on the electronic records system. The 100% usage rate respondents did not have the highest rate for having a formal records management program.⁷ The factor of where records management exists in the organizational chart did not seem to affect the usage rate and/or success rate, and therefore does not seem to be a facet of electronic records sustainability. However, this does not mean that it does not make a difference if there is or is not a formal records management program. The organizations with the lowest usage rate (5-20%) were also those with the lowest rate for a formal records management program

⁵ Danelle Roath. Electronic Records System Survey. See Appendix I, question 5.

⁶ Lori J. Ashley, and Robert F. Williams. “2009 Electronic Records Management Survey: Call for Sustainable Capabilities”. Cohasset Associates (2009). Available online at: <http://www.rimeducation.com/main/getDownload.php>, p 17. Accessed 7/14/2010.

⁷ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 1a and 1b.

(16.7%). This indicates that a formal, organized records management program with strong leadership is ideal.

As for the relationship between the records management area and the rest of the organization, there was more good news. To begin with, 67.7% of the respondents replied that it was themselves and their records management staff who determined and put in motion an electronic records management program.⁸ These results are positive because they indicate that the records manager(s) and their staff are being listened to by upper management. It also signifies that upper management realizes the importance of managing records.

The executive's office and C level (CEO, CIO, CFO) were the second highest percentage group at 44.3% to start the implementation of a system in motion and back the electronic records management program.⁹ As mentioned in the introduction, leadership is incredibly important and vital to the success of any program. If a program has the backing and support of the executive's office, implementation and sustainability have a much higher success rate. "...[F]ull support of records management policies by managers and supervisors is essential for their ongoing implementation...Lack of management support and employee understanding of records management practices are major explanations ...for the failure to implement electronic recordkeeping systems."¹⁰ Two major themes that keep appearing in this survey are tied together well in this one sentence: management support and communication (which leads to understanding). Both

⁸ Electronic Records System Survey. Danelle Roath. Appendix I, 6.

⁹ Some of these numbers add up to more than 100% for a response due to the option to select more than one choice when filling out the survey. Many of the survey questions allowed users to select all options that applied and as a result, this lends some of the response rates to be higher than 100%.

¹⁰ Lee J.D. Strickland, "Best Practices in Electronic Records Management: A Survey and Report on Federal Government Agency's Recordkeeping Policy and Practices". Center for Information Policy, College of Information Studies, University of Maryland. December 19, 2005. Available online at: <http://www.archives.gov/records-mgmt/initiatives/umd-survey-main.pdf>.

are absolutely essential for the successful implementation of an ERMS. Without the foundation of support and communication, the implementation process would fall short of being fully completed. One survey respondent stated, “I think you’ll find that long-term sustainability has more to do with leadership than it has to do with technology.” One can have the most sophisticated technology, but without the “backbone” of records management education on which to rest this technology, it would be useless. A culture of understanding around electronic records is important because it helps ensure that the end users understand why the system needs to be used, and also how to appropriately use the system so that it becomes a successful and sustainable endeavor.

The support of the executive’s office comes in one of two ways (ideally both). First, the executive’s office supports financially and verbally the implementation of the system, and second, the executive’s office not only supports the system in voice and money, they also actively use the system which automatically testifies its worth and value to the rest of the organization. Everyone watches what the executive team does and follows their example. If they actively use the ERMS, the system will automatically gain more validity and perhaps be more likely to be utilized. Actual actions are much more powerful than empty words. This is why leadership buy-in is paramount.

Another positive relationship that was brought up with the response to this survey question was that of the organization to its employees, i.e. the system users. 14.4% of respondents said that the users were part, if not all, of the decision that said an electronic records management program was necessary. This exemplifies the beginning of a healthy two way relationship – the records managers and executives are listening to the employees; and the employees are taking an active interest in electronic records

management. If users have vested interest in the system, then they will be more likely to use it.¹¹ This is an important aspect of change management.

One more thing to look at about the organization that could affect the sustainability of an electronic records program/ system is where the funding comes from. If the program/ project has a consistent funding source, then it would indicate that the system would more likely be sustainable because it would be constantly supported and updated. If the funding was temporary or non-permanent, it might be more likely that the system would not be sustainable because once the funding goes, where is the guarantee of the money to keep the system supported and maintained, retain the required resources and support enough employees to provide education and outreach?

It was my initial assumption when designing this survey that most funding sources would be external and temporary, for example, mostly from grants. I assumed this because electronic records management is still a new idea among many organizational cultures, and thus I thought that perhaps most organizations would not want to commit to an internal long term program. My initial thoughts were contradicted, however, by the survey response that 96% of respondents received their funding internally, which would indicate a markedly permanent and sustainable income for system support and training.¹² Hopefully this statistic means that records management is being taken up as a long term commitment. Of course, this also means that come any economic hardship that internal funding can be immediately re-appropriated and the

¹¹ This is assuming that those who answered this question read it carefully and were answering it as if they were completely done with the implementation of the system.

¹² Danelle Roath. Electronic Records System Survey. See Appendix I, question 15.

records management department cut, which has been seen recently in the current economic climate.¹³

The above statistic is supported by answers to the next question, “If current funding is temporary, how do you plan on securing ongoing/long term funding? Select all that apply.”¹⁴ 83.1% did not answer the question, presumably because funding is not temporary. If funding was temporary, most respondents replied that they planned on making the funding more permanent by getting internal administrative funds. This is promising, considering that one can have policies and education to get the workforce to start using the system, but if one doesn’t have the funding to keep it going, there is no point in starting the entire process. Electronic records systems and programs are very expensive. Not only does one have to buy the license for the software and renew it annually, one also needs to keep the system updated, correctly configured, and maintain team members that will continually train new users and keep the education program current and continuous.

According to the Cohasset ARMA International Electronic Records Management Survey, “Success cannot be achieved without: Commitment to long-term financial and technical resources; Engagement of internal and external resources in collaborate partnerships; and adoption of long-term perspectives for how business records, especially electronic records, should be managed and preserved to meet organizational needs and obligations.”¹⁵ Thus collaboration between the “C-suite” and end-users, finances and

¹³ See, for example, Bruce Dearstyne’s “Facing the Economic Storm: Navigating RIM Programs through Hard Times”, *Information Management Journal* (March/April 2009): 24-31.

¹⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 16.

¹⁵ Lori J. Ashley and Robert F. Williams. “2009 ARMA International Electronic Records Management Survey: Call for Sustainable Capabilities White Paper”. Cohasset Associates, (2009). Available on-line at <http://www.rimeducation.com/main/getDownload.php>, p 10. Accessed 7/14/2010.

individual business units (where electronic record keeping is part of their long-term goals) is a valuable asset for a successful and potentially sustainable ERMS.

Overall, the survey reveals that the typical profile of respondents' organizations is: a for-profit or government agency; employing over 1000 people; and having a formal records management program which receives internal funding. Organizations were in many different phases of implementing their ERMS and most respondents had some kind of support or influence from their upper management.

Organizational Policies

Another constructive angle to analyze in understanding the organization and its relationship to its employees and records management program is that of policies and authority. This series of questions were asked to help understand what, if any, type of policy and authority will encourage the users to sustainably use an electronic records system. What is it that motivates someone to use the system? Is it an advisory policy, industry mandated policy, executive mandate or company wide policy? Is it no policy at all, but a different form of motivation? One piece of information that would be useful to follow up on would be how are these policies enforced, if at all? Would employees be more likely to use a system if they felt that they would be reprimanded if they did not use the system? Or would an employee most likely use a system if he/she saw the need and importance of using the system, regardless of the policy?

The results of the survey indicate that, regardless of the type of organization, most (79.9%) have an electronic records policy and 73.4% have an e-mail policy in

particular.¹⁶ The majorities were either policy (59%) or executive (40%) mandated. Only 17% of the respondents said that their policies were advisory.

What is the relationship to the above statistics and the percentage rate of users on the system? Is a higher user rate guaranteed if the policies are executive or policy mandated? When cross-tabbing the two questions, the results show that not one person in the 100% usage category had an advisory only policy.¹⁷ In fact, 90% of those who had a 100% usage rate had a mandatory policy for the use of the electronic records system itself. This is in comparison to an average of 50% for having a policy mandating use of the system itself. This is a strong indicator that the user may require incentive not only through education but also through a mandated policy in order to feel the pressure to at least start to use the system.

The results suggest that if a mandated policy is in place, the user is more likely to actively use the system over being advised to use the system. This survey did not go as far to investigate whether or not once the employee started to use the system if they continued to use it on their own will because they found it helpful, or because they felt “forced” to. The highest rate of the advisory only policy was in the 25-45% usage rate of the system once implemented. The above results may attest to the fact that the user has to be motivated through rules to use the system, not advice or education.

Both from personal experience in attempting to implement an electronic records system and from comments from the survey, one of the largest challenges in successfully implementing a system is dealing with the culture of an organization, especially in introducing required changes. Enforcing a mandated policy may give users incentive to

¹⁶ Danelle Roath. Electronic Records System Survey. See Appendix I, question 7.

¹⁷ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 2a and 2b.

start to use the system. One finding from the Accelerating Positive Change in Electronic Records Management project was that, “Most experts thought organisational-level [sic] policies were important and useful, with the proviso that they need to be fit-for-purpose and specific to organisational [sic] context...”¹⁸ Knowing the cultural context that one is working with is important when implementing a system that initiates change on any level. Thus creating a policy that works with the office organization may be the first hurdle to guaranteeing a sustainable ERMS.

Once users begin to use the Records Management Application (RMA) because they feel “coerced” by policy, the ideal would be that they see how beneficial the system actually is to them, and consequently would not have to be further coerced to actively engage with the system. A prerequisite to a sustainable ERMS is to “...implement policies that will help users understand changing expectations...These statements clearly define what is expected of users.”¹⁹ Many people do not deal well with transitions and the above results may show that to overcome the hurdles of introducing change and making the users adhere to the change, a mandated policy may be required.

In reality, however, no matter how much a person is ordered by policy to do something, if they don’t want to do it, they won’t do it, especially if they are not willing to deal with the change. So in tandem with policy, open communication and education are very important in order to internally motivate the user to use the system. Robert C. Shank, a leader in learning sciences, says motivation to do anything comes from our

¹⁸ Julie McLeod, “Accelerating Positive Change for Electronic Records Management” p 12.

¹⁹ Lynette Downing, “Implementing EDMS: Putting People First”, *Information Management Journal* Vol. 40 Issue No. 4 (July/August 2006):44-50. p 46.

innate aspirations to “...execute our own independent desires.”²⁰ He further divides these independent desires into ten classes: habit, ego, hope (external), problem solving, hope (internal), community, knowledge, qualifications, external and internal. Schank claims that internal desires are the best motivators and help the user retain the skills. The best combinations of internal desires to activate in training are the problem solving and community motivators. To do this, he suggests setting up training so that it includes: ensuring that training is a group process (because communication and reflection are an important part of learning); ensuring that training is a problem solving process (because the accomplishment of the goal will be the internal reward); and ensuring that whatever is learned is merely a prelude (because if we learn it just once, we will forget it – instead it must be an on-going process where the skills are continually practiced.)²¹ All of these are very useful tips for teaching and in developing training curriculum. Introducing the system to the users in such a way that they feel they are benefitting (and not being *told* to do something, which he states is the number one flaw in training programs)²² and playing off of internal motivators is the best way to make the learning sustainable. When these conditions are sustainable it logically follows that the system use itself will more likely be sustainable.

To the question, “What is the authority that your electronic records system program has?” a respondent replied, “In most cases the authority is driven by political pressure.” This relates well to the evidence that policy usually needs to be present in order to motivate users to even attempt to use the system. If users need this kind of

²⁰ Roger C. Schank, *Lessons in Learning, e-learning, and Training: Perspectives and Guidance for the Enlightened Trainer* (San Francisco: Pfeiffer, 2005): 23.

²¹ Ibid, pp 20-40.

²² Ibid, p 49.

motivation, it would make sense that this kind of motivation i.e. political pressure is also required for senior leadership in order to be convinced to spend the resources on such an endeavor.

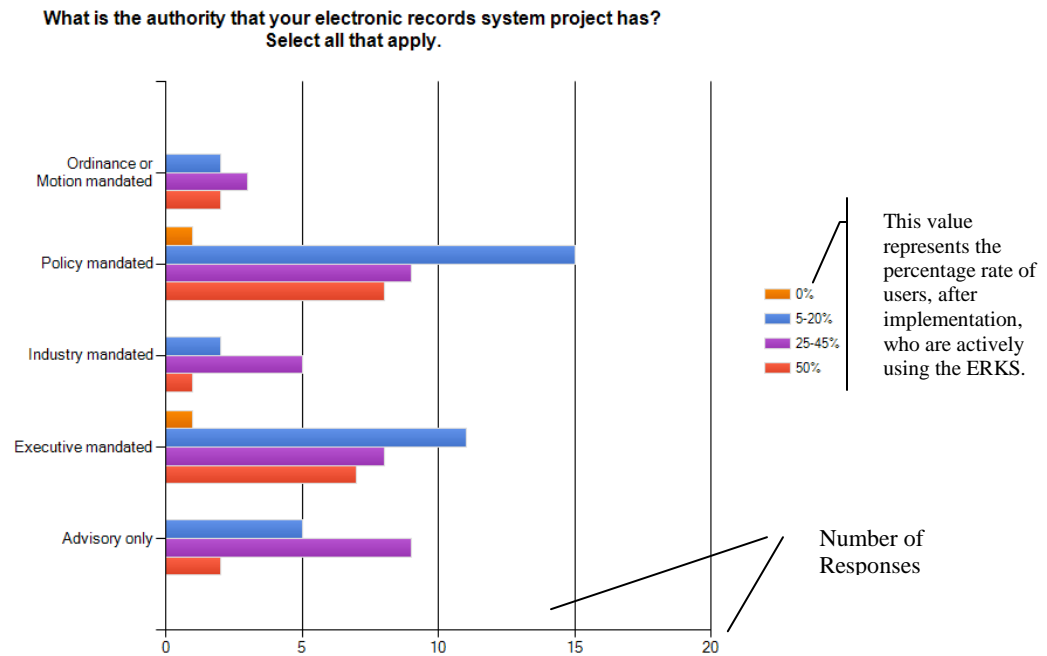


Figure 3. Relationship between authority from the RMA and the percentage of users on the system 0-50%²³

²³ The graphs are split into 0-50% and 55-100% due to the way that Survey Monkey functions. I could not export more than 5 “answers” to a table, so I had to split the graphs into two sections, 0-50% and 55-100%.

