



# DIGITAL Preservation

Is your current approach  
to long-term digital  
information failing the  
business?

In Partnership with



 aiim eBook

Delivering the priorities and opinions of AIIM's 193,000 community



# Digital Preservation — Is your current approach to long-term digital information failing the business?



**John Mancini**  
Chief Evangelist,  
AIIM

## About the Author

John Mancini is an author, speaker and respected leader of the AIIM global community of information professionals. He believes that in the next 5 years, a wave of Digital Transformation will sweep through businesses and organizations, and that organizations now face a fundamental choice between Information Opportunity and Information Chaos.

As a frequent keynote speaker, John offers his expertise on Digital Transformation and the struggle to overcome Information Chaos. He blogs under the title "Digital Landfill" and has over 11,000 Twitter followers and 5,000 LinkedIn followers.

John can be found on Twitter, LinkedIn and Facebook as **jmancini77**

## About AIIM

AIIM has been an advocate and supporter of information professionals for nearly 70 years. The association mission is to ensure that information professionals understand the current and future challenges of managing information assets in an era of social, mobile, cloud and big data. AIIM builds on a strong heritage of research and member service. Today, AIIM is a global, non-profit organisation that provides independent research, education and certification programs to information professionals.

AIIM represents the entire information management community: practitioners, technology suppliers, integrators and consultants. AIIM runs training programs, which can be found at [www.aiim.org/Training](http://www.aiim.org/Training).



© 2017

### AIIM Headquarters

1100 Wayne Avenue, Suite 1100  
Silver Spring, MD 20910  
+1 301.587.8202  
[www.aiim.org](http://www.aiim.org)

### AIIM Europe

Office 1, Broomhall Business Centre,  
Worcester, WR5 2NT, UK  
+44 (0)1905 727600  
[www.aiim.org](http://www.aiim.org)

# Digital Preservation — Is your current approach to long-term digital information failing the business?

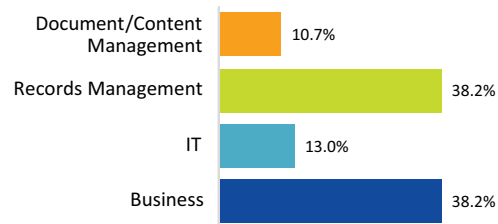


## About This Research

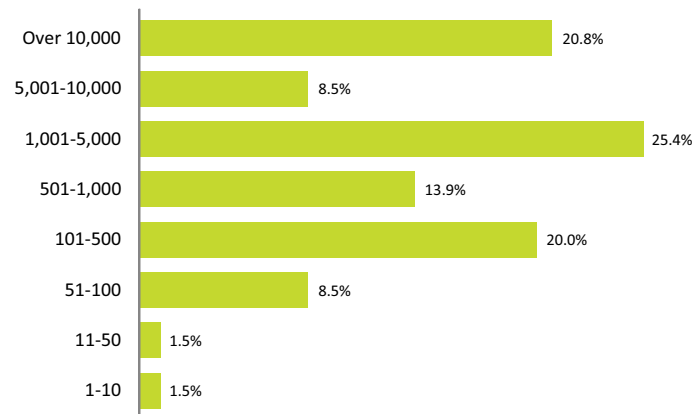
The findings in this report are based in on a global survey done with a web-based tool in October 2017.

163 executives participated in the survey, representing the following roles, company sizes, and industries:

Which option best describes your role in your organization?



