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Assess to Be ‘the Best’ in 2015

There’s nothing like the start of a new year to turn your thoughts toward assessing the status quo and making plans for improvement. For information professionals, that should include evaluating their careers and at least some facets of their organizations’ information governance (IG) programs. This year’s first issue of Information Management provides resources that should help you do both.

Assessing an IG program requires thoughtful planning and a team effort, Julie Gable, CRM, CDIA, FAI, writes in this issue’s cover article. That team should represent the broad scope of IG, so it should include legal, IT, compliance, risk, and audit personnel. Gable focuses on the advantages of using an assessment tool like ARMA International’s cloud-based software called Next Level, which evaluates the current condition of the program and provides recommendations for taking it to a higher level of IG maturity.

If your program assessment suggests your organization might do well to outsource one or more of its IG functions, you’ll want to review the guidance provided in the article by Dave Bergeson, Ph.D., CAE. As the executive director of PRISM, the trade association for information services providers, he was able to incorporate some key advice from several PRISM members about crafting a request for proposal that will ensure that you get the specific services and service levels your organization needs.

One of the recommendations that is especially timely in the wake of so many recent data breaches is to look for service providers that have earned the Privacy+ Certification. This is awarded only to organizations that have undergone an outside audit that proves they have established internal controls that meet PRISM’s control objectives that promote information privacy.

The recent massive Sony Pictures data breach, which slowed the organization to a crawl for a time, underscores the imperative of assessing the risk to your organization’s vital records, which are essential to resuming business after a man-made or natural catastrophe. William Saffady, Ph.D., FAI, provides a method of using numeric calculations to measure the likelihood and impact of the loss of vital records, which is the first step in ensuring the right level of protection.

Assessment also is the starting point for developing and implementing effective information lifecycle management (ILM), which is foundational to IG. The eight-step, best practices approach described by Melissa Dederer, IGP, CRM, and April Dmytrenko, CRM, FAI, in the RIM Fundamental Series article begins with assessing the organization’s information to determine what exists, where it is, who owns it, why it is being retained, and when it can be disposed of.

Tying into the assessment theme is the “Best of ARMA Live! 2014” special section at the end of this issue. Browse this section to see what organizations and individuals were evaluated and then honored during the ARMA International 59th Annual Conference & Expo for being Best of Show during the Expo and the best in a number of individual and chapter categories during the program year.

Learning from these articles, as well as from the individuals and organizations that were “best of” in various categories, could help you take your place among the “best of” your organization’s employees and advance in your career. Please tell us what else you need to learn more about to take your career to the next level. E-mail us at editor@armaintl.org.

Vicki Wiler
Editor in Chief
Build confidence into your eDiscovery process

With the massive increase in eDiscovery data volumes and file types, litigation professionals must ask “Can I be sure my tools will deliver the results I need?”

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Technology research firm Gartner has identified the top 10 strategic technology trends for 2015 and beyond. Each of these factors will likely be very disruptive to the business, end users, or IT; require a major investment; or pose a risk if adopted late – affecting organizations’ long-term plans, programs, and initiatives.

The trends cover three themes: “the merging of the real and virtual worlds, the advent of intelligence everywhere, and the technology impact of the digital business shift,” explained David Cearley, Gartner vice president.

The top 10 trends are as follows:

1. **Computing Everywhere** – The focus will shift to mobile users as opposed to mobile devices only.
2. **Internet of Things (IoT)** – The combination of data streams and services created by digitizing everything creates four basic usage models – Manage, Monetize, Operate, and Extend – organizations can leverage.
3. **3D Printing** – Worldwide shipments of 3D printers are expected to grow 98% in 2015 and double in 2016.
4. **Advanced, Pervasive, and Invisible Analytics** – Organizations will need to focus on analytics as the volume of data coming from the IoT, social media, and wearable devices explodes in order to deliver exactly the right information to the right person at the right time.
5. **Context-Rich Systems** – “By understanding the context of a user request, applications can not only adjust their security response but also adjust how information is delivered to the user…”
6. **Smart Machines** – The application of deep analytics to an understanding of context will ultimately lead to a world of smart machines – an era that Gartner predicts will be the most disruptive in the history of IT.
7. **Cloud/Client Computing** – The focus will be on synchronizing content and applications across multiple devices.
8. **Software-Defined Applications and Infrastructure** – Computing will need to become more dynamic and less static in order to deal with the rapidly changing demands of digital business.
9. **Web-Scale IT** – Expect more organizations to begin thinking, acting, and building applications and infrastructure like Amazon, Google, and Facebook.
10. **Risk-Based Security and Self-Protection** – Once organizations realize that 100% secure environments are impossible, they can begin to apply more sophisticated risk assessment and mitigation tools.

**MOBILE DEVICES**

**Smartphone Market, Challenges Continue to Grow**

If you thought the demand globally for smartphones was declining, think again. According to a cnet.com article, the program director with research firm IDC’s Worldwide Quarterly Mobile Phone Tracker said that global smartphone shipments are continuing to see “record-setting volumes.” During the third quarter of 2014, they topped 300 million, a 25% increase over third quarter 2013.

As usage grows in general, so does the use of mobile devices at work. A 2013 IDC Global Solutions study found that 41% of respondents use their personal smartphone for business. This continues to present challenges to organizations with respect to e-discovery and data security.
Cloud Computing from the CIO’s View

Cloud Computing

CIO magazine recently talked to some of the top CIOs about the challenges of cloud computing. Their leading concerns are legacy, vendor “lock-in,” and security.

General Electric’s chief operating officer for cloud, Chris Drumgoole, said most of its new apps (more than 90%) deployed today are in the cloud. But what’s to be done about its 9,000 legacy apps? The company needs to assess each app and decide whether to move it, kill it, consolidate it with other apps, or allow it to remain on some sort of legacy system. Drumgoole said GE hopes to have made all those decisions by 2016.

Vendor lock-in can also be a major obstacle according to Dow Chemical’s David Day, director of workplace services. Moving from one cloud app to another can be extremely complicated because the apps don’t talk to each other. He advocates for better “orchestration tools,” as well as standards to help smooth the way. On the positive side, Land O’Lakes CIO Mike Macrie said it is generally less expensive to switch providers in the cloud compared to on-premises.

CIOs still consider security a universal concern. “Security is one of the more complex problems to solve. To really put together an effective solution, you need to cobble together 5-6 solutions,” says Randy Spratt, CIO and CTO at McKesson.

Humana’s CIO, Brian LeClaire, said his company relies on “multiple tools and tactics” to protect its information and it assesses the provider’s security framework before engaging with it. For example, the company looks at what tools the vendors use, their general approach to security, how they handle encryption, and their ability to ensure information remains in the continental United States. Fortunately, Sysco CTO Wayne Shurts said, cloud providers realize that legal and security issues are some of their biggest obstacles and have addressed many of these issues.

While some worry about security and risk in the cloud, others believe the cloud improves security because cloud vendors are more aware of the latest technology. Whirlpool CIO Michael Heim pointed out that security problems arise from how you manage the data, not where it’s located. “The big challenge is that it’s just different. You have people thinking in old models, not new ones,” Heim observed.

The CIOs identified various other challenges they face, including “shadow IT,” where employees purchase unauthorized cloud services. As more organizations have fine-tuned their cloud policies and services, this is not as big a problem as it was a few years ago, the article said.

“Transfer of brand risk” was also cited as a concern for some. An example of this is a client company’s reputation being harmed by a cloud service outage. Some may recall just such an instance on Christmas Eve 2012 when Netflix went down because of an Amazon Cloud outage.

Finally, many CIOs questioned whether many cloud solutions are ready for major enterprises. Some see this as an opportunity to guide the vendor in its development and investments.

New Search Engine to Make Obsolete Formats Accessible

There could be good news on the horizon for accessing obsolete electronic file formats. The National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign is developing a new search engine named Brown Dog, which will convert defunct computer files into accessible formats, PBS NewsHour recently reported.

Kenton McHenry, a senior research scientist at the NCSA, explained that a user will be able to feed a file saved in an obsolete format into the cloud-based search engine, and it will transform the file into a format the browser can read. It will also be able to assign metadata to images that were previously unreadable, making them keyword searchable.

Development of Brown Dog is funded by a $10 million, five-year grant from the National Science Foundation as part of its Data Infrastructure Building Blocks program. McHenry told NewsHour that the search engine will likely be available on a limited basis and for testing in March 2015.
A new benchmarking study launched to track privacy management and spending in Fortune 1000 companies found that enterprises spent $2.4 million on privacy in 2014. That number is expected to increase 20% in 2015, according to a report released by the International Association of Privacy Professionals (IAPP).

More than half (55%) of the participating enterprises considered their privacy programs to be mature or in the late-middle stage of maturity. One-third categorized their programs as being in the middle stage of maturity, leaving 9% in the early or “pre-stage” category.

Predictably, those with more mature programs reported higher privacy budgets and more privacy employees than those with less mature programs. Approximately 12% of companies spent $5 million or more on privacy, while 16% spent less than $500,000, reported Law Technology News.

Privacy hiring will continue to rise as privacy issues continue to plague companies of all sizes. Future budget estimates indicated one-third of companies expect to hire full-time and part-time privacy professionals in 2015. Those who can communicate meaningfully with legal, compliance, IT, and information security professionals will likely be in high demand, predicted IAPP President and CEO Trevor Hughes.

INFO SECURITY
Executives Say – But Don’t Act Like – Data Security Is Vital

The majority of U.S. executives say data security is vital to their organizations, but their actions don’t show it. In fact, it’s estimated that only about a third of U.S. data is completely secure, and information security is low on the list of risks to businesses. According to NTT Com Security US, which conducted the survey, these findings “show an alarming disconnect between policy and behavior…among business leaders.”

Even though 65% of respondents said data security is vital to their organizations and characterized consumer customer data as the most important, very few reported that all customer data is completely secure. Protection of intellectual property (IP) fared much better: 56% said their IP is completely secure. Respondents said they were more concerned about losing market share to competitors, the lack of employee skills, and decreasing profits than data security. This likely explains why only 10%-12% of their IT budgets is spent on data security.

The survey finding also showed that senior executives “fail to acknowledge long-term damage – both in terms of time and money – that a data breach might have on their business.” Nearly three-quarters (72%) predicted there would be minimal long-term damage if data were lost in a security breach even though most of them realized that their organization would suffer reputational damage and loss of customer confidence.

As for the financial impact of a security breach, 40% of respondents said their organizations would suffer a direct financial loss, on average, by 5%. Yet, 16% expect no impact at all on revenue, with another 16% admitting they do not know what the financial implications would be.

As further evidence that many executives are out of the loop about the realities of data breaches, only 24% said they are kept up to date by the IT security team regarding data attacks and potential threats. NTT Com Security US concluded that these findings clearly show that business leaders need to be better educated about data security.
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- How can Technology Assisted Review (TAR) help lower costs and save time?
- Practical case studies: What can you learn from your colleagues’ experience?
- And as always – updates on the law from judges and legal thought leaders.

The agenda and faculty is available on the event page of Sedona Conference website. Attendance will be limited to 200 on a first-come, first-serve basis.

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Organizations required to meet the Payment Card Industry Data Security Standard (PCI DSS) – which includes any organization that accepts, transmits, or stores payment card data – are required to have a formal security awareness program in place. The PCI Security Standards Council has made that task easier with the recent release of “Best Practices for Implementing a Security Awareness Program.” The report repeatedly emphasizes the importance of training.

“Security awareness should be conducted as an ongoing program to ensure that training and knowledge is not just delivered as an annual activity, rather it is used to maintain a high level of security awareness on a daily basis,” the report stresses.