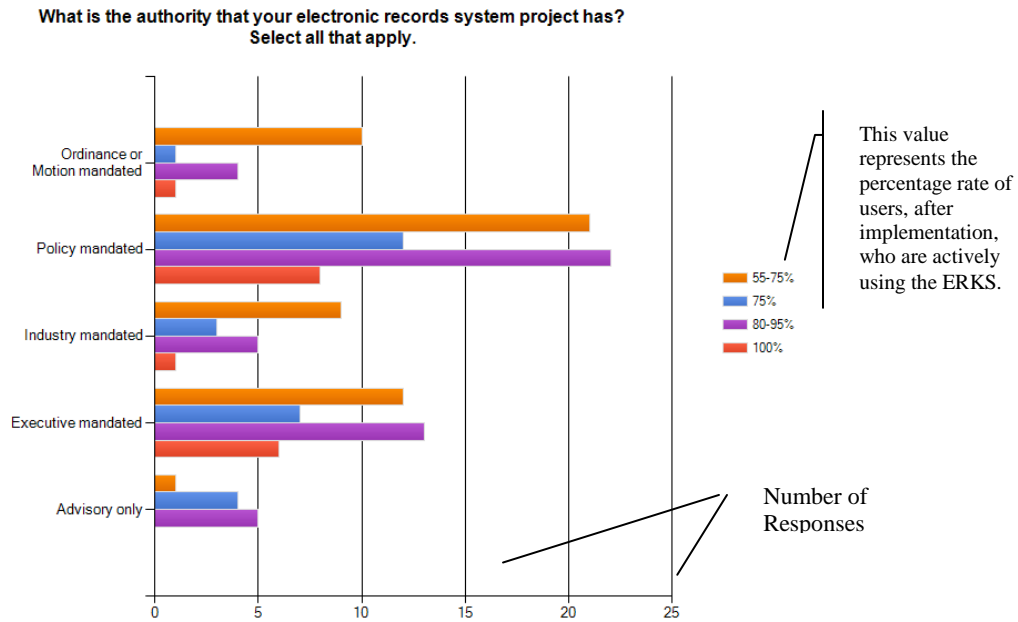


Figure 4. Relationship between authority from the RMA and the percentage of users on the system 55-100%

Having a mandated policy of some kind, however, does not guarantee sustainability. One person made a comment that really pierces to the heart of the problem. “Policy mandates implementation, but not use.” In other words, the system is implemented, the user is trained, the software is put on the individual’s personal computer, but, then what? Most organizations don’t have the time, the resources or the authority to personally monitor each individual’s computer to ensure that they are “using” the system. Part of the problem is that “using” the system could mean different actions to different people as well. This leads to, once again, the required, and sometimes unattainable, need for an organizational “change”.

The next question, “If the authority is advisory, how do you convince the users to buy into the system?”²⁴ was asked in order to determine what methods organizations use

²⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 10.

to convince, or “coerce” their employees into using the system. I wanted to know, what kind of motivation works? This question may be skewed because there were not that many people who responded that their system was advisory only (only 42 responded that it was) but 195 people answered the above question on how to get user buy-in with advisory authority. It may be that people answered this question as in, “...in addition to the policies, this is how we try to get our users to buy into the system.” Regardless, this is a useful question because the highest response was, “educate them on the problem” with a colossal 83.1%. The second highest response at 75.9% was “explain it will make their work process easier” (which of course could be in conjunction with the first response since the question said select all that apply). There were six people who responded that they don’t try to convince. Could this be because they don’t have to try to convince because they misunderstood the question and they have an executive or mandated policy? It is encouraging that most people responded that they educate the employees on the need for and the importance of the system. This is promising because making a business case for the use of the system seems to be an effective way to convince the users to utilize the system. Greg Trosset of King County said of their implementation and user involvement, “It [the use of the system] has to be a business oriented solution that a user needs or wants.”²⁵ This is further supported by business administration professors James Clawson and Mark Haskins when they said, “You can heighten your students’ motivation...by demonstrating the course’s relevance to their goals, interests, and daily problems.”²⁶ A combination of education and policy (with top level support) will lead to the appropriate

²⁵ Gregory Trosset, Personal Interview. October 25, 2010.

²⁶ James G. Clawson and Mark E. Haskins. *Teaching Management: A Field Guide for Professors, Consultants and Corporate Trainers*. (New York: Cambridge University Press, 2006) 17.

cultural office changes that will encourage the long-term use and thus sustainability of the system.

John Montaña, a records manager and legal expert explained, “ ‘A policy by itself means nothing...the keys are things like organizational culture, effectiveness of implementation, embracing necessary methods and processes, and zero tolerance for failure to adhere to principles and standards. All of these things must come from leadership at the top of any organization.’”²⁷ What is required for a sustainable implementation of an electronic recordkeeping system is strong leadership publishing mandatory policy that top level management fully supports, and education on what the policy means and why it is important. A policy by itself means nothing, but combined with leadership, education and communication, a commanding and undeniably affective foundation is forged upon which the seemingly inconceivable can be accomplished.

What organizations are using

The majority of people who replied to the survey are using an electronic records management system (56%), with 51% selecting an electronic document management system for their system type.²⁸ Once the decision to get a system was made, most people based their decision on which software to get based on the features that it offered. Logically, what people were most disappointed in once their RMA's were implemented were certain features not working out as they expected them to.

What was it that motivated leadership to decide to implement an ERMS in the first place? To help with compliance is a popular reason that people chose to implement a

²⁷ John Montaña, “GARP: Mapping a Route for Compliance”, *Information Management Journal*, Vol. 43 Issue 5 (September/October 2009): 10-12, p 11.

²⁸ Danelle Roath. Electronic Records System Survey. See Appendix I, question 12.

system but the most popular reason at 90.7% was to help centralize electronic records.²⁹

This reasoning to purchase a system accompanies the goal of aiding compliance. By having all of the records centralized, a company is able to comply with laws better by being able to locate, identify and produce their records.

Interestingly, a popular reason that people chose their system type was because it was DoD (Department of Defense Standard 5015.2) certified. As Julie Gable points out in her article, “Everything you wanted to know about DoD,”³⁰ this is not always the best reason to choose a system. Gable asks if it is “...realistic to assume that software is configured to a federal department’s specifications applies just as well to commercial enterprises?”³¹ Her thesis is no, it does not make sense to assume that the required configurations for a federal department of defense office should be the same as a commercial enterprise, or even a smaller government entity, for that matter. The DoD standard mirrors U.S. federal regulations and National Archives and Records Administration (NARA) policies. “The DoD standard’s underlying model reflects its government and archives roots.”³² Due to the original intent of the DoD Standard to be used only for the Department of Defense and maybe other large government agencies, this model doesn’t always make sense for just anyone to adopt and require for their RMA. Different organizations have different recordkeeping practices, thus these varieties of practices shouldn’t be forced into one system standard or model. The type of environment and context makes a large difference as far as the best way for that system to perform its functionality for maximum results.

²⁹ Danelle Roath. Electronic Records System Survey. See Appendix I, question 13.

³⁰ Julie Gable, “Everything You Wanted to Know about DOD”, *Information Management Journal*, Vol. 36 No. 6 (November/December 2002):32-38.

³¹ Ibid. p 32.

³² Ibid. p 34.

It was previously mentioned that the top reason implementers were disappointed with their electronic records system was due to certain features not working out as expected (71.6%).³³ The second reason that people were disappointed in the system they got was because it was difficult for end users to learn and use (38.3%). Reasonably, if a system is not user friendly, it will not be sustainable. It is not clear whether the answer to this problem is more education or better configuration of the system. It could easily be combination of both. Regardless, for an electronic records system to be successful, it needs to be user friendly. This is the bottom line. What does “user-friendly” mean though? User-friendly may mean something different for each individual. The people researching and purchasing the system may think that the RMA is user-friendly only to find out that those who are working with the system the most don’t think that it is. End user opinion when purchasing the product holds a large amount of weight. Ultimately, even if the system is the most user-friendly in the world, without a good records management foundation, on-going education, good communication, strong senior management support and some sort of policy mandating use, it doesn’t matter if the system is user-friendly or not because most people won’t use it.

Many people assume that a “user-friendly system” is a must for a successful and consequently sustainable system. I have purposely left it out of the five things I think necessary to have a sustainable electronic records system. It is indeed an important component when considering which application to purchase. A non user-friendly system will definitely not guarantee any sustainable rates. But how do you define “user-friendly”? In looking at the ERMS/RMA standards that exist on how to model compliant applications, one sees that first, there is no exact specification for a “user-friendly”

³³ Danelle Roath. Electronic Records System Survey. See Appendix I, question 18.

system and second, that everybody's definition of a "user-friendly" system may be different depending on the context. This definition of "user-friendly" changes from as broad as country to country and from minute as person to person within an organization.

The typical profile of the type of system that was used and implemented is one that was/is either an electronic records management system and/or an electronic document management system with the purpose of centralizing electronic records and consequently providing compliance. The most popular reason that people bought a system from one vendor over another was for the features that a particular system offered and reversely, the number one reason people were disappointed with a system was because those features did not work out as expected. The second reason respondents were disappointed with a system is because it was not user-friendly enough. To select the right system for the organization greatly influences the success and consequently the sustainability of the implementation. Thus it is essential that adequate research be put into choosing a system that best fits the organization's needs to guarantee higher usage rates.

The Implementation Process

Once an ERMS is selected, the next major step is implementation. The survey sought to determine which methods of implementation were most successful. The general conclusion is that there is no one single blueprint that works best. There have been several different and successful approaches. There do seem to be some main approaches that work, and some that definitely don't. Important factors for implementation were how the project was communicated, which needs of the end users were taken into consideration, and whether or not a pilot was performed first.

Since the pilot is usually the first part of the implementation, it makes sense to start discussion here. Most of the respondents (70.1%) conducted a pilot first and took the user's comments into account before moving on to the next phase of implementation.³⁴ 27.3% did not conduct a pilot and 2.9% did conduct a pilot but did not take into account end users' comments.

Of those who did not conduct a pilot, the majority were in an organization of fewer than 100 employees.³⁵ Perhaps this is because one does not necessarily need to conduct a pilot in a small organization due to the nature of size. Processes are probably well known by the records management staff, communication is quicker and simpler, and organizational culture is probably easier to decipher and work around.

What should one look for in a pilot? Here are the three goals of the Michigan Department of Management and Budget (DMB):

(1) [To] assess the ability of a RMA to classify and manage electronic records and execute retention requirements, including the identification and segregation of archival records; (2) to analyze the cultural impact that RMA's have on agency staff, information technology personnel, records managers and archivists; (3) to conduct a business process analysis and evaluate the potential for RMA's to be used in an enterprise-wide setting.³⁶

The first goal mentioned, to assess the ability of the RMA to perform its functions, is the main point of the pilot – to make sure it does what in theory it is supposed to do. The second goal is unique but equally important – to examine how it affects the organizational culture. Oftentimes records managers forget that “information technology” projects like this can have a huge and often unwelcome impact on the workforce. It would be completely illogical to implement this RMA without first seeing if it will even

³⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 22.

³⁵ Danelle Roath. Electronic Records System Survey. See Appendix II, table 4.

³⁶ State of Michigan Department of Management and Budget. *Work Statement*.

be welcomed and used by the rest of the employees. It can be implemented, it can be “taught”, but that does not mean that it will be utilized and thus effective. To have a system be utilized and effective, one needs a records management foundation on which to provide education and communication. Rachael Maguire of the Estates Department of the British Library wrote that one needs to

[F]ocus on good records management behavior first. The decade or so gap in corporate records management meant that people no longer knew how to manage their records and considered that they belonged to them, rather than the organization. No electronic system will change that. It can only be done by the promotion of records management principles, getting them embedded in the culture and then introducing a dedicated system that will automate what people are doing already, making it an improvement rather than a burden.³⁷

Ideally, one should know whether or not their organization has a solid records management foundation by the start of an implementation project.

From the Public Records Office of Northern Ireland, Zoe Smyth explained, “Planning activities, training, raising awareness, time and allocation of skills and resources are all critical to the preparation stage. It is during the preparation stage that the project is laying the foundations and re-introducing good records management practices to support an organization’s business requirements.”³⁸ At the beginning of the discussion to procure a system or, less ideally, at the time of the pilot, is a good time to assess the effectiveness of the records management culture within the organization. This is a good point to stop and determine whether or not more education on records management is required prior to or simultaneously to the implementation.

³⁷ Rachel Maguire, “Lessons Learned from Implementing an Electronic Records Management System”, *Records Management Journal* Emerald Group Publishing, Limited. Vol. 15 No. 3 (2005): 150-157. p 156.

³⁸ Zoe A. Smyth, “Implementing EDRMS: Has it Provided the Benefits Expected?”, *Records Management Journal* Emerald Group Publishing Limited. Vol. 15 No. 3 (2005): 141-149. p 143.

For those in the survey who did conduct a pilot and ask for users' comments, these are the respondents' comments on why a pilot was useful and important to them.

- "...helped massage some compliance timelines."
- "...it helped to identify some small scale problems and allow for corrections to be made before the project was rolled out on a large scale."
- "...made system more user friendly."
- "...decided we couldn't roll out as we thought, went back to the beginning and determined a different approach."
- "...worked out bugs, identified problems before they were widespread."
- "...it keeps them actively interested and involved."
- "...users took ownership of the issues. Minimized the fear factor. Demonstrated our open mindedness, and emphasized that this was a project FOR the end users."
- "...our pilot was a very useful fiasco. The feedback we got from it enabled us to improve our 2nd pilot to the point that we went straight into production from it. There is nothing more useful than a failed pilot."

All of the above comments are testimony to the importance and the value of conducting a pilot before diving head first into implementing the system. Over half of those who replied that they did a pilot reported that they had to change their implementation plan after they conducted the pilot. Those who have 100% usage also have a 75% rate of having conducted a pilot.³⁹

The next question to ask is what lessons were learned from the pilot that led to a change in implementation plan.⁴⁰ The top lesson learned (61%) was that additional configurations were needed or existing configurations needed to be altered. This just shows that a lot of extra work is required in configuring the system to the organization's needs "out of the box". In other words, there is no such thing as an "out of the box" electronic records system. Lots of personalization is often required. The second most

³⁹ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 5a and 5b.

⁴⁰ Danelle Roath. Electronic Records System Survey. See Appendix I, question 26.

popular lesson learned (57.1%) was that technical issues were more complicated than originally anticipated and thirdly at 56.5% was that users needed more training. All of these are valuable lessons learned that could exponentially slow down the project at a later date if they were not learned and solved during the pilot.