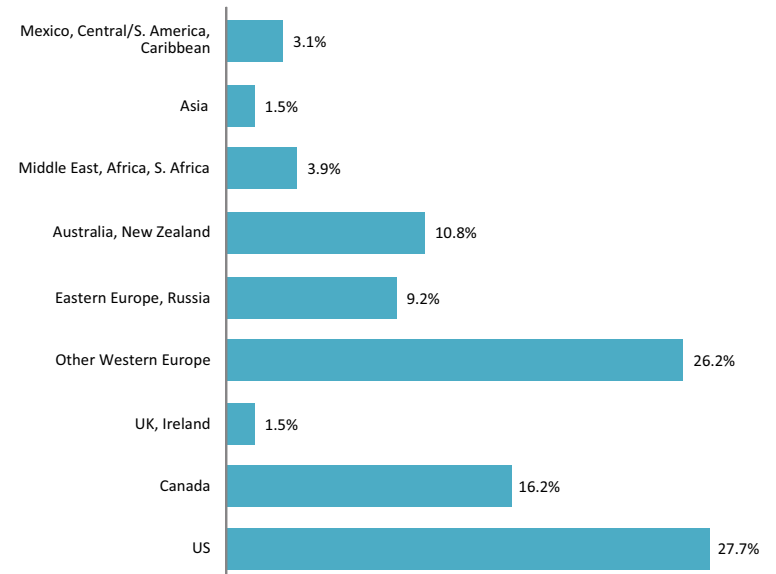
Approximately how many employees are there in your organization?



### NOTE:

In this e-book, “medium” organizations are those with 51-1,000 employees, and “large” organizations are those with more than 1,000 employees.

In which country or region are you located?



# Digital Preservation — Is your current approach to long-term digital information failing the business?



## Executive Summary

In the pre-digital era at AIIM, microfilm did a pretty good job of taking care of both the short-term **information management needs** of many organizations (better, faster, cheaper, easier to manage than paper) and their long-term **information preservation needs** (eye-readable for more than 500 years).



### NOTE:

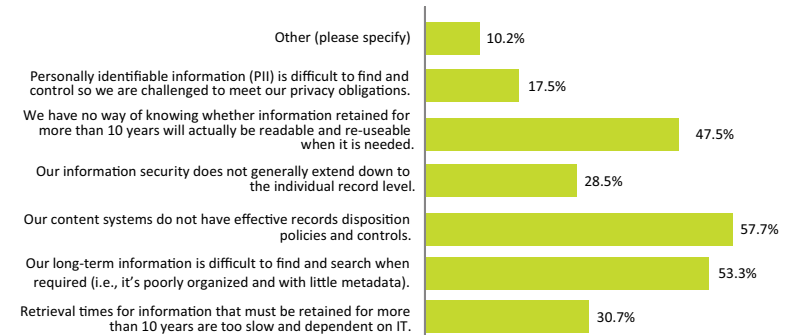
We define digital preservation as “the capabilities to ensure the readability and usability of digital information that must be retained for longer than 10 years.”

The two objectives — **management** and **preservation** — got separated along the digital journey. In the process, long-term preservation of digital information took a backseat to the short-term utilization and optimization of this information in business processes. In addition, many organizations lost track of the key differences between back-up, archiving, and true long-term preservation.

Consider the major obstacles facing organizations in the effective management and access to critical digital information over the long-term:

1. Existing content systems are not effective (57%);
2. Long-term information is difficult to search (53%); and
3. Users have no way of knowing whether information > 10yrs will be readable (47%).

What do you see as the **THREE** most significant obstacles to effective management and access to critical digital information over the long-term? (please pick 3)



The *business* implications of the failure to ensure access (search/retrieval) and usability of long-term digital information are significant. This failure is impeding the ability of many organizations to extract value, mitigate risk and use information in an intelligent way for competitive advantage.

Organizations have an accumulated information risk from the past 30 years of digitization that now must be addressed *retrospectively*. Organizations are now reconsidering all of the many information repositories that exist and the information they contain, and struggling with fundamental questions of what to save, how long to save it, and in what form.

This is all about to get a lot worse as the volume, variety, sources, and formats of information explode and as the half-life of the software applications to read and interpret all of this information shrinks.

# Digital Preservation — Is your current approach to long-term digital information failing the business?



According to IDC, the digital universe is doubling every two years, and will reach 40,000 exabytes (40 trillion gigabytes) by 2020. (Note: A single exabyte of storage can contain 50,000 years' worth of DVD-quality video.) Organizations that fail to immediately address the long-term preservation implications of this massive tsunami of data as it enters the organization *will never ever catch up*.

