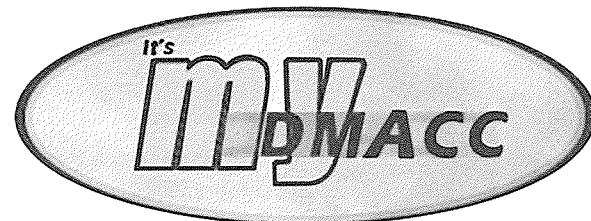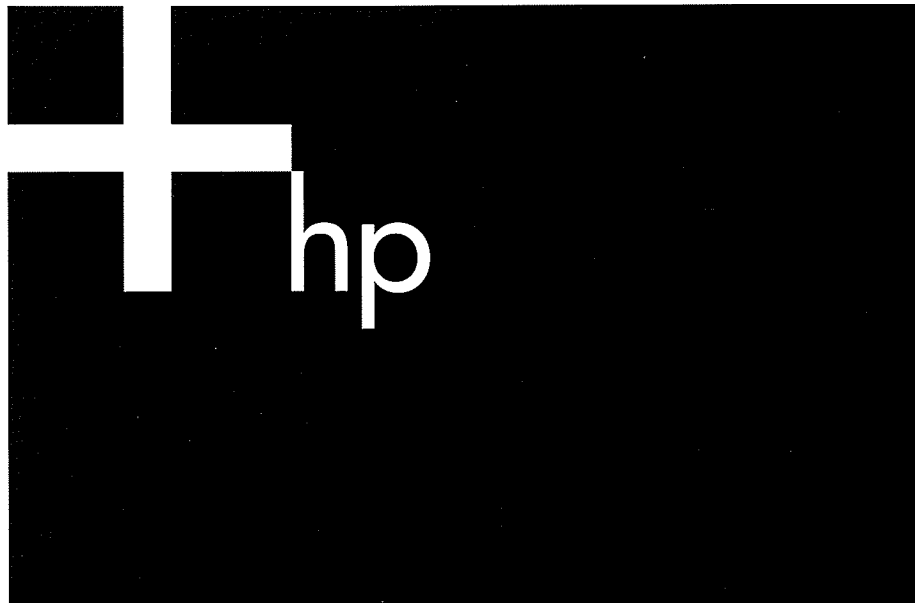# Community college leverages Microsoft SharePoint™ software, HP infrastructure to create multi-campus educational portal

"The portal provides amazing opportunities for communication within the college and as an outreach tool. It changed the way we look at what we do, from the smallest to the largest and most important tasks."

— Ann Watts, Instructional Design Coordinator and Portal Project Manager, DMACC

An educational portal at Des Moines Area Community College, built with Microsoft SharePoint™ software and running on HP servers and storage systems, may ultimately transform the entire educational experience there. "It's all about making education accessible to everyone, anytime, anywhere," explained Ann Watts, instructional design coordinator and portal project manager at DMACC.

Des Moines Area Community College is a public institution with six campuses. It serves some 22,000 students taking college courses with 75 career-oriented degree programs, and 50,000 taking continuing education courses.

The portal — known as "my.dmacc" to users — is an outgrowth of the college's educational mobility initiative that runs on HP ProLiant servers. DMACC has implemented a system-wide wireless system to support both academic programs and administrative needs. Watts' mission of helping faculty to use new technology led her to a search for tools that are easy to use, hardware independent, and affordable. That led her to SharePoint software.

"The power of SharePoint is as much in its possibilities as in its technology," she said. "It provides amazing opportunities for communication within the college and as an outreach tool. Even before our district-wide implementation, the portal changed the way we look at what we do, from the smallest to the largest and most important tasks."

Far-reaching vision

Watts' vision for the portal is as boundless as her enthusiasm for it. She sees the portal as a communication tool that will link faculty to students, department to department, administration to faculty, and campus to campus. It will serve as a tool for faculty to manage their courses better, while providing a central depository for course-related materials. And it will enable DMACC to reach out to various publics — "from pre-K to gray" — establishing new connections with the community and potential students.

Microsoft

invent

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>
> —Greg Martin, Chief Information Officer, Des Moines Area Community College

give students access to state documents, regulations, guidelines for post-secondary enrollment options; and facilitate interaction and make them all feel more a part of the college.

- A senior citizen portal for DMACC's "Community Connections" program. Specialized information about genealogy, health care, creating a family history archive, winterizing the family home, and other topics could easily be added to this special portal area.