The guidelines, which were developed by a group of numerous retailers, banks, and technology providers, focus on three key areas: assembling a security awareness team; developing appropriate security awareness content for the organization; and creating a security awareness checklist.

The first step is to assemble a security awareness team that includes representatives from a cross-section of the organization. This team will be responsible for developing, delivering, and maintaining the security awareness program. The guideline provides specific guidance for defining the team and its role.

Next, the team should work with business units to classify each employee’s role and determine what training each needs based on the role and level of responsibility. The report provides sample role categories, potential content and metrics for each, and helpful references.

Recognizing that many people find checklists helpful in planning and managing programs such as this, the report includes checklists for creating, sustaining, and documenting a security awareness program that can be customized as appropriate.

The report concludes with two appendices: a checklist for mapping the PCI DSS requirements to different roles, materials, and metrics, and a sample table for recording how the organization is managing its security awareness program.
EU vs. Google: The Saga Continues

The European Union has been investigating Google for the past four years, due primarily to complaints from Microsoft, Expedia, European publishers, and others, Reuters reported. During this time, Google has been the center of attention regarding privacy issues, requests to scrub search results when requested, copyright concerns, and taxes.

The latest in the saga: In late-November EU lawmakers voted to encourage anti-trust regulators to consider proposals to unbundle search engines from other commercial services. And since Google has an estimated 90% market share in the search industry, the resolution is asking to break up Google. The resolution is a non-binding one, but it is a clear and strong signal of Europe’s concern over the growing power of U.S. tech companies.

The lobbying group Computer & Communications Industry Association – whose members include Google, eBay, Facebook, Microsoft, and Samsung – opposes the resolution, calling it an “extreme and unworkable” solution.

“While clearly targeting Google, the parliament is in fact suggesting all search companies or online companies with a search facility, may need to be separated. This is of great concern as we try to create a digital single market,” the group said in its official response.

The EU’s new digital chief, Günther Oettinger, a vocal critic of Google’s market dominance, surprisingly did not support the resolution to break up Google. In his words, such a move would be the “instrument of a planned economy, not a market economy.”

Oettinger assumed his new role as digital chief at the end of October 2014. He is charged with delivering a single telecommunications market across Europe but has apparently made Google his first priority. Prior to taking office, Oettinger reportedly told the German publication Handelsblatt that Google should have to pay to use European intellectual property. German publishers have been wrestling with Google over the search giant displaying news snippets without compensating the publishers. Google responded, stating it would stop displaying snippets and instead include just a link and headline, a move some publishers decried as blackmail.

And if that’s not enough, EU privacy watchdogs are demanding that Google extend the right-to-be-forgotten to all its sites, not just its European ones. The EU’s supreme court a short while back issued a ruling directing Internet search engines to remove personal information that is “inadequate, irrelevant, or no longer relevant” if requested by the affected person. Google, the top Internet search engine in Europe, is complying, it says, by removing the results from the European versions of its website; the scrubbing has not extended to Google.com. Privacy advocates want that to change, putting them directly at odds with free speech proponents, who contend that allowing people to ask search engines to remove their information is essentially an attempt to whitewash the past.

Court Claims LinkedIn Violates FCRA

A class action lawsuit has been filed against the professional networking site LinkedIn alleging that it violates the Fair Credit Reporting Act (FCRA), reports Law Technology News. The plaintiffs have taken issue with LinkedIn providing prospective employers and others who pay for premium services a report containing an individual’s former employment history and “trusted references” without verifying the accuracy of the information.

According to the lawsuit, because LinkedIn provides reference reports for a subscription fee, it falls under the purview of the FCRA, which requires it to meet certification and disclosure requirements. The plaintiff’s further contend that LinkedIn has failed to put procedures in place to ensure the accuracy of the information.

“Such secrecy in dealing in consumer information directly contradicts the express purposes of the FCRA, which was enacted to promote accuracy, fairness and the privacy of personal information assembled by credit reporting agencies,” the claim says.
If China wants to create more of its own online content, it needs stronger protections for intellectual property (IP), according to the founders of Alibaba Group Holding and Tencent Holdings, China’s Internet powerhouses.

Tencent Chief Executive Officer Pony Ma recently told the World Internet Conference in Wuzhen that improving copyright protections will help Chinese companies develop a mature business model for video, music, and animation, Bloomberg reported.

Respecting IP rights has long been a sore spot between China and the United States. In fact, China has been on a U.S. Trade Representative watch list for the past 25 years. Pony Ma says the country has come a long way during that time.

“China’s Internet development in the past 18 years has evolved from total disorder that did not pay attention to intellectual property rights in the past to now, when it pays more and more attention. Although it didn’t fully fix the problem, gradually it’s improving.”

In November, the country opened its first specialized court in Beijing to address IP cases. Additional courts are being set up in Shanghai and Guangzhou to handle cases on patents, trademarks, and computer software issues. This is all part of the government’s efforts to make it easier for domestic companies to develop content for the country’s 632 million Internet users, Bloomberg noted.

The government can’t do it alone, however. Alibaba’s Jack Ma, known as the country’s richest man, pointed out that “[m]any problems cannot be solved by government. It’s about society, education, culture. All of the stakeholders should come together to solve those problems.”

Alibaba, Asia’s largest Internet company, has taken strong measures to solve such issues regarding IP. In 2012 it was removed from the U.S. government’s Notorious Markets list after cracking down on 87 million listings in its Taobao Marketplace that may have breached IP rules, Bloomberg reported. This has helped the company to build its credibility, making it much more attractive for distribution deals with such major players as Warner Music Group.

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## CLOUD COMPUTING

### NIST Releases Final Cloud Computing Roadmap

The National Institute of Standards and Technology (NIST) has published the final version of the U.S. Government Cloud Computing Technology Roadmap in two volumes. The final documents reflect more than 200 comments received from around the world.

Volume I, *High-Priority Requirements to Further USG Agency Cloud Computing Adoption*, describes the purpose and scope of the roadmap. It focuses on five priorities: security, interoperability, portability, performance, and accessibility. It also presents 10 requirements for federal government cloud adoption, including developing international standards, security solutions, and clear and consistent categories of cloud services. Each requirement is accompanied by a list of priority action plans complete with target dates. Research teams from government, industry, and academia are working on the action plans.

Volume II, *Useful Information for Cloud Adopters*, introduces a conceptual model as well as technical use cases to provide more practical guidance to agencies. It offers a cloud computing taxonomy and identifies existing interoperability, portability, and security standards that apply to cloud computing. This volume also covers security challenges associated with cloud adoption.

Although NIST standards are developed for government agencies, they can be used by other organizations as well. NIST will continue its work in this area with the help of three new public working groups: Cloud Service, Federated Community Cloud, and Cloud Interoperability and Portability. The Cloud Computing Metrics group will continue to address gaps in metrics and metrology in cloud computing in accordance with requirement 10 presented in the first volume.
Your business data is doubling by the year. And all this new data can either help you or hurt you. Find out what it’s doing for your company with the Next Level Information Governance Assessment. You’ll discover areas of strength and opportunities for improvement. In the end, you will be empowered to increase organizational transparency and data integrity while decreasing risk.

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A Cybersecurity Threat Many Miss

As organizations tighten up their defenses against cyber attacks, there’s one threat they are missing: their smaller-sized vendors.

“More and more, as the large companies put their defenses in place, the adversaries are going toward their suppliers,” Sondra Barbour, Lockheed Martin’s head of information systems, said at the recent Fortune Most Powerful Women Conference. Indeed, smaller vendors that can’t afford expensive security measures and yet have links to some of their larger clients’ sensitive data are becoming targets of sophisticated hackers.

Several of the executives talked about how their companies are creating increasingly elaborate cyber attack scenarios and running fire drills to help them prepare for future attacks. They said too many organizations don’t put enough emphasis on such practice sessions and are paying a very high price.

E-DISCOVERY

Court Endorses Predictive Coding

Predictive coding appears to be growing in popularity throughout the legal community. Of course, there are some opponents who contend it is an unreliable and unproven technology that can result in excluding some documents appropriate to the case. Recent case law, however, indicates that courts approve of its use.

The U.S. Tax Court recently gave predictive coding a stamp of approval when it overruled the Internal Revenue Service’s (IRS) objection to a petitioner’s request for permission to use the technology to review documents. (See Dynamo Holdings Ltd. v. Commissioner of the Internal Revenue Service, 143 T.C. No. 9 [2014].) As noted by Bracewell & Giuliani’s Daniel Meyers in a recent issue of the JDSUPRA Business Advisor, the e-discovery rules in the U.S. Tax Rules of Practice and Procedure are very similar to those in the Federal Rules of Civil Procedure (FRCP).

In the Dynamo case, Dynamo requested permission to use predictive coding to review volumes of data contained on backup tapes, explaining that a completely manual review would be time- and cost-intensive. The IRS suggested Dynamo produce all the files on backup; the IRS would sign a “clawback” agreement that would allow Dynamo to withdraw any protected documents. Not surprisingly, Dynamo was not comfortable with that option. Luckily for Dynamo, the court understood its reluctance.

The court decided that predictive coding was a “happy medium,” and rejected the IRS’ contention that predictive coding is an “unproven technology.”

“Perhaps the most notable aspect of Dynamo was the court’s emphasis on the need to be transparent and cooperative when using new review technology, such as predictive coding,” Meyers suggested. The court was satisfied that Dynamo was attempting to be appropriately transparent.

A similar request to use the technology was denied by a District of Nevada case because “the record lacked the necessary transparency and cooperation among counsel.” (Progressive Cas. Ins. Co. v. Delany, 2:11-CV-00678-LRH, 2014 WL 3563467 [D. Nev. July 18, 2014])

This is one more very clear statement from the court regarding the importance of cooperation and transparency among all parties during the discovery process. The pending changes to the FRCP further reinforce that expectation.
E-DISCOVERY
Social Media Makes E-Discovery a Headache

There is no privacy when it comes to social media, and using it as a source can create e-discovery nightmares, a panel of experts said during a session of the Advanced E-Discovery Institute on social media and privacy issues held in November, according to an article in Law Technology News.

“Social media, in so many ways, is like all of your worst e-discovery nightmares rolled into one,” said Adam Cohen, a principal at Ernst & Young. Using it as a source amounts to “unlocking a door to every type of electronically stored information (ESI) imaginable” because there are so many different media platforms, formats, applications, locations, etc.

As with all document requests, social media requests should be justified, targeted, and discussed early in the case, advised Martin Tully, a partner at Akerman. Pinning down the information is a major challenge. It’s doable – at least to some extent – but it’s not easy. Forensic practices are sorely needed, said Cohen.

But the point remains: social media content is discoverable.

Organizations are obligated to preserve social media evidence just as they are other ESI. Failure to do so could present a spoliation problem, the top reason for disputes regarding social media, according to Magistrate Judge Kristen Mix, of the U.S. District Court for the District of Colorado.

It’s too easy to tamper with, delete, or modify postings. Cohen added that changes to social media posts are tracked, but he was unaware of any archiving tool on the market at that time that can capture deleted information.

Because of the expense of searching and producing ESI, it’s critical that all parties put social media into perspective. As Tiffany Ferguson, a partner at Pugh, Jones & Johnson, pointed out, social media often turns up useful information, but it’s rarely the “smoking gun.”

RISK MANAGEMENT
Guidelines on Data Breach Insurance Released

Commercial records and information management companies now have a resource to help them make sense out of industry-specific insurance coverage — especially for data breaches. That help is a new industry guideline published by PRISM International, “Risk Management and Insurance for the Commercial Records and Information Management Services Industry.”

