

INDUSTRY BRIEF

Information Access Drives Higher Education

Colleges and universities compete for top students, faculty and staff. That means they must provide these “customers” a user-friendly online experience and minimize their costs so they can devote more money to their core missions of research and teaching.

To accomplish all these goals, many colleges and universities are providing simpler, online access to information ranging from financial aid forms to class schedules to purchase orders and grading systems. Often, this access is offered through a “portal” which provides a single point of entry to hundreds of applications and information such as course listings, volunteer opportunities and news about courses and research from various departments across the campus.

Information Portals

A portal usually organizes information in a way that makes it easier for the user to find information among the dozens, or even hundreds, of applications to which the portal is connected.

Wichita State University in Kansas began deploying its portal (WIN, for Wichita State University Information Network) in 2004 because its older applications, most of which date from the 1980s and 1990s, were becoming too expensive to maintain and update.

In addition, taking those applications offline for maintenance or backup was no longer acceptable to a student body “that is up all

night,” says Jim Rogers, associate director and manager of administrative computing at the school.

Adapting to the new applications, which looked and worked differently than the older applications, was a painful shift for some employees. They had to adjust to the fact that the portal wouldn’t deliver some of the reports they had been reading for years, or decades, and in some cases had built their jobs around, says Rogers. Rather than re-create every older report in the new system, Wichita State used the adoption of the portal as an opportunity to examine, and where necessary, to change and streamline how it does business.

“One of the pitfalls of being a 100-year-old institution is that you get embroiled in your own processes,” says Rogers. “They take on a life of their own, and you have people passing paper back and forth and there’s no real reason for that exchange, but it’s just what the routing sheet says. Those are the kinds of things that are almost impossible to incrementally change as a systems developer, but the purchase of a (new) system becomes the change agent.”

Among the new processes being implemented are electronic workflows, where forms and paperwork are automatically routed to the faculty, staff or students who need to see or act on them. This automation, along with wireless and remote access to the portal, can potentially

drive enormous improvements in convenience and productivity.

The director of a department at the school could, for example, “be at a conference and get on the system at night and approve a purchase order from their hotel in California,” says Rogers.

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The University of Florida deployed a portal using Oracle’s PeopleSoft® Enterprise Portal in March 2003 to make it easier for 100,000 students, faculty and staff (as well as vendors, alumni and researchers working with university faculty) to access the hundreds of applications on which the university relies. “In our exit interviews our students were telling us ‘We love the football games, we love the faculty, we love the education, but it’s hard to find things,’ both on the school’s 2,000 acre campus and on its Web site,” says



Mike Conlon, director of data infrastructure at the University of Florida.

The portal, called “my.ufl.edu” provides customized access to information and applications based on the identity of the user. “Faculty members get access to information important to faculty,” he says, such as course schedules, an online application for checking students’ papers for plagiarism, news about the grants for which they can apply, and even the status of grants for which they have applied.

In addition to certain information that is provided to all the members of certain groups (such as students or faculty), users can also “build their custom newspaper online” by choosing which of 250 “channels” of news from various university departments they will tap, says Conlon.

Implementation Tips

When creating a portal, it’s important to organize and label the information according to how the users (whether they are faculty, students or staff) will expect to see it, and to use terms they will recognize. At the University of Florida, rather than simply giving each academic or administrative department

Implementation Tips for Portals

- Help ensure executive support to overcome resistance to change
- Empower a leadership team to make decisions quickly
- Review wording and organization of information to be sure the portal is easy to use
- Budget time and effort for cleansing and integration of data from legacy applications
- Be sure the portal can integrate with specialized systems, such as those used to manage student housing or library services

a channel to post its own news, Conlon worked with the journalism, news and public affairs and library science departments to develop seven content channels that include most of the information needed by undergraduates. Those channels are

organized and named, around subjects important to the students, such as “volunteerism” and “academic opportunities.” At Wichita State, making the portal user-friendly included changing the words “Fee Assessment” to “Pay Your Bill” in the form students used to register for classes.

Rogers stresses the importance of communication to help ensure users know about the capabilities of the new portal, and to ease their fears about how it will affect them. In one online posting, for example, he dismissed rumors that the new system was designed to eliminate some jobs, or that the school’s legacy systems were about to “implode, explode or suffer some horrible end.”

The move to a portal was also eased for Wichita State because it had, beginning in 1998, created a “data warehouse” that stores data from many of the school’s legacy applications in a common, easily accessible location. That work, which was done in part to prepare for the move to the portal, was “one of the things that made our implementation go as smoothly” as it did, says Rogers.