Easy to use

As with any new technology, ease of use is paramount to ensure widespread acceptance. Basic computer skills are assumed. But beyond that, Watts' team of three programmers has developed content that specifically targets faculty and students in a way that makes it simple for the user.
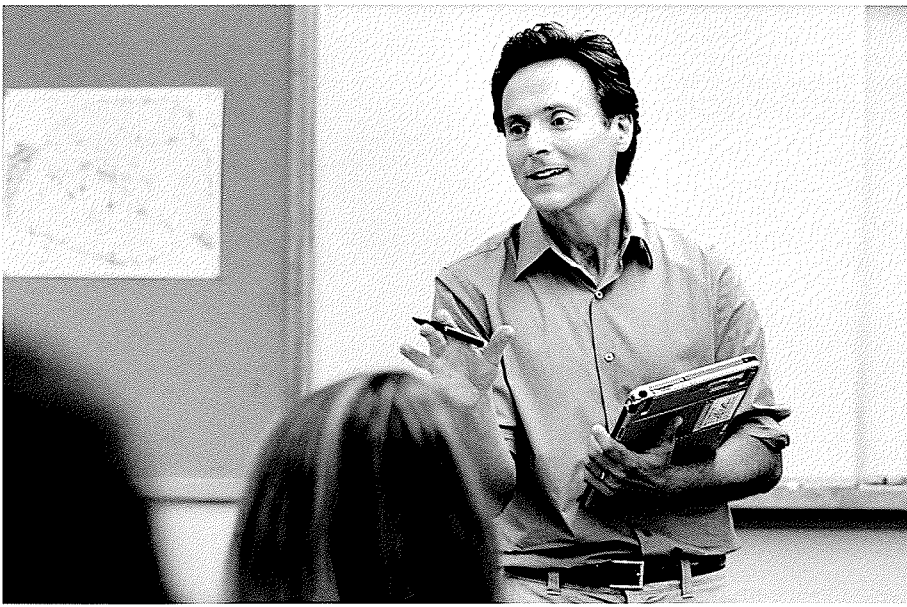
For students, there is a game-based online orientation. It exposes them to different parts of the portal and how-to access resources. Also, a page of links to often-used downloads — Acrobat Reader, PowerPoint viewer, etc. — ensures that students and faculty alike find a plug-in they may need for a course.

For faculty, there's an "instructors' toolbox" with links to pages on using Microsoft Front Page® (so they can build their own web pages on the portal), techniques for teaching online, using the iPAQ Pocket PC, pedagogy for web-based instruction, and more. The instructors' area also includes other resources, including the faculty handbook and guidance on DMACC policies and procedures.

Hardware independence

One of Watts' greatest concerns was finding a tool that was truly hardware independent. "We've had a lot of help from people at HP to support the mobility initiative. While we don't know exactly what the future will be, HP is working with us on various device options." In the pilot implementation of my.dmacc, the school made HP iPAQ Pocket PCs and e-books available to students to support collaborative projects. More recently, the portal team has been working with HP Tablet PCs, which seem to be favored by faculty. Even high-end cell phone/PDA hybrids are seen as potential links to the portal.

"That's one of the things we really like about SharePoint — it's hardware agnostic," Watts said. "It works with iPAQs, cell phones, tablet PCs ... virtually anything that can surf the web. It all fits into the idea of making education accessible to everyone, anytime, anywhere."

Among the components:
- Departmental sites for collaboration and document sharing. The Shared Documents function makes it easy to edit and collaborate on writings, and provides instant communication to link departments that span multiple campuses.
- Resources to promote "best practices" for faculty. Academic departmental sites will include sample syllabi and assignments, so that new instructors will have examples to follow for their own courses.
- Class sites that include announcements, events, pertinent web links, discussion lists, a documents area where students can collaborate on projects and where the instructor can post lecture notes, PowerPoint slides, and other information to enrich the learning experience. Class sites might also include an electronic "drop box" for assignments, and a flash chat option for instant communication between faculty and students.
- Specialized sites for collaboration with colleagues outside the institution. DMACC partners with other community colleges and often co-presents at national conferences. These special areas, with built-in discussion/chat features, allow instant communication about the document being edited.
- A "Kids College" portal to serve elementary and middle school aged children. Content might include information about journalism camp, fun days, summer enrichment programs and more.
- A portal dedicated to high school shared programs. Watts envisions a dynamic communication tool that will

Adaptive Enterprise infrastructure from HP

The portal runs on three HP ProLiant servers and will incorporate an HP Storage Area Network, in a hardware architecture designed to accommodate growth and flexibility, as well as high availability.

