White Paper

DIGITECH SYSTEMS AND
THE EDUCATION MARKETPLACE

March 2007

Schools maintain numerous records systems and both the government and tech savvy students are putting pressure on them to adopt electronic records management and provide web-based access to student records and services.

Digitech Systems, Inc. provides Enterprise Content Management (ECM) solutions for the education industry to respond to government regulations and stay competitive in today's information age.

Digitech Systems

Overview

Schools are inundated with document storage needs and records management duties. The volume of information they must control can be overwhelming, time consuming and costly. More importantly, the success and/or failures of school information systems can ripple across campuses affecting student achievement, teacher productivity, parent approval, employee satisfaction, administrator effectiveness and all decision-making. Success in the education industry is heavily dependent upon the ability to organize, access and manage information, documents and sensitive records.

Digitech Systems has made an ongoing commitment to provide offerings that meet the needs of the education industry. Enterprise Content Management (ECM) enables schools and universities to condense records into a simple, searchable source of information, saving both time and money. Digitech Systems' software can be sized to fit any school system and enables administrators to achieve operational efficiency without altering existing business practices.

The Education Market

A $981 Million Opportunity by 2008

The education industry is already a big IT spender, and its purchasing power will see continued growth. In-Stat estimates that education IT spending will grow to $62 billion by 2010 from $46.5 billion in 2005. Because today's web savvy college students are increasing the demand for technology and e-services, colleges and universities are spending more money on IT than primary and secondary schools. Roughly 66 percent of IT expenditures in 2006 came from higher education institutions. (www.InStat.com)

The largest school IT spending increases will appear in network equipment, software and IT services, according to IDC's *US Education IT Spending, 2004-2008 Forecast*. Regulatory reporting requirements, using technology to cut costs and information security are among the driving factors for IT spending. Software spending alone is expected to reach $981 million by 2008.

Susan Patrick, Director of the U.S. Department of Education's Office of Educational Technology, says the IT focus is shifting from counting the number of computers in the nation's classrooms to understanding how technology can be used to improve all facets of the education system—from data management and reporting in the front office, to student services and student learning at school and from home. (www.ed.com)

ECM: A Government Initiative

Five key government initiatives specifically highlight how technology and ECM systems improve schools and serve as stepping stones to empower schools to reach our national academic achievement goals. These include the Freedom of Information Act, Federal Rules of Civil Procedure**,** the Family Educational Rights and Privacy Act, the No Child Left Behind Act and the National Education Technology Plan.

"In 2006, Education IT spending will grow to $62 billion by 2010 from $46.5 billion in 2005, accounting for 8.2% of all US IT spending."

-In-Stat *Industry Update: Education Vertical Market Deep Dive: IT Spending*

Freedom of Information Act

Federal regulations dictate how government funded agencies, including schools and universities, must manage public records. The Freedom of Information Act covers electronic records and email, mandating that electronic documents be easily accessible and readily available to the public. When information enters an email system, it can be considered a public record. Schools need to store and manage documents and emails to comply with the act.

At the state level, emails can be considered public record to be archived for retrieval under open meetings laws or "sunshine" laws. Statutes are state-specific but most guarantee matters of public interest are open for public inspection. In 2003, several school board members in Oshkosh and others in Madison, Wisconsin were found violating the open-records laws when they deleted emails. In 2000, school board members of Beaufort County South Carolina were reprimanded for using a private internet bulletin board to discuss school matters. School boards and school employees find themselves in trouble when newspapers make open-records requests for email communications. Edwin Darden, senior staff attorney for the National School Boards Association, said school officials can avoid similar situations by developing and enforcing a technology use plan, keeping personal and business communications separate and using the same records archival system to retain emails. (www.eSchoolNews.com)

Maintaining sensitive information within public records can be burdensome. Documents and emails deemed public records sometimes contain sensitive and personal information which schools must keep confidential. For these reasons, school records administrators should be capable of searching for and filtering out sensitive information from emails and documents saved as open records.

