THE NEXT WAVE:

Moving from ECM to Intelligent Information Management

by John Mancini
Chief Evangelist, AIIM

In Partnership with

Alfresco | make business flow

IBM.

ibml

Kodak alaris
Information Management

Microsoft

M-Files

OnBase
by Hyland

upland

aiim

THE NEXT WAVE:

MOVING FROM ECM TO INTELLIGENT INFORMATION MANAGEMENT

How did we get to where we are?

The past 12 months have certainly been filled with enough change to last a lifetime.

At the macro political level, we witnessed the "ouster of the incumbents" with first the Brexit vote in June and then the U.S. Presidential election in November. In the sports arena, the insurgents triumphed and two teams with a collective 176 years of frustrated championship expectations battled for the World Series. PokemonGo swept the world and led to a host of injuries when enthusiastic participants careened into each other and into stationary objects whilst staring at their screens. Alexa Echo Dots began appearing on every imaginable surface, listening …listening… listening. And perhaps because of the need to be silent in the face of all of this listening, silent Mannequin Challenges became all the rage.

And then, in a moment near and dear to all of us who try to eliminate manual, paper-based process, the failure of the ultimate, previously foolproof and bulletproof paper-based process — the Academy Awards!

The past 12 months have also been pivotal for content management. Leading ECM companies like Xerox and HP and Kofax and Lexmark and Documentum variously split up or were acquired. In December, Gartner put a capstone on the year by announcing it was "retiring" the term "ECM" and replacing it with something called "Content Services."

> **Gartner:** "ECM is now dead (kaput, finite, an ex-market name), at least in how Gartner defines the market. It's been replaced by the term Content Services."

Forrester also chimed in on "Content Services," splitting the market into two parts — 1) *Transactional* Content Services and 2) *Business* Content Services, with the former most closely aligning to "traditional" ECM.

Before merrily marching off to some new term, let's think a little bit about where we've been and what that might tell us about where we're going. Amidst all of this change, there is a great deal that is consistent and we can build upon, even as core underlying technologies undergo enormous change.

At its core, what suppliers in this space provide are solutions and strategies that help end user organizations manage the complex interaction between PEOPLE, PROCESSES, and TECHNOLOGY. HOW this interaction is managed evolves as technologies evolve. I believe there are three (at least!) distinct but overlapping species of "content management" currently actively in play in the marketplace:

	DOCUMENT MANAGEMENT & WORKFLOW CIRCA 1995	ENTERPRISE CONTENT MANAGEMENT CIRCA 2005	MOBILE & CLOUD CONTENT MANAGEMENT CIRCA 2015
PEOPLE	Solutions are difficult to use and require lots of training – users are specialists.	Focus shifts from ECM "specialists" to knowledge workers, but usability still not a top priority.	Usability becomes everything. Lines blur between home and the office.
PROCESSES	Focus = automating content intensive, complicated, mission-critical processes – departments. at large organizations.	ECM believes it's an enterprise layer, but is often still driven by individual departments – silos explode.	"Appification" of processes and "Good enough" solutions emerge for the mid-sized market.
TECHNOLOGY	Complex, custom and expensive implementations purchased by business buyers.	Rise – and then decline – of the "suites" – SharePoint disrupts the traditional ECM market.	Configuration, connection and mobile skills become key – File sync & share and cloud disrupt the market.

The core challenge in describing these three different "species" of content management — 1) document management & workflow, 2) enterprise content management, and 3) mobile and cloud content management — is that they are not nearly as distinct as the above chart implies. Things do not seamlessly evolve from one species to the next; they overlap. Successive species don't replace what came before; they are stacked on top of what came before.

On the vendor side useful content solutions can be found across *all three species*. On the user side, you can find end users doing some very advanced things that combine all of the above capabilities — and more from the analytics realm — and you can also find users very proud that they have finally driven the paper out of their accounts payable process. These varied solutions and use cases are not individually bad or good.

But they are *different*, and that's where a lot of the current confusion in the content space arises.