"We've standardized on HP as a platform to keep the manageability of hardware simple and efficient. We're able to proactively develop new ways of working and new tools for students and educators such as this new portal," said Greg Martin, CIO at DMACC. "HP has helped us develop the portal with scalability in place so that as it grows and evolves, we have the ability to adapt as needed."

Watts expects demand to grow. "I anticipate this taking more and more resources as students want to do more and more and we want the ability to adapt to demand."

The storage area network, in addition to providing storage for faculty and administrative users to post content, will provide space for each student. "Why put things on a personal hard drive when, if it's on the portal, they can access it anytime, anywhere?" Watts asked rhetorically. "That's just one example of how the portal will change the way people use technology."

Using the portal that way, though, assumes high availability. Watts said other course management systems she has encountered have had problems delivering uptime. "So we are building in both redundancy and disaster recovery, having started with a two-server model that will grow to four servers in a few months."

DMACC's initial out-of-pocket investment was $19,000 in hardware costs and $1200 for a SharePoint server license. That compares favorably, Watts noted, to other systems that called for a $90,000 hardware investment and up to $100,000 for software. Value for investment is always an important consideration, she explained.

Advice to peers

Watts is already collaborating with other colleges interested in establishing their own SharePoint portals. Among her advice:

- Standardize user software (DMACC has opted for Microsoft® Office because it integrates so well with SharePoint) and Server OS software before you begin to build the portal.
- Do some soul-searching. Ask "How does this technology help our students, our faculty and staff?" Stick to what supports your mission.
- Consider the total investment needed to launch the portal, and whether it is the best investment of limited funds. Project the ongoing consequences and costs (people, time and upgrades).
- Don't jump on every new technology bandwagon. But be fearless in applying carefully selected technologies.

"We're finding users all have their own ideas about how my.dmacc can be useful to them," Watts said. "The portal is a resource that sparks all kinds of creative ideas about how to improve the educational experience."

For more information on the SharePoint portal at DMACC, visit http://www.dmacc.edu/instructors/alwatts

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At a glance

Organization: Des Moines Area Community College

Founded: 1965

Location: Des Moines, Iowa

Students: 22,000

Telephone: 800-362-2127

URL: http://www.dmacc.edu

Primary mission: Des Moines Area Community College anticipates student and community needs, providing quality, learner-centered higher education and workforce development. Its programs and services encourage and develop career success, cultural understanding, social enrichment and life-long learning.
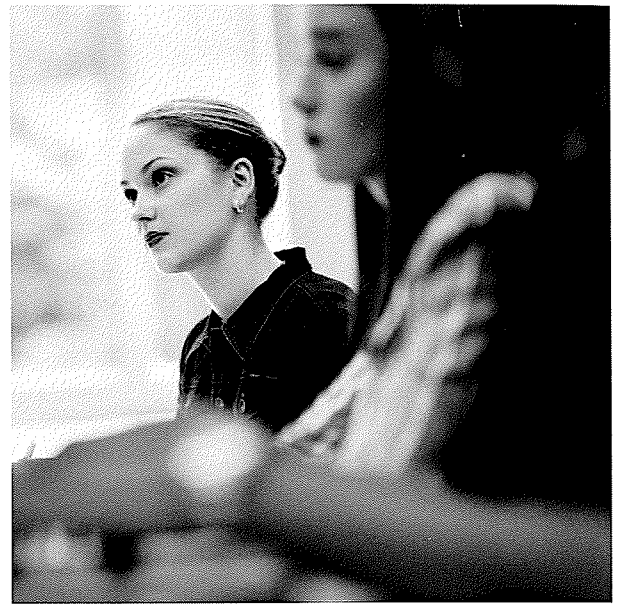
Challenge

- Deliver an all-encompassing education portal for students, faculty and community serving a multi-campus system

- Provide for scalability to grow the portal's functionality as more users and applications are added

- Ensure high availability

- Allow wireless access

Solution

- Microsoft SharePoint™ software

- HP ProLiant servers

- HP Storage Area Network

- HP iPAQ Pocket PCs

- HP Tablet PCs

Results

- Improved communication across departments, campuses

- Improved access to course materials

- Productivity-enhancing course management system

- Collaborative workspace for students, faculty

- New links to local community, other educational institutions

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