Amendments to the Federal Rules of Civil Procedure (FRCP)

As of Dec. 1, 2006, federal guidelines require all companies involved in federal litigation to be able to reproduce emails and other electronic documents as part of discovery. The amendments to the Federal Rules of Civil Procedure, or FRCP, impact all industries because it affects any and all business, non-profits and public schools. In a December 2006 article called *Ruling: Schools Must Archive Email,* eSchoolNews.com says "according to legal experts familiar with the case, the ruling also applies to public schools. . . . The ruling could have significant implications for school technology departments, especially in places where technicians routinely copy over backup discs and other information housed on school servers."

The FRCP guidelines make it critical for public schools to know what electronically stored information they have and where to find it.

Federal Privacy Laws that Protect Student Records

There are many federal laws that guard the personal information of elementary and secondary students. Many of these are supplemented by additional state statutes or local regulations. These laws require security in records systems, confidentiality of personally identifiable information and accountability for inappropriate disclosures.

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. FERPA protects most student information that schools collect, and restricts disclosure of information without consent. FERPA prohibits student education record matching and restricts which parties have access to information.

FERPA and the Individuals with Disabilities Education Act safeguard the privacy of special education records.

No Child Left Behind: Leading New School Technology

The U.S. Department of Education (ED) says the *No Child Left Behind Act* (NCLB) enables important and sweeping changes that will require schools of the information age to employ technology to become less paper dependent and manage more electronic data and documents. ED compares the national education system to leading organizations, arguing that schools need the same technological transformations to streamline processes, enable real-time information transactions, expand markets beyond geographic areas, and customize services to the needs of customers. (www.ed.gov)

In 2001, President Bush made a commitment to ensure all children receive a high quality education so that no child is left behind. Using nationwide standardized testing and increasingly difficult passing values, the NCLB aims to improve academic performance and establish higher standards and greater accountability. Assessments and testing are essential components of the requirements with failures resulting in school and district sanctions. Under the NCLB, schools must administer tests to students and provide data on student achievement.

The NCLB policy is rooted in improvement through collecting, sharing and utilizing better educational data. NCLB leaves room for states to develop their own plan for accountability requirements, but requires schools to collect, report and maintain the security of student data and academic progress. These requirements expand the traditional scope of school records and emphasize the importance and accuracy of records systems. To help administrators become better data managers, the National Center for Education Statistics encourages schools to redesign data collection programs from paper to electronic, thus improving data quality and increasing data utility.

The NCLB regulatory reporting requirements have made electronic records management a necessity for schools turning raw student data into usable, traceable information. School districts continue to invest in software that organizes and manages student data, examines student progress and provides monitoring and tracking capabilities.

National Education Technology Plan: Driving Electronic Content

The U.S. Department of Education's National Education Technology Plan (NETP), released in 2005, incites technology-driven transformation within the education industry. The NETP resulted from evaluations of student views on educational needs and the nation's progress as a result of a decade of increased federal, state, local and private investments in connecting classrooms to the internet, providing students with computers, and technology as an instructional tool. The plan suggests, however, that the nation's education sector as a whole is slow to change, even as the business sector has adapted quickly to the new information age. It provides a set of action steps and recommendations that the nation's school systems should consider as they begin or continue to grow with technology. Nancy Willard, executive director of the Center for Safe and Responsible Internet, says the plan's emphasis on bandwidth, e-learning, digital content and virtual schools pushes administrators to purchase new technologies. (www.Education-World.com)

Two NETP action steps identify needs that directly align with ECM capabilities. The plan urges states and school districts to move toward digital content in order to cut costs,

"The tools provided by sophisticated, technology-based student information systems will play a key role in turning vast amounts of raw data into usable knowledge for managing and guiding the education process as required by the No Child Left Behind (NCLB) Act."

-James Parsley, American Association of School Administrators

improve accessibility and provide easy updates. Lastly, it asks schools to integrate data systems and find ways to synthesize the many disparate databases of student information to provide a better picture of student needs and achievements.

These final steps enable indirect benefits also associated with ECM such as better resource allocation, greater management efficiency, technology-based assessments and understanding relationships between decisions, allocation of resources and goal achievement.