How does the world of content management tie to the broader enterprise IT space?

If things are not confusing enough in the content management space, think about what is going on in the *broader enterprise information management space*. Consider the following emerging broad trends — trends that will mold and shape the world of content management in both the short and long-term, creating a need for a broader and more encompassing industry description than ECM.

EMERGING TRENDS	IMPACT ON CONTENT MANAGEMENT
Explosive growth in volume and variety of data AND content. Billions of new connections between objects — the Internet of Things.	Users need to do so much more than just capture documents and information; they need to ingest information of ALL sorts as early as possible into business processes, and standardize and automate these processes. They then need to extract insight from this exploding volume of information and prepare for the era of machine processing and artificial intelligence. Finally, they need to develop policies and automatic processes to dispose of information without business value.
Rise of new data-centric technologies — Hadoop, NoSQL, Blockchain.	The availability of new tools to manage data at massive scale increases the need for effective management of metadata.
Incorporation of core content management capabilities directly in file platforms themselves (Office365, Amazon, Google, IBM/Box, DropBox) and collapsing prices for storage.	Add-on core content management increasingly under price pressure, driving many solution providers to shift their focus to applications and solutions.
Expanding and increasingly challenging national and regional compliance and regulatory demands — and the growth of cloud and privacy "nationalism."	Organizations need to take as much of the human element as possible out of governance by first converting everything to digital form (i.e., tackling the paper problem head-on) and then by applying semantic and auto-classification technologies.
A clear shift among the leading solutions providers to cloud-first R&D investment strategies; large-scale end users with major on-premise legacy systems are left playing catch-up.	Users want content management solutions with a clear cloud strategy — even if they say they're not ready for the cloud right now.

This is not to imply that *the world of content management is the same as the broader world of data management*. Nor is it to imply that the emergence of Hadoop and Blockchain and other analytics and cognitive technologies replace the need for organizations to understand how, where, and why they must manage their information.

But we do need to understand that the broader enterprise technology story *influences* the more niched content management story. The broader story influences how content and information management capabilities are utilized and consumed by real-life end users trying to solve ever-more complex problems.

As time goes on, content management capabilities are going to be viewed much less as a monolithic "solution" and much more as a set of capabilities that will be consumed in a much more modular fashion — tied to the needs of particular business processes. Content capabilities will be tied to processes — both custom and SaaS. In the end analysis, this is the world that Gartner now calls Content Services.

So is Content Services really all there is? Is ECM really dead? The *term* might be straining a bit, but the idea isn't. We think the conversation is a bit more complicated (and to be fair, so does Gartner).

In the end analysis, Content Services is just another label. "Retiring" ECM doesn't mean the need for ECM capabilities goes away, nor does it mean that everyone should run out and rip out all of those mission-critical ECM systems. But it DOES mean that ECM is an insufficient term to describe all of the "content-y" things people are doing, how they are approaching them, and all the different flavors of content solutions that exist to solve very different problems. What organizations are doing with content has outgrown the traditional definitions.

We need to re-think the term ECM. We've been saying this for a number of years — see for example our report from back in March 2015, Content Management 2020: Thinking Beyond ECM.

For years, we at AIIM have described ECM as:

> *"Neither a single technology nor a methodology nor a process, it is a dynamic combination of strategies, methods, and tools used to **capture, manage, store, preserve, and deliver** information supporting key organizational processes through its entire lifecycle."*

This Capture-Manage-Store-Preserve-Deliver continuum (which many of our training students can likely recite by memory) is probably not a bad core structure as we think about the future.

But the problem is the frame — as ECM has come to be viewed — is wrong and too narrow.

We think the best label to describe all of this moving forward is "Intelligent Information Management."

What is Intelligent Information Management?

The role we expect content and information management to play in our organizations is clearly more than ECM (especially in its more traditional transaction-centric and records-centric definition), and it is clearly more than Content Services. And neither of these labels will be sufficient to describe the issues and strategies that organizations will face as the above content management "species" are further morphed by the coming tidal wave of big data and analytics.