The net-net of this is that we've tended to adopt an image of **Digital Preservation** as something frozen in time and inaccessible and hidden away in the less-traveled parts of the organization.

I've been struck by recent conversations that view **Digital Preservation** as something different, and frankly, more alive — a set of capabilities that can be used not only to support compliance and reduce business risk, but also mined to create new value. And — shock of shocks — not located in the basement, but in the cloud.

It is time to think about **Digital Preservation** differently — as a dedicated capability that keeps long-term information alive and usable and trusted and easily found. The time to act is now. AIIM believes that digital preservation needs to be viewed through the prism of a set of Intelligent Information Management capabilities that are integral to delivering upon the Digital Transformation challenge of **understanding, anticipating, and redefining internal and external customer experiences**.

Our research leads to 4 key conclusions about **Digital Preservation**:

1. **Digital preservation** is seen as vital by the business and by information professionals for ensuring that long-term digital information can be used intelligently and efficiently, but C-Suite and IT understanding and commitment are lacking.
2. **Traditional IT strategies** focused on back-ups and archiving are just not good enough to release to potential value that is now trapped in long-term digital information.
3. **Preservation concerns** are no longer confined to “traditional” operational, legal and compliance documents, but increasingly extend to a **broader and more varied set of business assets**.
4. **Digital Preservation** is emerging as a critical Intelligent Information Management capability that requires a dedicated commitment.



# Digital Preservation — Is your current approach to long-term digital information failing the business?



**01 Digital preservation is seen as vital by the business and by information professionals for ensuring that long-term digital information can be used intelligently and efficiently, but C-Suite and IT understanding and commitment are lacking.**

Let's address the elephant in the room first: "Amidst all of the digital workplace and digital transformation objectives on the plate, do organizations care about Digital Preservation?"

The answer is a clear yes. Organizations have a more nuanced understanding of the importance of ensuring the readability and usability of digital information that must be retained for longer than 10 years than is conventionally believed. The many well-known stories in the popular culture tied to information gaps — records destroyed by natural disasters, orphaned content, media for which there is no longer a device to read it, files written in programs that no longer exist — appear to have had an impact.

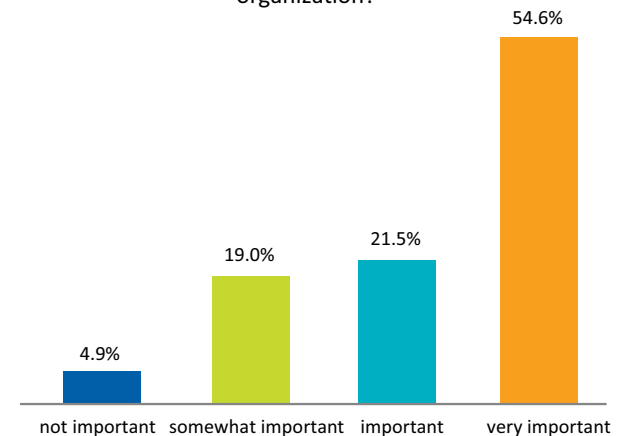
Over 75% of those we surveyed described digital preservation as "important" or "very important" to their organization.

These results are consistent across roles, geographies, and company sizes with the following exceptions:

- North American companies (83%) place more importance on preservation than European companies (69%).

- Business people (73%) and those with document management/content management roles (79%) place a bit less importance on preservation than those with records management (84%) or IT (82%) roles.

How important is digital preservation to your organization?



This importance of digital preservation is echoed — although not as strongly — when practitioners are asked to reflect upon their own organizational practices. While there is near universal agreement about the **importance** of digital preservation, the **reality** in most organizations is a bit different.