“Some types of coverage can be confusing. Making a mistake in coverage related to data breach can destroy a business,” explained co-author Brian Jungeberg of Brightstone Insurance.

According to co-author Jim Booth, former executive director of PRISM International and now with Brightstone Consulting, the guideline contains results of an industry survey that measured commercial centers operators’ depth of understanding of insurance policies and how many already had data breach coverage.

The survey results convinced Brightstone there is “an urgent need to correct the serious gap in data breach coverage. “Costs associated with a data breach can be greater than a fire,” said Jungeberg. The guideline is intended to help operators create an effective risk mitigation strategy.
The use of mobile devices may be growing, but users are not necessarily getting smarter about the accompanying security issues. In 2012, a Symantec Threat Report revealed that 44% of adults were not aware of security solutions for mobile devices. As more people have begun using mobile devices, this number has only increased. In 2013 it rose to 57%. According to a special ComputerWorld (CW) report, this can be partly explained by the migration to smartphones by people who previously used feature phones with limited security requirements.

So how do organizations address this problem and safeguard their data?

“They are always prone to their own sets of mistakes, and there’s not a tool out there to absolutely lock the device down,” said Jamisson Fowler, vice president of IT at WellPoint, a health benefits company. The solution lies with better user training. Employees need to be continuously made aware of the dangers of bypassing corporate settings on their devices, of falling prey to phishing, of losing their devices and not promptly reporting the loss. But the training must be engaging, fun, and interactive to be effective.

Authentication and time-lock features are built into all current mobile operating systems to help deter unauthorized persons from using “found” smartphones. Additional solutions, such as fingerprint and iris scanners, are also available. Some even detect the shape of the ear to determine accessibility.

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Principles for Assessing an IG Program

Julie Gable, CRM, CDIA, FAI

Assessing an information governance program is an exercise in gathering information, interpreting it, and using it to strategize the best course for improvement. It requires thoughtful planning and decision making to determine the correct scope, participants, and methodology, and it is best done as a team effort.

It shouldn’t be overwhelming to determine how well an information governance (IG) program is doing. Yet, gathering the information needed to get an accurate picture of an IG program can be a time-consuming and perplexing proposition. With the right preparation and tools, it needn’t be.

Purpose of Assessment

The point of any program assessment is to determine what guidance is in place, whether it is adequate for its intended purpose, and whether or not it’s actually working. Some industry sectors, such as financial services, must self-assess to demonstrate that they are doing everything necessary to have a mature governance program. Others must self-assess for particular aspects of IG. For example, healthcare providers in the United Kingdom must self-assess the privacy and protection they provide for collecting, storing, and sharing personally identifiable information (PII).
Types of Assessment

Assessments can take several forms. Peer comparison by benchmarking with other organizations in your industry can be as informal as a conversation with colleagues at a professional meeting, or it can be as structured as participating in an exercise with a consortium or a fee-based service that collects, anonymizes, and shares information practices in your industry. The problem with benchmarking is that it isn’t necessarily standards-based, and a comparison between two firms may be like comparing steak and ice cream.

At the other end of the spectrum, audits are usually formal assessments against a stringent set of expected norms such as internal company rules or external regulations. The downside is that audits usually draw conclusions based on examining past practices, and their objective is to identify deficiencies rather than to develop strategies for improvement.

Preventing the Assessment

These are some typical pre-assessment considerations:

Identifying the assessment’s scope. If your organization is new to IG, the assessment’s desired result may be a baseline reading of maturity in all Principles: Accountability, Compliance, Transparency, Integrity, Availability, Protection, Retention, and Disposition. In contrast, those with an IG program already in place may want to assess the status for a problem or high-risk area, such as Protection.

Identifying the right participants. Assessment quality greatly depends on the people who participate in it. Adequately assessing IG will likely require the involvement of people beyond the records and information management (RIM) staff. Typically, it requires a team composed of RIM, legal, information technology (IT), compliance, risk, and audit. One or more IG team members may assume leadership for the assessment process, functioning as an administrator or facilitator.

In addition, assessment may require the opinions of people in decentralized business units who are responsible for the integrity, protection, availability, retention, and disposition of the records they keep. Whether subject matter experts or rank and file employees, these participants may not have RIM or IG backgrounds. Assessment methodologies must take this into consideration so care can be taken to ensure that those who participate understand what they’re being asked to do and why.

Choosing a method. Assessment methods have trade-offs. For example, in-person interviews allow the interviewer to ask questions and delve more deeply into actual practices, but the trade-off is the amount of time needed to schedule (and reschedule) interviews, as well as the time needed to conduct them. Where consultants are used, conducting interviews result in high costs at the front end of the project.

Surveys work well because they are easily sent electronically, but their success depends heavily on how well questions are designed and how easy they are to complete. Often, one questionnaire is used for all participants and includes questions that not all respondents are competent to answer. This results in high percentages of “Don’t Know” or “Not Applicable” responses that can affect outcomes. Scoring can also be problematic, particularly with multiple choice answers like “Never,” “Sometimes,” “Often,” and “Always,” which are subject to individual interpretation.

Asking the right people the right questions will yield results that accurately represent the present level and can be used to plan for future improvement. Being respectful of everyone’s time is important to getting good responses. No busy person will spend hours answering endless questions, and poor response percentages will produce a skewed picture of the current state.

Regardless of the method chosen, it is essential to explain reasons for the assessment, the subject matter covered, and the scoring mechanism so participants are comfortable and confident at the outset. Background on the Principles being measured and an understanding of the IGMM’s levels will help, as will a word on the importance of IG from a senior manager.

Administering the Assessment

Administering the assessment usually requires one key person to perform the tasks associated with inviting participants, preparing them for the assessment, ensuring that they receive the assessment tool, and following up with them to make sure it is completed.

This may not sound difficult, but prep, tracking, and vigilant follow-up until all assessments are completed can be a time drain, particularly when assessments involve many business units in a large organization. Anything that simplifies these chores will boost administrator productivity and get assessment results delivered faster.

Aggregating the assessment scores, interpreting them, and making recommendations for future action to man-
agement, usually in a written report and/or presentation, can consume days, if not weeks. Where there is pressure to produce results quickly – such as after an IG breach or failure – there may not be time to undertake a thorough assessment. Yet, such documentation is important as a record of an IG program’s status at a given point in time and will be useful for future assessments that may be done to gauge progress toward a desired level of maturity.

Assessment with Next Level

Fortunately, a tool is available that can systematize and speed the assessment process. Based on the Principles and the IGMM, Next Level is a software product from ARMA International that can help in assessing IG programs by automating much of the workflow associated with information-gathering, result aggregation, and recommendations for further action.

It provides ease of use for administrators overseeing the assessment, as well as for those participating in it. Designed in the cloud, Next Level requires no software on the user’s computer and can be accessed via a desktop, laptop, iPad, or Android tablet.

Next Level has three main parts: Organization, Assessments, and Results.

Organization

The organization section is used to record the organization’s name, industry sector, number of employees, and annual revenues. The administrator, prompted by wizards, can enter information regarding the business units he wants to assess, including the names and e-mail addresses of key employees or stakeholders within the unit who will be participating in the assessment. This is important because in very large, decentralized organizations, it is possible to have multiple business units in various locations with varying degrees of maturity. Organizing in this fashion also precludes the need to enter all employees’ names or an entire organization structure.

Assessment – Administrators

In this section, administrators can easily develop the assessment plan and process by entering an assessment name, start date, due date, and purpose in the fields provided.

The administrator can customize which Principles to include in the assessment and who will be assigned to complete them. For example, an assessment of Integrity and Protection could be assigned to IT personnel; an assessment of Transparency, Compliance, and Accountability could be targeted to unit compliance officers, and so on.

Note that the need to identify the right participants is still an important aspect of gathering quality responses for assessment purposes, but once this is decided, participants are easily associated with their assessment sections by dragging and dropping their e-mail addresses from the Organization section.

Within the software, assessment questions are geared to the Principles. In total, there are 60 questions for the eight Principles. The survey will take each participant about 15 to 20 minutes per Principle to complete.

Customizing participants to specific Principles also avoids the pitfall of asking people to assess areas they’re not familiar with, eliminating many “Don’t Know” or “Not Applicable” responses that can cloud results.

One of the strengths of Next Level is e-mail functionality, which serves as workflow. When the administrator selects the e-mail address of a participant, an invitation e-mail is generated that contains that individual’s link to the survey. The e-mail’s standard verbiage can be customized, and the individual’s survey link is the identifier that Next Level uses to track when that person completes the survey.

At this point, the administrator can also schedule three follow-up e-mails to be sent automatically between the start date and the due date to nudge participants who need prompting. An Assessment History feature will show when each survey is complete for each participant.

The administrator can also set up an automatic thank you e-mail to be sent when the user has completed the assessment. It shows how the user scored each Principle assigned to him or her and provides a link the participant can use to see a list of his or her scores and comments.

Assessment History is maintained in an archive. This feature enables the administrator to view all surveys that have been conducted, who has participated, and whether they are in progress or completed. The administrator may also cancel or delete a specific assessment.

Assessment – End Users

The end user experience is simple, intuitive, and information-rich. Clicking on the link in the invitation e-mail brings the user to an initial screen showing which Principles will be assessed and how to score them. Each Principle includes links to ARMA’s website for a more in-depth
explanation, and users can opt to watch a three-minute video explaining the Principle.

Users can also click on the scoring system to see definitions of the terms “in development,” “essential,” “proactive,” and “transformational,” which are the 1 to 5 scoring levels respectively. Providing users these definitions may not supplant the need for a pre-survey conference or training session, but they can serve as memory aids.

As shown in Figure 1 on page 20, users move a slider button up or down along a vertical axis to select their assessment score for a specific question. Moving the slider causes numbers from 1 to 5 to be displayed. Users can score in fractions – for example, 3.25, 3.50, and 3.75, to indicate that a Principle is approaching a higher level. The finer scale is useful for showing progress toward objectives for improvement. The software computes and displays an average score for users’ selections as they work their way through the questions.

Scoring also provides a free text box where users can make additional comments or substantiate their answers, something that is not always possible with surveys. If users have to leave the assessment, they will be returned to exactly where they left off when they next access it.

Once users complete all questions, they have access to a summary of their answers and comments via the survey link. These can be printed if desired.

**Results**

Next Level offers five system-generated reports that summarize results and offer insight into the process:

*The Heat Map* shown in Figure 2 shows the aggregated score by Principle and by business function. The heat map colors match the colors for the scoring chart levels (i.e., 1 is red, 2 is gold, 3 is yellow, 4 is blue, 5 is green). Each square of the heat map contains the aggregated score of all participants. Click on a square and the software displays suggestions for advancing to the next level, as well as a list of resources (e.g., relevant books and online courses) that can help with the work to be done.

*The Executive Report* is a pre-formatted Word document that shows the assessment name and date, the number of participants, and the heat map. The report gives an explanation of each Principle assessed, including what it is and what it should deliver, along with its score and what the level means. Included are suggestions for advancing to the next level.

*The Low Score Report* shows aspects of any Principle that scored less than a Level 3 (essential). This provides immediate focus on where gaps were uncovered so the team can identify where further work is needed.

*The Pie Chart* shows the percentages of assessment participants who selected a score, the percentage that selected “Not Applicable,” and the percentage that chose “Don’t Know.” Pie chart results show whether the right participants were part of the assessment and whether they should be involved in future assessments or be replaced by more knowledgeable participants.

*The Raw Data Report* shows the administrator how each participant scored each question and what comments he or she made.