A Roadmap to the World of Intelligent Information Management

Intelligent Information Management =

Create -> Capture -> Automate -> Deliver -> Secure -> Analyze

We believe this new Intelligent Information Management "roadmap" looks something like this:

CREATE	CAPTURE	AUTOMATE	DELIVER	SECURE	ANALYZE
Content creation & authoring	Multi-channel capture	High volume process optimization	Customer experience management	Records & disposition management	Semantics & text analytics
File sync & share	Data recognition, standards & extraction	Case Management	Electronic bill presentment & payment	Compliance – government & industry	System auditing & monitoring
Social & Collaboration		Content-enabled SaaS processes	Web content management	eDiscovery & legal	Content & process analytics

① Intelligent Information Management.

Intelligent Information Management means that new world is all about Data AND Content, not Data OR Content. We've operated in the past with a convenient dichotomy between data management and content management. If this dichotomy ever made sense, it makes less and less as time goes on. The kinds of customer-centric problems that must be solved require competencies and technologies from BOTH the data management and content management worlds.

What does this mean as you build your Information Management strategy?

② There are many "flavors" of solutions.

Intelligent Information Management means that there are many levels of complexity in thinking about the content management challenges facing organizations, and as a result, many flavors of information management solutions. Organizations need to identify: 1) exactly what they are trying to accomplish, in business terms; 2) map those goals against the required capabilities in the Intelligent Information Management roadmap; and 3) understand how solution providers map against their required capabilities. Everyone does not need everything and despite what solution providers may say, not every vendor does everything.

There are a wide variety of solutions in the marketplace, doing everything from basic back-end process automation at scale to providing a sharing platform for knowledge workers to fueling an integrated and innovative data/content customer journey across multiple sub-processes (like procure to pay, for example, or new customer onboarding). Understand that the point from which you are starting will likely determine a lot about how far you can go in the next 12 months, and be realistic.

③ Digital Transformation requires both a top-down and a down-up strategy.

Every organization is on a quest to transform and digitize their business. C-level executives go to conferences and come back proclaiming a need for a bold "Digital Transformation" initiative, not always realizing that the raw material — and skills — necessary for transformation likely lie in some of their past experiences with ECM and Information Governance. Content and records practitioners do not understand their potential value to Digital Transformation initiatives and fail to update their skills and mindsets to connect to the bigger world of data AND content. Both parties are critical to a Digital Transformation initiative, and organizations need to consciously work to connect these perspectives.

④ Digital Transformation is not likely to occur via a Big Bang.

Not every business process is a gigantic, millions of documents, straight-through process (in other words, a "traditional" ECM process). But all of these much more modest day-to-day processes are still information intensive, and automating these day-to-day processes is a critical precondition to digitally transforming the business.

⑤ Resist the impulse to simply throw the baby out with the bathwater.

Where do you want to rip and replace and where do you want to leave things alone? How do you leverage your existing ECM investments? How do you allow existing mission-critical legacy systems to continue AND invest in new customer-centric initiatives? Most organizations have many more systems and repositories than they think. Understand the purpose of each major content system, how current it is, its cost, whether there are opportunities to consolidate suppliers, and whether there are more modern and flexible solutions available. As you consolidate, keep in mind the core functional requirements listed above.

⑥ Make a commitment to metadata.

Metadata is the key to moving from a storage mindset to an applications mindset. It is also key to building some element of sanity around both the ability of your knowledge workers to find information across multiple repositories and your ability as an organization to put some framework around the management of your information assets. The days of imagining that everything would wind up in a single repository are over.

⑦ Adopt a day-forward bias.

The information management challenge facing most organizations is akin to a leaky boat filling more quickly than the people in the boat can bail out the boat. Are you better served by adopting point solutions to deal with legacy information, and focus your efforts on day-forward initiatives? Do you understand that when information variety and volumes are growing geometrically, a preoccupation with legacy data and information will mean you will never get ahead of the problem? Focus on the water coming INTO the boat first.