For those respondents who said that they had a 100% usage rate of their system, only 37% of them said that they thought their users needed more education on why they needed to use the system.⁴¹ This is in contrast to the average of 48% for all respondents and 60% needing more education for those respondents who had less than 20% usage rate of the system. Presumably those in the 100% usage rate provided enough education on why the system was important and helpful that it convinced the end users to use the system at least to begin with. The education on the importance of the system as well as the actual use of the system made using the system a part of the users daily work flow. Ideally, when integrated into the user's work process, the ERKS is more likely to become a long term, sustainable system.

In looking at the lessons learned and the usage rate, one sees the effect of end-user training and technical difficulties. In the lower usage rate percentages, the facts that the users required more training and that technical issues were more complicated than anticipated were more prevalent. This confirms that education and training is an important asset to the implementation of a system and helps contribute to a sustainable environment.

After people conducted (or didn't conduct) a pilot, what came next? Almost half of the respondents (49.4%) replied that they implemented the product over different

⁴¹ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 6a and 6b.

agencies/departments/groups one at a time.⁴² The second highest answer was different agencies/departments/groups overlapping at 33.8%. 15.9% answered that they implemented the product all at once, and 8.2% answered that they approached the implementation by geographic location.⁴³

There is a pattern in how the system was rolled-out and the number of employees in an organization.⁴⁴ The smaller the organization, the higher the probability was of implementing the system to everyone all at once. Conversely, the larger the organization, the less likely it was for the system to be implemented all at once. Instead, it was more likely for the system to be rolled out to different agencies/offices/groups one at a time. The implementation of a system by geographic location was highest by far in the organizations that had 1000 plus employees. In the comments field, someone (from an organization that had over 1000 employees) said that they rolled-out the system per process, not agency or location. This is a functional approach. The functional approach is quickly becoming more recognized thanks to the Australian DIRKS (Developing and Implementing a Recordkeeping System) method,⁴⁵ which advocates grouping records based on function, not record title or record type per se. Australia was the first to develop a best-practice recordkeeping standard, known as AS 4390. This standard was the foundation for the International Standards Organization's ISO 15489-1 and 2

⁴² Danelle Roath. Electronic Records System Survey. See Appendix I, question 21.

⁴³ The one thing in hindsight that I wish I had specified in asking this question is whether the implementation scope was only office-wide, or if the implementation scope was organization-wide. It would make a difference if there are 25 people in one office in which the system is being rolled out to in an organization that has 5,000 people, but the software is not being touched by the rest of those 5,000 people. The comment that made me think along these lines was by an individual who mentioned that they have only two people who have access to the system at all. Does this mean that these two people file for the rest of the office/organization? Are they only addressing a certain class of records? Do they think that nobody else creates records except those two? What is the reasoning behind that?

⁴⁴ Danelle Roath. Electronic Records System Survey. See Appendix II, table 7.

⁴⁵ National Archives of Australia. Found online at: <http://www.naa.gov.au/records-management/systems/dirks/index.aspx>

(Information and Documentation - Records Management). Most organizations around the world use this international standard as a basis for their records management program development and implementation. As mentioned, this standard has a very functional based approach in that as part of the program implementation steps it requires the records manager (and consequently new program) to

...understand the business, regulatory, and social context in which they operate (step A); ...[perform] an analysis of their business activities and environmental factors (Steps B & C); ...and assess the extent to which existing organizational strategies (such as policies, procedures and practices) satisfy their recordkeeping requirements (Step D).⁴⁶

This process makes sense, especially in such large organizations, because it takes into account the organization as an entire entity, not just of many parts that happen to co-exist. The DIRKS method looks at the organizational culture, the goals, the activities and tasks required to reach those goals, and the subsequent records that these tasks produce. This is valuable for many organizations because there may be several departments with the same functional task of payroll, or personnel management. By recognizing this as an organizational function, the records management process can be streamlined. This process is useful because it also takes into account organizational culture and ultimately education and the records management foundation that the ERMS implementation is working with.

⁴⁶ Stephen Macintosh and Lynne Real. "DIRKS: Putting ISO 15489 to Work" in *Information Management Journal*, Vol. 41 No. 2 (March/April 2007): 50-56. p 51.

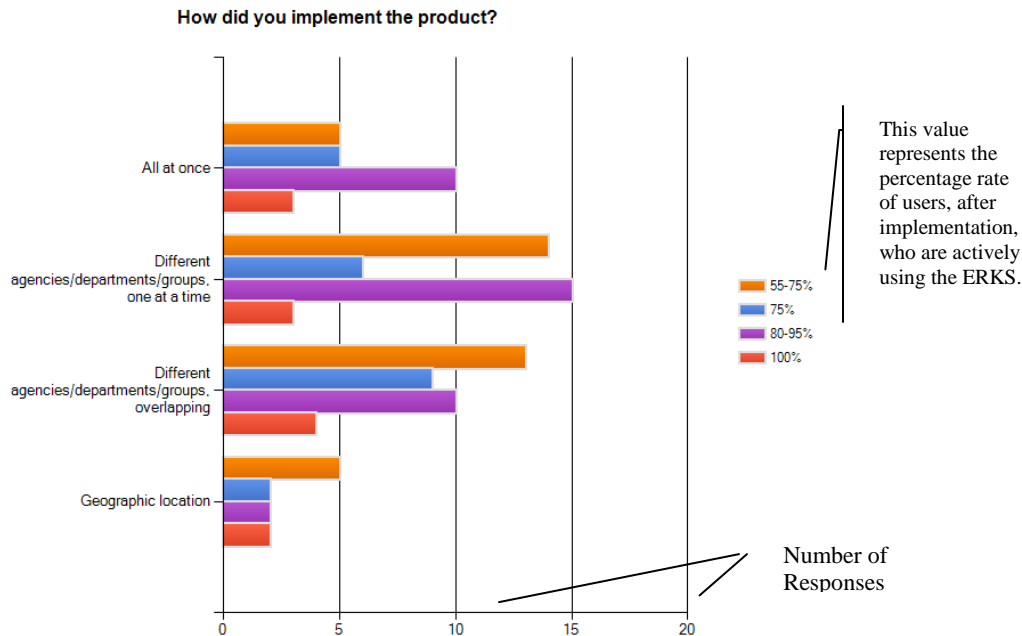


Figure 5. Relationship between how the product was implemented and the percentage of users on the system 55-100%

The ultimate question: Is there a specific implementation method that guarantees a higher usage rate? It appears that there are too many factors to make a judgment on whether one manner of implementing the product is more successful than the other. The choices, “different agencies, departments, groups, one at a time” and “different agencies, departments, groups, overlapping” were most common. Since there is no outstanding result here, this may suggest that how the product is implemented is not the determining factor in a successful/unsuccessful or sustainable/non-sustainable system.

Communication is an essential component of implementing any kind of product. How did the respondents communicate to the end-users about the implementation of the electronic records system and how it would affect them? Further, did this prove to be a component of success and sustainability for the project? The highest percentage in how

they communicated with the end users is through the “managers’ top down”, with 69%.⁴⁷ Second place was “direct one-on-one communication” with 47.3%. Since the respondents could choose more than one answer here, it is likely that a combination of approaches was used here such as communicating with users both through their managers and one-on-one.

The important question to look at is what did it take to get 100% participation of the electronic records system after it was implemented?⁴⁸ 85% of respondents who have a 100% usage rate indicated that they communicated to users through the top-down approach. Additionally, of those who reported 100% involvement, 69% said that they used direct one-on-one communication with the end users. Furthermore, to get 100% participation, not one single manager or communicator (0%) selected “did not communicate directly to the end user.” In fact, as more managers reported that they did not engage in direct one-on-one communication, the trend of staff using the system decreased. Thus, to get 100% user rate, the trend indicates that one needs to have manager involvement, where they communicate one-on-one to their employees. Strong leadership and open communication are essential for the successful and sustainable implementation of an electronic records management system. “It is not possible to over-communicate what is happening during an ... implementation.”⁴⁹

Comments from the respondents also indicate that it is important to listen to end users and to take their feed back into consideration. When asked if end users’ work processes, needs and problems were consulted and taken into consideration before buying the product, one respondent wrote that it was a “...BIG error, we thought of it as just

⁴⁷ Danelle Roath. Electronic Records System Survey. See Appendix I, question 23.

⁴⁸ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 8a and 8b.

⁴⁹ Lynette Downing, “Implementing EMDS: Putting People First”. p 46.

another software hence are going back to review and listen this time.” Another individual replied that, “...to a certain extent they were [listened to], but not at the level they should have been.” The comments confirm that it is imperative to listen and at least understand the end users’ workflows and processes so that the system can be easily integrated into the workflow and thus become a more “user friendly” system. It speaks to common sense that if the system is not user friendly, then there will be a large learning curve, and the majority of people will not use the system. To be user friendly the system workflow must fit neatly into the users’ daily tasks. Kyle Stannert from the City of Bellevue’s ECM implementation project explained that their goal is to have the users not even know they are using the system.⁵⁰ There is obviously a large spectrum between the users consciously doing all of the work, and the system automating all of the filing, but the key issues are:

1. the user needs to want to do the filing (whether minimal or not) due to perceived benefits and
2. the steps must not take much extra time (so the more automated the better) from their daily tasks.

Having user buy-in from the beginning was important because it gave users a sense of ownership of the system. When users felt that they were more invested in the system, they were more likely to pick up the torch and spread the good news to others, as well as take more responsibility for the system and its use. One of the conclusions made in the state of Michigan’s final report was that, “If users do not participate in the development stage, two things will happen; either they will misfile records, or worse yet, not use the RMA. If this happens, the benefit of the RMA is lost to the entire agency, and proper records management is nearly impossible.”⁵¹ Recruiting users that feel they have a

⁵⁰ Personal Interview. Kyle Stannert. September 30, 2010.

⁵¹ Jim Kinsella, *State of Michigan, Final Report: Records Management Application Pilot Project*, p 9.

stake in the product is important. Not only are there some participants who use the system from the beginning, but people are more likely to listen to the merits of the system from a fellow colleague rather than an unfamiliar records management staff member. User input implies sustainability. To get user input first though, there must be a records management foundation so that there is a program to work with and users have some basic understanding of what they are doing and why. Education fits nicely into this puzzle. To have a solid records management program and consequent education, there must be good communication and good leadership. Thus to get to the point of user buy-in and input, all of the above components must be in place first. The Michigan State RMA project manager Jim Kinsella noted, “The input was crucial to give the participants a sense of ownership of the file plan. Our goal was to create a file plan that participants would recognize, understand, and feel comfortable using to file documents. Therefore, some drafts were revised multiple times to accommodate the needs of the participants.”⁵²

The survey of how organizations implemented their electronic records systems shows that the majority of respondents conducted a pilot and after the pilot most found that additional configurations were required. Most organizations implemented the software one group or agency at a time and most had some level of manager involvement in the implementation. There was a relatively high usage rate after the system was implemented for this process.

⁵² Jim Kinsella, *State of Michigan Final Report: Records Management Application Pilot Project*, p 10.

Training

The next phase to analyze is how the users were trained. The main question revolves around whether or not there is a specific method of training and way of communicating that guarantees getting the users on the electronic records management system. There does not seem to be a specific training trend that guarantees more success than another method. Training method (at least as presented in this survey) does not impact the bottom line of success. However, having a records management foundation to begin with that has already been providing on-going records management education was a factor, as well as whether or not there was visible senior management support including policy or other form of “coercion” that encourages the users to start to use the system.

When asked what methods were used for training the users of the electronic records management system, 78.2% of the respondents replied that they used traditional classroom settings for their training classes.⁵³ One-on-one training was the second most popular method with 62.9%. Online classes came in third place with 32% and online demonstrations at 13%. The respondents had the opportunity to reply to more than one answer on this question. Since the traditional class room setting and one-on-one training were the most popular, this may indicate that managers prefer to use the face to face method of training over the digital world of communicating ideas.

The trend is the same for those who have 100% participation on the system and those who have a 0-50% usage rate of the ERKS as far as what kind of training methods were deployed.⁵⁴ This would indicate that one training method over another does not guarantee a higher usage rate or a higher success and subsequently sustainability rate.

⁵³ Danelle Roath. Electronic Records System Survey. See Appendix I, question 27.

⁵⁴ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 9a and 9b.

Half of organizations that had over 5000 employees still managed to use the one-on-one training method.⁵⁵ This is fairly significant considering how much time, energy, and resources it requires to do one-on-one training. What is the benefit of having face to face training interaction? Why aren't more people using the internet resource for training methods? Based on a discussion in the previous chapter, people learn best with a group learning environment, a situation where they can problem solve, and a context where they are practicing and learning themselves instead of being *told* what they need to know. All of these conditions are much harder to simulate online.

I wanted to know if those who responded to the survey thought that people's mindsets needed to change toward electronic records, and if so, what it was that needed to change. In order to gain insight into the broad themes that people are attempting to teach I asked, "Is there a need to change people's mindset toward electronic records? If yes, what is it that needs to be changed?"⁵⁶ In other words, was there a commonality between specific ideas that were being promoted and a higher usage rate once the system was implemented? The answer is, not really.

68% of the respondents answered this optional question – 12% higher than average 56%. If the participant felt that there was no need to change the user's mindset, they could skip the question. Electronic records have been around for 20-30 years and many things continue to be improved with electronic records such as how they are stored and how to guarantee their longevity. That being said, however, it is still baffling that many people still hesitate to save electronic records properly and shy away from using them at all if possible. Perhaps it is a cultural change and something that people have to

⁵⁵ Danelle Roath. Electronic Records System Survey. See Appendix II, table 10.

⁵⁶ Danelle Roath. Electronic Records System Survey. See Appendix I, question 29.

learn to get used to. Perhaps to some extent it is a generational change. The message to be gleaned from the responses is that an attitude adjustment toward electronic records is required, and this means providing more education.

The majority of the records managers who took the survey felt that electronic and paper records are more or less the same, in contrast to electronic records being conceptually different. 62% of respondents replied that they felt users needed to change their mindset in order that electronic and paper records be viewed more or less the same. Consequently, this must mean that the majority of organizational staff currently view electronic and paper records as different since the survey respondents felt that users' mindsets needed to be changed to see electronic and paper records as conceptually the same. In contrast, only 13% of survey respondents replied that users needed their mindset to change in order to see electronic and paper records as conceptually different.