**Pricing**

Next Level, released in February of 2014, is licensed for a specific number of administrators on an annual subscription basis. A single administrator license is $4,995. A five-administrator license, typically used by members of the IG team, is $5,995. The license entitles the subscriber to automatic updates. End users do not require licenses to complete assessments.

Data collected during the assessment is stored in the cloud, and users will note that no private or confidential information is collected. Also, administrators can erase all data associated with the tool if they so desire. Any data entered belongs to the subscriber and will be returned should the subscriber wish not to renew.

Future enhancements to the product could include average scores by Principle by industry sector, which would function as a standards-based set of benchmarks facilitating comparison of your organization to others like it in your industry.

**Assessment Tools: Worth Consideration**

Assessing an IG program can be time-consuming and costly, and for these reasons, organizations may not want to assess IG maturity at regular intervals. Fortunately, the emergence of tools like Next Level can shorten the time needed to execute assessments by automating much of the workflow involved in administration and aggregation, leading to faster results with less effort. Such tools are worth consideration for any organization hoping to build or improve an IG program. **END**

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Thousands of businesses have chosen to outsource portions of their records and information management (RIM) program needs – for good reason because, in many cases, it makes good business and financial sense to do so.

With the proliferation of high-profile data breaches today, though, a top concern among all organizations and customers is keeping their information safe – and this is an even greater concern for organizations whose information moves outside their immediate control. This makes it imperative for organizations that decide to take this approach to make the most knowledgeable decision possible when selecting a RIM company as a valued business partner.

There is no single, “right” way to select a RIM services company to meet your specific needs, but there is an informed way to proceed.

Review Industry Resources

Fortunately, there are industry resources to guide you through the selection process.

Both ARMA International and PRISM International offer comprehensive guidance for selecting a service provider in publications available for download from their respective websites: ARMA’s Guidelines for Evaluating Offsite Records Storage Facilities at www.arma.org/bookstore and PRISM’s Demand the Best: A guide to help select an offsite information management company under its “Buy from a Member” section at www.prismintl.org.

After reviewing this guidance, begin your search by consulting listings of professional RIM services companies in the Records and Information Management Buyer’s Guide at www.arma.org/buyersguide and in the “Buy from a Member” section of PRISM’s website. You will

RIM Services That Might Be Outsourced

A wide variety of services are available from professional RIM services companies, including, but not limited to:

- Departmental billing
- Disaster recovery services
- Emergency pick-up and delivery
- Facility management/Outsourcing services
- Index and inventory services
- Information management consulting
- Digitizing/Imaging/Microfilming services
- Remote online access
- Retention schedule monitoring
- Retrieval and refile services
- Secure shredding and destruction
- Data protection and media vaulting
- Tape storage and rotation services
- Document storage
- Cloud services
- Data and document archiving
- Hard drive and other media destruction
- Information governance solutions
- Active file management

For a list of professional RIM companies, visit www.arma.org/buyersguide and www.prismintl.org.
find a wide variety of companies that offer all or many of the services indicated in the sidebar “RIM Services That Might Be Outsourced.”

Prioritize Selection Factors

Selecting the right company begins with submitting an RFP that clearly conveys your specific needs and then getting to know potential providers by touring their facilities and asking the right questions.

To help you get organized, Allan Podraza, director of records management and archives at the American Medical Association in Chicago, suggests that you weigh and prioritize the factors for selecting a RIM services provider that are of most concern to your organization, choosing among personnel, the physical facility, vaults, fire and security systems, storage capabilities, policies and procedures, technology, delivery vehicles and procedures, invoicing, retention scheduling capabilities, disaster planning, and insurance.

Then, devise three or four pointed questions for each aspect. For example, if you need to know more about a company profile, ask about the company’s mission and vision, how long it has been in business, what differentiates it from its competitors, and proof of its financial stability, among other questions.

Podraza provides lists of potential questions in his instructive July 2011 blog, “How to Select a Records Center,” at www.linkedin.com/pulse/20140514135055-46254388-how-to-select-a-records-center.

Take Advice from RIM Experts

We asked several RIM experts to share some tips in crafting an RFP and selecting a RIM service provider to meet your organization’s needs. Here are some of their suggestions:

Keep an Open Mind

Don’t begin an RFP process with preconceived notions
about RIM companies, such as whether a corporate or independent RIM company will best meet your needs, says Patrick DeVries of DeVries Business Services, Spokane, Wash. Often, both types of companies can provide needed services, but only you can decide which one best fits you and your organization, he says.

Checklist of Questions to Ask Potential RIM Services Partners

**General security**
- Do all facilities have 24-hour monitored security?
- Who is authorized to access these facilities?
- How is this access authorized?
- What are the in-house security procedures?
- What training is provided to employees for these procedures?
- Is entry to data vaults monitored? If so, how?
- Is the loading and unloading area secure?
- Does the company conduct a daily security check?
- Are security systems inspected and tested regularly?

**Disaster prevention/planning**
- Are the smoke detection systems adequate?
- Are the fire detection systems adequate?
- Are the fire suppression systems adequate?
- Does the facility have a no-smoking policy?
- Does the facility have a regularly maintained and tested internal disaster plan?
- Are the fire prevention and alarm systems regularly inspected and tested?
- Is the alarm system activated by line-tampering or disruption?

**Facility**
- Is the facility in a desirable location?
- Is the facility built to earthquake code and other construction standards?
- Does the facility have back-up power systems?
- Does the company have proper insurance coverage in the event of a disaster?
- Is the facility a stand-alone building?
- Is the facility located in a multi-tenant building?
- Are there other businesses near this facility that could be potentially hazardous?
- Does the company engage in any other business at its facilities (e.g., moving and storage, public warehousing)?
- Is the facility located in a non-flood prone area?
- Are storage containers readily available?
- Are computer media transfer cases available?

**Courier vehicles**
- Are vehicles designed for safe media transportation?
- Are vehicles climate-controlled?
- Do vehicles have appropriate security?
- Are vehicles secured while they are at a delivery/pick-up site?
- How often do vehicles undergo preventative maintenance?
- Are vehicles equipped with appropriate and reliable two-way communications?
- Are vehicles equipped with fire extinguishers?

**Policies and procedures**
- Is a statement of service and prices available?
- Is client RIM software available?
- Does the company have a clear and acceptable business contract?
- Are shipping and receiving records signed and maintained for future reference?
- Does the company have a comprehensive employee screening process?
- What is the company’s substance abuse policy?
- Are employees and drivers provided with uniforms and identification cards?
- Are employees and/or visitors required to sign a confidentiality agreement?
- Is there ongoing employee education and training?
- Are after-hours personnel trained to handle client emergencies and requests?
- Is the company Privacy+ certified?
- What other certifications are held by the company?
Know What You Need

Make sure that your RFP is clear, concise, and organized in a way that conveys the specific nature and scope of the RIM services your company needs, instead of asking recipients to bid on generic work. Avoid submitting broad, boilerplate RFPs, says Bruce Radke, shareholder, Vedder Price in Chicago, and an expert in privacy and information governance. He also suggests you consider an initial face-to-face presentation with potential recipients to discuss the goals and objectives for the RFP. “A question-and-answer period will greatly enhance the quality of the RFP and the responses,” he says.

Provide Enough Information

Martha Mayer, vice president of sales, and Patti Michurski, sales manager, at Business Data Record Services, New Brighton, Minn., stress the importance of providing enough information so you can make apple-to-apple price comparisons. “Make sure to include the volumes because pricing often is volume-based,” says Michurski. When submitting an RFP, supply the size and quantities of boxes, whether you index to the file level, and how many new boxes will be added per year, she says. “Do you have a retention policy? How many will be destroyed every year? Vendors will be interested in volume levels and anticipated activity levels in determining their rates.”

Ask the Right Questions

Mayer and Michurski suggest asking potential RIM service providers to provide everything from a detailed facility description to a copy of their disaster recovery plan, a storage area description with climate-control capabilities, a copy of courier policies and procedures, a summary of their hiring process and background check policies, and a list of any administrative or miscellaneous charges that will be invoiced to maintain the account.

See the sidebar “Checklist of Questions to Ask Potential RIM Services Partners” for examples of other questions that should be asked.

Ask About Certifications

To help narrow your list of prospects, check whether a RIM company is certified through programs such as PRISM International’s Privacy+, says Mike Szerlong, director of information management services at Vanguard Archives, Chicago. This certification, for example, identifies RIM services providers that have been willing to invest in an outside audit process designed to publicly demonstrate their commitment to protecting the privacy of information entrusted to them by their clients.

This voluntary program is open to all companies worldwide that provide outsourced storage and protection of hard-copy records and off-line removable computer media. To achieve this certification, companies must establish internal controls designed to meet a set of control objectives designed by PRISM International and intended to promote information privacy. The extent to which a company meets these controls must be evaluated and
confirmed by an independent third-party audit.

For a list of certified companies, visit www.prismintl.org and click “Privacy+ Certification.”

Ask for Customer References

“References are huge,” says Michurski, who stresses that companies are wise to provide references from both current and former satisfied customers. Also, stay mindful of your future needs. You may be concerned with paper storage and destruction today, but your business goals may change in coming years. Find a RIM company with the breadth of services to meet your changing needs.

Tour Facilities

To select among a small group of companies, tour their facilities, Mayer says. “It provides a hands-on view of a RIM company. By touring, you can literally see if you and a RIM company are a good fit.” Podraza adds that good questions during tours include asking for a copy of their standard operating procedures and privacy policy, a demonstration of their vehicle and building security system, and a review of the inventory tracking and imaging systems.

Think Beyond Price

Although RIM is a volume-based business, pricing should not necessarily rank as your top concern, says Szerlong. Equally important, he and Podraza contend, are security, privacy, data protection, service levels, and contract terms.

Moreover, with company data breaches dominating the news today, find out whether there are controls in place to adequately protect your information. Does the company conduct a daily security check? Are security systems inspected and tested regularly?

Look for Differentiators

A good RFP should help differentiate some of the more subtle differences between RIM companies, says Sherri Taylor, president, Armstrong Archives in Carrollton, Texas. “Often the things that differentiate companies are their people, services, and how they respond to customers’ needs.”

RIM Services – It’s Not Just About Boxes Anymore

There are myriad RIM services for you to consider and evaluate, from hard-copy and imaging services to management services, customer service, and digital storage. The RIM services industry has evolved to offer more than storage. Now you can rely on your RIM partner to help you develop an appropriate strategy for managing your company’s information at all stages of the information life cycle. The RFP process is just one step – albeit an important one – in taking advantage of all the industry has to offer. END

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As an important part of vital records planning, records managers must consider the risks to which specific record series are subject. The purpose of risk analysis, sometimes termed risk assessment, is to determine and evaluate exposure to particular risks. Its outcome provides the basis for protection planning and other records management decisions.

The following discussion is based on the common business definition of operational risk as a danger of damage or loss to an organization resulting from inadequate internal processes, including inadequate information management practices, or from external events.

Operational risk is a function of three variables:
1. Threats or hazards that may harm an organization
2. Vulnerabilities that render an organization susceptible to threats
3. Consequences or negative impacts associated with specific threats

The next section surveys threats and vulnerabilities that an organization must consider when developing a program to protect vital records.

Threats and Vulnerabilities
Vital records may be threatened by loss or damage from a variety of causes. For example:

Malicious Destruction of Recorded Information
This loss may result from warfare or warfare-related activities such as terrorist attacks and civil insurrections. Vital records are also subject to purposeful sabotage or seemingly aimless vandalism by current or former employees, contractors, intruders, or others. An organization’s vulnerability to these threats depends on various factors, including the nature of the threat and the organizational environment.

