Iowa 100% E News

The latest on the State's 100% E Web migration

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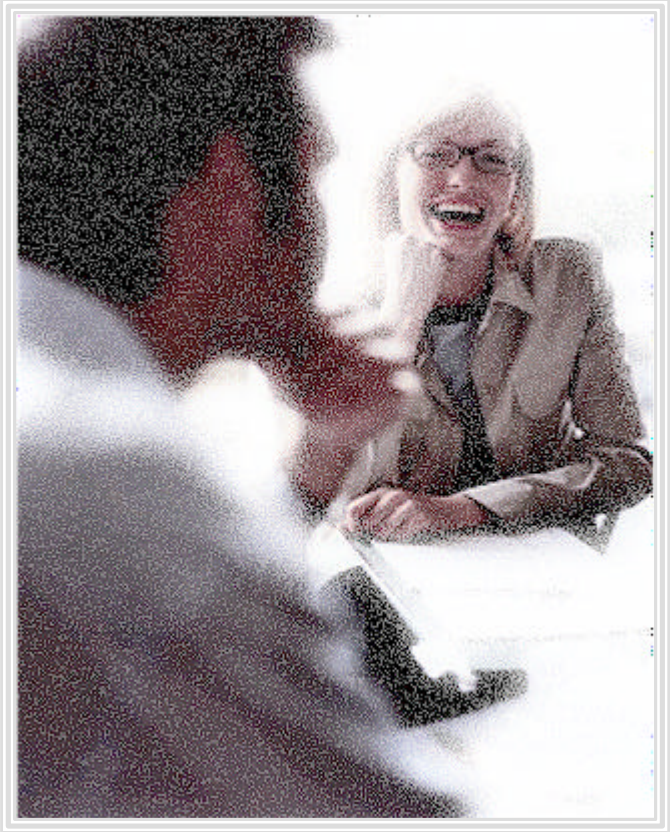
Attn: 100% E Editor

Making State Jobs More Fulfilling



No one has to convince agency CIO's or the ITD team about how electronic government will revolutionize the way we do business. But it's also invigorating to hear what others have to say. More specifically, about how technology can improve job satisfaction among state employees such as the Iowa Department of Personnel.

According to Ellen Pierson, IDOP Human Resource Information System Administrator, "Many State employees have been keenly aware of advances in information technology in recent years. Even if new technology has not yet entered into their jobs, they are continually exposed to the possibilities through the news and entertainment media, personal transactions with banks and retailers, Internet exploration and other sources."

Pierson also points out that since newer systems tend to be more user friendly, it's also true that new technology can make a job more enjoyable. Recently, when teaching a new application to a State employee, the employee remarked to Pierson, "This is kind of fun."

It's Pierson's belief that State employees can be very inventive and they demonstrate this by applying concepts they've seen and making suggestions for job improvements. With the current economic environment, we've all heard the catch phrases, "do more with less" and "work smarter and faster."

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"It can be frustrating for employees to sense that new technology could improve job productivity, but other priorities and lack of resources preclude immediate introduction of that technology," said Pierson. "People would feel more self-actualized if they felt technology was helping them do their jobs, instead of feeling discouraged because there's a more efficient way to accomplish a task but there's limited technology."

> *"THIS IS KIND OF FUN."*
>
> *State of Iowa employee during software training session.*

To further exemplify how technology can improve job satisfaction among State employees let's examine the Enterprise Resource Planning (ERP) project. It will bring improvements in systems and data availability. ERP systems are designed to put new technologies to work for the users. They require significantly less time and resources for:

- Processing
- Inputting and organizing
- Freeing time and resources for analyzing
- Innovating
- Problem solving
- Customer service

ERP because will provide better information enabling managers to make better decisions about programs and employees while improving their ability to access and distribute that information.

Before long, IDOP employees will see more digital tools introduced in their work For example:

1. Applicants will soon be able to apply for State jobs over the Internet.
2. Website enhancements will provide more information to State employees and Iowa citizens.
3. The deferred compensation system is being significantly improved by merging and web-enabling systems on two platforms, making more information available to those administering the program.
4. A Business Process Redesign project is being conducted in the Risk and Benefits area to determine if cost-effective opportunities exist to improve processes and introduce new technologies.

New technology applications will decrease the amount of data input from forms and analysis of paper reports and, consequently, save time. The constraints of past technologies led to entrenchment in paper-based processes. It simply wasn't feasible to deploy applications to all end-users.

"Imperative to the 'paperless' environment, is ensuring we avoid making false assumptions about accessibility," warned Pierson. "Not all citizens (or State employees) have Internet capabilities. And because Internet service is sometimes interrupted, back-up methods for critical processes such as employee time-reporting and payroll systems are essential."

Pierson believes that if state jobs can focus on problem solving, critical thinking and information and data processing (endeavors that place state employees closer to clients, create more accessibility, and allow for quicker access) this will translate into taxpayer benefit by enhanced customer service and better use of taxpayer dollars.

21st Century Learning

moves forward

Anyone who has searched for information on the Web has seen how technology can be used to enhance learning: The amount of information accessible seems infinite.