The consensus among the records managers and archivists in the professional field, as outlined in Chapter One, is that the traditional theories that have dealt with paper records in the past are adequate for dealing with the new challenges of electronic records. For these proponents, a record is a record, regardless of format. In theory, they have the same components and elements and thus traditional methodologies should be applied. The methodologies may be tweaked to deal with challenges, but the basic concepts, principles and practices should remain the same with regard to electronic records.⁵⁷

The highest response to what mindset needs to be adjusted was that 77.5% of survey participants said the approach to data and how it is managed. This once again

⁵⁷ Luciana Duranti, "The Impact of Technological change on Archival Theory," (2000): 1-13. Available at http://www.interpares.org/documents/ld_sevilla_2000.pdf.

returns to the original idea that the users' concept of a record needs to be altered⁵⁸. Data by itself does not necessarily provide meaning nor is it considered a record because it does not necessarily have context (nor does it imply a certain context). Data must be processed into some thematic order with context in order to be useful. Data and metadata are concepts that are still being wrestled with in the records management world as well. How does one keep data and for how long? Do you pull them out of their natural environment and thus out of context to make sure it is retained for the appropriate period of time? Do you save the entire system for the longest retention period? Do you run reports on that data and then keep just the collected reports? There is no black and white answer and this is why most people replied that this concept most needed to be addressed. When dealing with electronic records, it is essential to have the appropriate metadata, automated audit trails and "data" retained for the required period of time.

Overall, much work still needs to be done on how electronic records management systems are implemented. The essence of respondents' opinions of what should change could be more efficiently solved if there were more on-going education on personal records management (i.e. a records management foundation) and collaboration among all parties in the process. This includes collaboration between the end users and those who are helping to implement the system. How does one ensure better collaboration? We keep going back to some main points here – education, education, education; open communication; and strong and supportive leadership from all levels.

⁵⁸ Data needs to be viewed more in terms of documenting transactions and thus acting in terms of a record. It also needs to be taken into consideration with metadata and how it provides context. Earlier it was mentioned that the consensus in the records management world is that records are more or less the same regardless of format. This principle still applies here; however, even though records may conceptually be the same regardless of format, they do require different management techniques for accessing and preserving them.

Collaboration among the records management community is also required, including collaboration between the records management community and the information technology (IT) community.⁵⁹ If language and conceptual barriers could be crossed here then mindset shifts could potentially also become much easier. This is a work in progress, and we are all learning as we go. If we can share our results, as this survey is attempting to do, and collaborate, then over time the business world at large will become more and more used to the idea of implementing electronic records systems.

We have a general idea of what kinds of training methods were popular; but how did users react to the training methods utilized? Did they respond positively? Negatively? Or were there mixed reactions? This is difficult to measure because some individuals go into the training class not wanting to be there and not wanting change. Therefore even if the training methods were phenomenal, those end users would still react negatively to the training methods. With that in mind, I won't place much weight on the statistics here. I do want to mention, however, that the majority of survey respondents (56.1%) said that they had mixed responses.⁶⁰ Interestingly, only 1.7% said they had a negative response and 44.4% said they had a positive response. Given that respondents could answer any three of these options and that 44.4% replied positive and 1.7% replied negative is a favorable outlook to the implementation training methods. Even though it is difficult to draw concrete correlations here, one thing is for certain: those who answered that their users responded positively had a higher usage rate for the system once it was

⁵⁹ For example, see "From the Mouths of CIOs" by Nikki Swartz, *Information Management Journal* Vol. 38 No. 5 (September/October 2004): 30-36; "Putting Retention Management on the Right Track" by Nikki Swartz in *Information Management Journal* Vol. 41 No. 6 (November/December 2007): 24-28 or "Records Managers in the Global Business Environment" by Mike Marsh, *Information Management Journal* Vol. 39 No. 2 (March/April 2005): 30-36.

⁶⁰ Danelle Roath. Electronic Records System Survey. See Appendix I, question 31.

implemented. Of those who had 100% usage of the system after implementation, 60% replied that their users had a positive reaction to their training methods. This is in contrast to 16% responding that users had a positive reaction for those who had a usage rate of under 20% after implementation.⁶¹ This suggests that the more positive interaction users have with the system, the more likely they will be to use the system and to keep using the system.

One variable in these results could be organizational culture, which is a huge mountain to climb and conquer. One survey respondent commented that "...this is a result of personality, not process." As someone else so clearly put it, "...Different strokes for different folks. Some did well in classroom settings, others required much more hand holding and individualized instruction." Every individual has his or her own learning process, whether visual or audible; hands-on or sitting back and observing; individual or group oriented. Personality types tend to be drawn to certain types of organizational cultures as well. Information based companies have competitive, technologically savvy employees; some business firms may have had the same loyal employees for decades who absolutely do not like change. Nothing is wrong with either one, but the fact is that the two are going to have very different organizational cultures. Several people responded in the survey comments that change management was an important aspect of implementation. By recognizing that many people have problems with change, one can provide resources that may assuage the fears of many.

Change leaders have to invest a lot of resources in their training. Organizations that overlooked their training are still counting their huge losses as they mop up disastrous e-enabling projects...[In addition] Pre-Announce, Announce and Post-Announce. It is a change leader's role to ensure that all stakeholders are given a

⁶¹ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 11a and 11b.

reason for the change and what it means for the organization, its staff and its customers, in the short, medium and long term.⁶²

By providing education, leadership and communication, organizations will make change significantly easier for many to deal with.

The State of Michigan Department of Management and Budget (DMB) considered user integration its major priority when selecting its vendor and resulting system. They made e-mail integration, customer support and ease of use the forefront of helping them to decide whether or not to purchase a RMA.⁶³ DMB's results as laid out in their final report demonstrate that system ease of use and capabilities are not the whole story. Their conclusion is worth quoting in full:

Functioning software is only one facet of the success for a project like this. The human factor in many ways is far more significant. People are naturally resistant to change; and RMA software changes the way people file, search for and retrieve the documents they create and use on a daily basis. While these changes can produce benefits, these benefits will not be realized until the software is actually used, and many people will not use new software until benefits are demonstrated to them. A classic dilemma. Furthermore, filing and records management are not the primary responsibility of most people. Investing time up-front to realize benefits is rarely top priority, which is one reason why people have not taken full advantage of the software they already have.⁶⁴

DMB's experience suggests that it is not the software that makes a program successful and sustainable, but rather the inherent reactions of the users (the human factor), and how and when the system is introduced to the users as a "benefit" to their business process. DMB was very meticulous and upfront about choosing a system that would be "user friendly". Whether that system was "user friendly" or not did not seem to make a

⁶² Olu Ajayi, *Leading Change*. (Oxford: Capstone Publishing, 2002) 31.

⁶³ Jim Kinsella, (Project Director). *State of Michigan Final Report Records Management Application Pilot Project*. National Historic Publications and Records Commission Grant #2000-059. December 30, 2002. p 5. Online at: http://www.michigan.gov/documents/HAL_MHC_RM_Final_Report_63480_7.pdf

⁶⁴ Ibid p 18.

difference because the users would not even accept the system. They did not want to change their work processes, and they did not feel the time and effort was worth doing for a task that they did not see as their primary responsibility, i.e. records management. This is indeed a classic dilemma and not an uncommon one either, judging from survey respondents' comments. Thus having software that works perfectly and is the ultimate ideal of what an RMA should be does not guarantee that the electronic record system will be a success. One must have an environment where change is accepted, or at least not avoided, and education is essential to convince the end users of the software's benefits. In order to teach new ideas, one must have supportive senior management and once again, all of these changes would be easier if there was already a solid records management program in place. Jeanne Young's comment hits the nail head on when she says, "Integrating ERM is not primarily a battle with management for resources; it is a culture war for the hearts and minds of the people who create and use records."⁶⁵

Many organizations offer change management courses because it is being recognized as a serious barrier in the shift of the modern office with new technology literally revolutionizing the way Americans work. "Wholesale culture change is required on all levels" wrote one survey respondent. Another respondent described the situation as, "some [users are] excited and ready to try, others have difficulty managing the culture change." Office culture can definitely be a barrier and a challenge to work with, but changing the office culture per se is not the solution to implementing a sustainable system of any sort. Going against the grain of the office culture and forcing something that is not there will only provide more resistance. The survey results indicate that culture change

⁶⁵ Jeanne Young, "Electronic Records Management on a Shoestring: Three Case Studies", *Information Management Journal*, Vol. 39 No. 1 (January/February 2005): 58-60 p 58.

management can make an ERMS more sustainable, but changing the culture itself is not a solution to ERMS sustainability.

A change management expert states that the best way to sustainable change is to “[e]mbed the change in the culture. New behaviors, even when they are clearly beneficial, take time to become habits. In organizations, it has been found that spaced repetition is the best way to embed new ways and attitudes...with each spaced repetition...[one is] reviewing and reinforcing what has been learned...”⁶⁶ Chip and Dan Heath explain that “change isn’t an event, it’s a process” and as such requires again, positive and repetitive reinforcement.⁶⁷ By providing the five essentials (records management foundation, education, leadership, communication and policy) the organizational culture will gradually shift in favor of the electronic records system. Not by forcing the situation, but by embedding the change into the culture with policy, repetitive and positive reinforcement of the new ideas, and by including and thus listening to the workforce, the new changes will begin to be engrained into the culture and thus more likely sustainable.

The question becomes, then, how one can influence change sustainably in any organizational environment. That is a whole separate topic, but in brief, Chip and Dan Heath say that in order to create and sustain change, one should introduce and coach the “growth mindset”. In this strategy, the Heaths explain that it is important to be realistic and to teach and remind the team that failure is a “necessary part of change”, it is not that one avoids failure to make a project successful, but instead how one responds to the

⁶⁶ John Covington, “Eight Steps to Sustainable Change”, *Industrial Management* (2002). Accessed online at: <http://www.allbusiness.com/management/change-management/388052-1.html>. September 3, 2010.

⁶⁷ Chip and Dan Heath, *Switch: How to Change Things when Change is Hard*. (Broadway Books: New York, 2010): 253.

inevitable failure. “It reframes failure as a natural part of the change process. And that’s critical, because people will persevere only if they perceive falling down as learning rather than failing.”⁶⁸ This is just one strategy to combat the demons of change, but regardless of which strategy one uses it is important to understand that change will occur as part of implementing an ERMS, and that one needs to not only be prepared to deal with it, but have a strategy for dealing with those who fear and are reluctant to change. By having the five basic essentials (a records management foundation, ongoing education, solid communication channels, mandatory policies or some form of motivations and senior management support) as part of any records management program,⁶⁹ challenges that occur with the onslaught of electronic records will be better met, handled and conquered.

ERMS implementers should base their training approach upon what type of organizational culture they observe. “Implementing ...software and expecting technology to change organizational culture would be a mistake. The old 80-20 rule applies to implementation; for the most success, focus just 20 percent of the efforts on technology and 80 percent on the cultural issues.”⁷⁰ The root of the problem is never the technology, and an implementation will never be sustainable until this is realized by an organization. Technology may be a cursory cover up of the real problem, but in order to assure sustainability, education is very important to create a solid foundation on which to place an electronic records management program. Therefore, while the company is spending

⁶⁸ Ibid. p 169.

⁶⁹ I will no longer distinguish between a records management program/project and an electronic records management program/project. I follow the general consensus that records are the same regardless of format, thus a records management program should cover all media of records, including paper and electronic.

⁷⁰ Lynette Downing, “Implementing EDMS: Putting People First”, p 45.

money and going through a training process anyway why not spend as much extra time as possible on the real problem and educate the users on records management? Instead of showing users only what the system is and how it works, educate them on what a record is; educate the users on why they need to retain their records properly; and most importantly, explain how this application can benefit them on both an individual and consequently organization-wide level. This kind of knowledge is what creates sustainability – the understanding of the why, not the how.

The training must be appropriate for the type of organization in which the implementation is occurring. Sustainability cannot occur in a void. It must occur within the ecosphere of a place where the factors are taken into account and massaged as much as possible to get the results to last. Sustainability must build on what already exists. “Every instructor operates within an institutional culture...the challenge for instructors, experienced as well as novice, is to understand the historical culture in which they are teaching and make adjustments to match that context.”⁷¹ Thus, regardless of whether or not if one likes their organizational culture, it must be accounted for in the implementation process.⁷² As a result of DMB’s pilot, they concluded that to encourage users to utilize the system in an environment where people didn’t want to change meant demonstrating the benefits of the system. To do this, they “...showed that business process improvements can be derived using RMA software, and when these improvements are adopted by the agency, RMA use and satisfaction increases.”⁷³

⁷¹ James G. Clawson and Mark E. Haskins. *Teaching Management*, p 14.

⁷² To see examples of training and organizational context, see Clawson, James G. and Mark E. Haskins *Teaching Management* pp. 14-16.

⁷³ Jim Kinsella, *State of Michigan Final Report Records Management Application Pilot Project*, p 19.

File plans and taxonomy were not heavily focused on in the survey, but they can make a difference in the ease of use of the system. If an office does not already have a filing system or taxonomy, it is important to create one. This should be one of the foundations that an ERMS is built upon, not something that comes as an afterthought several years down the road after an ERMS has been implemented. “Developing a systematic way to file your records makes it easy to find records, regardless of who created or filed them. It saves time and provides a better context for how things are stored, what they mean in relation to other records (their context) and how long to keep them.”⁷⁴ If there are too many choices and if those choices don’t make sense from the business perspective or functional perspective of the end user, the end user will either not even try, or will give up. The least amount of thinking is the best way to keep the end user engaged. As Gregory Trosset from King County, Washington, mentioned in a webinar for NOREX, “One piece of the puzzle and way to have user implementation is to have few, clearly marked, easily identifiable category buckets that users can drop their records into...[It should be] an easy choice, not complicated.”⁷⁵ So not only does King County have broad function related categories that their records can be placed in, the end users only see categories that relate to their business function. They do not see record categories that they have nothing to do with in their daily job. For end users, fewer choices and less decision making leads to a higher probability of user adoption according to Trosset. This is affirmed by Lynette Downing, “The process of classifying records into

⁷⁴ State of Oregon, Electronic Records Management System (ERMS) Community of Practice (CoP). “Guidelines for Managing Electronic Records” Version 1. 2007. Available online at: http://www.ocjc.state.or.us/DAS/EISPD/ITIP/CoP/ERM/ERMS_CoP_2007_Manual.pdf

⁷⁵ Gregory Trosset, “Information on Purchasing an ERMS”. Norex Webinar. April 15, 2009.

a...repository...needs to be so ingrained into the daily work process that it becomes invisible. Users will resist extra steps...”⁷⁶

Hence, if one can successfully convince the end users to indeed use the system, then they might realize it’s “not so bad after all!” The less work the end user has to do, though, the better. As Downing states, “The only incentive that convinced people to use the RMA software was when we incorporated its use into a business process so it was impossible to perform the task without using it.”⁷⁷ This is why it is important, and why I asked in the survey, if the RMA was integrated with the work flow of the end user. Can you get to it through the e-mail inbox? How many extra clicks does it take to file a record? How much thinking does the end user have to do to correctly classify a record in the file plan? All of these questions should be asked when buying the system. *ISO (International Organization for Standardization)/TR (Technical Report) 15489-2:2001 – Part 2: Guidelines*⁷⁸ emphasizes business process in the implementation of a record keeping system. The ISO standard adopted the emphasis on placing records management into the business context and its business functions. The ISO standard interprets records as being created as a result of business processes and activities that occur in an entity. Thus, in order to design a system, one must first understand the business context which includes the functions of an organization and the records that they produce as a result. An RMA cannot be installed without consideration of the work processes and the context within which the system would be operating. In order to implement a sustainable electronic record keeping system, the environment that this system will be taking place in

⁷⁶ Lynette Downing, “Implementing EDMS: Putting People First”, p 45.

