Integrated ECM Solutions:
Where Records Managers, Knowledge Workers Converge

By using examples from Gartner's 2015 "Magic Quadrant for Enterprise Content Management," this article offers a brief introduction to three ECM systems, provides examples of integrated solutions used by knowledge workers, and discusses the contributions records managers can make to support business processes.

Patricia C. Franks, Ph.D., IGP, CRM, CA, FAI

There are numerous challenges to ensuring that captured data is useful. As noted by former U.S. Magistrate Judge Ronald J. Hedges in a 2016 presentation, "The Positive Power of the Destruction of Data," data is voluminous and distributed, is fragile yet persistent, takes many forms, and is created and maintained in complex systems.

Data can be found on personal computers at work and home; laptops, smart phones, and tablets; networked devices (i.e., the Internet of Things); digital copiers; removable media (e.g., disks, flash drives); and with third-party providers. Increasingly, content resides within an enterprise content management (ECM) system – on premises, in the cloud, or both – and is in continual use by *knowledge workers*, whose jobs primarily involve creating, distributing, or applying knowledge.

The Need to Understand Content's Value, Use

Knowledge workers must understand the value of content to the organization and be able to handle it responsibly regardless of their role within the information life cycle – whether as creator, user, or manager. At the same time, records managers must be able to provide access to the right content – regardless of its status as information or record, its format, or its location – to the right person at the right time and in the right place.

The integration of an ECM system with other business solutions establishes a point of convergence for knowledge workers and records managers:

1. Having the ability to categorize content without referring to a records retention and disposition schedule allows knowledge workers to focus on their core business function while complying with records management policies.

2. Understanding how the ECM system is being used enables records managers to design better rules and workflows to perform their tasks.

ECM as the Basis for Integration

AIIM first defined ECM in 2000 and has expanded upon its description several times. Currently on AIIM's website, *ECM* is described as "the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes."

Anand Rao, in a 2007 white paper "Knowledge Management using Enterprise Content Management System," wrote, "Content generated by the organization, once effectively tagged and stored for efficient retrieval, forms the knowledge bank of the organization."

This paper reinforces that ECM was not a new product category, but an integrative force. Integration can take place between an ECM system and applications a vendor already offers, creates specifically for the system, or acquires in order to differentiate its product from others on the market. Integration also takes place between the ECM and the products of other vendors.

Gartner's 2015 "Magic Quadrant for Enterprise Content Management" ranked ECM vendors as leaders, visionaries, challengers, or niche players based on seven application areas:

1. Document management
2. Web content management
3. Records management
4. Image-processing applications
5. Social content
6. Content workflow
7. Extended components, including mobile applications, digital asset management, search, analytics, and packaged integration capabilities.

By using examples from the Gartner report, this article offers a brief introduction to three ECM systems, provides examples of integrated solutions used by knowledge workers, and discusses the contributions records managers can make to support the business process.

Example 1:
Social Media Solutions and ECM

Microsoft is identified as a leader in Gartner's "2015 Magic Quadrant for Enterprise Content Magic." It has incorporated content management capabilities in SharePoint for more than a decade. Although the capabilities of SharePoint Online are not as complete as those of SharePoint On-premises, the cloud version best illustrates the point of convergence for knowledge workers and records managers.

The Office 365 Security and Compliance Center allows the administrator to add security and retention policies, search and investigate both content and audit logs, and view reports.

Sharing Knowledge

Office 365 and SharePoint Online comprise an easy-to-implement combination that can be used to create and manage content. Users can "like" a library document or add a "star" tool to indicate approval. They can use Yammer, a private social network, to engage in conversations around projects and files.

Social features such as user profiles, blogs, wikis, and newsfeeds enable knowledge workers to communicate and collaborate. The *Ask Me About* section of the user's profile provides a means to identify colleagues with specific expertise. Participation in community discussions can result in points and badges to reward contributions and help build reputations.