Count the Cost: Quantifying Your Vital Records’ Risks
William Saffady, Ph.D., FAI

Quantitative risks assessment, which uses numeric calculations to measure the likelihood and impact of the loss of specific vital records, provides a solid basis for planning how to protect them.
ture of the organization’s business, the local socio-political environment, proximity to sites that are subject to terrorist attack or armed conflict, and security provisions in place.

Accidental Destruction
   Potentially catastrophic agents of accidental destruction include natural disasters, such as violent weather, floods, earthquakes, landslides, and volcanic eruptions as well as fires, explosions, building collapses, and other events that may result from carelessness, negligence, or lack of knowledge about the consequences of specific actions.

An organization’s vulnerability to these disastrous events depends on geographical, geological, and meteorological factors that may be unpredictable and unpreventable. Vulnerability is obviously increased by close proximity to factories or laboratories that manufacture or utilize flammable materials, airports, military bases, power plants, refineries, storage facilities for oil or natural gas, and major highways and railway lines that are used for transport of hazardous materials. Vital records can also be damaged or destroyed by fire. Vulnerability is increased in rural locations that are remote from firefighting services.

Careless Handling
   More likely causes of accidental record destruction are less dramatic and more localized but no less catastrophic in their consequences for mission-critical operations. Records in all formats can be damaged by careless handling.

   With very active records, the potential for such damage is intensified by use. In many work environments, for example, valuable engineering drawings subject to frequent retrieval are characteristically frayed and dog-eared.

   Information recorded on magnetic media and certain optical disks can be erased by exposure to strong magnetic fields. Careless work procedures, such as mounting tapes or disks without write protection, can expose vital records to accidental erasure by overwriting.

   Mislabeled media may be inadvertently marked for reuse, their contents being inappropriately replaced by new information. The implementation of systematic procedures for media storage, care, and handling can reduce an organization’s vulnerability to these threats.

Misfiled Records
   Records in all formats can be misplaced. Like many business tasks, filing of paper records is subject to errors. Even a very low misfiling rate can pose significant problems in large filing installations. In a central filing area with 25 four-drawer cabinets totalling 200,000 to 250,000 pages, for example, a misfiling rate of just one-half of one percent means that over 1,000 pages are filed incorrectly. Of course, even a single misfiled document can have serious consequences if it contains information needed for an important business purpose.

   In digital document management implementations that use computer-based indexing, data entry errors are the counterparts of misfiles. While effective methods, such as double-keying of information, are available for error detection and correction, they are not incorporated into all data entry operations.

Stolen Recorded Information
   Like any valued asset, recorded information can be stolen for financial gain or other motives by intelligence operatives or by disgruntled, compromised, or coerced employees. Traditionally, espionage-related concerns have been most closely associated with government and military records, but they apply to other work environments as well.

   Commercial information brokers, for example, are interested in names, addresses, telephone numbers, Social Security numbers, and other information about an organization’s employees, a company’s customers, a hospital’s patients, an academic institution’s students, and a professional association’s members.

   Trade secrets, product specifications, manufacturing methods, marketing plans, pricing strategies, and customer information are of great interest to a company’s competitors. Burglars, confidence artists, and other criminals are interested in financial and asset information contained in donor and patron records maintained by charitable and cultural institutions. A museum’s records, for example, indicate the owners and locations of valuable art works. A university development office’s files contain addresses and possibly financial data about prospective benefactors.

   The use of compact, easily concealed storage media – such as high-density magnetic tapes, solid-state memory devices, optical disks, and microforms – facilitates theft, while the high capacity of such media increases the amount of information affected by a single incident of theft.

   Computer Hardware and Software Failures
   These types of failures can damage...
valuable information. Head crashes or other hardware malfunctions, while much less common than in the past, can destroy valuable information recorded on hard drives. Improperly adjusted equipment, such as misaligned tape guides, can cause scratches or other media damage.

An organization can minimize its vulnerability to these problems by keeping its computer hardware in good working order and replacing aging equipment, but hardware malfunctions cannot be eliminated completely.

Software failures are more difficult to control. When a computer program locks up or terminates abnormally, information may not be properly recorded. Similarly, computer records may be accidentally deleted during database reorganizations or by utility programs that consolidate space on hard drives. Viruses and other malicious software are much publicized causes of corruption of computer-stored records.

Tampering
Tampering is a leading cause of corruption of recorded information, but not all record formats are equally vulnerable. With microforms, tampering is difficult and detectable. The contents of individual microimages cannot be altered, and insertion or removal of images requires splicing of film, which is readily apparent.

By contrast, information in paper documents can be added to, obliterated, or changed, although such modifications can often be detected by skilled forensic examiners.

Records stored on rewritable media – such as magnetic disks, magnetic tapes, and certain optical disks – are subject to modification by unauthorized persons in a manner that can prove very difficult to detect. Password protection, encryption, and other countermeasures can reduce but not entirely eliminate an organization’s vulnerability to such data tampering.

If the calculated cost of a given loss exceeds the cost of protective measures, those measures should be implemented.

Improper Disclosure of Recorded Information

Whether accidental or intentional, improper disclosure of recorded information has been the subject of considerable discussion by a variety of interested parties, including records managers, computer specialists, lawyers, public policy analysts, and civil rights advocates. While such discussions have typically warned against the unauthorized disclosure of sensitive personal information protected by privacy legislation, an organization’s records may also store business plans, pricing information, trade secrets, or other proprietary technical, strategic, or financial information of interest to competitors. Certain government agencies store records with national security implications.

Improper disclosure of vital records may result from espionage-related activities such as unauthorized access to computer systems, electronic eavesdropping, or bribery of employees who have access to desired information. Computer networks are vulnerable to intrusion by hackers.

Accidental disclosure is also possible when computer output is routed to the wrong device in a local or wide area network, when correspondence or e-mail messages are incorrectly addressed or distributed, or when incompletely erased computer media are distributed for reuse.

Quantitative Risk Assessment

Regardless of the specific threats involved, risk assessment may be based on intuitive, relatively informal qualitative approaches or more structured, formalized quantitative methods.

Quantitative risk assessment relies on site visits, discussions, and other systems analysis methods to identify vulnerabilities, but it uses numeric calculations to measure the likelihood and impact of losses associated with specific vital record series. The calculations are expressed as dollar amounts, which can be related to the cost of proposed protection methods. If the calculated cost of a given loss exceeds the cost of protective measures, those measures should be implemented.

As an additional advantage, quantitative risk assessments provide a useful framework for comparing exposures for different vital record series and prioritizing them for protection.

Risk Assessment Formula

While various quantitative assessment techniques have been proposed by risk analysts and others, all are based on the following general formula:

$$R = P \times C$$

where:

- **R** = the risk, sometimes called the annualized loss expectancy (ALE) associated with the loss of a specific vital record series due to a catastrophic event or other threat;

- **P** = the probability that such a threat will occur in any given year; and

- **C** = the cost of the loss if the threat occurs.
This formula measures risk as the probable annual dollar loss associated with a specific vital electronic record series. The total annual expected loss to an organization is the sum of the annualized losses calculated for each vital electronic record series.

**Probability Estimates**

Quantitative risk assessment begins with the determination of probabilities associated with adverse events and the calculation of annualized loss multipliers based on those probabilities. Information systems specialists, program unit personnel, or others familiar with a given electronic record series are asked to estimate the likelihood of occurrence for specific threats. Whenever possible, their estimates should be based on the historical incidence of adverse events.

Reliable probability estimates are easiest and most conveniently obtained for events such as burglaries, fires, power outages, equipment malfunctions, software failures, network security breaches, and virus attacks for which security reports, maintenance statistics, or other documentation exists.

Statistical data about potentially destructive weather events, such as hurricanes or floods, is available in books, scholarly journals, newspapers, and other reference sources, including a rapidly increasing number of websites. At its website, for example, the Federal Emergency Management Agency (FEMA) will display flood hazard maps for any U.S. location. Various websites provide information about the frequency of hurricanes, tornadoes, earthquakes, landslides, volcanic eruptions, and tsunamis worldwide.

In the absence of written evidence or experience, probability estimates must be based on informed speculation by persons familiar with the broad information management environment within which a given vital record series is maintained and used.

In this respect, quantitative risk analysis resembles the qualitative approach. Often, the records manager must ask a series of probing questions, followed by lengthy discussion, to obtain usable probability estimates. As an example, the records manager may ask a file room supervisor whether lost documents are likely to be reported once a year. If the answer is yes, the records manager should ask whether such an event is likely to occur once every half year, once a quarter, once a month, and so on. This procedure can be repeated until a satisfactorily specific response is obtained.

**Annual Loss Calculations**

Once probabilities are estimated, annual loss multipliers can be calculated in any of several ways. Using one method, a calamitous threat to vital records with a given probability of occurrence is assigned a probability value of 1. Other threats are assigned higher or lower values, based on their relative probability of occurrence.

As an example, a threat estimated to occur once a year is assigned a probability value of 1, which serves as a baseline for other probability estimates. An event estimated to occur once every three months (four times a year) is assigned a probability value of 4, while an event with an estimated frequency of once every four years is assigned the probability value of 0.25.

**Probability x Cost**

Applying the risk assessment formula, the probability value is multiplied by the estimated cost of the loss if the event occurs. Factors that might be considered when determining costs associated with the loss of vital records include, but are by no means limited to, the following:

- **The cost of file reconstruction**, assuming that source documents or other input materials remain available.
- **The value of canceled customer orders, unbillable accounts, or other losses** resulting from the inability to perform specific business operations because needed electronic records are unavailable.
- **Labor costs associated with reversion to manual operations**, assuming that such reversion is possible.

**The cost of defending against or otherwise settling legal actions** associated with the loss of vital records.

Quantitative risk assessment is an aid to judgment not a substitute for it. The risk assessment formula presented earlier is an analytical tool that can help records managers clarify their thinking and define protection priorities for vital electronic records.

As an example, assume that a hospital administrator, based on previous experience, estimates one incident a year in which a patient’s folder essential to mission-critical medical care is lost through misfiling—a clinician’s failure to return the folder to the medical records area following treatment, or for some other reason.

A probability (P) of 1 is assigned to the risk that a patient folder will be lost in this manner. If the estimated cost (C) is $3,000 to reconstruct medical records contained in the lost folder, the cost associated with this threat would be $3,000.

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Analyzing the risk assessment formula, the probability value is multiplied by the estimated cost of the loss if the event occurs. Factors that might be considered when determining costs associated with the loss of vital records include, but are by no means limited to, the following:

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- **Labor costs associated with reversion to manual operations**, assuming that such reversion is possible.
- **The cost of defending against or otherwise settling legal actions** associated with the loss of vital records.
tests, or other means, the risk (annualized loss expectancy) is 1 times $3,000.

Again based on its experience, the hospital administrator estimates one chance in 10 years that as many as 100 patient folders will be destroyed by flood, fire, or destructive weather. A probability (P) of 0.1 is assigned to that risk, indicating that it is one-tenth as likely to occur as the loss of one patient folder a year for reasons described above, but the risk affects many more folders. If the cost (C) to reconstruct lost patient records is $3,000 per folder, the damage will total $300,000. The risk (annualized loss expectancy) is 0.1 times $150,000, or $30,000.

These calculations indicate that destruction of patient records by a catastrophic event, while having a much lower probability of occurrence, poses a more significant risk than loss of patient records by misfiling or other reasons. Consequently, the catastrophic event should be made a higher priority for vital records protection. Given these parameters, greater attention should be given to protecting records against fire, flood, or destructive weather than to implementing procedures that will prevent misfiling of patient folders.