⁷⁷ Ibid p 19.

⁷⁸ ISO 15489-1:2001 – Part 2: Guidelines “Information and Documentation – Records Management”. International Standards Organization, 2001. Available online at: www.whitefoot-forward.com/iso_15489-2.pdf .

must be considered. An effort should be made to make the system appear as seamless and invisible as possible to the end user.

An application built into the users' work processes will not sell the system to the end users in and of itself. Usually some form of coercion, such as policy or intrinsic motivation, is necessary in order to get the users to use the system in the first place. The users need to be convinced that the application will improve their business process; and then they need to use the system and see for themselves that the RMA will personally benefit them. User acceptance of the system starts with education.

Some users see EDRMS as a threat. They imagine that their work will become harder, more complex, and more regimented. They may not see the benefits to themselves for using the EDRMS. Thus, a key element in the implementation of any EDRMS is user acceptance. This includes getting people to use the system, and showing people how they and their organization will benefit from the system... So it is often imperative that the system does not require people to make significant changes to the way in which they work. Equally important is to ensure that the system is usable by people with different levels of IT ability.⁷⁹

At this point the system had better work without too many flukes, or the user will be disappointed and user confidence will be reduced. Education on how the system can benefit the individual user and how the system will fit into the workflow will allay fears and gain user trust and acceptance.

Two variables that could influence the training results could be the size of the organization and the scope of implementation. Most organizations are not implementing the ERKS to every single employee, but to just one office or department instead of the entire organization. That being said, it would be logical that the smaller the organization, the more hands-on practice the trainers would be capable of providing. Probably the more

⁷⁹ Gary P. Johnston and David V. Bowen. "The Benefits of Electronic Records Management Systems: A General Review of Published and Some Unpublished Cases", *Records Management Journal* Emerald Group Publishing Limited Vol. 15 No. 3 (2005): 131-140, p 136.

quality time that the trainees receive, the more positive their response to the training and implementation of the system is going to be. This is reflected in the survey results. The organizations that consisted of one hundred or fewer employees had the highest positive response to training results.⁸⁰ 55.6% of the respondents who had 100 or fewer employees replied that their users responded positively to their training methods (which overwhelmingly was one-on-one training). They also had the lowest percentage of negative response to training methods at 0%. One of the three major findings in a survey on recordkeeping policies and practices performed by Lee Strickland, J.D. and her team was “agency or office size affects the implementation of Electronic Record Keeping Systems (ERKS); the larger the agency, the more complex the problems associated with effective implementation.”⁸¹ They found that those who either already had or who were in the process of implementing an RMA (in 2005) were all under 10,000 employees⁸² “...which indicates that the smaller the agency is, the further along it is likely to be in the process of adapting to electronic records management.”⁸³ Not only are there more people to reach out to and educate, but there are more layers of bureaucracy to wade through and more exceptions and different needs to work around.

It is not feasible that every organization be less than 100 employees and that every organization do one-on-one training with all of their employees. So what can one do if it's impossible to do one-on-one training? Giving classes to under 15 people is always a

⁸⁰ Danelle Roath. Electronic Records System Survey. See Appendix II, table 12.

⁸¹ Lee J.D. Strickland, “Best Practices in Electronic Records Management: A Survey and Report on Federal Government Agency’s Recordkeeping Policy and Practices”. Center for Information Policy, College of Information Studies, University of Maryland. December 19, 2005. Available online at: <http://www.archives.gov/records-mgmt/initiatives/umc-survey-main.pdf>

⁸² Of the federal agencies interviewed, 30% of respondents with less than 10,000 employees were in the process of implementing an electronic record-keeping system. In contrast, only 10% of respondents with over 10,000 employees were in the process of implementing an electronic record-keeping system.

⁸³ Ibid p 1.

good work-around. There is still teacher-student interaction, in which case the teacher can gauge the trainee's needs and work with them to make sure they understand the process. Another option, which presumably works best when used in combination with the previous suggestion, is to have designated contact people (or subject matter experts) in each department/office. By having point people in each department/office in a large organization there is still solid one-on-one communication occurring, but with a trickle down effect. Remember, however, the childhood game of "Telephone"? Oftentimes information gets lost in translation. Consequently people get muddled information; inaccurate information; information that is emotionally tainted (for example if the point person is not eager to do their job, or use the system); and so forth. However, if this is the best way the organization can have as much one-on-one contact with the end user as possible, then it is better than no contact at all.

One respondent who was training on electronic records systems in organizations of over 1000 employees commented on some of his/her challenges: "...training works better for users who have an immediate need. If they aren't power users, training is hard to apply." This is true regardless of what one is trying to teach or the size of the organization. If, as mentioned previously, there is no context and additionally no constant application of skills, either the training becomes moot or the skills are lost. Consequently users are often reluctant to spend time to re-learn how to use the system when they have found (by way of their work process) that it is irrelevant to them in the first place.

Context is essential in order for users to be able to conceptualize how they are using the system and how it affects them. If there is no context, there is no sustainability.

Respondents replied that 63.2% had integrated the system into end users' workflow.⁸⁴ As one survey respondent mentioned, "The one-on-one training sessions were particularly popular, because users could ask very specific information [to] capture workflow needs." Shockingly, however, 29.7% did not integrate workflow into the application and 7.6% didn't know. The more the system is synced with the workflow of the user, the more likely they are to use the system. If they have to go out of their way to use the system, it is inconvenient and a "waste of time." If, however, it is directly integrated with the workflow, the user will be "forced", in a sense, to use it.

Users need context. Without knowing what users know, the trainer may not be able to provide them with the appropriate context. As a survey respondent stated, "Training worked well as it was hands on, but some had no idea why it was required. We didn't explain it well enough." Without context, there may be one time success, but there would be no sustainability. 86.4% of respondents noted that their end users were already aware of the implementation when they were approached for training on the system.⁸⁵ It is unnerving, however, that 7.6% were unaware of implementation, and 7.1%⁸⁶ don't know if their users were aware or not of the implementation. It is essential to find out when you start the process of training to gauge the experience level and knowledge level of those whom you are training. It would be inappropriate to go straight into training assuming that all users had background knowledge in records management. It is important to be able to provide a basic foundation through records management education

⁸⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 35.

⁸⁵ Danelle Roath. Electronic Records System Survey. See Appendix I, question 32.

⁸⁶ These numbers add up to 101.1% due to a survey system mathematical error: The response count numbers are: 159, 14 and 13. This equals 186, but for some reason, Survey Monkey says that this equals 184. This difference of a few numbers in an addition error makes the percentage of response higher than 100%.

for the end users if they do not already have it. If users start out confused on the basic premise of what they are learning, they will not retain anything that they are told for the rest of the class.

The survey demonstrated that there are methods that are more popular than others when training end-users. This does not mean, however, that they are the only effective training methods. Regardless of what training methods are best for the organization setting, flexibility in training approach is very important. "...Flexibility not only in content but also in delivery and mechanism..." is a "critical success factor for training...It is important that you pick the best mix, not just one...no organization is fitted to just one."⁸⁷

Additionally, regardless of what method of training is used, it is important to have interactive training "...as much as possible so that users have hands-on experience with what they will be using everyday."⁸⁸ We learn best by doing.⁸⁹ By doing, we become engaged, and we are able to practice what we are supposed to be learning. Practice, practice, practice is the name of this learning game. Schank delves into some technical aspects of learning, which have to do with procedural memory. Most of the time, we remember how we "felt" about an event, but not the exact details of the event. In order to remember the details, and be able to replicate what was taught in class, the user must be able to practice in a real-life situation over and over again. "You can't learn anything in a passive classroom setting where a speaker speaks and everyone else listens or asks the occasional question...If you want people to learn to do something, you must have them

⁸⁷ H.Larry Eiring, "Successfully Implementing an Enterprise-Wide Electronic Records Management Program" ARMA International Webinar. Viewed on April 14, 2010 through www.arma.org.

⁸⁸ Ibid

⁸⁹ Roger C. Schank, *Lessons in Learning, e-learning, and Training*.

do it, and do it repeatedly.”⁹⁰ Not only is the hands-on experience important, it also keeps the users engaged during training. Keeping them engaged keeps them focused and asking more questions, and as Schank discusses, helps them to emotionally identify with the topic at hand.⁹¹ Ideally this leads to a higher retention rate of the electronic records system concepts.⁹²

A major problem with implementing an electronic records management system across an entire organization is that nobody except the records managers has records management training. To be honest, this is the way that employees like it - nobody wants extra work – especially extra work that involves records management. That’s the records manager’s job, right? Wrong. Unfortunately, the onslaught of the personal computer requires that each individual be his or her own records manager to some extent. Debra Logan wrote in an article on electronic information, “In effect, all employees have become information managers – but not very good ones. While some would argue individual users should be responsible for what they create, most users do not have the time, inclination, or training in information classification and records management to do what needs to be done to make business information into a business record.”⁹³ Thus, one would presume that a company would value general records management education in order to ensure that their employees are properly managing their own records.

Consequently, one question asked in the survey was if people felt that general education was essential to the implementation of an ERMS.⁹⁴ The response to this

⁹⁰ Ibid pp 108-109.

⁹¹ Ibid pp 214-223.

⁹² For similar discussion from a different author, see Clawson, James G.S. and Mark E. Haskins *Teaching Management* “Action Learning” pp 201-211 and “Experiential Methods” pp 212-227.

⁹³ Debra Logan, “Principles for Gaining Control of Electronic Information”, *Information Management Journal*, Vol. 45, No. 5 (September/October 2009): 10-12, p 11.

⁹⁴ Danelle Roath. Electronic Records System Survey. See Appendix I, question 36.

question was varied. There were 20% of respondents who replied that they don't believe or don't know if general user education helped the end user to understand the system better. When respondents elaborated on their response, they said something along the lines of, "We want to be able to provide general user education on records management, but nobody wants it, and thus it doesn't help." People have enough trouble struggling to perform their basic job duties, and when asked to throw some more responsibility into the mix, people turn their head in the other direction. They're "too busy" as it already is. Here are some of people's written responses when asked to clarify why general user education was not provided, respondents replied:

- "No interest or support for general education."
- "Most end users didn't want to know anything about records management...what they really wanted to know is what they needed to do their jobs."
- "Some didn't care about the records management side, only what it could do for them."
- "Still not sure to what extent education on records management really helps the cause."

Besides being pessimistic, these are common responses. When end users come to training all they want to know is what they need to help them with their jobs and that is it – most people don't want to know the why and how. Then, when it comes down to end users actually using the system, most people become "too busy". This is why in addition to general (and on-going) records management education, strong senior management support is required in addition to some form of coercion. If policy or mandates require or

encourage users to take the classes in order to learn about records management then perhaps a foundation might be built on which a records management program can be sustained.

However, general education does not seem to be a completely lost cause because 80% of respondents replied that they thought general education helped the end user to understand the system better, at least in some way, shape or form. The other good news comes when comparing the usage rate to the response of whether or not general education helped understand the system better. The more pessimistic responses quoted above came mostly from respondents whose end user rate was under 75% use of the system.⁹⁵ When looking at those who answered that they had under a 20% usage rate, 50% of them said that they did not think general education was helpful, versus the 88.9% of those who had 100% usage rate who said they did think general education was beneficial. At above the 75% usage rate the comments were more along the lines of time constraints not allowing for as much teaching as desired and expectations being too high on what was expected from the ERMS. These seem to be more communication and time constraints and not so much users' reactions to the general education of records management itself. A respondent commented, "There is a lot of background knowledge that end users don't have when it comes to records management. The implementation would go better if we had time to educate them on that first." General records management education provides the foundation on which to base an electronic records management program. Without a solid foundation, the ground will shift and crumble and the program will be teetering precariously on ground of misunderstanding.

⁹⁵ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 13a and 13b.

As an example of why it is essential to have a records management foundation on which to base the implementation of the ERKS, one survey respondent replied that their ERKS was conceived of, bought and initially implemented without a records manager and without any input or professional expertise from a records manager. The respondent's opinion was that as a result the implementation the first time ultimately failed. The lesson here is that the organization tried to implement an electronic *records management* system without the knowledge, background and expertise of a records manager. Secondly, when a records manager was finally hired, it was too late for context to be provided for the ERKS through a records management foundation. When the records manager was hired, a program/education campaign may have been started, but it would be a serious catch up effort since the system was already being used by many, perhaps completely inappropriately.

A few other anecdotes related to general education appear throughout the survey as the results were analyzed. Of those who had a 5-20% usage rate 100% replied on the lessons learned tab that users needed more training and education, but they also had 100% one-on-one training. 33% of that 5-20% usage rate group had fewer than 100 employees and 50% of that same group had over 1000 employees. This statistic reinforced an unexpected conclusion I reached, mentioned earlier, that training methods and size of organization don't necessarily influence success and sustainability of an ERMS.

Of those who had a 24-45% usage rate and were done with ERMS implementation, there were also a few very interesting observations. Two-thirds of these

respondents' programs resided in the IT departments.⁹⁶ In general, IT is a different field from Records Management, and people make a grave mistake in assuming that they are similar enough to mesh together. Having IT be the home of a records management project can be detrimental to the project. In addition, the Accelerating Positive Change in Electronic Records Management project identified "situating RM under the IT corporate function" as something to avoid because it impedes progress.⁹⁷ This goes back, once again, to the paramount importance of having a solid *records management* foundation. Under the question about whether or not general education is helpful, one respondent replied, "...the rollout did not include enough of this." By analyzing the usage rates in comparison to training method, it becomes apparent that a solid records management foundation is one component that will help lead to a successful and sustainable electronic records management system/program.

Additionally, senior management needs to be educated on the fact that good records management, including electronic records management, is an important risk mitigation effort for their organization. Chances are if an RMA is being implemented, somebody in senior management thought that the implementation was a good idea and worth the funds. However, this does not always mean that they think it is a worthwhile *ongoing* program. Senior management may think it's a one time fix where the system is implemented and all of the problems are solved. However, ongoing education is essential, including education for the senior management. Thus to implement a successful *and* sustainable ERKS, there needs to be ongoing education to senior management in order to

⁹⁶ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 1a and 1b.

