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P. Candace Deans
University of Richmond, cdeans@richmond.edu

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P. Candace Deans
Robins School of Business
University of Richmond
cdeans@richmond.edu

Abstract:

This session will address the challenges and opportunities that have emerged within organizations as a result of the advent of Enterprise Content Management (ECM) Systems. It has become essential that organizations invest in these systems in order to address the issues presented by the growth in unstructured data and information. It has in addition become important that this dimension of information management be integrated into the information technology (IT) curriculum. Issues related to curriculum design will be included.

Keywords: Enterprise Content Management, unstructured data, content storage

I. INTRODUCTION

This paper identifies current trends associated with Enterprise Content Management (ECM) systems and critical success factors for their implementation in companies. ECM has become increasingly significant over the last decade with the explosive growth in data and information that is unstructured. Unstructured data consists of text that is disorderly with no indexes or other attributes to define order and predictability. The recent increases in social media such as blogs, podcasts, wikis, and discussion forums have added to the deluge of digital information and records stored electronically. Today unstructured information makes up the majority of content stored and available for access in organizations. According to a recent Accenture report (Shegda, 2010) unstructured data is one of the major challenges facing organizations today. In addition, unstructured data and information is accumulating at a much faster rate than structured content. Structured data makes up most of the content currently represented in Enterprise Resource Planning (ERP) systems that have been a main backbone system in organizations since the advent of the personal computer. It is expected that ECM systems that organize and store unstructured information will overwhelm ERP systems in the not too distant future.

II. COMPONENTS OF ECM

ECM systems are already becoming essential to many of the large corporations that handle vast amounts of data and information. Several vendors and related partners are focusing resources on these systems and their implementation in organizations. Special Interest Groups have emerged to provide guidance and support for company employees who are leading the charge for vendor selection and implementation for their particular operations. Every company's needs are different and some will see the need as more urgent than others. Companies with high risks for litigation will find the need to implement these systems as urgent. Others will eventually see the need as an eventual business imperative to remain competitive. The ECM space has been defined by the early pioneers as consisting of six primary components which include:

1. Document Management
2. Web Content Management
3. Records Management

4. Document Imaging
5. Collaboration
6. Workflow

These six components work together in harmony to provide integration across the system.

III. LITERATURE

Although much research has been done by the leading consulting firms and research companies related to ECM (e.g., Gilbert, 2009; Casonato 2010; Shegda, 2009; Shegda, 2010) very little academic work has been published in the literature. A few studies were located in the U.S. academic literature (Smith and McKeen, 2003; Sturdy, 2007). Most of the academic work on this topic is found in European journals (e.g., Paivarinta, et.al., 2005; Tyrvainen, et.al., 2006; Ward, 2001; Nordheim and Paivarinta, 2006.) Much of this research dates back to the early to mid 2000's. The recent financial crisis that slowed resource allocation to IT budgets in general also played a role in the lack of dedication to ECM systems. Studies have recently begun to appear again on ECM implementation. There is a need for a study to address current trends toward implementation and critical success factors for companies deciding to implement these systems.

IV. BUSINESS VALUE

There are many business benefits to managing content that has lasting business value. Managing content across multiple applications provides better accessibility to data and information that needs to be found in an efficient and timely manner. Better accessibility should result in improved decision making across the organization. Information that is readily accessible and easy to locate through improved search will be easier to share across functions within the company and with partners and suppliers outside the company. These systems will make it possible to reuse content more readily and improve process control and standards.

A major driving force for ECM systems in the short term is compliance. Legal and regulatory compliance have forced companies to invest huge sums of money in enhancements within current ERP systems. Compliance is also driving the development of ECM systems to better meet the needs of finding information, much of which is now in the form of unstructured data, for use in law suits and to meet regulatory requirements. E-discovery has become an important part of the legal process and in fact the Federal Rules of Civil Procedure now require companies to have a comprehensive e-discovery plan. The rules have been revised to include all electronically stored information. These changes have put burdens on companies to comply or face the consequences. ECM is playing a major role in helping companies meet these newly mandated requirements. Companies must establish their own guidelines as to how information will be categorized, organized and archived or destroyed. The important issue is that companies do what they say they are doing as described in these guidelines. Enforcing the company policies related to ECM systems play a big role in how courts will make decisions if and when legal proceedings become necessary.

The major ECM drivers for companies fall into three major categories;

- Compliance (legal and regulatory)
- Law (Avoidance of Risk)
- Productivity (Management of Data, Information and Knowledge)

Companies can leverage the compliance investment to find ways to extract business value. Companies viewed their Y2K investments in a similar manner in the late 90's. ECM systems can

provide companies with a means for better collaboration, improved business processes, better management of knowledge assets and availability. Communication is also improved with better layout of information and accessibility to specific data. Automating the process of managing content will provide companies with efficiencies and productivity improvements that make the investments worthwhile. Companies will continue to need to invest in ECM system upgrades as compliance regulations and laws continue to change. As ECM systems evolve over time to better meet the needs of companies and organizations the value and benefits will be more evident and easy to quantify and justify.

V. RESEARCH QUESTIONS AND CONCLUSIONS

This research specifically addresses the need to identify critical success factors for the implementation of ECM systems. Much work has addressed critical success factors for ERP and CRM systems. ECM is becoming a huge backbone system that deserves similar attention as these other major systems. Preliminary findings are based on case studies and interviews with individual companies. A more extensive research design is needed to better identify the success factors and to make comparisons across types of systems and industries.

The Research Questions:

1. How will ECM systems provide value to companies?
2. What are the critical success factors for implementing ECM systems?
3. Are the success factors the same across industries?
4. Will ERP and ECM systems emerge over time as one system to address all the content management needs of the organization?

As ECM systems become more essential to the operations of companies moving forward research opportunities will evolve to address these issues for companies. In a like manner, implications for IT curriculum will also become more relevant.

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ABOUT THE AUTHOR

P. Candace Deans is Associate Professor in the Management Department at the University of Richmond. She received her Ph.D. from the University of South Carolina and has held prior faculty appointments at Thunderbird School of Global Management and Wake Forest University. Her research focuses on the intersection of information technology and international business.