**Importance of Analyzing Risk**

Whatever the threat, vital records programs provide formalized procedures to help an organization withstand and limit the impact of adverse events, enabling it to continue information-dependent business operations – though possibly at a reduced level – following a disaster.

Risk analysis to determine the extent to which specific vital records are threatened by hazards and to calculate exposures, which allows the selection of appropriate loss prevention and record protection methods, constitutes a critical component of your vital records protection program.

To learn more about analyzing risk or about a wide variety of information management topics, read the comprehensive text *Records and Information Management: Fundamentals of Professional Practice*, 2nd ed., from which this article was excerpted. **END**

William Saffady, Ph.D., FAI, can be contacted at wsaffady@aol.com. See his bio on page 47.
The need for an effective, compliant approach to managing information throughout its life cycle becomes very evident when a major event occurs, such as a lawsuit, an audit, a merger, an acquisition, or a divestiture. Without it, even daily business decision-making can be greatly compromised.

An organization that does not have an information lifecycle management (ILM) program will receive significant, long-term benefits from developing and implementing one, including:

**Improved Availability** – “Information age” employees must be able to find and access needed information quickly and be confident that it is the right information. ILM gets the right information to the right people (those who have the right to access it) at the right time.

**Reduced Risk** – By implementing an ILM approach, the organization has less information to manage, which reduces the risk of basing important business decisions on outdated or incorrect information. It also means there is less information to produce in a legal or regulatory investigation, which reduces the risk of exposing information.

**Reduced Costs** – Eliminating unneeded information reduces both electronic and physical storage costs. It also helps control the exponential growth of information and reduces overall operational costs by enabling employees to be more efficient.

**Optimized Business Efficiencies** – Having smaller volumes of information results in faster and more efficient searches and retrievals. Productivity will increase and, overall, the organization will be more effective.

### Defining ILM

The information life cycle begins with information’s creation or receipt; progresses through its organization and storage, retrieval, use, and maintenance with proper protection and preservation; and ends with its disposition. Disposition usually means destroying information, but it can sometimes mean permanently retaining it, based on the organization’s retention schedule.

ILM is accomplished by strategically applying policies to manage throughout its life cycle all information – not just records, which *Glossary of Records and Information Management Terms* (ARMA TR-22-2012) defines as “any recorded information, regardless of medium or characteristics, made or received and retained by an organization in pursuance of legal obligations or in the transaction of business.”

ILM includes determining:

- What information the organization has
- Where it is stored
- Who has ownership and/or accountabilities for it
- Why it is being retained
- How quickly and easily it can be accessed
- How it is tracked
- How long it must be retained

A best practices approach that will ensure success in developing and implementing an ILM program is supported by the following eight steps.

### 8 Steps to Effective Information Lifecycle Management

Melissa G. Dederer, IGP, CRM, and April Dmytrenko, CRM, FAI
Step 1: Learn About the Information

The first step in developing and implementing ILM effectively is to learn the 5 Ws and H – What? Where? Who? Why? When? How? – about the organization’s information. Although these questions sound simple, finding their answers is a challenge. The following will help.

What Information Exists?

An organization cannot get control of information it doesn’t know it has. Data is everywhere, and it is growing exponentially. Big data, which comprises large collections of data sets that are difficult to process using traditional data processing applications, presents an added challenge. These collections are often pulled from a wide variety of sources and analyzed to create new information, which means all the data points must be known and understood to correctly answer the “What?” question.

Where Is Information Stored?

Where are the software systems being used, and where is the hardware that is storing the information? Is information at an offsite warehouse or other storage facility? Is information in the cloud? If so, where is the cloud’s physical hardware being maintained? The organization should have a data map that answers these questions, showing what information it has and where it is.

Who ‘Owns’ the Data?

Contrary to what many might answer, IT does not own the organization’s information; IT is accountable for maintaining the operating systems. To determine ownership, you must know which business unit is the primary user of each of the organization’s systems. In addition, you must know who should have access to the information and at what level, as well as who can create and who can modify it.

Why Is Information Retained?

All information should be governed by a retention policy. Obviously, if information is being used, has business value, or has legal/regulatory requirements to keep it, it needs to be retained. To determine whether these criteria apply, you must know how old information is, as well as when, by whom, and for what purpose it was last accessed.

For example, if information was last accessed to be used as a template five years ago by an employee who is no longer at the company, is not needed for business purposes, and is no longer required to be kept for legal or regulatory purposes, it may not need to be retained.

However, before disposing of it, you also must determine whether it is subject to a legal hold – and who has the right answers to this question and the previous ones.

When Can Information Be Disposed?

Before information can be disposed of, you must know whether it has met its retention requirements shown in the retention policy and whom to contact for disposition approval.

It’s not all about the data. You also must identify who can create and modify information structures, such as shared drives or SharePoint. For example, for each information structure, you must identify and document:

- Who owns the budget for the system
- Who determines and controls access rights
- Who can delete information
- Who is restricted to just viewing information
- The policies for protecting the data in various situations, such as when an employee is terminated

If an owner is not identified and the budget for the system is cut, the system and the information in it may simply disappear or be orphaned.

You also must have documented compliance procedures to support the expeditious review and approval of expired records to ensure their timely disposition.

Consider Third-Party Services

Today, most organizations outsource a variety of operations, such as security, benefits administration,
ILM Benefits

- Increased Availability
- Reduced Risks
- Reduced Costs
- Increased Business Efficiencies

and IT, and/or they engage with outside experts, such as law firms, engineering companies, accounting firms, and consulting companies. The what, where, who, why, when, and how questions need to be answered for all third parties that are responsible for the organization’s information during any part of its life cycle.

This means that language that obligates third parties to follow the organization’s information policies and procedures must be included in their contracts. For example, a contract with a cloud vendor must be scrutinized to determine if it complies with the organization’s document management and retention policies. In addition, third-party compliance should be audited.

Step 2: Get Executive Support

We all know “everything rolls downhill,” which usually carries a negative connotation. In the case of ILM, this is a positive! The directive to manage information must come from “above” – the executive level – if employees are expected to comply.

Just as the human spine supports the entire body, the C-level is the backbone that supports this initiative’s success by:

- Validating that the program aligns with organizational goals
- Communicating the business value of compliance
- Defining roles and responsibilities
- Delegating and enforcing accountability

Step 3: Establish Partnerships

Establishing partnerships with others in the organization provides great value, including the benefit of synergy. In the case of implementing ILM, partnerships should include, at the very least, members from legal and IT. It also may be of value to include key members from other areas, such as risk, compliance, internal audit, and some business units. Their perspectives can lead to a more strategic approach, and getting their support will help build momentum for a successful program.

Step 4: Form a RIM/IG Committee

The RIM/IG Committee should include not just members from the executive level and from the partners mentioned above, but also people who understand how their business units use information to achieve organizational goals. Choose those who are long-term employees, familiar with the organization’s culture and processes, and considered the “go-to” leaders for business initiatives.

This committee can also be the catalyst for ensuring that change management and continuous improvement processes represent the organization’s dynamic needs.

Step 5: Establish Policies and Procedures

Develop clear policies and procedures, provide employee training at orientation and regularly thereafter, make their documentation easily accessible, and ensure that employees know where to get guidance about them so that expectations for compliance and the consequences for non-compliance are clear.

These policies should take into account the organization’s culture, such as its tolerance for risk. For example, will some want to keep information “just in case” rather than comply with the retention policy?

Because organizations are dynamic and laws/regulations change, policies and procedures should be reviewed annually, updated as needed, and communicated to all employees, utilizing the C-level and the RIM/IG Committee for support.

Step 6: Provide Guidance for New Systems

The business units that are usually included when considering new software systems are those requesting the system, procurement, IT, and legal. Make sure you are also involved to ensure that new systems comply with all relevant ILM policies and regulations and that data in the new system can be purged in compliance with the retention policy. When new systems are implemented is also the right time to update the data map.

Step 7: Monitor All Systems

You must work with whomever “owns” the system, including whomever owns its budget, to help ensure that its data is classified properly so it will be maintained in compliance with retention policies.

Working with whomever has the authority to authorize the final disposition for information ensures that it will be managed appropriately through this last step in its life cycle.

Step 8: Document Due Diligence

Document these steps, including the development processes, because this demonstrates that due diligence was taken in establishing the ILM approach. Such evidence may be needed if ever the courts question the organization’s motives for how it manages its information.

To ensure that the corporate
knowledge of information systems remains current and accurate, review and update this documentation at least annually.

**ILM as Foundation**

Although ILM has been practiced by RIM professionals for more than three decades and has its basis in managing paper and other physical information, it is even more essential today given the tremendous growth of electronic information. In fact, ILM is foundational to information governance, which provides the structured framework and accountabilities that allow an organization to leverage its information assets to achieve its business goals. Ensuring that your organization is managing its information throughout its life cycle in compliance with all policies and procedures is fundamental to an effective IG program. **END**

*Melissa G. Dederer, IGP, CRM, can be contacted at Melissa.Dederer@ironmountain.com. April Dmytrenko, CRM, FAI, can be contacted at ADmytrenko2@aol.com. See their bios on page 47.*

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**Resources for Advancing Your Career**

**Research Methods for the RIM Professional**

*Nancy Dupre Barnes, Ph.D., CRM, CA*

In this era of “big data,” records and information management (RIM) professionals that have a basic understanding of the foundational theories buttressing data analysis, such as research methods, have increased value to their organizations. This book serves as an introduction to research methods, using examples that are specifically relevant to archives and RIM professionals, where possible. It will also help IGP candidates improve the knowledge and skills referenced in the DACUM chart domain of “Managing Information Risks and Compliance.”

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**Understanding Electronic Records Storage Technologies**

*(ARMA International TR 26-2014)*

This technical report includes a broad discussion of storage technologies and service offerings for electronic records, including operational issues such as outsourcing considerations and contract-related elements. It includes checklists and information purchasers can use for creating a request for proposal and for evaluating and selecting electronic records storage service providers.

Note: This publication does not address the storage of physical records, which is covered in *Guideline for Evaluating Offsite Records Storage Facilities.*

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Turning the Big Data Crush into an Advantage

Anissa C. Hudy, J.D.

Data Crush: How the Information Tidal Wave Is Driving New Business Opportunities by Christopher Surdak transports readers through the development of big data – from an historical view to the potential realities associated with the ever-growing, substantial opportunities to leverage big data, which he defines as the “application of statistical analysis to very large quantities of information.”

Data Crush will attract business owners and leaders who want to use their data to compete successfully for market share. It will also be of interest to consumers who want to enhance their awareness of the strategies and tools organizations use to compete for their business and potentially ignite deeper consideration before they make transactions.

What Is Driving Big Data

Surdak addresses throughout the book the theme of what is driving the big data crush, focusing on trends such as mobility and cloud computing. He considers the transformation of information through technological development, including the move away from land lines toward smart phones and the near eventuality of smart glasses.

All of this technology makes it easier for people to convey information from a variety of mobile platforms and, in turn, increases connectedness between people and the businesses that serve them.

Also, people are living social (or virtual) lives through platforms like Facebook and Twitter, which allows businesses to create models of their “behaviors, beliefs, preferences, and opinions with a level of accuracy and relevancy that was previously impossible.”

These factors create significant opportunity to use this data to generate revenue and to reduce costs by recognizing the transformations big data can drive, such as reducing the number of “brick and mortar” retail shops in favor of the online transaction model. With this latter change and its corresponding increase in data come the demand for more efficient methods of transacting business, with cloud computing driving down the cost.