⑧ Invest in building new data competencies.

In the world that is coming, not everyone will need to be a data scientist, but a LOT of employees will need to be information entrepreneurs. In addition, the worlds of data and content are combining/colliding, so invest in building competencies that understand the intersection.

⑨ Lastly, stop thinking about all process issues through an ECM "prism."

There is a tendency for those in the "ECM Community" — both users and suppliers to think of all issues through an ECM prism.

There are still many, many organizations who have yet to automate these core back-end ECM processes. But it is only part of the story.

The focus is shifting to applications that leverage content capabilities for specific business purposes. The focus is shifting to the integration of content capabilities into our existing applications — including SaaS applications — finally providing the long-promised benefits of ECM without the adoption issues we have struggled with for so long. The focus is shifting to the desktop as more and more traditional content management capabilities are being "baked into" platforms like Box, Office 365, G-Drive and Dropbox.

Welcome to the world of Intelligent Information Management.

About the author

John Mancini
Chief Evangelist
AIIM

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 10,000 Twitter followers and a Klout score in the 60s.

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

In Partnership with

Alfresco | make business flow

IBM

ibml

Kodak alaris
Information Management

Microsoft

M-Files

OnBase by Hyland

upland

About Alfresco

Alfresco is an enterprise open-source software company focused on advancing the flow of digital business. In a world where data is exploding and employees and customers expect work to be digital, businesses need to reinvent themselves. It's more important than ever to empower users by connecting them with the right content at the right time in the right way.

Alfresco helps organizations create intelligent, seamless processes that advance the way business gets done.

The Alfresco Digital Business Platform is an open, modern, secure platform that intelligently activates process and content to accelerate the flow of business. It provides the fastest path for people to interact with information and for companies to respond to changing business needs.

For more information, visit
www.alfresco.com

Alfresco
1825 S Grant St, Suite 900
San Mateo, CA 94402
Tel: (+1) 888 317 3395
Web: www.alfresco.com

About IBM

IBM has one of the industry's broadest portfolios of ECM software, which is used by large multinational enterprises for transactional content management, knowledge management and a variety of business content services. While especially strong in the financial services, insurance, telecom and government sectors, IBM ECM solutions are seeing growing adoption in retail, healthcare and distribution, to name a few.

Consistently rated the leader in ECM by Gartner, Forrester, and IDC, IBM ECM solutions offer robust and scalable tools for intelligent capture, document management, report management and records management with a reputation for strong governance, risk and compliance capabilities. Work management capabilities include advanced workflow, dynamic case management, enterprise file sync and share, eDiscovery and advanced search.

As organizations build up their Digital Business capabilities, content volume increases and grows more diverse, with voice, video and IoT data. Today, leading IBM clients are turning to analytics and artificial intelligence integrated with content for a deeper understanding of people and processes and for new solutions in fraud prevention. Many are also expanding their content solutions to engage more users with cloud and mobile capabilities. Business content connects customers and companies, employees and partners, and every department within an enterprise. IBM clients and business partners are building a new generation of solutions to engage across all stakeholders for better customer experiences, improved productivity and better business outcomes.

For more information, visit
www.ibm.com/analytics/us/en/technology/enterprise-content-management/
or email David Jenness djenness@us.ibm.com

IBM Corporation
11501 Burnet Rd, Bldg 904 3B-000
Austin, TX 78758
Tel: +1-877-426-3774
Email: djenness@us.ibm.com
Web: www.ibm.com/analytics/us/en/technology/
enterprise-content-management/

About ibml

Content and information management is taking an even greater role in the enterprise. Its standing is being driven by exploding data volumes, connected devices, and semantic technologies. The coming tidal wave of "big data" and analytics will further raise the importance of content and information management.

As organizations try to solve these increasingly complex problems, the way that content and information management technologies are utilized and consumed is fundamentally changing.

Antiquated, monolithic approaches to content and information management will no longer suffice.