Knowledge workers can personalize content across Office 365 from One Drive for Business, SharePoint Online, Exchange, Yammer, and more by using Office Delve as a personal portal. When a document or board of interest is found, it can be added to Delve as a favorite (see Figure 1 on page 20) so it can be returned to easily.
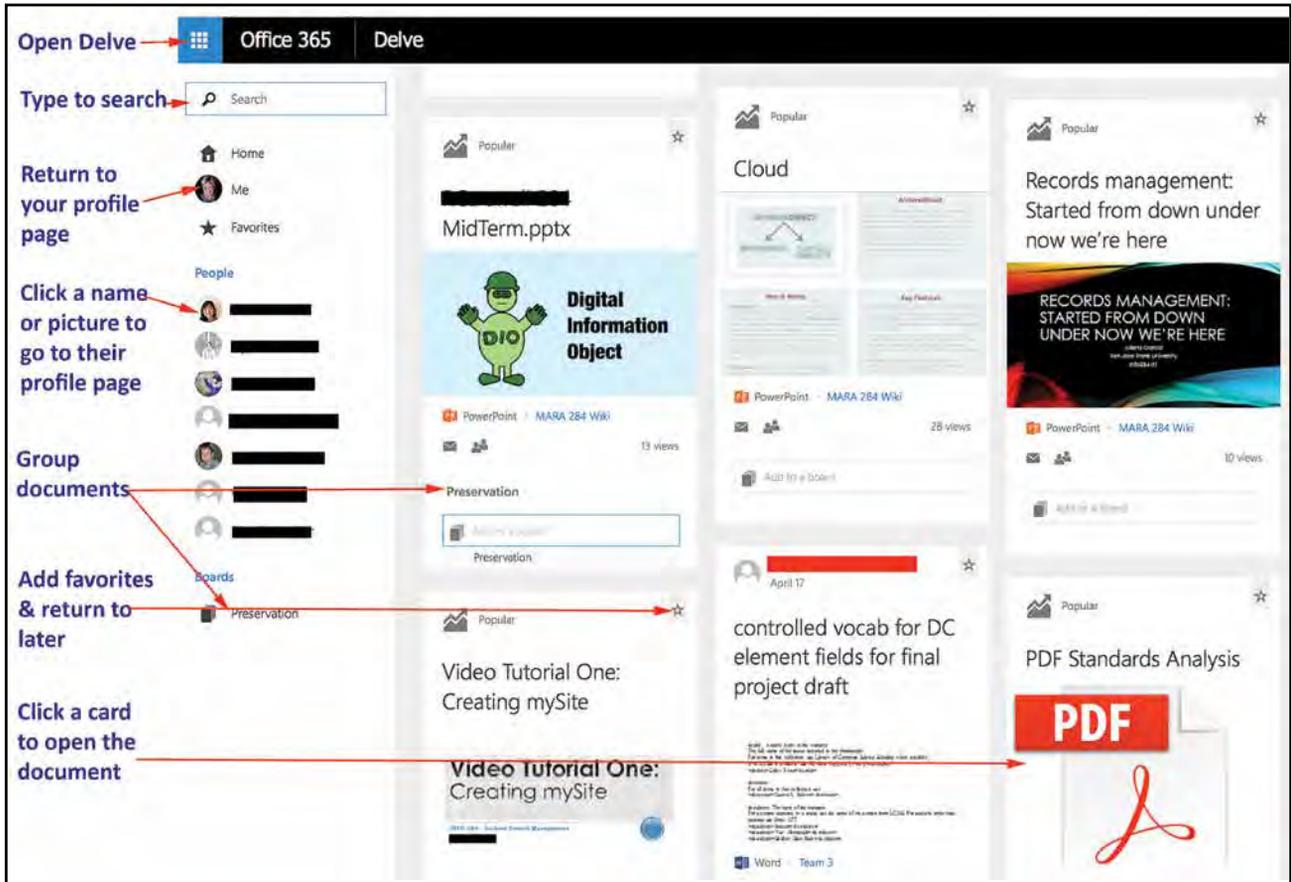
Figure 1: Delve helps users discover information across Office 365.