On a more tangible scale, the state of Iowa demonstrates its commitment to ensuring all Iowans have close access to educational resources by investing in a statewide distance learning network. The state has further propelled this education imperative by establishing a 21st Century Learning Infrastructure Initiative during 2000-2001 year. The result is an effort that will integrate technology, curriculum and classroom work.

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To determine what is needed to enhance learning for Iowa's students, an assessment was conducted by consulting firm RDR Associates. It's the first look in more than a decade at educational technology needs, ideas, concerns and other issues that could help form the next level of the 21st Century learning infrastructure.

"The assessment included statewide focus groups and surveys as well as individual interviews and meetings with a wide representation of educational stakeholders at all levels," says Rich Gross, Ph.D., president of RDR and formerly Dean of Telecommunications at Kirkwood Community College for more than 14 years. "The findings set forth a solid set of recommendations as to the next steps necessary to help build a coordinated approach to learning technology over the next several years."

Visions for a functional, state-wide electronic and library architecture using a technology called dense wave division multiplexing, would allow every school facility to access a wide variety of multimedia information. Sets of tools developing around concepts described as "instructor spaces," "learner spaces" and "instructional design" spaces are envisioned. Technologies supporting these spaces would be standards-based to allow for interoperability throughout the state. Additionally, there could be a statewide system managing security and authentication and the evolution of a digital library infrastructure where the state would be both a service provider (organizing content into common portals) and a content provider along with other statewide libraries and information centers.

"Many fine educational and research institutions in Iowa are moving ahead rapidly with new systems and approaches," says Gross. "In order to stay ahead of the curve, the state will need to have more than technology systems. It will need to have in place a cooperative approach to research and development involving all of the stakeholders. Additionally, the private sector will need to play a strong role in many aspects of the infrastructure."

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Gross also points out that because the concept of education is rapidly expanding beyond traditional institutions, lifelong learning will be a growing component of quality of life in the state. As a result, educational opportunities need to be ubiquitous in both the public and private sectors. The state's major contribution to this effort, in addition to assisting with digital infrastructure, will be to coordinate all of the efforts.

Since launching the initiative with funds allocated by the 2000-2001 Legislature, the University of Northern Iowa (UNI), Department of Education, Iowa Communications Network, Iowa Public Television and ITD have collaborated with the following seven schools and two Area Education Agencies (AEA) in this pilot:

- Aplington/Parkersburg Middle School
- H-L-V (Hartwick, Ladora and Victor) Junior/Senior High School
- Denver Middle School
- Iowa City SouthEast Junior High
- Jesup Middle School
- Iowa City NorthWest Junior High
- North Tama High School
- AEA 7
- Grant Wood AEA 10)

The content and grade-level focus for the first year, as defined by the Department of Education, was middle school mathematics. With the goal of developing an infrastructure that will ultimately be a model for enhanced statewide learning, the entities involved accomplished the following during the first year:

- Licensed three libraries of educational materials that include videos, digital tools for problem solving, virtual interviews and career information.
- Acquired the Virage Indexing system to use in conjunction with licensed content (this search engine makes it easier for teachers to locate 21st Century materials useful in their classrooms).
- Provided teacher support in the form of workshops, websites and hardware/software troubleshooting.
- Began assessing currently available educational technology to plan for future efforts.

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Goals for the second year include:

- Expanding the scope of the project by up to 12 schools.
- Increasing existing math content and continuing to provide access to other content at the middle school level.
- Providing appropriate hardware and software; researching and testing new hardware and software plus new content delivery vehicles (such as satellite).
- Strengthening the infrastructure of the system (such as adding a user identification system; obtaining a document management system for non-audio/video objects and investigating new ways to manage and deliver content)
- Enhancing each partner's role in the project while adding new partnerships with other educational institutions, local schools and vendors.

One example of using the talents, variety of knowledge and resources of additional partners is illustrated by the partnership developed with the Educational Telecommunications division of IPTV. They will provide the mechanism to stream video files from two specific projects for both high-bandwidth access and lower bandwidth access by schools in the state, and to provide methods of indexing this media for easy acquisition over the Internet. *Explore More* is a multimedia curriculum resource for Iowa middle school students on four contemporary issues - biotechnology, water quality, alternative energy and environmental conservation. The *School to Career* project targets Iowa K-12 educators and students by profiling the lives of Iowa career professionals through videotape, ICN sessions and video-enhanced Web sites.

As part of the assessment, a number of technology plans in many other states were reviewed. While several provided both positive and negative examples, the major difference between other states and Iowa is the presence of the ICN. How Iowa manages and grows future statewide infrastructure around that core resource could make it substantially different from other states.

"Utilization of the ICN is key in our endeavors," claims Darrell Fremont, Multimedia & Courseware Specialist Media and Learning Services with ITD. "We will utilize our network infrastructure in more effective ways as we grow the use of digital media and other educational content in our schools and communities. A dense wave division multiplexing upgrade will increase the transmission capacity of fiber optic cable and provide increased bandwidth across the ICN for video-on-demand and multimedia."