How Big Data Affects Business

Surdak discusses the impact on business that the information he classifies as the “where” and “when” of people produces. With the technology behind mobile devices, Surdak says, businesses can now capture where consumers are when they make decisions, where they travel, and what they purchase.

Leveraging this vast amount of information efficiently and effectively – with as little human intervention as possible – will drive consumer demand, he said. And, it will require new ways of addressing delivery channels of consumer goods, between the company, its supplier, and the consumer. Surdak points out that the cloud will be an integral part of streamlining to deliver the ultimate experience to the consumer.

How Successful Businesses Will Respond

Surdak begins the discussion of business response to big data with two fundamental business concepts: know the core business and develop strategies true to that core. Then, he focuses on how to spin that basic strategy into competing in this century.

He focuses on the need for speed to reduce the time involved in completing typical business processes. When changes are made, business must utilize the various forms of conveying data to “create buzz” for those changes, he writes.

Interestingly, Surdak theorizes that gamification – making what is work seem like a game – will be the key to adapting and expanding. He
also recommends the well-known concept of recognizing employees who excel, but he focuses on encouraging and rewarding for their contributions those that excel in the gamification environment. Surdak also recommends gamifying the customer experience.

The Future of Big Data
Surdak summarizes his theories and strategies for dealing with the big data crush by hypothesizing and taking readers on the journey through five scenarios. A timely one is a New Year’s resolution to lose weight being made more successful for both the dieter and the businesses supplying her with all her needs — from encouragement to motivational music for training, the right food, and exercises.

Providing the dieter one app, Diet Def Con, will not only kick-start her diet journey, but will also create a multi-level, mass revenue-earning opportunity for businesses to provide all the tools she needs to be successful — including an alert to her doctor and friends that she has started the diet program.

Overall, Surdak does a good job of highlighting how to leverage available and emerging technology to increase business success and of educating unenlightened consumers about what might be driving their behaviors and choices.

Anissa C. Hudy, J.D., can be contacted at ahudy@wnj.com. See her bio on page 47.

Standard Practices for Primary Archives Management Tasks
Stephen E. Haller, CRM

Archival Arrangement and Description

Archival Arrangement and Description is the Society of American Archivists’ (SAA) initial piece in its modular series “Trends in Archives Practice.” This volume covers recent standard practices for the primary tasks in managing archives and is meant to complement SAA’s 2005 Arranging and Describing Archives and Manuscripts by Kathleen Roe. It includes three modules:

1. “Standards for Archival Description” by Sibyl Schaefer and Janet M. Bunde
2. “Processing Digital Records and Manuscripts” by J. Gordon Daines III

Editors Christopher J. Prom and Thomas J. Frusciano define the publication’s intended audiences as experienced and new archivists and those in related professions. This review considers each of the modules separately.

Standards for Archival Description
Schaefer and Bunde provide a thorough and readable history of archival standards and an overview of descriptive standards and acronyms. They state the importance of standards to appropriately describe archival collections from both the archivist’s and user’s perspective, but they also acknowledge that standards have not always been universally accepted. Still, they say, “...standards will help your descriptions get discovered.”

The authors provide four logical sections:

1. Data Structure Standards (e.g., machine readable cataloging [MARC] and encoded archival description [EAD])

Archival Arrangement and Description
Authors: Sibyl Schaefer, Janet M. Bunde, J. Gordon Daines III, Daniel A. Santamaria
Editors: Christopher J. Prom, Thomas J. Frusciano
Publishers: Society of American Archivists
Publication Date: 2013
Length: 275 pages
Price: $34.99 (print or PDF)
ISBN: 1-931666-45-8
Source: www.archivists.org/bookstore
2. Data Content Standards (e.g., Anglo-American cataloguing rules [AACR] and Describing Archives: A Content [DACS])
3. Data Value Standards (e.g., Library of Congress subject headings [LCSH] and others)
4. Metadata and Companion Standards (e.g., descriptive and structural)

These sections offer a blend of quick reference and examples for what can seem tedious subjects for some audiences. Taken together, the ensuing “Archival Descriptions for Your Repository” section, the module’s conclusion, and three appendices are perhaps the most helpful parts of this module.

**Processing Digital Records and Manuscripts**


In the first section, the author provides context for and the history of archivists’ responses to the constantly shifting nature of technology and the increasing volume and formats of information arriving at many archives.

Daines uses the business process framework to describe the workflow of best practices as applied to digital records: accessioning, documenting context, conservation assessment, arrangement, description, and access tools. He emphasizes here and in the subsequent section how this familiar archival checklist can work with digital records.

In the concluding recommendations section, Daines encourages practitioners to engage with the literature (e.g., in the appendices); embrace “digital curation” as a concept; not wait for perfect storage solutions (i.e., work on solutions and learn some of the tools available, starting with the list in the appendices); develop policies and a preservation plan; and pursue specific professional development (e.g., digital forensics). The author presents a helpful set of tangible steps in this section.

The appendices include two case studies, recent activities, standards, and further reading.

**Designing Descriptive and Access Systems**

Santamaria covers a range of solutions and tools for accessioning, describing, and providing access to both physical and digital archives through the Internet. He emphasizes the need for descriptions and descriptive data to be captured and created in a manner to facilitate its delivery for efficient patron access.

He also recognizes the nationally pervasive and problematic lag between accessioning and the availability of online finding aids for most repositories (i.e., backlogs). The author recommends a “workflow” approach by moving some of the descriptive work to early stages of pre-accessioning and accessioning for later data productivity. A concise and helpful bulleted list of “Description and Access Activities” reinforces this big-picture approach.

In the section on describing archival materials, Santamaria highlights creating catalog records and finding aids and analyzing certain standard types. He offers prescriptions for managing legacy data for older collections (e.g., converting older MARC records to other formats like EAD, hypertext markup language, or portable document format for Internet posting).

The author also acknowledges the benefit of recent “More Product, Less Process” methods that focus on doing the minimal arranging, preserving, and describing of materials that are necessary for meeting user needs as a way to reduce backlogs of accumulated collections.

In the section devoted to providing patrons access through online descriptive systems, Santamaria describes a range of options for larger and smaller repositories to consider (e.g., using EAD or non-EAD files). He includes an overview of commonly used digital collection systems and the opportunity for (and challenges of) patron-initiated contributions to digitization efforts like crowdsourcing.

The author concludes with a reminder of the benefits of an evaluation of systems that considers users’ perspectives. This module is the most heavily illustrated of the three, but some of the more detailed screenshots are visually difficult to read. Of the five appendices and case studies for this module, the “Summary of Recommendations,” “Selected Tools,” and “Sample Workflow and Tools for Small Repositories” are particularly welcome.

**Recommendation**

Taken together or separately, each module within Archival Arrangement and Description offers timely topics for consideration by archivists, records managers, and other cultural resource stewards who face these challenges. Although many of the topics interrelate across the modules, the editors and authors are careful to ensure that this overlap is mutually reinforcing, not confusing or too redundant. **END**

Stephen E. Haller, CRM, can be contacted at stephen.haller@usm.edu. See his bio on page 47.
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San Diego, California, was a stunning backdrop for the extraordinary Expo, education sessions, networking opportunities, and social events at ARMA International’s 59th Annual Conference & Expo Oct. 25-28. This special section highlights the Best of ARMA Live! 2014: the individuals, chapters, and organizations that won honors.

**Best of ARMA Live! Expo**

In its inaugural year, the Best of ARMA Live! Expo competition brought special recognition for a variety of companies in the following categories:

**Best New Product**
- **Iron Mountain** Information Maps
- Honorable Mention: RSD – RSD GLASS® Version 3.3
- ibml – SoftTrac Synergetics

**Best Product Demo**
- **Iron Mountain** Information Maps
- Honorable Mention: Opex – Falcon: The universal document scanning work station

**Best iGenius for Industry-Specific Groups**
- **Viewpointe**
- Honorable Mention: Recall

**Best Industry Intelligence Session**
- **RSD** “Transitioning from Records Management to Information Governance”
- Honorable Mention: ibml – “Strategies for Taking Your Automation Plans to the Next Step”

**Best Solutions Showcase**
- (on Expo Hall floor)
- **HP Autonomy** “From Records Management to Information Governance – Clean up, Collaborate and Comply with HP Records Manager & HP ControlPoint”
- Honorable Mention: Nuix – “Bring Information Transparency to Data in the Wild”

**Best of the Consultants Corner**
- (Tie)
- **Kaizen**
- **Contoural**
- Honorable Mention: Cadence Group

**Best Exhibitor Booth**
- **RSD**
- Honorable Mention: Iron Mountain

**Friendliest Exhibitor Booth Staff**
- **ibml**
- Honorable Mention: Iron Mountain

**Best Exhibitor Game/Activity**
- **VRC**
- Honorable Mention: Zasio

**Best Exhibitor Swag/Giveaways**
- **RSD** Shot glasses
- Honorable Mention: Nuix – Mood light USB hub

**Best Hospitality Suite**
- **Iron Mountain**

**Best Pub Crawl Refreshment**
- (Tie)
- **RSD**
- **Recall**
- **Knowledge Lake**
- Honorable Mention: Collabware – “Wine Down”

**Best After Hours Event**
- **Iron Mountain’s “After Dark”**
- Honorable Mention: Recall’s Boat Cruise
**Distinguished Service Award**

These three members were presented the Distinguished Service Award for clearly giving of themselves to the work of the association and the fulfillment of its goals at the local, regional, and international levels.

Susan Lord, CRM  
Nick DeLaurentis, CRM  
April Dmytrenko, CRM, FAI

**Expo Grand Prize Giveaway Winners**

Sponsored by RecordPoint and Colligo

Hundreds of attendees participated in our Grand Prize Giveaway by visiting exhibitors, collecting participation stamps, and turning them in for the drawing held at the close of the Expo. These are the lucky attendees whose names were drawn:

**$1,000**  
Perla Halog

**$500**  
Jennifer Thompson  
Diana Kizer  
Michelle McCollum  
Linda Shepard

**$250**  
Yanming Zhang  
Isela Estrada  
Brian Welbaum  
John Actor  
Javitta Malone  
Sharon Schulze  
Steve Snyder  
Cristeta Luchica
ARMA International Company of Fellows

These two members were inducted into the Company of Fellows, which honors long-time ARMA International members who have distinguished themselves through outstanding achievements and contributions in records and information management, as well as noteworthy accomplishments in all levels of the association.

Galina Datskovsky, Ph.D., IGP, CRM, FAI
Fellow No. 48

Patricia Franks, Ph. D., IGP, CRM, CA, FAI
Fellow No. 49

Britt Literary Award
This award recognizes the author of the best feature article published in Information Management magazine during the last program year based on its originality, quality of writing, contribution to the records and information management field, timeliness, and interest to readers.

Marc Kosciejew, Ph.D.
“Proposing a Charter of Personal Data Rights.”
May/June 2014
Information Management

Chapter Award Winners

Chapter of the Year
These chapters most effectively demonstrated their support and promotion of ARMA International’s objectives through their programs and activities:

Small Chapter – Greater Chattanooga Area
Medium Chapter – Western Michigan
Large Chapter – Northern Virginia
Very Large Chapter – Houston

Chapter Website of the Year
These chapters most effectively used their web pages to present information governance, inform members of chapter activities, and promote the chapter, its activities, and ARMA International:

Small Chapter – Boise Valley
Medium Chapter – Puget Sound
Large Chapter – Northern Virginia
Very Large Chapter – Houston

Region Website of the Year
Canada Region

Chapter Newsletter of the Year
These chapters excelled in effectively using graphics to present high-quality, relevant, and original material:

Small Chapter – Boise Valley
Medium Chapter – Hawaii
Large Chapter – Arizona
Very Large Chapter – Metropolitan New York City

Chapter Innovation Award
Metropolitan New York City Chapter was the best in taking an innovative approach to enhance an area of its operations or programs.