The gap between intentions and reality is highlighted in these quotes from survey participants:

- "I don't think it will become a high priority until something 'significant' happens that will raise preservation up to a higher priority."

# Digital Preservation — Is your current approach to long-term digital information failing the business?



- “It finally seems to be getting some attention, but in our environment of ‘do more with less’ it remains to be seen whether the C-Suite is committed to it or not.”
- “Due to the growth of our organization over the last few years, no real strategy is in place for the management and preservation of the proliferation of digital information.”

Relative to the question of who bears responsibility for digital preservation, there is consistency across regions and organizational size when it comes to information that must be preserved for compliance reasons, and a need for business executives to take greater ownership of information particular to their part of the business. Not surprisingly, mid-sized organizations are more likely to answer “No one is responsible” than large organizations.

For your organization, which business function has responsibility for ensuring the readability and usability for compliance information? General business information?	Compliance information	Business information
IT	36.5%	38.7%
Records and Information Management (RIM)	30.2%	26.5%
Business Group/Business Management/Line of Business	8.8%	18.1%
Archive	8.2%	3.9%
Security/Risk Management	3.8%	3.2%
Legal	3.8%	1.9%
Compliance/Audit	1.3%	2.6%
No one	7.6%	5.2%

## 02 Traditional IT strategies focused on back-ups and archiving are just not good enough to release the potential value that is now trapped in long-term digital information.

Traditional impressions of “digital preservation” — something frozen in time, inaccessible and hidden away in the less-traveled parts of the organization — are starkly at variance with the reality of a strategic enterprise approach.

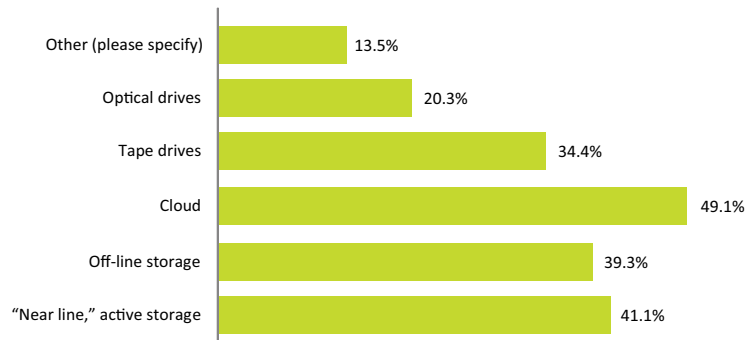
There is a good news/not-so-good news dimension to how organizations are thinking about the cloud and digital preservation. **The good news** is that organizations are beginning to understand that cloud technologies are a key enabler of a modern preservation strategy. **The cloud is the dominant strategy** to ensure the readability and usability of digital information that must be retained for longer than 10 years (49%) — followed by near-line active storage (41%), and off-line storage (39%). These results are consistent across roles, geographies, and company sizes with the following exceptions:

- Large organizations are much more likely to have optical drives as part of their strategy (30%) than mid-sized organizations (10%).
- North American organizations are much more likely to have near line, active storage as part of their strategy (54%) than European organizations (23%), which are much more likely to have the cloud as part of their strategy (63% for Europe vs. 40% for North America).

# Digital Preservation — Is your current approach to long-term digital information failing the business?



Which of the following strategies are currently used in your organization to retain digital information for longer than 10 years? (check as many as apply)



The not-so-good news is that while this recognition of the importance of the cloud is encouraging, the reality of the challenge facing organizations is far more than the question of which media is used to store long-term digital information. 60% of organizations say that archiving and long-term digital preservation are a key part of their enterprise information governance strategy, but additional data points suggest that their focus may be more on the *archiving* than the *preservation* part of the equation. Consider these two data points:

	Totally agree	Somewhat agree
Ensuring the readability of digital information in the future is an afterthought for us.	23%	41%
Digital records are at constant risk of not being findable, readable or useable when required.	40%	35%
Digital information that must be kept for 10 years or longer is inherently at risk due to changes in technology and file formats.	48%	31%

This suggests that many organizations are simply using the cloud as a place to store long-term digital information. True digital preservation is not just a question of what media is used. In addition, most ECM systems are not a suitable place to keep truly long-term information assets, they are better designed for operational content.