⁹⁷ Julie McLeod, "Accelerating Positive Change in Electronic Records Management", p 11.

retain and maintain their support for on-going management of the electronic records keeping system.

For training purposes, as much education as possible is essential, in as many different forms as possible. As H. Larry Eiring re-iterates in an ARMA International webinar titled *Successfully Implementing an Enterprise-Wide Electronic Records Management Program* “Development and implementation of an effective training and support methodology will ensure long-term success of the eRecords program.”⁹⁸ The results show that face-to-face training was the most popular method of training. Those organizations that had more collaboration among different parties also appeared to have a higher usage rate, as well as those who received a basic level of context through general education on records management. Awareness of the system and its implementation was also an important factor for success.

Conclusively, the survey suggests that education for both end users and senior management can lead to an effective records management system. Records management education to these two stake holders can lead to awareness and collaboration as well as paramount support from all levels within the organization. After this, however, the success and sustainability of the electronic records system depends on the organizational culture and the user friendliness of the system, some of which can be controlled and some of which cannot. This leads us back to the circle of education, education, education and some type of policy that encourages users to test-drive the system in the first place.

⁹⁸ H. Larry Eiring, “Successfully Implementing an Enterprise-Wise Electronic Records Management Program” ARMA International Webinar viewed April 14, 2010 through www.arma.org.

Satisfaction

Now that we have gone over what organizations have implemented, how they implemented these systems and how they trained their end users, it is important to ponder the question of whether or not people were ultimately satisfied and what aspects, if any, they would do differently. Overall, it appears that people were satisfied with their system and how it was implemented. The dissatisfactions lay instead in the specific aspects of the system, such as vendor problems and technical issues. Much dissatisfaction stems from the fact that electronic record systems are not widely in use and are just starting to become more prevalent. As discussed in the introduction, there is not a lot of literature on how to implement these systems, nor is there a uniform type of organization where there is one proper way to implement a system like this. As mentioned previously, so much of it depends on organizational culture and the ability of users to adapt to new changes.

What were people most dissatisfied with in regards to their electronic records systems? The fact that certain features did not work out as expected was the highest reason for dissatisfaction for respondents at 71.6%.⁹⁹ This is logical because the highest reason for choosing one system over another was for its promised features. If one purchases a product for the purpose of its features, and those features don't work out as expected (which is not a rarity in the computer software world), then it logically follows that there would be a great deal of let-down and frustration. The interesting question to follow up with would be if the respondents felt that the lack of features working as expected influenced the acceptance rate by users of the system.

The second highest reason for being dissatisfied with the system is the lack of "user friendliness". This is a very legitimate reason to be dissatisfied with the system. If

⁹⁹ Danelle Roath. Electronic Records System Survey. See Appendix I, question 18.

an organization spent thousands of dollars on a system and went through the process of configuring, teaching and implementing the system only to find out that it was not user friendly would be a shame. Even more, it would be a monstrous impediment to implementing a system of any kind. User difficulty in interacting with the system was not much of a concern for those who had a 100% usage rate of the system. However, those who replied that they have 50% usage rate of the system still have a 66.7% dissatisfaction rate with ease of use of the system.¹⁰⁰ Here it would also be informative to investigate exactly what “difficult for users” encompassed.

Another reason for discontent was not related to the system itself but to the end user’s lack of knowledge of the system. These are issues related to the concepts of records management and categorization, file plans and what exactly a record is. If this foundation does not exist in the first place, then the expectations required to interact with the system are not going to be met and thus dissatisfaction will definitely occur.

Interestingly, of those who said they were not satisfied with the system because it was hard to manage, an overwhelming 71.4% chose the system product for its industry reputation.¹⁰¹ There could be a correlation here in that perhaps those organizations were relying too heavily on the industry reputation and not specifically what the system could do for them. What if, for example, a particular product has a fantastic industry reputation in the government world, but a small law firm buys this system based on that reputation and it does not meet their needs at all? The requirements, organizational structures, laws and everything else are so different from one organization to another it is impossible to truly compare systems in different environments. Somebody saw the stamp of approval

¹⁰⁰ Danelle Roath. Electronic Records System Survey. See Appendix II, tables 14a and 14b.

¹⁰¹ Danelle Roath. Electronic Records System Survey. See Appendix I, question 17.

from other agency (which usually indicates a good sign) but perhaps they failed to recognize that an electronic records system that works for one environment is not appropriate for a different kind of context. Martin Tuip in his ARMA International webinar titled *E-mail Archiving 101: It's Not Just About E-mail Anymore* summed it up by saying, "...Many organizations don't look at future needs. Can it capture data beyond e-mail...? Is the product user friendly? Does it allow you to create the policies that you want?"¹⁰² It is essential to look at all facets of your organization and realistically consider how the system will fit into the organization and how it will meet all immediate, on-going and future needs.

Considering how little information there is on how to best implement an electronic records system, people were relatively satisfied overall with their system and its results. What people were dissatisfied with was not the implementation of the system per se, but rather specific aspects of the system such as difficulty using certain features, or cultural office issues such as the lack of records management knowledge (i.e. not a solid records management foundation), or lack of communication. This shows that when an organization decides to adopt an electronic records system it is not just implementing a piece of software. When analyzing processes that organizations used and how to make them more effective, Northumbria University's AC+erm concluded that, "...it became clear that many were people related. In fact, so many of the solutions concerned human rather than purely process aspects."¹⁰³ As a result of the human aspect of implementation, employees' needs should be taken into consideration when planning the implementation strategy.

¹⁰² Martin Tuip, *E-mail Archiving 101: It's Not Just About E-mail Anymore* Webinar on ARMA International www.arma.org taken November 2, 2009.

¹⁰³ Julie McLeod, "Accelerating Positive Change in Electronic Records Management", p 12.

CHAPTER 3: THE RECIPE FOR SUSTAINABILITY

Electronic records are challenging to manage, especially as electronic information is being created in volumes that pose a significant technical challenge to the ability to organize and make it accessible. Further, electronic records range in complexity from simple text files to highly complex formats with embedded computational formulas and dynamic content, and new formats continue to be created. Finally, in a decentralized environment, it is difficult to ensure that records are properly identified and managed by end users on individual desktops (the ‘user challenge’). E-mail is particularly problematic, because it combines all these challenges and it is ubiquitous.¹

A solid records management foundation is essential in order to implement a sustainable electronic records management system. One can have a “user-friendly” system and implement the ERMS in the text book perfect way, but the implementation would not be sustainable without an understanding of what records management is, what the system should be used for, and why the system should be used. There is no solid foundation without a massive education campaign that never ends. People need to be constantly reminded of the importance of records management and what it means. New people need to be educated as they come in as well, so an on-going class should be offered – both to new employees and as a refresher course. Education efforts cannot be successful without solid communication channels and people cannot be sold to use the system without visible senior management support, some policy and a solid business case for using the system.

As a result of my experience in the field, and the literature available related to electronic records and electronic record keeping system implementations, I had made a set of assumptions on what would affect ERMS implementation. I had thought that

¹ Melvin, Valerie C. *Information Management: The Challenges of Managing Electronic Records*. p i.

system attributes, how the product was rolled out and training methods would affect whether or not successful user adoption occurred. In contrast, what the survey revealed is that none of the above factors matter. What matters instead is the “people factor”. Does the staff have a basic records management background to be able to understand the importance and the use of the ERMS? Do they have that basic education in order to understand how to apply records management principles to the ERMS functionality? Is the staff motivated to use the system by some form of coercion, whether that is policy or intrinsic motivation? Is there constant communication between all players within the implementation, including the end users? Is there visible leadership that works with the staff on encouraging them to use the ERMS? Notice that all of the above factors are purely inter-relational. They have nothing to do with the ERMS or with the technology. The success and thus sustainability of an ERMS has to do with whether or not the appropriate processes are available and whether or not the staff are aware and educated on the circumstances.

One respondent mentioned that their project to implement an electronic records system failed precisely because they did not follow a few of the directives that I am proposing are necessary to implement a sustainable electronic records system. “The reason we failed is because we did not start the project properly. Education, awareness of RM (records management) principles is a must before starting. Policies, guidelines and directives must be established before implementing.”²

So what is the recipe to establish an environment where the electronic records management system is utilized to its potential by the people that should be using it?

² Danelle Roath. “Electronic Records System Survey.” Survey. *SurveyMonkey*. Website. http://www.surveymonkey.com/s.aspx?sm=6fAvCIk_2bCf0YMOdmibRrmg_3d_3d. Each following reference to “the survey” will not be footnoted in this chapter.

ERMS Recipe for Sustainability

- Records management foundation and leadership
- Visible upper level management support and involvement
- Solid communication channels between the implementation team, management and the end users
- Policies (or some form of “coercion”) on system usage and who is responsible for what
- Communication and continuing education and awareness on records management and the system

Before the system can even be bought, much less implemented, the organization should analyze its records management foundation. One should never assume that one already exists, or that people understand records management. Greg Trosset and Patricia Holmquist of King County (Washington) stated that this was one of the mistakes their project made in its implementation. It was assumed that records were already being filed correctly (or at all) and that people understood retention and so forth.³ This foundation must be existent in order for the ERMS to be built upon. Without this foundation, there may be pockets of success by a small number of users who understand records management, but by and large, the system would not be able to last indefinitely in the organization without a massive education campaign. In this case, however, one risks alienating the end user by causing them “technostress”, not to mention a lack of trust.

Leadership buy-in and visible support from upper management should be present before the system is bought, and during implementation. This is essential for several

³ Personal Interview. Gregory Trosset and Patricia Holmquist. September 24, 2010.

reasons. First of all, top management leadership is the gatekeepers for securing funding. If top management believes in the implementation, then they will allow the implementation process to be financially supported. Secondly, top management is a major stakeholder and they are the ones who help develop policy. If they understand and support the process, they will be more likely to help implement policy around the usage of the system. More importantly, if they *visibly* support the system, this may positively affect how end users will view the system. A third reason that top management and good leadership are important to involve is because they are important in instigating an often necessary change in the office culture.

Another element of creating a sustainable ERMS culture is communication, communication and more communication. Communication should occur before the product is even purchased, during the beginning phases of the implementation, throughout the entire implementation and even after the implementation. One can never communicate too much with something of this nature. Information will help diffuse some of the tension and nervousness that end users could be feeling. Communication does not just mean a single directional flow of information either. Good communication is bi-directional and will come from the end-users as well. It is important to listen to the end users' reactions, concerns and complaints. If they feel listened to, and even more importantly if their concerns are responded to, the transition to utilizing the ERMS to its full capacity will be much less painful than in organizations where good communication does not occur.

Additionally, policies need to be created around the use of the electronic records system. Even mandatory policies do not guarantee use of the system, but they do provide

an important framework in which the RMA can reside. Having a policy will give the end users guidance on what they should and should not be doing; it will make them feel more certain of what their responsibility is. One survey respondent replied that one of their lessons learned was, “[we need] policies that support the system by clearly outlining who is responsible for managing information (everyone), what must be in the EDMS, what can be outside of it, etc.” In addition to policy, users need to have reasons for why they should use the system. What will really get the user to utilize the RMA is a sale. Convince them that their jobs will be easier and more efficient if they use the system. Convince them that the company will be better off if they use the system, and most importantly, feed to the users’ ego. If they feel they will benefit, they are more likely to use the system.

In addition to communication, education needs to occur before the system implementation, during the implementation and after the implementation. Education should be an on-going, never-ending process. Education creates awareness. Awareness in turn will help users understand why they need to use the system and how to use the system. Education should occur at all levels within the organization – not just for the end users. Top management will also need continuous education. They need to be constantly reminded of why they are funding the system and funneling other valuable resources into its maintenance. In addition, having on-going education means on-going contact with the end user. Every instance of contact with the end-user is an opportunity to educate and also sell the system. On-going contact also means repetition, and repetition leads to even better understanding. Education should never be over-looked when it comes to implementing an RMA.

All five ingredients of an RMA implementation are interrelated. Policy by itself will not mean a successful and sustainable implementation. Education by itself will not lead to a successful and sustainable implementation. This training method could be a component of what makes an electronic records management system successful and sustainable, but there are other approaches that seemed to work equally well, and some of those who had low usage rates used the same methods of training. These training methods could be useful for getting users on the system, but in reality before one gets to the training of the system, an organization first needs a records management base and on-going education on which to build the training for the ERMS. All five ingredients must be present to a large degree. As Gary P. Johnston and David V. Bowen report, “There is no single magic bullet to solve information management problems.”⁴ However, if the above stated processes are put into place, the issues will begin to be dealt with one at a time, and will likely begin to diminish over time.

The AC+erm report asked what were the top three issues that needed to be addressed when it came to accelerated positive change in ERM. They were: 1) top management lacks understanding of records management and their role within that; 2) records professionals lack knowledge and skills to deal with relationships to the e-environment; and 3) records management principles and practices were not valued as integral to the organization.⁵ The first and third issues were ones heavily focused on in this research. Implementing a system of this nature, and approaching it as I have suggested, will give an all-around approach to the issues an organization has involving

⁴ Gary P. Johnston and David V. Bowen. “The Benefits of Electronic Records Management Systems: A General Review of Published and some Unpublished Cases”, *Records Management Journal* Vol. 15, No. 3 (2005): 131-140, p 131.

⁵ Julie McLeod, AC+erm Project, p 10.

their record keeping and hopefully address two of the three main issues that organizations encounter when implementing ERM.

There were a few areas that admittedly could have been improved on the survey questions such as clarifying what the scope was for the number of users on the system. In other words, was the implementation planned for the entire organization, or just one office? We do know that 44.4% of the respondents were “in process” phase and 39.9% were in the completed phase.⁶ When the responses were cross tabbed with each other, the results showed that of those who answered “in process” or “completed” had 75% -100% of their users using the system, and the majority were those who had completed the implementation process. Just to throw another wrench in these results, however, one respondent brought up a good point: “The ‘completed’ phase is also always in a state of ‘process’ phase as well.” The fact that so many respondents were in the process phase or completed phase validates the responses that were given. They have experienced first hand the issues and results, and were very helpful and candid in their answers.

One thing to keep in mind going through this study is that there were varying levels of implementation. Most people were either just getting started or in progress, although there were many that had already completed the implementation. One has to ask, however, when the person answering the survey said implementation is complete, if that meant per department/office/agency or per organization. That is another factor that should have been made more explicit and should be looked into further by others. For example: does the outlook of those implementing the system change from beginning implementation, to in progress and to completion of the implementation? Is that something that could have affected the results of this survey? More surveys should be

⁶ Danelle Roath. Electronic Records System Survey. See Appendix I, question 20.

composed, more research done and ultimately, more systems need to be implemented for a pattern to emerge on what is best and what doesn't work.