Numerous apps are available for Office 365/SharePoint Online to enable users to analyze and present data. When the ECM is integrated with web-based BlackCompass Visualizer for SharePoint, for example, data can be presented as visual columns in lists and data points on maps.

Managing Records in Office 365/SharePoint Online

SharePoint Online offers out-of-the-box records management features. A dedicated records center site can be created to serve as an archive, with documents copied to it based on the retention policy. Records can be managed "in place" by declaring them records and applying security and retention properties in their current location. Or a hybrid approach can be taken.

If the records manager is responsible only for records, moving them to a records center is often the preferred option. Metadata is used to manage records based on content types, content organizers, and virtual folders. Hierarchical file plans are used to manage retention and generate reports. Enterprise-wide taxonomies and content types ensure consistency and context transfer between collaborative spaces and the archive.

If records managers are responsible for all information, managing records in place provides control over content in collaborative spaces. Documents such as wikis, blogs, web pages, and list items can be declared records while in use to prevent deleting or editing. This can be accomplished manually, through the use of a workflow, or according to the document's retention period. Records can be managed across multiple sites, and automatic versioning of records can be enabled.

The Office 365 Security and Compliance Center allows the administrator to add security and retention policies, search and investigate both content and audit logs, and view reports. SharePoint Online offers compliance with the Health Information Portability and Accountability Act (HIPAA), the Federal Information Security Management Act (FISMA), ISO/IEC 27001 *Information technology – Security techniques – Information security management systems – Requirements*, the Family Educational Rights and Privacy Act (FERPA), SSAE16, EU Model Clauses, and U.S.-EU Safe Harbor framework out of the box.

SharePoint extenders provide additional features, such as case file management, event-based retention, and support for physical records management. Third-party extenders are available from Collabware, Gimmal, and Records365.

Example 2:
Business Process
Management and Content Management

OpenText is the second-largest ECM vendor in terms of worldwide market share and is identified as a leader on the 2015 Magic Quadrant (Gartner, 2015). OpenText provides ECM solutions for cloud-based, hybrid, and on-premises deployments. The company's focus on aggregating, managing, and sharing information to drive productivity illustrates a move from the view of document and records management systems as a cost of doing business to the realization that ECM systems can provide a means to improve productivity and control.

Improving the Business Process Through Process-Centric Workspaces

OpenText's Cloud Accelerated ECM allows knowledge workers to manage content in the context of their business processes. The centralized repository uses a variety of devices to provide users with access to content when needed from almost any location. Rather than focusing on documents or records, it focuses on the operational problems the organization faces by providing collaborative, process-centric workspaces with pre-built taxonomy, built-in metadata, and compliance capabilities. A knowledge worker can set up a new business workspace to aggregate content and people. Information flows can automate the creation, review, approval, publishing, and storage of content.

Transforming the Business Process: Open Text Extender for SAP® Solutions

An alternative to working within the ECM environment is the ability to access content stored within the ECM from within a business solution. The OpenText Extender for SAP Solutions integrates the ECM with the SAP Business Suite to allow the knowledge worker to "access the right information at the right time in the right place." The right place in this case means while working within SAP.

The SAP Business Suite contains businesses processes – including case management, vendor invoice management, and HR processes – that deal with large volumes of content in various formats that must be captured, managed, preserved, and delivered to the user.

A knowledge worker providing customer support, for example, could access the customer file to view both structured and unstructured information about the customer's past transactions. Documents like "contracts'" can be created using templates from within SAP. This solution connects unstructured content from within the ECM with structured content within the SAP business process. The results are efficient customer service and increased employee and customer satisfaction.

E-mail messages, attachments, documents, and other assets can be dragged and dropped into a customer folder in SAP-extended ECM without changing programs. Documents stored in SAP can be located using simple search functions; for example, an invoice stored in SAP could be located by entering the invoice amount in Extended ECM.

The Records Management Perspective

The Open Text Extender for SAP Solutions adds data and document archiving, imaging, document management, collaboration, U.S. Department of Defense 5015.2-certified records management, and application-spanning virtual views of related information to the SAP system.