Special Project Award
The Atlanta Chapter is recognized for being the individual, chapter, or region that most effectively conducted a service project and advanced the public’s awareness of records and information management.

Chapter Participation Award
These are the chapters that most increased member participation during the program year:

Small Chapter – Kansas Capital
Medium Chapter – Western Michigan
Large Chapter – Austin
Very Large Chapter – Mile High Denver

Chapter Membership Recruitment Award
These are the chapters that most increased their membership in the past program year:

Alaska
Amarillo-Tejas
Arizona
Austin
Bellevue-Eastside
Boston
Central Arkansas
Central California - Bakersfield
Central Illinois
Dallas
Fort Worth
Golden Gate
Greater Chattanooga Area
Greater Cleveland
Greater Sacramento
Hawaii
Mid-Michigan
Mile High Denver
Montreal
Mt. Diablo
National Capital Region - Ottawa
Nebraska
North Dakota - Bismarck/Mandan
Northern New Mexico
Orange County
Prince Edward Island
Richmond
San Antonio
Silicon Valley/Santa Clara
Swiss Triangle Area
Trinidad and Tobago
Utah-Salt Lake
Western Colorado
Western Michigan

Chapter Spring Recruitment Campaign Winner
These are the chapters that most increased their membership during the spring membership recruitment campaign:

Small Chapter – Greater Sacramento
Medium Chapter – Madison
Large Chapter – Golden Gate
Very Large Chapter – Metropolitan New York City

Chapter Merit Award Winners
This award recognizes chapters that have actively participated in projects and programs identified with the ARMA International’s annual goals:

Gold Award
Golden Gate
Mt. Diablo
National Capital Region - Ottawa
Silver Award
Arizona
Prince Edward Island
Utah-Salt Lake

Bronze Award
Alaska
Central Iowa
Central Missouri
Detroit
Florida Gulf Coast
Greater New Orleans
Greater Seattle
Hawaii
Kansas Capital
Metropolitan New York City
Nova Scotia
Sierra Nevada
Silver State
Southern California Inland Empire
Wyoming

Chapter Leaders of the Year
These are each chapter’s most outstanding leaders for participating and contributing to the chapter and region and/or ARMA International activities, as well as supporting and promoting ARMA International objectives.

Amarillo-Tejas – Diane Apeland
Arizona – Elaine McKenna
Austin – Gina Cervantes
Austin – Jessica Ellison
Boise Valley – Ron Bassett
Boston – Mielissa Strawhecker
Calgary – Barbara Bellamy
Central California – Bakersfield – Bridgette Johnson
Central Coast – Daniel Martinez
Central Illinois – Cathy Kimball
Central Iowa – Cindy Korb
Central Missouri – Jana Taylor
Central New Jersey-Princeton – Karen V. Harvey
Central New York – Alizabeth Fowler
Charlotte-Piedmont – Donnell R. Wilson
Chicago – Pamela Coan
Columbia Basin – Donna Eich
Connecticut – Emily McCarthy
Dallas – Stephanie King
Detroit – Glen R. Foldessy
Diamond State – Hutch Johnson
Edmonton – Jessica Lai
Florida Gulf Coast – Bernard Crosby
Golden Gate – Michele Koepf
Greater Anchorage – Dawn Kewan
Greater Chattanooga – Kevin Tisdal
Greater Cincinnati – Eric French
Greater Cleveland – Bette J. Lloyd, CRM
Greater Kansas City – Dana Russell
Greater Los Angeles – Philip Lachadores
Greater New Orleans – Emily Martin
Greater Sacramento – Tim Ash
Greater Seattle – Andrea Better
Greater Washington DC – Darren Brunning
Hawaii – Rosalie Brissette
Houston – Beverly McManan, CRM
Kansas Capital – Jennifer Sweatt
Lexington – Dorothy DeLong
Liberty Bell Philadelphia – Michael Fagan
Long Island – Deborah Tamborski
Louisville – Andy Dobelstein
Metro Maryland – Beth Cantor and Peggy Sanders
Metropolitan New York City – Anita Castora
Mid-Michigan – Jeff Baldwin, CRM
Mile High Denver – Ed Sturgeon
Mt. Diablo – Stacey English
Nebraska – Rachelle Takemura
New Brunswick – Linda MacAdams
Newfoundland-Terra Nova-St.John’s – Virginia Connors
Northern Colorado – Paula Sutton
Northern Illinois – Marla Rimkus
Northern New Jersey-Summit – Ilana Lutman
Northern New Mexico – Cliff C. Serrano
Northern Virginia – Elizabeth W. Adkins
Nova Scotia – Andre Benard
Orange County – Robin Fortier
Oregon – Elly Bracamontes, IGP
Palm Beach-Treasure Coast – Mauricio Perry
Pittsburgh – Ruth R. Snyder
Prince Edward Island – Mark DeMone
Puget Sound – Ember Krumwied, CRM
Richmond – Jonathan Hawes
Rio Grande – Cindy Hargett
San Antonio – Jenny Barker, CRM
San Diego – Jessica Fairchild
Saskatchewan – Rick Stirling
Sierra-Nevada – Joy Sowel
Chapter Members of the Year

These members had the highest level of contribution to their chapter’s activities and best supported and promoted ARMA International objectives during the program year:

Amarillo-Tejas – Vickie Shelton
Arizona – Deborah Robbins
Atlanta – Letosha McClain
Austin – Martha Whitted
Boston – Rose Schofield
Calgary – Wayne Hoff
Central CA-Bakersfield – Angela Godfrey
Central Coast – Antoinette Mann
Central Illinois – Nikki Mahatanankoon
Central Iowa – Traci Larsen
Central Missouri – Ray Kinard
Central New Jersey – Bruce C. Stein
Charlotte-Piedmont – Kristen Layton
Connecticut – Susan Gleason
Dallas – Elaine Braddock
Detroit – Kathryn Ann Pitts, CRM
Diamond State – Matt Larmore
Edmonton – Lea Beeken
Florida Gulf Coast – Kara Schrader-Smith
Golden Gate – Cathy Sparks
Greater Anchorage – Linda Wyenne
Greater Chattanooga – Rhonda Hazlett
Greater Cincinnati – Aspasia Psychogios
Greater Cleveland – Marie Jones
Greater Dayton – Jahzerah Brooks
Greater Kansas City – Beth Rudolph
Greater Los Angeles – Penny Kaufhold
Greater New Orleans – Debbie Hull
Greater Sacramento – Lily Mullins
Greater Seattle – Jerry Rugh
Greater Washington DC – Susan Brown
Greenville Area – Carrie Wilson
Hawaii – Laurie Tomooka
Houston – Beverly Harris
Kansas Capital – Michelle Rose
Liberty Bell of Philadelphia – Vincent Ferguson
Long Island – Joseph Coen
Longview/ARK-LA-TEX – Rosa Baker
Louisville – Susan Rector
Metropolitan New York City – Lauren Barnes
Mid-Michigan – Jennifer Silveus
Mile High Denver – Lindy Naj
Mt. Diablo – MaryAnn Mundy
Nebraska – Amber Roberts
New Brunswick – Leanne Kinnear
Newfoundland-Terra Nova-St.John’s – Elizabeth Evans
Northern Illinois – Heather Sharbaugh
Northern New Jersey – Amir Gilani
Northern Virginia – Bruce Bailey
Nova Scotia – Courtney Bayne
Orange County – Verna Lea Goodloe
Oregon – Kristina Lengvenis, CRM
Palm Beach-Treasure Coast – Rosemary Raymond
Pittsburgh – Preston W. Shimer
Prince Edward Island – Ann-Marie McIsaac
Puget Sound – Susan Haigh
Rio Grande – JR Lopez
San Antonio – Cathy Drolet
San Diego – Eric Nedelman
Saskatchewan – Joanne Klein
Sierra-Nevada – Kathryn Etcheverria
Silicon Valley/Santa Clara – Kathleen Becker
Silver State – Frank Gillette
South Carolina Coastal – Michelle VanAllen
Southern California Inland Empire – Laurie McAllaster
Southwestern Ontario – Jenn Stuber
St. Louis – Jordan McKee
Tulsa – Mikki Cole
Utah-Salt Lake – Howard Loos
Vancouver – Stuart Rennie
Vancouver Island – Alyssa Meiner
Western Colorado – Alyssa Meiner
Western Michigan – Stephanie Custaa
Winnipeg – Carol Graham
Wyoming – Ramona Christensen
The Principles: Principles for Assessing an IG Program
Page 20
Julie Gable, CRM, CDIA, FAI, is the newly retired president and founder of Gable Consulting LLC, a firm that served clients’ information governance needs for the past 25 years. The author of numerous articles on information-related topics, she has a master’s degree in finance from St. Joseph’s University and a bachelor’s degree in management from Drexel University. Gable can be contacted at juliegable@verizon.net.

From RFP to Selection: Guidance for Outsourcing RIM Functions
Page 22
Dave Bergeson, Ph.D., CAE, is the executive director of PRISM International, a 500-member trade association dedicated to providing education and services related to physical records storage and management, data protection services, imaging and digital conversion services, and confidential destruction services. Since earning his Ph.D. in anthropology from Washington University in St Louis, he has spent 18 years in the field of association management. Bergeson is a Certified Association Executive, a designation shared by only approximately 5% of all association executives. He can be reached at dbergeson@prismintl.org.

Count the Cost: Quantifying Your Vital Records Risk
Page 27
William Saffady retired as professor at the Palmer School of Library and Information Science, Long Island University in New York City, where he taught courses on information management topics. He is the author of over three dozen books and many articles on records management topics. Saffady serves as an information management consultant, providing training and analytical services. He can be contacted at wsaffady@aol.com.

RIM Fundamentals: 8 Steps to Effective Information Lifecycle Management
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Melissa G. Dederer, IGP, CRM, is a records and information governance consultant with more than 20 years of experience in records and information management, project management, and automation. A certified Information Governance Professional and Certified Records Manager, she currently serves on ARMA International’s Board of Directors. She can be contacted at Melissa.Dederer@ironmountain.com.

April Dmytrenko, CRM, FAI, is principal consultant with Information Governance & Compliance Strategies. She has 30 years of experience as a RIM practitioner and consultant and uses her expertise to advise corporations on strategic initiatives, best practices, and information governance. A Certified Records Manager, Fellow of ARMA International (FAI), and FAI chair, she is a frequent speaker and author on information governance-related topics. She can be contacted at ADmytrenko2@aol.com.

Turning the Big Data Crush into an Advantage
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Anissa C. Hudy, J.D., is senior counsel for Warner Norcross & Judd LLP, where she has worked extensively on non-compete cases in state and federal courts that involved trade secrets and had e-discovery issues that required her to retain forensic experts and analyze reports and information acquired through those vendors. Hudy received her juris doctor degree (magna cum laude) from the University of Detroit, where she was managing editor of its Mercy Law Review. She can be contacted at ahudy@wjn.com.

Standard Practices for Primary Archives Management Tasks
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Stephen E. Haller, CRM, is curator of historical manuscripts and university archives/assistant professor at The University of Southern Mississippi. He has served in archives and records management posts more than three decades at historical organizations, including as senior director of collections and library for the Indiana Historical Society and director of archives and records for the Colonial Williamsburg Foundation in Virginia. Haller received his bachelor of arts and master of arts degrees from Miami University (Ohio). He can be contacted at stephen.haller@usm.edu.
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