

HOW HIGHER EDUCATION BENEFITS FROM AN ENTERPRISE APPROACH TO CONTENT MANAGEMENT

Best Practices for Information Sharing and
Improving Collaboration across Campus Departments

TECHNICAL WHITE PAPER

THE CHALLENGE

Information Overload and Isolation

Effective information management is no longer a choice in higher education. From the smallest community college to decorated university, the amount of information ingested and produced is growing at an exponential rate. More students are attending college than ever before, bringing with them a growing trail of digital and physical content. Despite shrinking budgets, CIOs must meet the data management demands of students and departments while keeping the long-term interests of the university in mind.

Universities have long histories spanning several decades, and such longevity creates challenges surrounding information management. With growth over time, individual departments have evolved into isolated business units, developing costly manual processes for managing information. Often the methods used for document routing and storage make the sharing of information cumbersome between departments and facilitate little collaboration.

Student Information Systems Fall Short

Many universities have adopted Student Information Systems (SIS), which give separate departments access to a unified space for student related data.

SIS is effective in delivering on its promise; universities rely on the ability to store and share data between departments. Still, the large percentage of information received daily from students, high schools and financial organizations is in formats incompatible with SIS. Data must be keyed into the system from physical documents such as PDFs, word documents and invoices. Unfortunately, SIS does not provide a universal repository for this wide range of content. Further, it is not designed to automate the processing of incoming information through complex workflows. Without a universal content management solution, departments continue to depend on manual processes and universities are unable to realize the full potential of their SIS.

Document Imaging vs. Enterprise Content Management

On any given campus there may be multiple departments scanning documents for archival at the end of the process. Manual processing including copying, routing and filing still remain on the front end, preventing automation. Without a universal repository for departmental imaging systems, critical information becomes duplicated and difficult to access from outside that department. At the university level, the lack of a common repository and existence of manual processes cause a number of operational issues and excess costs:

- › Student information systems do not manage unstructured content, making business process automation slow and cumbersome.
- › Larger number of administrative staff and storage space needed to manage manual processes.
- › University is managing several versions of the same content as documents are copied, recopied and stored in cabinets or desktop files all over campus.
- › Disparate imaging/data management technologies in each department result in higher IT maintenance and training costs. IT is unable to pool resources and mitigate common problems.

- › The administration has little control over document retention and destruction, which makes auditing and compliance to records management laws problematic.
- › Student recruitment suffers as the university is unable to quickly identify and segment high-value applicants for immediate follow up.
- › The current generation of students expect self-service and unbridled access to paperless information; schools with manual processes in-place are at a disadvantage.

At the department level, common content management challenges exist based on need and business process:

- › Demand for higher education is growing, and the amount of associated information is growing even faster. Individual departments become overwhelmed with the amount of incoming and outgoing content.
- › Back end imaging solutions fail to fully eliminate expensive manual processes.
- › Document tracking becomes a formidable challenge, and business processes are overcomplicated.
- › Lacking a common repository, the sharing of content between departments becomes impractical or impossible. Information becomes duplicated across many departments, which increases both cost and space for storage.
- › Paper documents can be easily misplaced, lost, or damaged. A commonly cited statistic estimates the cost in labor to find a lost document is \$120 and the cost to reproduce the document is \$220.
- › Manual routing of content means that documents cannot be tracked through various approval processes.
- › In addition to the common problems listed above, each department faces its own unique challenges.
- › For example, the admissions office must add employees to manage the increasing amount of information associated with the review and acceptance process. When accepting transfer students, credits must be manually converted from colleges all over the world. The financial aid office must route physical documents through lengthy approvals, a frustrating process that is prone to errors.
- › There are two common approaches to mitigating such concerns: The Departmental Solution, and the Enterprise Solution. The following examples illustrate high-level distinctions, and why the two types of solutions, both referred to as Enterprise Content Management (ECM), are very different at their core.
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THE DEPARTMENTAL POINT SOLUTION: A STOPGAP PROCESS IMPROVEMENT

In an attempt to satisfy the need for process automation, departments within universities have implemented ECM technologies on an individual basis. These “point solutions” help automate processes within a department by creating a place for knowledge workers to store and retrieve documents. The goal of such a solution is to transition a department into a paperless office.

