Tap Unstructured Data to Make Better Decisions

by Jill Gilbert

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Are you tired of searching through e-mail attachments? Have you looked for a document on a file server, but could not find it? Have you found a file, but are not sure which version is the correct one because your team members made a dozen revisions? Or even worse, have you spent time digging through paper files only to find a lot of irrelevant information?

If you need to make a business decision, you want accurate and transparent information, you want it delivered at the right level of detail, and you want it *now*. You're not alone. In fact, 89% of over 400 IT decision-makers and influencers said document management is "important" or "very important" to long-term success of the organization in an Association for Information and Image Management (AIIM) survey.[1] Yet many organizations overlook large, untapped reserves of enterprise content that could help them to make better decisions. What is the cost of not leveraging content, in terms of compliance, productivity, and business continuity?

Structured vs. Unstructured Data

Enterprise Resource Planning (ERP) software for accounting, supply chain, human resources, maintenance work orders, and environment, health & safety (EHS) uses relational databases. This software, as well as home-grown relational databases and Access® databases, manage *structured data* with fields, columns, tables, rows and indexes. Structured data is highly ordered and has attributes that let you query the database to retrieve the desired information.

The vast majority of enterprise information is *unstructured data*, i.e., it lies outside of databases and is in no particular order. The greater part of unstructured data is free-form text like documents, spreadsheets, e-mails, Web pages (HTML and XML), and rich media (video, audio, and image files).

Enterprise Content Management

Enterprise Content Management (ECM) is a set of strategies, methods, and tools to capture, manage, store, preserve, and deliver content and documents to enable an organization's business processes.[2] It entails managing a document or electronic file through its lifecycle from "cradle to grave." ECM deals with content flow, the systems and processes the content touches and links people, processes, and content (Figure 1).

ECM helps to deliver the right information to the right people, at the right level of detail, in a timely manner. It helps organizations to manage all types of electronic content, promotes collaboration, and enforces consistent business processes.

Figure 1. ECM creates value by linking people, processes, and content.

ECM Trends

What drives organizations to consider ECM systems?

Business Trends
- **Governance, Risk and Compliance.** Compliance and records retention per EHS, HIPPA, FDA, Sarbanes-Oxley and other programs has the attention of executives.
- **Transparency.** The need for accurate, transparent information, a "single version of the truth."
- **Accountability.** Driving accountability for day-to-day business processes to the right level of the organization.
- **e-Discovery.** Litigation risk and electronic discovery concerns.
- **Productivity.** The need to increase productivity and efficiency as the quantity of data continues to grow.
- **Collaboration.** Connecting workers to relevant content and to each other, beyond e-mail and instant messaging.
- **Cost.** Cost savings in challenging economic times.
- **Continuity.** Capturing enterprise knowledge considering lean staffing and an aging workforce.
- **Security.** Information security and cyber-threats.

Information Technology Trends
- **Infrastructure.** Recognition of enterprise content as part of the IT infrastructure in more and more organizations.
- **Integration.** Integrating unstructured content with ERP databases.
- **Business Intelligence.** Linking data from disparate sources in data warehouses or data marts.
- **Dashboards.** Graphical display of Key Performance Indicators and scorecards using information aggregated in data marts.
- **Web 2.0.** Anytime, anywhere content delivery via Web browser over secure Intranets.

ECM Technology

The market offers ECM software for businesses of all sizes. This software has capabilities well beyond shared directories on a file server (see text box) and can integrate with EHS and ERP software.

Top IT infrastructure vendors EMC, IBM, and

ECM: More than Document Management

- Document capture—capture and image paper documents, as well as native electronic files
- Document management—document search, check-in, check-out, version control, access control (security), delivery
- Digital asset management—maintain rich media files (audio, video, images)
- Business Process Management/Workflow—tools to move content through the organization, i.e., routing, approval, task management, audit trails
- Collaboration—team-based content creation and decision making, i.e., document sharing, project team support, discussion boards
- Web content management—create, review, publish, manage Web content from an information repository
- E-mail management—classify, store, destroy per standards
- Records retention and archiving—automated disposition per regulatory requirements and company policy
- Content reporting—reports and statistics on the content itself

Oracle lead the high-end ECM solutions market. Specialty ECM vendor Open Text Corporation offers a series of mid- to high-end LiveLink software solutions that integrate with SAP, Oracle, Microsoft, and other enterprise applications (www.opentext.com). Oracle also offers small-to mid-sized solutions (www.oracle.com/products/middleware/content-management/index.html). Microsoft leads the low-end ECM market with Microsoft Office SharePoint Services (MOSS) 2007. SharePoint adoption has increased rapidly within the last 2-3 years, as a robust option for organizations that do not require dedicated ECM systems (www.microsoft.com). Further, MOSS can serve as a portal for a dedicated ECM system. SAP, HP, Xerox and others are niche ECM players.[3]

Enterprise Content Management has gained the attention of executives and is part of the IT infrastructure in a growing number of organizations. If you are considering a structured IT initiative, find a way to tap unstructured content to gain a competitive advantage. Technology is only part of the solution—first evaluate unstructured data and devise strategies to leverage it—and then acquire technology that aligns with your business needs. **em**

References
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