Today's content and information management challenges require a dynamic combination of strategies, methods and tools to create, capture, automate, deliver, preserve and analyze information intelligently.

ibml believes that this new world of intelligent information management will result in a content and information management environment that is more customer-centric, better aligned to the needs of the business user, less complex, more secure, more tightly integrated with downstream systems and processes, less

burdensome to information technology professionals, and more affordable to purchase.

ibml provides end-to-end intelligent information management solutions that combine our ImageTrac® high-production scanners and other scanners with our advanced Capture Suite. These solutions address content and information management requirements by providing organizations with:

- Seamless multi-channel ingestion
- Extraction at the point of ingestion
- Structured and unstructured document classification
- Fewer exceptions and streamlined exceptions resolution
- Best-in-class control, compliance and reporting

… all driven by highly configurable business rules. It is for these reasons that ibml solutions are used in more than 48 countries in the most demanding content and information management environments.

Intelligent information management is a precondition to digital transformation. Arrange a consultation with ibml to learn how our solutions can solve your content and information management challenges.

ibml
2750 Crestwood Blvd.
Birmingham AL 35210
Tel: 205.439.7100
Email: sales@ibml.com
Web: www.ibml.com

For more information, please visit
www.ibml.com

About Kodak alaris

The ever-increasing flood of data, and how we manage it, is one of the greatest opportunities facing businesses and governments in the 21st century. Kodak Alaris Information Management works with organizations from small offices to global enterprises, bringing together the best science, technology and partnerships so its clients can stay ahead of the curve.

Our image scientists have decades of experience helping customers capture, recognize, and extract the information from documents and data. Kodak Alaris Information Management creates innovative software and devices to store, share and integrate data with business processes and applications. Award winning scanners, capture software and services help businesses easily capture information. From ad-hoc to high-volume production capture needs, we deliver an ecosystem of solutions to bring documents into the digital era. These solutions include software that enables users to capture data from paper and digital sources, extract key information and deliver it to the right person or business system at the right time. Our "better together" approach ensures that customers receive the highest level of support from the Kodak Alaris services organization and our partners, who leverage their expertise with our portfolio to deliver powerful solutions that meet the needs of each customer.

Digital transformation provides business value at any scale. Information capture is the critical first step. Customers in document-intensive industries like financial services, healthcare, government, and insurance rely on Kodak Alaris every day to transform data into a powerful competitive advantage.

To learn more, please visit
https://www.kodakalaris.com/b2b/about-us or contact jonathan.ghent@kodakalaris.com.

Follow us on Twitter @KodakAlarisIM   Connect with us on LinkedIn   Like us on Facebook

Kodak alaris
2400 Mt Read Blvd
Rochester, NY 14615
Tel: 1-800-944-6171
Email: US-DI-InsideSales@kodakalaris.com
Web: www.kodakalaris.com/b2b

About Microsoft

Microsoft (Nasdaq "MSFT" @microsoft) is the leading platform and productivity company for the mobile-first, cloud-first world, and its mission is to empower every person and every organization on the planet to achieve more. Office 365, with SharePoint & OneDrive, is the industry-leading secure content, productivity and collaboration suite, with over 100 million monthly users worldwide.

For mor information, visit

www.microsoft.com

About M-Files

Businesses rely on fast access to current information to make smarter and faster decisions for a competitive advantage. However, content chaos often reigns supreme since many organizations are drowning in a sea of information that grows bigger and bigger each day. An organization's documents are often strewn all over the place— in filing cabinets, in network file folders, in emails, in file sharing and sync applications and in various business systems. As a result, employees waste enormous amounts of time every day searching for the information they need.

M-Files eliminates the content chaos inherent in today's companies by providing an easy to use solution that enables users to quickly locate the exact content they need, regardless of which business application it resides in. M-Files delivers a unified experience for managing information residing in any system or repository including other ECM systems, file sharing apps, network folders, SharePoint, CRM, ERP and other business systems and repositories. M-Files enables enterprises to more effectively organize, manage, secure and share their information, which leads to better decisions, faster results, improved collaboration and the highest levels of security and compliance.