He also warned that without support from the school’s management, a portal is “doomed” because resistance from individual departments to changes in their applications will leave the information technology department “bogged down in struggles you haven’t got time for.” He also suggested creating a “leadership team empowered to make all the operating decisions” without waiting for higher-level approval. “You’ll never meet your deadline if you’re trying to find time on a vice-president’s calendar to

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see if something’s OK,” he says.

Malcolm Woodfield, director of SAP Global Business Development, Higher Education and Research, recommends that schools be sure that the hardware, software and networks supporting the portal be sized to handle the likely volume of users without getting bogged down. The network should also support information sharing among mainstream applications such as email, as well as internally developed or specialized applications such as those that handle library management or student housing.

Some schools are looking to extend seamless access beyond computers to handheld devices such as smart phones. Wake Forest University is in the second year of a pilot deployment of Cingular® 8125 mobile phones which allows about 125 students to access some applications within the school’s Wake Information Network portal which have been rewritten for easy viewing over the phone’s 2.8 inch screen, says Jay Dominick, CIO of Wake Forest University in Winston-Salem, N.C. Dominick.

These applications include email (the students’ favorite so far), a directory of students, faculty and staff, updates on class schedules and grades and downloadable educational material such as the periodic table of elements. The phones even allow access to the student’s schedule to disable the ringer during classes (a feature requested by faculty), says Dominick.

Portal Payoffs

Procurement is one area where many schools realize significant benefit by integrating applications in a portal, says Woodfield. Automated workflow can cut the cost of processing a purchase order by as much as 75 percent, he says, and can also reduce over-ordering or duplicate ordering while allowing the school to get volume discounts by combining all the purchases from a single vendor by departments across the campus. The University of Toronto, for example, used an SAP-based online procurement system to save \$14 million (Canadian) annually by reducing the time and effort required to buy everything from paper clips to scientific equipment, according to Woodfield.

Providing more user-friendly access to information is also a way to differentiate a school in the never-ending competition for

top students, faculty and staff, says Woodfield. The University of Newcastle upon Tyne in the United Kingdom, for example, added customer relationship management (CRM) and business intelligence modules to its existing SAP system so it could more quickly process and respond to postgraduate applicants from outside of the United Kingdom. As a result, Woodfield says, the school cut its response time to students from eight weeks to two days, and the school increased the number of firm acceptances it received from postgraduate applicants by 25 percent.

While it is too soon to quantify any of the benefits of the Wichita State portal, Rogers says, "the payoff is really going to be in the workflow processes, and in the more refined levels of analysis" the school will be able to perform on data about students, finances and other critical campus-wide activities.

The University of Florida portal was not a major investment, requiring "two FTEs (full time equivalents) six months to implement" with maintenance now absorbing about a quarter of one FTEs time, says Conlon. He hasn't built a strict business case for the portal and doesn't see the need for one.

"The university is a service organization, and we are trying to help people do business with us," says Conlon. "We are trying to be a friendly accessible place for all the different kinds of people who interact with the university."

Investing in Technology

While portals that provide access to information do provide benefits to colleges and universities, those institutions typically avoid the sort of formal return on investment calculations used in for-profit businesses, says Malcolm Woodfield, director of SAP Global Business Development, Higher Education and Research.

"The idea of looking at technical projects in higher education as an investment is a fairly new business model," he says. "They're not businesses that have a bottom line" that are driven by the returns they deliver to investors. In addition, he says, many of the benefits are "soft" and harder to quantify, such as increasing student satisfaction or helping to convince valued faculty and staff to stay.

To the extent higher education officials do an ROI calculation, it's often "we're saving money over here (on administration) so we can spend it over here" on teaching and research, he says.

At some schools, such as at Wichita State, it's too soon to measure even the "hard" benefits such as improved productivity, says Jim Rogers, associate director and manager of administrative computing.

That's also true for Wake Forest University, where CIO Jay Dominick is happy to break even with a pilot deployment of Cingular® 8125 phones which give students access to some applications hosted on the campus portal. "Mostly what we're trying to do is stay enough at the cutting edge so we can be prepared" for the next, unpredictable wave of seamless access technology," he says.

Online Resources

Home page of Wake Forest University's Wake Information Network portal.

<https://win.wfu.edu/>

Cingular mobile computing wireless technology initiative.

http://cingular.mediaroom.com/index.php?s=press_releases&item=1603

White papers, case studies and other information from Cisco Systems on use of seamless information access in higher education.

http://www.cisco.com/web/strategy/education/higher_education.html

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