True digital preservation means ensuring that digital information assets are readable, usable, findable and trustworthy over decades. Ignoring these key questions will compromise the ability to using long-term digital information to create value, mitigate risk, and use information intelligently.





# Digital Preservation — Is your current approach to long-term digital information failing the business?



**03** Preservation concerns are no longer confined to “traditional” operational documents (finance/legal/HR/contracts), but increasingly extend to a broader and more varied set of business assets.

Organizations are clear on their priorities for digital preservation (scores of 4 or 5 on a 5-point scale):

## Over 70%

- Finance and accounting information
- Legal information
- HR/employee information
- Contract management

## 60-70%

- Customer account information

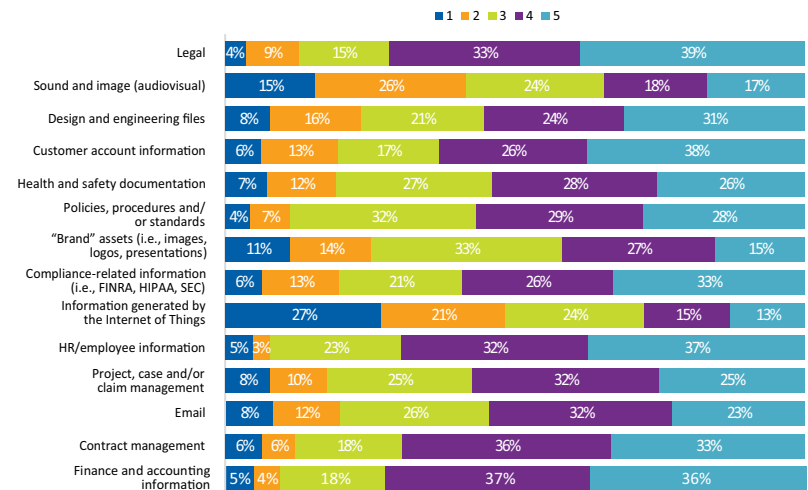
## 50-60%

- Project, case and/or claim management
- Policies, procedures and/or standards
- Compliance-related information (i.e., FINRA, HIPAA, SEC)
- Email
- Health and safety documentation
- Design and engineering files

## 30-50%

- “Brand” assets (i.e., images, logos, presentations)
- Sound and image (audiovisual)
- Less than 30%
- Information generated by the Internet of Things

On a scale of 1 to 5, how IMPORTANT to your organization is digital preservation of the following types of information assets?



On the one hand, this list reflects a prioritization that might be expected – finance, legal, administration, contractual, and customer information are the top priorities. But it is surprising – and good news – that 42% of organizations see the preservation of “Brand” assets like images, logos, and presentations as a priority. And 35% see the preservation of non-document assets like sound and visual files as a priority.

# Digital Preservation — Is your current approach to long-term digital information failing the business?



When it comes to confidence in their capabilities to address the above assets, two conclusions emerge:

1. There is a consistent gap between intentions (“importance”) and reality (“confidence”).
2. The gaps are particularly acute in areas deemed of greatest importance.

	4/5 ranking competence	4/5 ranking importance	gap
Finance and accounting information	60%	73%	-13%
Contract management	50%	70%	-20%
Email	40%	54%	-14%
Project, case and/or claim management	46%	57%	-11%
HR/employee information	55%	70%	-15%
Information generated by the Internet of Things	26%	28%	-2%
Compliance-related information (i.e., FINRA, HIPAA, SEC)	49%	59%	-10%
“Brand” assets (i.e., images, logos, presentations)	33%	42%	-9%
Policies, procedures and/or standards	48%	57%	-9%
Health and safety documentation	40%	54%	-14%
Customer account information	57%	63%	-7%
Design and engineering files	40%	55%	-15%
Sound and image (audiovisual)	31%	35%	-4%
Legal information	55%	72%	-17%

Consider the digital preservation challenges facing a typical legal department. The digital content-types required by legal departments for future litigation defense are not just simple office documents, but increasingly images and videos and audio files and email messages and social media content. Existing case management and content management and records management systems by themselves are simply not designed to future-proof this kind of complex and varied content. This highlights the need for dedicated digital preservation capabilities and disciplines as a complement to these systems.