Unfortunately, this type of ECM technology misses the forest for the trees; the focus is on a limited number of business processes within one department, without making university-

wide access a priority. The solutions are fragmented in nature, and a number of efficiencies that would be realized from a true enterprise solution are lost.

These technologies are sold as packaged solutions for key departments, and provide limited efficiencies for a particular business process. However, without universal access to a common repository, sharing of information is cumbersome and costly, if at all possible. Further, the licensing structure of departmental-based ECM solutions results in huge expense for universities wanting to expand the technology to an enterprise model down the road.

These commoditized products are unable to provide two-way integration with Enterprise Resource Planning (ERP) systems, preventing existing systems from reaching their potential. Point solutions further complicate the job of the IT department, inflating cost to the university. On some campuses, each department has a dedicated IT resource to manage each unique point solution, which involves both user training and maintenance. Rather than pooling resources to solve common problems in a unified infrastructure, IT must be proficient with a number of system configurations.

From a departmental standpoint, a point solution can seem very compelling. The implementation is typically less expensive in the short term, and solves individual departmental immediate needs for scanning and storing documents. However, departments within a university do not exist in a vacuum. Universities are complex; requiring efficient collaboration between departments to provide the best possible experience for students, faculty and staff. The ability to build interdepartmental workflows and automate processes is not present in the standard point solution. Under such a model, the total cost of ownership is increased.

THE ENTERPRISE SOLUTION—REACHING THE HIGHEST LEVEL OF EFFICIENCY

A single platform for the enterprise provides the infrastructure and architecture to consolidate content from diverse systems. CFOs and CIOs can control operational costs by eliminating capital expenditures and maintenance of duplicative point solutions. Overall agility can be achieved in most departments across the university by automating processes in student services, financial aid, finance and HR. A true enterprise solution, provides the following benefits:

- › **Universal Content Repository** – Each department can input and access data simultaneously from a single content repository. IT can distribute permissions to ensure that privileged content is secure, yet accessible by the appropriate staff. This feature puts an end to data duplication, and warehouses of physical document storage.
- › **Powerful Workflows** – ECM has the ability to fully automate complex processes, from simple invoice approvals to the seamless management of aggregate student content.
- › **Pooled IT Resources** – Common architecture means that IT will not have to maintain fragmented systems across campus. IT can focus on the system as a whole, and pool resources to fix universal issues. Training and maintenance costs are greatly reduced.
- › **Improved Accuracy** – With a unified content repository and workflow automation, searching for and routing content is fast and efficient.

- › **Mitigation of Risk** – Automated rules surrounding document retention and destruction eliminate compliance issues and vastly improve the auditing process.
- › **Integration with SIS** – The optimal enterprise solution will be flexible enough to integrate seamlessly with existing SIS systems. Knowledge workers can use the line-of-business interface they are familiar with, while the ECM system automates processes in the background.
- › **Processor Model Infrastructure** – Although requiring a larger investment up front, the cost of processor-model infrastructure does not increase relative to its expansion. As compared to technology with a license-model, over time processor model investments yield better ROI when expanded to the enterprise.

ECM technology fills the gaps that SIS and point solutions leave behind. It has the ability to automatically ingest and retrieve all content types, both structured and unstructured. It combines physical and electronic documents, as well as those received by email and fax, into one electronic folder. Electronic workflow automates and manages processes throughout the student lifecycle from admissions to graduation and alumni status.