… because of the pre-defined business workspaces and pre-built metadata, classification of content is transparent to knowledge workers and allows retention policies to be applied to related content.

Records managers play a vital role in executing strategy, but because of the pre-defined business workspaces and pre-built metadata, classification of content is transparent to knowledge workers and allows retention policies to be applied to related content.

Records managers create a file plan and manage retention schedules without interfering with any department's line of business. Once the system is configured, users continue to carry out business activities while records managers control ultimate file indexing, archiving, and disposition.

Example 3:
Decision Making and Content Management

Laserfiche is considered a niche player in the ECM arena. The majority of its customers come from the government, financial services, higher education, and health care. Laserfiche ECM solutions focus on document management, records management, imaging, and workflow applications.

In addition to on-premises deployments, Laserfiche offers public hybrid options and works with partners to offer dedicated (hosted) private cloud options. Laserfiche

ECM has long provided packaged integrations to Salesforce, SharePoint, and other applications.

In 2015, it announced *Laserfiche Connector* to enable partners and developers to extend the functionality of Laserfiche with new actions that are context-specific. Laserfiche offers tools for information capture, mobile access, integration, and analytics.

> # The reality is that both paper and electronic records will be created as a normal part of daily activities in some organizations, resulting in complex hybrid record environments.

Capturing Content

The reality is that both paper and electronic records will be created as a normal part of daily activities in some organizations, resulting in complex hybrid record environments. Government services, for example, exist to support citizens in need of financial assistance, medical care, housing needs, child care, and more. Some client records are completed in physical form and must be scanned for capture by the ECM.

During the capture process, data can automatically be extracted from electronic, PDF, and scanned forms. Photos can be uploaded from mobile devices and cameras directly into client files. Clients can submit information using e-forms with attached documents. Clients can sign documents electronically to reduce processing time.

Salesforce and Content Management

Salesforce is the world's most popular customer relationship management (CRM) solution. Most knowledge workers spend their time in business applications like Salesforce. But those applications don't hold all of the information the workers need. With Laserfiche's Connector, Salesforce users have the ability to view associated and background information held in Laserfiche without leaving the primary application. Workers in Salesforce can scan documents into Laserfiche; metadata values are populated from the data in Salesforce.

Information stored in both Laserfiche and Salesforce can be analyzed, shared via reports, and used to drive the organization's business strategy. Team members can see their own work and the activities of other team members in the form of charts and graphs. Managers can gain insight on workloads and staff performance to identify problems and take corrective action. Data can be overlaid on data from other sources, such as a city map.

The Records Management Perspective

Laserfiche is a DoD 5015.2-certified records management application. As such, it provides automatic capture, transfer, storage, and disposition of new and legacy records; enables employees in different departments to access records without navigating the master records structure; and automatically creates custom views of records structures for auditors or compliance officers.

Laserfiche applies retention and disposition schedules and rules to incoming records using metadata, creates record folders and moves documents into the appropriate locations, sends document destruction notifications, enforces records management policies across all devices, and generates reports to identify and locate records ready for disposition.

The role of the records manager is a strategic one: to develop the policies and workflows that automate records management functions and are transparent to knowledge workers so they can concentrate on their primary objective.

Integrated Solutions = Integrated Environment

ECM systems have evolved from little more than document management systems to robust integration hubs. Through the use of connectors provided by the ECM vendor or developed by others, ECM systems provide a means for knowledge workers to access unstructured content residing in the ECM while remaining within the business application. Mobile apps for smart phones and tablets allow employees to conduct work while away from the office.

Records management functionality is present in most ECM solutions, but the range of features varies widely. Third-party solutions exist to extend records management functionality to meet governance and compliance standards.

Integrated solutions provide an environment in which knowledge workers and records managers co-exist. Due to the increased automation of records management functions within ECM systems and business applications, records managers can assume a more strategic role by developing policies, implementing controls, and selecting tools for the governance of the organization's digital assets. **END**

Patricia Franks, Ph.D., IGP, CRM, CA, FAI, can be contacted at patricia.franks@sjsu.edu. *See her bio on page 47.*