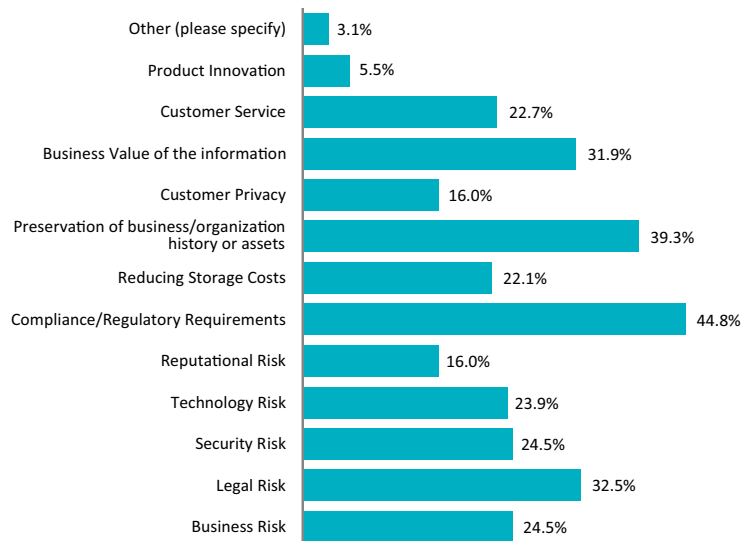
# Digital Preservation — Is your current approach to long-term digital information failing the business?



## 04 Digital Preservation is emerging as a critical Intelligent Information Management capability that requires a dedicated commitment.

Not surprisingly, the triad of compliance (45%), organizational history (39%) and legal risk (33%) top the list of key business drivers when it comes to a digital preservation initiatives.

What are the three most important factors in determining the importance of digital preservation to your organization? (please check 3)



It is surprising, though, given the conventional view of digital preservation, that 32% of organizations view the “business value of the information” as a key driver of digital preservation initiatives.

This is new for digital preservation, and reflects a growing recognition that the readability and usability of digital information that must be retained for longer than 10 years is not only a legal requirement or a records requirement, but also a business requirement. This perhaps is consistent with a growing awareness that new semantic and analytic technologies provide a means to extract value from information that previously was just viewed as a static archive.

Given the imminent explosion in the volume, variety, sources, and formats of information — and a corresponding acceleration of business and software platform lifecycles — organizations must think about long-term digital preservation now. The open-ended responses and comments in the survey are useful in understanding the context of these challenges:

- “Effective future digital preservation is a natural by-product of establishing sound digital processes and workflows right now.”
- “Digital disruption and transformation is a journey that requires a risk management approach to identifying required changes to processes and systems used to manage business information with appropriate governance. Our information assets should be seen as no less important than the human, financial and physical assets managed by our business.”

# Digital Preservation — Is your current approach to long-term digital information failing the business?



- “Digital is over-taking everything. Therefore, the more we are utilizing it and up-to-date on technology and practices, the more advantageous it will be for our company in all areas.”
- “Digital Preservation provides insight into big data, economic research and history.”
- “The shareholders all believe that it will enable new business opportunities and increase profitability, and are therefore demanding it.”



Source: word cloud of open-ended responses to the question, “What would be the single best argument in your organization for making the people, process, and technology capabilities to ensure digital preservation an immediate priority?”