Even though this research has covered a wide variety of facets, there is still much to be done in learning how to best implement a sustainable electronic records system. As mentioned in the introduction, electronic records systems are still a relatively new product and many organizations are still in the process of implementing these. In a few years, there will be more systems implemented, and more lessons learned for others to study. Overall, this should be a good introduction to the problems that many organizations encounter, and used as a basis for analyzing one's own organizational issues. I hope this survey will give guidance for areas to focus on when implementing an electronic records system and give ideas for the best approaches to take. There is still so much to learn about implementing electronic records systems, and determining best practices. The conclusions I came to seem like common sense, but in reality, there has been no comprehensive study done of how people are implementing their systems and the mistakes they have made and the lessons they have learned. This survey points out the commonalities that we have all struggled with and suggests avenues to improve the problem areas. However, there is still much work to be done and lots of people to educate!

Applying the Recipe for ERMS Sustainability to a “Real Life” Implementation

After months of gathering and assimilating information to substantiate my thesis, and writing the thesis itself, it is worthwhile to add an addendum. Parts of the “recipe” for

a sustainable ERMS were actually tested within our organization as we implemented the ERMS to over 14,000 employees. The end results were positive and substantiated.

One of the five aspects required in an implementation, as I mentioned throughout the paper, is a solid records management background and continuous education in order to build a framework within which to place the ERMS. In the past few months we have created a basic records management curriculum and have made it a requirement for all staff in an office we are working with to attend. We have had very positive feedback as a result of this training. People felt that it gave them an understanding of why they need to use the system and how it would benefit them. As a result, we automatically had higher attendance in the ERMS training and a very positive response.

In addition, we have made sure that we focused more on the “people aspects” of the implementation. We have carved out time to sit down with the users at their computers to help them set up their file plan and to begin filing. This provides the confidence for staff to actually start to use the system. The amount of documents being filed has skyrocketed as a result of this new tactic.

Last but not least, we have made a concentrated effort to increase and improve our communications with our end users and with our management. As a result there is less confusion and a clearer sense of what is required for a successful implementation. In the long run, people better understand their responsibilities and also the benefits of using the ERMS. We also receive better support from our project sponsors because they also better understand what we need from them in order to provide the best support for the implementation.

I say this not to boast, but to encourage anyone implementing an ERMS that these tactics really do work! Following these tactics increased the staff's confidence not only in the use of the ERMS, but also in records management as a tool and the records management staff as a resource. As a result of these implementation aspects, a culture of records management is beginning to be built, ultimately leading to a much more efficient organization.

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Appendix I: Survey Questions and Summary Results¹

What kind of organization is your entity?		
Answer Options	Response Percent	Response Count
Government: Federal	8.7%	37
Government: State	12.3%	52
Government: County/Municipal/Local	23.2%	98
For Profit	48.2%	204
Not For Profit	8.0%	34
Other (please specify)		57
<i>answered question</i>		423
<i>skipped question</i>		56

Where does records management report within your organization?		
Answer Options	Response Percent	Response Count
Legal/Compliance	19.3%	88
Information Services/Information Technology	23.3%	106
Administrative Services	33.2%	151
Other (please specify)	29.2%	133
<i>answered question</i>		455
<i>skipped question</i>		24

How many employees does your organization have?		
Answer Options	Response Percent	Response Count
Under 100	12.2%	55
100-499	22.2%	100
500-999	10.4%	47
1000-4999	26.8%	121
Over 5000	28.8%	130
<i>answered question</i>		451
<i>skipped question</i>		28

¹ There are a few questions and tables that I left out here because they were more organizational to the survey than the results and analysis of the survey. For example, I left out question and table number one, which asks if the survey participant agrees to the terms and conditions of the survey. I also left out the “questions” where the participant has the option to skip to the next section because the questions are not relevant to their implementation. Lastly, I left out the last four questions, because they were fill in the blank information on voluntary contact information.

Does your organization have a formal records management program?		
Answer Options	Response Percent	Response Count
Yes	87.4%	395
No	12.4%	56
Don't Know	0.2%	1
<i>answered question</i>		452
<i>skipped question</i>		27

Who determined that there was a need for an electronic records management program? Select all that apply.		
Answer Options	Response Percent	Response Count
You and your records management staff	67.7%	287
IT	37.7%	160
Legal office	36.8%	156
Executive's Office/C Level (CEO, CIO, CFO etc.)	44.3%	188
External Mandate	7.3%	31
Industry Standard	11.8%	50
Federal/State Law	21.7%	92
The Users	14.4%	61
Other (please specify)		37
<i>answered question</i>		424
<i>skipped question</i>		55

Please select the categories that your organization has a policy or procedure for. Select all that apply.		
Answer Options	Response Percent	Response Count
Electronic records	79.7%	302
E-mails in particular	73.4%	278
Use of the electronic records system itself	50.4%	191
Web pages	35.9%	136
Voice mail	25.9%	98
Other (please specify)		43
<i>answered question</i>		379
<i>skipped question</i>		100

If you currently do not have an electronic records system in place (i.e. ERMS, EDMS, ECMS etc.) please select skip section. If you do have a system in place, please select continue.

Answer Options	Response Percent	Response Count
Skip section	39.4%	170
Continue	60.6%	261
<i>answered question</i>		431
<i>skipped question</i>		48

What is the authority that your electronic records system project has? Select all that apply.

Answer Options	Response Percent	Response Count
Ordinance or Motion mandated	12.4%	30
Policy mandated	59.5%	144
Industry mandated	16.5%	40
Executive mandated	40.1%	97
Advisory only	17.4%	42
Other (please specify)		22
<i>answered question</i>		242
<i>skipped question</i>		237

If your authority is advisory, how do you convince the users to buy into the system? Select all that apply.

Answer Options	Response Percent	Response Count
Educate them on the problem	83.1%	162
Push big selling points such as litigation or FOIA requests	51.8%	101
Explain cost and benefits	60.0%	117
Explain it will make their work process easier	75.9%	148
Give them an incentive for using it	17.9%	35
Don't try to convince	3.1%	6
Implement it and hope they use it	15.9%	31
Explain industry standards	29.7%	58
Other (please specify)		20
<i>answered question</i>		195
<i>skipped question</i>		284

Do users determine the record series and cutoff date for records once they have declared them into the system?		
Answer Options	Response Percent	Response Count
If yes, how do users determine the correct record category?	36.8%	84
If no, who does it for them?	69.3%	158
<i>answered question</i>		228
<i>skipped question</i>		251

Is your system an:		
Answer Options	Response Percent	Response Count
Electronic Records Management System	56.4%	133
Electronic Document Management System	51.3%	121
Electronic Content Management System	30.9%	73
Electronic Medical Record System	1.3%	3
E-mail archiving system	21.2%	50
Other (please specify)		20
<i>answered question</i>		236
<i>skipped question</i>		243

Why did you chose your system type? (ERMS/EDMS/ECMS/EMRS) over the other types of systems? Select all that apply.		
Answer Options	Response Percent	Response Count
Is required for industry	5.7%	12
Ability to provide compliance	59.7%	126
Ability to micromanage	10.9%	23
Ability to macromanage	12.3%	26
To be cutting edge/competitive	20.4%	43
Recommendations	31.3%	66
Certain features	60.2%	127
Were told to by authority figures	10.4%	22
Other (please specify)		64
<i>answered question</i>		211
<i>skipped question</i>		268

What applications does your product interface with? Select all that apply.		
Answer Options	Response Percent	Response Count
E-mail application	70.2%	153
Internet	50.5%	110
Word processing application	74.3%	162
Does not interface with an application	11.9%	26
Other (please specify)		55
<i>answered question</i>		218
<i>skipped question</i>		261

Where are you receiving your funding from?		
Answer Options	Response Percent	Response Count
Internally	96.9%	221
State grants	3.1%	7
Federal grants	4.4%	10
Foundations	0.0%	0
Other (please specify)		15
<i>answered question</i>		228
<i>skipped question</i>		251

If current funding is temporary, how do you plan on securing ongoing/long-term funding? Select all that apply.		
Answer Options	Response Percent	Response Count
Skip question - funding is not temporary	83.1%	172
Make the program permanent through internal administrative funds	14.5%	30
Keep on applying for grants	1.9%	4
Blend project into another department/program	2.4%	5
Hand it over to another agency	0.0%	0
Hand it over to each department to deal with individually	1.0%	2
Other (please specify)		10
<i>answered question</i>		207
<i>skipped question</i>		272

What sold you on your one product over the others? For example: CA Records Manager ERMS vs. Documentum ERMS. Select all that apply.		
Answer Options	Response Percent	Response Count
Price	44.6%	91
Certain features	85.8%	175
Vendor Support	52.5%	107
Industry reputation	48.5%	99
References	38.2%	78
Other (please specify)		55
<i>answered question</i>		204
<i>skipped question</i>		275

If you are not satisfied with the product, why? Select all that apply.		
Answer Options	Response Percent	Response Count
Did not meet expectations	25.9%	21
Do not have enough vendor/technical support	30.9%	25
Turned out to be too much to manage	12.3%	10
Certain features are not working out as expected	71.6%	58
Difficult for users	38.3%	31
Other (please specify)		50
<i>answered question</i>		81
<i>skipped question</i>		398

What was the original goal of the system? Select all that apply.		
Answer Options	Response Percent	Response Count
To help with compliance	66.1%	150
To help with public disclosure/FOIA requests	27.3%	62
To help with electronic litigation	37.9%	86
To help centralize electronic files so easier to manage	90.7%	206
To help with auditing procedures	37.0%	84
Other (please specify)		41
<i>answered question</i>		227
<i>skipped question</i>		252

At what phase are you in implementing your electronic records system?		
Answer Options	Response Percent	Response Count
Planning phase	10.3%	23
Pilot phase	13.9%	31
In process phase	44.4%	99
Completed phase	39.9%	89
Other (please specify)		28
<i>answered question</i>		223
<i>skipped question</i>		256

How did you implement the product?		
Answer Options	Response Percent	Response Count
All at once	15.9%	54
Different agencies/departments/groups, one at a time	49.4%	168
Different agencies/departments/groups, overlapping	33.8%	115
Geographic location	8.2%	28
Other (please specify)		43
<i>answered question</i>		340
<i>skipped question</i>		139

Did you conduct a pilot test first?		
Answer Options	Response Percent	Response Count
Yes - and took into consideration users comments as a result	70.1%	239
Yes - and did not take into consideration users comments as a result	2.9%	10
Did not conduct a pilot	27.3%	93
If you did take into consideration users comments, did it help to solve problems with the actual roll out throughout the rest of the organization? How?		68
<i>answered question</i>		341
<i>skipped question</i>		138

How did you communicate with the users that you were going to start this project and what you were going to be doing? Select all that apply.

Answer Options	Response Percent	Response Count
Didn't engage in direct communication with the users	7.4%	25
Newsletters	21.4%	72
Website	24.7%	83
Through the managers, top down	69.0%	232
Entity wide/agency wide meetings	33.6%	113
Direct one on one communication	47.3%	159
Other (please specify)		59
<i>answered question</i>		336
<i>skipped question</i>		143

Were the end users' work processes, needs and problems consulted and taken into consideration before buying the product?

Answer Options	Response Percent	Response Count
Yes	85.8%	290
No	14.2%	48
If not, please explain why		41
<i>answered question</i>		338
<i>skipped question</i>		141

What were lessons learned from the pilot that changed your course, if at all? Select all that apply.

Answer Options	Response Percent	Response Count
Timeline needed altering	52.6%	81
Technical issues more complicated than anticipated	57.1%	88
Needed additional configurations or existing configurations needed alteration	61.0%	94
Users needed more training	56.5%	87
Users needed education first on why product was necessary	48.1%	74
Implementation plan needed alteration	41.6%	64
Who will receive the product needed to be changed	12.3%	19
User privileges needed alteration	31.8%	49
Other (please specify)		29
<i>answered question</i>		154
<i>skipped question</i>		325

What methods did you use for training? Select all that apply.		
Answer Options	Response Percent	Response Count
One on one	62.9%	202
Traditional classroom setting	78.2%	251
Online classes	32.1%	103
Webinars	20.9%	67
Online demonstrations such as Adobe Captivate	13.4%	43
Teleconferences	17.4%	56
Other (please specify)		48
<i>answered question</i>		321
<i>skipped question</i>		158

How did you approach training within your organization?		
Answer Options	Response Percent	Response Count
Everyone all at once	8.2%	25
One office at a time	23.9%	73
One functional group at a time	73.1%	223
Trained the managers, and the managers trained the rest	10.5%	32
Grouped by seniority, top first, then lower	3.0%	9
Other (please specify)		46
<i>answered question</i>		305
<i>skipped question</i>		174

Is there a need to change people's mindset toward electronic records? If yes, what is it that needs to be changed? If no, please skip to the next question. Select all that apply.		
Answer Options	Response Percent	Response Count
The definition of a record	68.8%	223
The idea that electronic and paper records are more or less the same	62.0%	201
The idea that electronic and paper records are completely different	13.0%	42
How one categorizes electronic records	56.8%	184
The approach to data and how it is retained and managed	77.5%	251
Other (please specify)		37
<i>answered question</i>		324
<i>skipped question</i>		155

Did users respond positively or negatively to your training methods? (i.e. web based, one on one, classroom setting etc.)		
Answer Options	Response Percent	Response Count
Positively	44.4%	80
Negatively	1.7%	3
Mixed responses	56.1%	101
Please explain your response		51
<i>answered question</i>		180
<i>skipped question</i>		299

Were users aware of the implementation of the system when you approached them for training?		
Answer Options	Response Percent	Response Count
Yes	86.4%	159
No	7.6%	14
Don't know	7.1%	13
<i>answered question</i>		184
<i>skipped question</i>		295

What was the rationale for your time line? Select all that apply.		
Answer Options	Response Percent	Response Count
Was told to be completed by a certain time to receive funding	20.7%	28
Based on statistics and other case studies/research	15.6%	21
The vendor said it would take that long	22.2%	30
Did a pilot and then calculated the rest of the time	57.8%	78
Other (please specify)		38
<i>answered question</i>		135
<i>skipped question</i>		344

Do you feel like you implemented the electronic records system too quickly?		
Answer Options	Response Percent	Response Count
Yes	12.6%	22
No	87.4%	153
If yes, do you feel like it affected the user's impression of the system? How?		20
<i>answered question</i>		175
<i>skipped question</i>		304

Was the system built into the work flow of the users?		
Answer Options	Response Percent	Response Count
Yes	63.2%	117
No	29.7%	55
Don't know	7.6%	14
<i>answered question</i>		185
<i>skipped question</i>		294

If you provided general user education on records management and the issues that the system was supposed to solve, do you think it helped the user to understand and use the system better?		
Answer Options	Response Percent	Response Count
Yes	79.5%	140
No	6.8%	12
Don't know	13.6%	24
If you did not provide general user education, please explain why.		18
<i>answered question</i>		176
<i>skipped question</i>		303

Who was collaborated with during the implementation process?		
Answer Options	Response Percent	Response Count
Users themselves	45.4%	79
Section managers	35.6%	62
C level people (CEO, CIO, CFO etc.)	16.1%	28
All of the above	56.9%	99
Other (please specify)		18
<i>answered question</i>		174
<i>skipped question</i>		305

What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).