Higher Education: Growing On-Demand ECM

At the university level, document management is complex. Universities support numerous programs, departments, schools, centers, libraries, museums, affiliated organizations and maintain thousands of student applications, financial aid requests, account records and performance reports. With increasing demand for electronic information and e-services, universities need to provide online access to all their documents to remain competitive. To do so, they must be attentive to the management of electronic documents, and student records are just the beginning. ECM is a fundamental part of university networks and e-service technologies that enable universities to improve productivity and profitability.

Making information network-ready means electronic document formats will be a prerequisite, and ECM will become a behind-the-scenes housekeeper for networked information. In an article by Richard N. Katz, *The Future of Networking in Higher Education*, Katz predicts as networks get faster, more documents will be attached to university networks and more services will be delivered over those networks. Universities are expected to spend more on network equipment than ever before and bring wireless access to campuses.

A June 2006 Gartner Group article, *Hype Cycle for Higher Education,* says higher education IT priorities include investments in technologies that will secure institutional data, manage access and preserve privacy. Institutions faced with setting priorities are cautiously investing in new and emerging technologies that provide competitive advantage.

Email services are an important factor in a college's competitive advantage. Under the Sunshine Laws, public colleges must maintain email records, but they must also ensure that growing email use and storage aren't bogging down their network. It's important for schools to have an email management strategy and digital storage that can handle this increasingly popular communication method.

Challenges of Technology Transformations

Several critical hurdles make adopting new software technology in schools challenging. Schools often operate with overloaded IT departments, so the introduction of new technology can be a big threat. This highlights the importance of implementing an on-demand application that is easy to integrate and use, works with the existing process, creates minimal interruption to work already underway and requires little ongoing support. As schools convert more paper documents into electronic information systems, scalable digital storage and ease of information management are likely to influence on-demand ECM purchases. Additionally, school IT managers still see security as a significant, constant issue and will give greater attention to products that boost security.

Selecting the Right Solution

As schools and universities select software that best fits their needs, the following goals will guide them in making a selection:

Move Toward Digital Content—The NETP's push for toward digital content intends to cut costs, improve accessibility and provide easy information updates. Schools need the capability to capture, store and retrieve information quickly and securely. Digital content can allow schools to consolidate applications and speed administrative and teacher practices such as data entry and document dispensation.

Streamline Records Management—Efficient information systems are the building blocks of responding to the NCLB and the NETP recommendations. If schools want to stay competitive, reduce costs and react to government requirements and industry trends, they need technological solutions for simplifying administrative procedures, customer service, security and data tracking.

Integrate Data Systems—NCLB and NETP encourage schools to use interoperable data systems to consolidate records and information to manage and share electronic data and provide greater overall efficiency.

Records Security Management—NCLB, FERPA and other federal regulations require schools to keep individual information confidential. Schools develop policies and procedures for collecting, maintaining, viewing, sharing and disposing of individual data. Additionally, schools should identify data needs for teachers, schools administrators, state and federal reports. Then, schools must decide how data may be reviewed, shared, verified and corrected.

Scalable Records Systems with Expandable Storage—As schools convert more content to electronic formats, maintain more electronic records and deliver more e-services, their need for data storage will increase. Education institutions need systems that can expand as their growth and usage increases.

Email Management and Storage—The Freedom of Information Act and the FRCP guidelines make many schools responsible for maintaining records of electronic and paper documents, including email. Schools must have a process for capturing, storing and retrieving email so it can be recovered as public record or for litigation purposes.

Finding and Filtering Sensitive Information from Public Records—Schools must be able to archive documents for public access and filter personal information before sharing those documents under the Freedom of Information Act.

Digitech Systems' Solution

Product and Functionality

Digitech Systems' products enable schools to create electronic records management that meet both regulations and recommendations dictated by the NCLB and NCLP.

PaperVision® Enterprise is a scalable ECM solution that enables schools to securely retrieve, display, distribute and track all stored documents. PaperVision Enterprise allows administrators to set security policies, audit user activity, automate complex business processes and organize unlimited amounts of information.