AIIM believes that digital preservation needs to be viewed through the prism of a set of Intelligent Information

Management capabilities that are integral to delivering upon the Digital Transformation challenge of **understanding, anticipating, and redefining internal and external customer experiences.**

WHAT	HOW			
Core Intelligent Information Management capabilities	For organizations to digitally transform, they need a much broader – and more “consumable” — content toolkit than was offered by ECM.			
Modernizing the information toolkit.	Cloud content management	Internal & external collaboration platforms	Low-code and “self-service” development platforms	Content integration & migration tools
Digitalizing core organizational processes.	Robotic process automation	Business process management	Multi-channel intelligent capture	High-volume process optimization
Automating compliance & governance.	Records management and digital preservation	eDiscovery & legal	Industry and geographic specific applications	Blockchain
Leveraging analytics and machine learning.	AI, content analytics & semantics	Data recognition, extraction & standardization	Metadata & taxonomy management	Document classification and PII identification

An awareness of the necessary capabilities to ensure the readability and usability of digital information that must be retained for longer than 10 years is certainly an integral part of any records management program. But an awareness of digital preservation requirements goes beyond that. It is not confined to records management — it actually needs to be extended and applied to all of the components of an Intelligent Information Management strategy.

# Digital Preservation — Is your current approach to long-term digital information failing the business?



## 05 So what's keeping organizations from moving forward with a Digital Preservation initiative?

If organizations increasingly understand the potential business value locked up in archived information, and if they acknowledge that this information is critical to meeting legal, compliance, and organizational memory requirements, then what is keeping organizations from moving forward?

Current IT strategies, which are focused on back-up and storage, are not sufficient. We need to look at a different approach to managing long-term digital assets — both in terms of governance and technology. Organizations need to stop thinking about preservation as final resting place for content, frozen in time. Rather, organizations must adopt governance and technology strategies designed to keep long-term information alive and useable in a readable format:

**1. Mitigate your accumulated risk.** Start by looking at what you currently have and identifying what needs to be kept and what is transient. Most content repositories – especially those that have been in place for some time – lack sufficient metadata to provide sufficient context and effectively manage the information within those repositories. Get the important long-term information in the right place (i.e., a true Digital Preservation system) and ensure that relevant metadata can be found and understood in the future.

- 2. Adopt new approaches to the volumes of new information coming into the organization.** Out of necessity, most organizations have adopted a retrospective approach to managing existing information repositories and the metadata associated with that information (i.e., fixing things after the fact). However, given that the volume of new information coming into organizations is exploding, organizations must shift their focus to automatically managing information and assigning metadata as it comes into the organization rather than retrospectively.
- 3. Do your homework on file formats.** Digital Preservation is far more than deciding what to retain and preserve. It also must address the long-term readability and usability of that information – which means a strategy to address the inevitable evolution and obsolescence of file formats and storage media.



# IN PARTNERSHIP WITH:

## About Preservica



*This eBook is underwritten by Preservica.*

Preservica's world-leading cloud-hosted and on-premise active digital preservation software is used by a rapidly growing number of organizations around the globe to future-proof and provide secure access to critical long-term information assets.

Preservica customers include major corporations, government bodies and iconic cultural institutions - such as HSBC, British Telecom (BT), MoMA (NY), Yale, Associated Press (AP), the European Commission, 18 US state archives and 15 national and pan-national archives.

**More information about Preservica  
can be found online at:**

[www.preservica.com](http://www.preservica.com)



AIIM is the global community of information professionals. We provide the education, research and certification that information professionals need to manage and share information assets in an era of mobile, social, cloud and big data.

© 2017

### **AIIM**

1100 Wayne Avenue, Suite 1100  
Silver Spring, MD 20910  
(+1) 301 587-8202  
[www.aiim.org](http://www.aiim.org)

### **AIIM Europe**

Office 1, Broomhall Business Centre,  
Broomhall Lane, Worcester, WR5 2NT, UK  
+44 (0)1905 727600  
[www.aiim.org](http://www.aiim.org)