Answer Options	Response Percent	Response Count
0%	2.3%	4
5-20%	17.2%	30
25-45%	14.9%	26
50%	7.5%	13
55-75%	18.4%	32
75%	12.6%	22
80-95%	20.1%	35
100%	8.0%	14
<i>answered question</i>		174
<i>skipped question</i>		305

Appendix II: Relationship between Survey Results Tables

1a. Relationship between User Rate after Implementation 0-50% and Location of Records Management within the Organization

Where does records management report within your organization?						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Legal/Compliance	1	5	3	0	12.3%	9
Information Services/Information Technology	2	7	12	5	35.6%	26
Administrative Services	0	9	6	5	27.4%	20
Other (please specify)	1	10	5	3	26.0%	19
<i>answered question</i>						73
<i>skipped question</i>						0

1b. Relationship between User Rate after Implementation 55-100% and Location of Records Management within the Organization

Where does records management report within your organization?						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
Legal/Compliance	7	5	7	1	19.6%	20
Information Services/Information Technology	7	5	12	4	27.5%	28
Administrative Services	13	8	2	6	28.4%	29
Other (please specify)	7	5	15	4	29.4%	30
<i>answered question</i>						102
<i>skipped question</i>						0

2a. Relationship between User Rate after Implementation 0-50% and Organizational Policies

Please select the categories that your organization has a policy or procedure for. Select all that apply.						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Electronic records	2	15	18	12	75.8%	47
E-mails in particular	2	16	17	8	69.4%	43
Use of the electronic records system itself	1	13	11	10	56.5%	35
Web pages	2	10	8	8	45.2%	28
Voice mail	1	7	5	3	25.8%	16
Other (please specify)						10
<i>answered question</i>						62
<i>skipped question</i>						11

2b. Relationship between User Rate after Implementation 55-100% and Organizational Policies

Please select the categories that your organization has a policy or procedure for. Select all that apply.						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
Electronic records	30	19	28	13	92.7%	89
E-mails in particular	23	16	22	11	74.0%	71
Use of the electronic records system itself	23	16	24	12	77.1%	74
Web pages	15	4	11	5	35.4%	34
Voice mail	8	8	7	7	30.2%	29
Other (please specify)						10
<i>answered question</i>						96
<i>skipped question</i>						6

3a. Relationship between User Rate after Implementation 0-50% and ERMS Project Authority

What is the authority that your electronic records system project has? Select all that apply.						
Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	0%	5-20%	25-45%	50%		
Ordinance or Motion mandated	0	2	3	2	11.5%	7
Policy mandated	1	15	9	8	54.1%	33
Industry mandated	0	2	5	1	13.1%	8
Executive mandated	1	11	8	7	44.3%	27
Advisory only	0	5	9	2	26.2%	16
Other (please specify)						14
<i>answered question</i>						61
<i>skipped question</i>						12

3b. Relationship between User Rate after Implementation 55-100% and ERMS Project Authority

What is the authority that your electronic records system project has? Select all that apply.						
Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	55-75%	75%	80-95%	100%		
Ordinance or Motion mandated	10	1	4	1	16.7%	16
Policy mandated	21	12	22	8	64.6%	62
Industry mandated	9	3	5	1	18.8%	18
Executive mandated	12	7	13	6	39.6%	38
Advisory only	1	4	5	0	10.4%	10
Other (please specify)						4
<i>answered question</i>						96
<i>skipped question</i>						6

4. Relationship between those who did not Conduct a Pilot and Number of Employees within the Organization

Did you conduct a pilot test first?							
Answer Options	How many employees does your organization have?					Response Percent	Response Count
	Under 100	100-499	500-999	1000-4999	Over 5000		
Yes - and took into consideration users comments as a result	15	53	30	67	75	70.1%	239
Yes - and did not take into consideration users comments as a result	1	4	1	1	3	2.9%	10
Did not conduct a pilot	23	20	6	24	21	27.3%	93
If you did take into consideration users comments, did it help to solve problems with the actual roll out throughout the rest of the organization? How?							69
<i>answered question</i>							341
<i>skipped question</i>							110

5a. Relationship between User Rate after Implementation 0-50% and whether or not a Pilot was Conducted

Did you conduct a pilot test first?						
Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	0%	5-20%	25-45%	50%		
	1	18	19	10		
	1	2	1	0		
Yes - and took into consideration users comments as a result	2	11	5	2	28.2%	20
Yes - and did not take into consideration users comments as a result						15
Did not conduct a pilot						
If you did take into consideration users comments, did it help to solve problems with the actual roll out throughout the rest of the organization? How?						
answered question						71
skipped question						2

5b. Relationship between User Rate after Implementation 55-100% and whether or not a Pilot was Conducted

Did you conduct a pilot test first?						
		What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
Yes - and took into consideration users comments as a result	26	19	27	9	82.5%	80
Yes - and did not take into consideration users comments as a result	1	0	1	0	2.1%	2
Did not conduct a pilot	3	3	6	3	15.5%	15
If you did take into consideration users comments, did it help to solve problems with the actual roll out throughout the rest of the organization? How?						25
<i>answered question</i>						97
<i>skipped question</i>						5

6a. Relationship between User Rate after Implementation 0-50% and Lessons Learned from the Pilot

What were lessons learned from the pilot that changed your course, if at all? Select all that apply.						
		What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Timeline needed altering	2	8	17	2	55.8%	29
Technical issues more complicated than anticipated	2	13	17	2	65.4%	34
Needed additional configurations or existing configurations needed alteration	1	11	15	5	61.5%	32
Users needed more training	2	13	10	6	59.6%	31
Users needed education first on why product was necessary	1	11	9	5	50.0%	26
Implementation plan needed alteration	1	7	10	1	36.5%	19
Who will receive the product needed to be changed	0	3	2	1	11.5%	6
User privileges needed alteration	1	4	8	3	30.8%	16
Other (please specify)						9
<i>answered question</i>						52
<i>skipped question</i>						21

6b. Relationship between User Rate after Implementation 55-100% and Lessons Learned from the Pilot

What were lessons learned from the pilot that changed your course, if at all? Select all that apply.

Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	55-75%	75%	80-95%	100%		
Timeline needed altering	12	11	12	8	51.9%	42
Technical issues more complicated than anticipated	15	9	17	3	54.3%	44
Needed additional configurations or existing configurations needed alteration	22	10	15	5	64.2%	52
Users needed more training	19	7	14	4	53.1%	43
Users needed education first on why product was necessary	13	8	11	5	45.7%	37
Implementation plan needed alteration	15	8	11	5	46.9%	38
Who will receive the product needed to be changed	4	3	2	1	12.3%	10
User privileges needed alteration	10	8	9	3	37.0%	30
Other (please specify)						13
<i>answered question</i>						81
<i>skipped question</i>						21

7. Relationship between How the System was Rolled Out within the Organization and Number of Employees within the Organization

How did you implement the product?

Answer Options	How many employees does your organization have?					Response Percent	Response Count
	Under 100	100-499	500-999	1000-4999	Over 5000		
All at once	14	14	9	10	8	15.9%	54
Different agencies/departments/groups, one at a time	12	42	19	45	49	49.3%	167
Different agencies/departments/groups, overlapping	10	21	13	30	42	33.9%	115
Geographic location	3	1	2	10	13	8.3%	28
Other (please specify)							44
<i>answered question</i>							339
<i>skipped question</i>							112

8a. Relationship between User Rate after Implementation 0-50% and User Communication

How did you communicate with the users that you were going to start this project and what you were going to be doing? Select all that apply.

	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Didn't engage in direct communication with the users	1	3	3	0	10.1%	7
Newsletters	1	6	6	2	21.7%	15
Website	1	5	10	2	26.1%	18
Through the managers, top down	2	17	21	8	69.6%	48
Entity wide/agency wide meetings	0	6	9	5	29.0%	20
Direct one on one communication	1	15	10	5	44.9%	31
Other (please specify)						13
					answered question	69
					skipped question	4

8b. Relationship between User Rate after Implementation 55-100% and User Communication

How did you communicate with the users that you were going to start this project and what you were going to be doing? Select all that apply.

	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
Didn't engage in direct communication with the users	2	1	1	0	4.1%	4
Newsletters	2	6	10	5	22.7%	22
Website	5	5	7	2	19.6%	19
Through the managers, top down	17	16	27	11	72.2%	70
Entity wide/agency wide meetings	9	10	12	3	35.1%	34
Direct one on one communication	17	10	18	9	54.6%	53
Other (please specify)						19
					answered question	97
					skipped question	5

9a. Relationship between User Rate after Implementation 0-50% and Training Methods

What methods did you use for training? Select all that apply.

	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
One on one	1	21	17	10	71.0%	49
Traditional classroom setting	4	16	22	12	78.3%	54
Online classes	1	5	6	1	18.8%	13
Webinars	1	2	3	2	11.6%	8
Online demonstrations such as Adobe Captivate	1	3	3	0	10.1%	7
Teleconferences	0	7	4	2	18.8%	13
Other (please specify)						10
<i>answered question</i>						69
<i>skipped question</i>						4

9b. Relationship between User Rate after Implementation 55-100% and Training Methods

What methods did you use for training? Select all that apply.						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
One on one	21	14	22	9	65.7%	65
Traditional classroom setting	21	19	31	10	80.8%	80
Online classes	8	6	13	4	30.3%	30
Webinars	8	3	4	2	17.2%	17
Online demonstrations such as Adobe Captivate	3	4	2	1	10.1%	10
Teleconferences	6	2	4	2	14.1%	14
Other (please specify)						11
<i>answered question</i>						99
<i>skipped question</i>						3

10. Relationship between Number of Employees within an Organization and Training Methods

What methods did you use for training? Select all that apply.

	How many employees does your organization have?						
Answer Options	Under 100	100-499	500-999	1000-4999	Over 5000	Response Percent	Response Count
One on one	24	50	23	59	47	63.1%	202
Traditional classroom setting	23	61	27	67	74	78.1%	250
Online classes	5	19	15	20	44	32.2%	103
Webinars	5	13	7	8	34	20.9%	67
Online demonstrations such as Adobe Captivate	3	5	6	12	18	13.4%	43
Teleconferences	7	7	2	11	30	17.5%	56
Other (please specify)							49
						answered question	320
						skipped question	131

11a. Relationship between User Rate after Implementation 0-50% and Reaction to Training

Did users respond positively or negatively to your training methods? (i.e. web based, one on one, classroom setting etc.)						
	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Positively	1	6	9	5	30.4%	21
Negatively	0	2	0	1	4.3%	3
Mixed responses	1	20	17	8	66.7%	46
Please explain your response						25
answered question						69
skipped question						4

11b. Relationship between User Rate after Implementation 55-100% and Reaction to Training

Did users respond positively or negatively to your training methods? (i.e. web based, one on one, classroom setting etc.)						
Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	55-75%	75%	80-95%	100%		
Positively	16	8	23	8	53.5%	54
Negatively	0	0	0	0	0.0%	0
Mixed responses	17	13	12	7	48.5%	49
Please explain your response						22
<i>answered question</i>						101
<i>skipped question</i>						1

12. Relationship between Number of Employees within an Organization and Reaction to Training

Did users respond positively or negatively to your training methods? (i.e. web based, one on one, classroom setting etc.)							
Answer Options	How many employees does your organization have?					Response Percent	Response Count
	Under 100	100-499	500-999	1000-4999	Over 5000		
Positively	10	18	7	21	25	44.1%	79
Negatively	0	1	0	2	0	1.7%	3
Mixed responses	9	23	12	25	32	56.4%	101
Please explain your response							51
<i>answered question</i>							179
<i>skipped question</i>							272

13a. Relationship between User Rate after Implementation 0-50% and Existence of General Records Management Training

If you provided general user education on records management and the issues that the system was supposed to solve, do you think it helped the user to understand and use the system better?						
Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	0%	5-20%	25-45%	50%		
Yes	2	19	19	12	76.5%	52
No	0	3	2	0	7.4%	5
Don't know	2	6	3	0	16.2%	11
If you did not provide general user education, please explain why.						10
<i>answered question</i>						68
<i>skipped question</i>						5

13b. Relationship between User Rate after Implementation 55-100% and Existence of General Records Management Training

If you provided general user education on records management and the issues that the system was supposed to solve, do you think it helped the user to understand and use the system better?

	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	55-75%	75%	80-95%	100%	Response Percent	Response Count
Yes	28	18	25	10	81.6%	80
No	2	0	3	2	7.1%	7
Don't know	1	2	7	1	11.2%	11
If you did not provide general user education, please explain why.						7
<i>answered question</i>						98
<i>skipped question</i>						4

14a. Relationship between User Rate after Implementation 0-50% and Satisfaction of System

If you are not satisfied with the product, why? Select all that apply.

	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).					
Answer Options	0%	5-20%	25-45%	50%	Response Percent	Response Count
Did not meet expectations	1	3	2	0	22.2%	6
Do not have enough vendor/technical support	1	4	5	2	44.4%	12
Turned out to be too much to manage	0	2	0	0	7.4%	2
Certain features are not working out as expected	2	9	6	2	70.4%	19
Difficult for users	2	3	4	2	40.7%	11
Other (please specify)						12
<i>answered question</i>						27
<i>skipped question</i>						46

14b. Relationship between User Rate after Implementation 55-100% and Satisfaction of System

If you are not satisfied with the product, why? Select all that apply.

Answer Options	What percentage of the users, after implementation, are actually actively using the system? (Choose a range closest to your estimated use).				Response Percent	Response Count
	55-75%	75%	80-95%	100%		
Did not meet expectations	2	2	4	1	29.0%	9
Do not have enough vendor/technical support	2	1	3	1	22.6%	7
Turned out to be too much to manage	0	1	0	0	3.2%	1
Certain features are not working out as expected	7	3	9	2	67.7%	21
Difficult for users	5	3	4	1	41.9%	13
Other (please specify)						23
answered question						31
skipped question						71