ImageSilo® is a secure, on-demand ECM service uniquely positioned for the higher education industry. ImageSilo allows multiple departments secure access to a central

records system and provides web-based access anywhere, anytime for an unlimited number of users. Digitech Systems operates and maintains ImageSilo storage hardware and server, so schools don't have to make additional investments in capital costs and IT personnel.

The table below matches education goals with PaperVision Enterprise and ImageSilo key features and benefits.

Education Goal	PaperVision Enterprise/ ImageSilo Feature	Advantage/Benefit
Move toward digital content	Convert paper records to electronic records	Convert to electronic records to cut costs on paper, postage, storage and distribution
	PaperFlow™	Without increasing network traffic, automatically scan and index documents containing handwriting, machine print and barcodes
	PaperVision Enterprise Directory Manager	Enable unattended document capturing with automated file uploading and indexing
	PaperVision Distribution Assistant	Unlimited external media distribution saves printing and postage

Education Goal	PaperVision Enterprise/ ImageSilo Feature	Advantage/Benefit
Streamline Records Management	Imaging and retrieval	Outsource data storage to ImageSilo and trade capital expenditures for monthly operating costs Make information access available anywhere, anytime and increase efficiency and productivity
	Search functions	Keyword and full-text searches locate files in seconds
	PaperVision Enterprise WorkFlow	Route documents and enforce procedural steps and conditions Enhance processing efficiency and collaborate easily with multiple departments
	PaperVision Enterprise Report Management	Automatically index and store computer-generated reports, eliminating the need for paper storage and reducing distribution costs
	PaperVision Enterprise Tools	Allow users to access documents stored in the system without leaving Microsoft Office applications already in use.
	Integration definitions and enhanced API integration	Create interoperable solutions using point-and-click integration with virtually any Windows application

Education Goal	PaperVision Enterprise/ ImageSilo Feature	Advantage/Benefit
Records Security Management	Document Grants	Disclose information to third parties, post documents to a secure, password protected, web-accessible location
	Protected Data Storage	Never fully expose information to an end-user—configure secure, airtight document storage to allow document access only via SSL encrypted caching technologies
	User-based Security Settings	Control users' ability to read, share or change documents
	AES 256 Data Encryption	Encrypt data during processing, at rest, and for transmission
	Document-level, Project-level and Field-level Security	Control user access by project, document or field. Restrict users to view only the information necessary for the task
	Redaction	Conceal sensitive and personal information by hiding specific document fields
	Data Delivery Service and Data Transfer Manager	Preserves identical copies of live information. Package and encrypt information for delivery and back-up to any media location of your choice

Education Goal	PaperVision Enterprise/ ImageSilo Feature	Advantage/Benefit
Integrate Data Systems	Single unified system	Saves all data in one system for a total information management tool
	Store documents in native file formats	Store and retrieve more than 250 file types in native file formats
Scalable Records Software with Expandable Storage	Scalable software	Create unlimited entities and projects, enabling a department specific or school-wide ECM solution
	ImageSilo	Outsourced storage minimizes impact to IT personnel
		Purchase more storage space as demands increase
		Trade capital costs for operating expenses
Email Management and Storage	PaperVision® Message Manager	Capture, organize and store all email messages into a single records management system for immediate retrieval
		Provide non-repudiation—emails are stored with unique values to ensure original versions are not changed
Find and filter personal information from public records	Redaction	Conceal sensitive information by hiding specific document fields
	Full-text search	Search a single word or phrase and instantly find references in context

Vocabulary and Terminology

The following are some terms and concepts to be familiar with when speaking to a prospect in the education industry.

Adequate Yearly Progress (AYP)

AYP is one of the cornerstones of the federal No Child Left Behind Act of 2001. It is an annual performance goal and measurement of year-to-year student achievement on statewide assessments.

Federal Educational Rights and Privacy Act (FERPA)

FERPA gives parents certain rights to their children's education records until the child turns 18 or attends a school beyond the high school level. Schools that do not comply risk losing federal funding. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

Freedom of Information Act (FOIA)

The FOIA was enacted by Congress in 1966 to give the American public greater access to the Federal Government's records. The Electronic Freedom of Information Act Amendments of 1996 expanded the scope of the FOIA to encompass electronic records and require the creation of "electronic reading rooms" to make records more easily and readily available to the public.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services. The act protects the privacy of student education records.