With M-Files, companies can ensure that the right content is in the right hands at the right time, which enables organizations to focus on using information to drive growth, value and innovation. Thousands of organizations in over 100 countries use M-Files for managing their business information, including companies such as SAS, Elekta and NBC Universal.

To learn more, please visit

www.m-files.com

Intelligent Information Management

About OnBase by Hyland

OnBase by Hyland

OnBase is a single enterprise information platform for managing content, processes and cases that provides a complete view of the right information for the right people, when and where they need it. Deployed on-premises or in the Hyland Cloud, OnBase provides enterprise content management (ECM), case management, business process management (BPM), records management and capture all on a single platform. OnBase transforms organizations around the globe by empowering them to become more agile, efficient and effective. Enterprise cloud-based file-sharing capability for the OnBase platform is available with our complementary offering, ShareBase by Hyland.

To learn more, please visit:
www.OnBase.com

Hyland, creator of OnBase
28500 Clemens Road
Westlake, Ohio, 44145
Tel: +1-888-495-2638
Email: ContactUs@OnBase.com
Web: www.OnBase.com

About Upland Software

upland

Upland Software (Nasdaq: UPLD) is a leading provider of cloud-based Enterprise Work Management software. Our family of applications enables users to manage their projects, professional workforce and IT investments, automate document-intensive business processes and effectively engage with their customers, prospects and community via the web and mobile technologies. With more than 2,500 customers and over 250,000 users around the world, Upland Software solutions help customers run their operations smoothly, adapt to change quickly, and achieve better results every day.

Upland's Workflow Automation product family enables organizations to streamline, optimize, automate and secure document-intensive business processes across their enterprise and supply chain. Our products deliver measurable business value by reducing cost, cycle time and compliance risk through automated organizational workflows, and by streamlining material workflows in manufacturing environments.

AccuRoute: Secure Document Capture and Fax

FileBound: Document and Workflow Automation

Ultriva: Supply Chain Visibility, Collaboration and Execution

To learn more, visit
www.uplandsoftware.com

Upland Software
401 Congress Avenue, Suite 1850
Austin, TX 78701
855-944-7526
info@uplandsoftware.com
www.uplandsoftware.com

About AIIM

aiim

AIIM (www.aiim.org) 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.

Founded in 1943, AIIM builds on a strong heritage of research and member service. Today, AIIM is a global, non-profit organization that provides independent research, education and certification programs to information professionals. AIIM represents the entire information management community, with programs and content for practitioners, technology suppliers, integrators and consultants.

© 2017

AIIM
1100 Wayne Avenue, Suite 1100
Silver Spring, MD 20910
(+1) 301 587-8202
www.aiim.org

AIIM Europe
Office 1, Broomhall Business Centre,
Broomhall Lane, Worcester, WR5 2NT, UK
+44 (0)1905 727600
www.aiim.org

aiim TRAINING

Information Governance

Learn how to turn information chaos into information opportunities.

Available as a self paced course only at this time. Students can go at their own pace and have six months to complete the course and take the final exam to earn their Specialist in Information Governance certificate. All study materials are included in the course, and though self directed, our training modules will take you step by step through the course fully preparing you for the final exam (exam is multiple choice and true/false and you have three attempts to pass).

- AIIM's Information Governance course will help you
- Identify and demonstrate business benefits to different stakeholders
- Understand the necessary components, technologies, and instruments
- Conduct a risk assessment and mitigation
- Automate records management and disposition
- Earn the Specialist in Information Governance designation after passing the online exam

Have a team to train? Private training classes available, please send an email to profdev@aiim.org for more information.

For more information visit

www.aiim.org/Education-Section/Deep-Dives/Deep-Dive-Information-Governance

AIIM
1100 Wayne Avenue, Suite 1100
Silver Spring, MD 20910
(+1) 301 587-8202
www.aiim.org

AIIM Europe
Office 1, Broomhall Business Centre
Broomhall Lane, Worcester, WR5 2NT, UK
+44 (0)1905 727600
www.aiim.org