A well-executed enterprise solution makes interdepartmental bottlenecks a thing of the past. Information sharing becomes a standard, resulting in significant cost savings on campus. Departments can easily access information from anywhere without the need to reach out to other departments. Processes requiring approval from multiple departments are automated, enabling the university to make decisions quickly, and with fewer errors. When a student applies to a specific school within the university, faculty has universal access to the student file containing all relevant information submitted by the student. A single enterprise platform for managing content achieves significant cost savings for the university, while satisfying the individual needs of each department. Below are areas where an enterprise solution reduces costs and improves operational efficiency:

- › **Enrollment Services** – Paper applicant files are replaced with easily accessible electronic files. Automated checklists are created to help during applicant evaluation, removing several steps for prospective students and staff. Integration with an SIS checklist can easily determine missing documents in the application process, and alert the appropriate individuals.
- › **Transcript Processing** – Automation reduces the number of administrative resources needed to manage inbound information. Optical Character Recognition (OCR) pulls important data from the transcripts and automatically creates a digital file. Other efficiencies such as automated transfer credit calculation reduce errors and help speed the admission decision process.
- › **Registrar** – The registrar’s office can take advantage of immediate access to the electronic student file to insure it includes complete documentation required for registration. When preparing to graduate, the file can be easily accessed to verify the student has fulfilled all requirements for graduation.
- › **Financial Aid** – The process to apply for financial aid, grants and scholarships is time sensitive. A well-structured ECM system can help deliver the fastest possible response to financial aid inquiries. The auditing process is simplified through the ability to generate managerial reports instantaneously.
- › **Finance** – Due to the paper-intensive nature of most finance departments, workflow automation is often the driving force behind the acquisition of an ECM solution. Imaging and automated workflows in purchasing and accounts payable can completely eliminate paper in the requisition and invoicing processes. This allows

for time and labor savings across the board, and enables the university to take advantage of benefits such as early payment discounts and efficient auditing.

- › **Human Resources** – As with other departments, HR can access relevant content when onboarding employees. Payroll processing can be automated, routing timesheet information to the appropriate managers once submitted.
- › **Alumni** – Information regarding alumni status, donations, and other interactions can be stored in the ECM repository for review. The result is informed interactions with alumni, and a better way to track and engage highly involved graduates.

Implementing an enterprise solution does not occur at the flip of a switch. Using best practices, the ECM platform is installed and maintained in the IT department. If implemented in a single department such as admissions, it can be extended to the remainder of the university over time.

The university's IT organization generally maintains the platform, while departments can learn to create and manage their own workflows with fairly minimal training. A cost center model can remove budget barriers by helping individual departments adopt content management when their budget allows, and accelerates campus-wide adoption for quick ROI.

IMAGESOURCE VALUE PROPOSITION –THE ECMECOSYSTEM®



During a time when universities are expected to do more with shrinking budgets, a robust return on investment becomes essential. **ECMECOSYSTEM** is a comprehensive assessment methodology developed by ImageSource to ensure an enterprise solution will yield quantifiable cost savings over time.

ECMECOSYSTEM is designed to help identify business challenges; the process and system bottlenecks that cost time and money. The assessment includes on-site analysis, enterprise business process and IT systems design. Recommendations are documented to provide a strategic, tangible road map for future ECM implementation.

An expert professional services team uses a product-agnostic approach to thoroughly analyze current systems, objectives and areas with the most potential for efficiencies. Based on the analysis, the team recommends ECM technology that best fits the requirements of the university. The goal of the **ECMECOSYSTEM** assessment is to recommend a solution that will solve business challenges over the long-term.

Taking into consideration the financial challenges unique to higher education institutions, departments are often drawn to inflexible point solutions because an enterprise solution may seem cost prohibitive. However, from a university or CIO standpoint, a true enterprise solution is the most cost effective way of automating processes that deliver the maximum ROI in the long term. An **ECMECOSYSTEM** engagement makes this case through methodical analysis, providing a roadmap for success.

ABOUT IMAGESOURCE

ImageSource is a leading advisor on business process innovation and enterprise content management for higher education. We help you solve business challenges, control costs and increase productivity by providing solutions enabling efficient access to content and optimized collaboration across campus departments. Our staff of seasoned professionals, best practices and methodologies ensure that universities and other public entities are getting unparalleled service and highly innovative solutions.