National Center for Education Statistics (NCES)

The National Center for Education Statistics (NCES), located within the U.S. Department of Education and the Institute of Education Sciences, is the primary federal entity for collecting and analyzing data related to education.

National Education Technology Plan (NETP)

Released in January of 2005 by the U.S. Department of Education, the NETP outlines plans to reform schools with technology. The plan resulted from a survey of 200,000 students in 50 states. It provides an overview of the current status of educational technology, examines how technology can help improve academic achievement and makes seven recommendations for increasing and improving the use of technology in education. The seven recommendations are:

- Strengthen leadership
- Consider innovative budgeting
- Improve teacher training
- Support E-learning and virtual schools
- Encourage broadband access

- Move toward digital content
- Integrate data systems

No Child Left Behind Act (NCLB)

The No Child Left Behind Act was signed by President Bush in 2002 and requires K-12 schools to address the achievement gap between advantaged and disadvantaged students and ensure that all students achieve academic success. This education reform mandates student achievement benchmarks, qualified teacher standards and makes all educational decisions based upon the best, most integrated data possible. NCLB is built on four principles: accountability for results, more choices for parents, greater local control and flexibility and an emphasis on doing what works based on scientific research.

Case Studies

For applications and testimonials on how educational institutions are using Digitech Systems' software to comply with regulations and increase operational efficiency, please see Digitech Systems' case studies at MyDSI. (MyDSI.DigitechSystems.com)

Avon Maitland District School Board

PaperVision Enterprise gives the Avon Maitland District School Board access to hundreds of thousands of student records instantly.

Isidore Newman School

ImageSilo® eases enrollment for students displaced by Hurricane Katrina because it allows students to provide temporary schools with critical health records, including immunization histories.

McNeese State University

The McNeese State University Registrar's Office needed to replace its paper-based records system with a comprehensive ECM system that enabled global searches, increased records-keeping accuracy, improved records retrieval time and provided online access to records. PaperVision Enterprise and PaperFlow have allowed the Registrar's Office to improve office accuracy and efficiency, increase customer and student satisfaction and reduce retrieval times from 3-4 days to 3-4 minutes. More than 72,000 student records are now available electronically. (Full case study not currently available.)

Tulane University

The Tulane University Registrar's Office manages student records for eleven different colleges within the University. With New Orleans' vulnerability to natural disasters, Tulane was interested in permanently protecting student records. They also wanted a simple system to access and retrieve student information. PaperFlow and PaperVision Enterprise allowed the school to improve record request response time by 66 percent, from 3 days to the same day. Tulane reclaimed more than 160 hours of productivity per month. In addition, they reclaimed office space previously devoted to 17 four-drawer filing cabinets. Tulane's foresight and disaster recovery plan paid off. A CD backup copy of student records was created to protect data from Hurricane Katrina. (Full case study not currently available.)

United Independent School District

With PaperVision Enterprise integration ability, the Tax Office of United Independent School District can access stored documents without leaving their line-of-business application.

University of Texas of the Permian Basin (**UTPB)**

Using PaperFlow and PaperVision Enterprise, UTPB electronically accesses information ranging from transcripts to loan applications. With document security, the IT department controls who has access to what information and ensures data security.

Digitech Systems

ABOUT US

Digitech Systems, Inc. enables businesses of any size to more effectively and securely manage, retrieve and store corporate information of any kind. By significantly reducing the cost of electronic document and content management systems (ECM), Digitech Systems has moved ECM from a luxury to an essential element of a well-managed business.

Delivering the industry's smartest suite of ECM products and services, Digitech Systems is known by its customers as the trusted source for managing, storing and providing immediate, secure desktop or Web-based access to any and all corporate information. ImageSilo, PaperVision Enterprise, and a variety of document and content capture products are available from Digitech Systems as a fully integrated suite, or as process specific components to match the individual needs of small businesses to major corporations.

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