Tablet PC Case Study
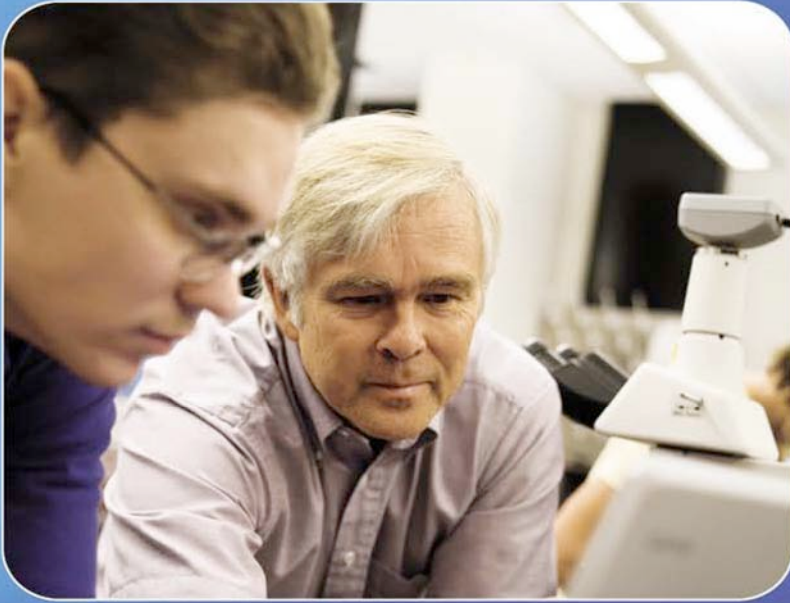**Higher Education**

Winona State University

Laptop University Converts to Tablet PC, Improves Teaching and Learning

To enhance student learning, Winona State University (WSU) utilizes an innovative computing program where all students and teaching staff are issued notebook computers for use while attending the university. After piloting the Tablet PC running Microsoft® Windows® XP Tablet PC Edition 2005 operating system, the enthusiastic response of faculty and students led WSU to replace all notebook computers with Tablet PCs. Because using the pen-enabled Tablet PC closely mirrors natural teaching and learning practices, WSU expects the Tablet PC to be a highly successful next step in the evolution of its cutting-edge computing program.

CUSTOMER PROFILE

Winona State University, in Winona, Minnesota, is one of a handful of universities in the United States requiring laptop computers for its more than 8,000 students. It provides 65 undergraduate programs and 12 graduate programs.

Windows xp
Tablet PC Edition

Situation

Over the last five years, Winona State University (WSU) has established itself as a nationally recognized leader in the use of technology. WSU believes that technology has been historically underutilized in the university educational environment as a pedagogical aid to improve teaching and learning. It reasoned that by making technology more available to students and faculty, it would not only meet a growing need for technology savvy graduates but also transform the teaching and learning process.

According to Joe Whetsone, VicePresident, Technology at Winona State University, the ubiquitous computing program captured the imagination of students early on. "We found that the students adapted in no time, teaching themselves how to work with the new platform," he recalls. "However, some faculty members were hesitant to integrate laptops into their curriculum or to use them in the classroom."

Winona State University quickly determined that faculty endorsement of the computing program was a key success factor. "The students look to the faculty as role models," says Whetsone. "The more that faculty members encourage and use the technology, the better satisfaction students have using the laptops." So when the university began planning its biannual hardware refresh, it thought about piloting a new platform that might be easier to introduce to faculty.

"It's very difficult to look at Tablet computing and digital ink and not see the teaching and learning applications and the resulting benefits for students and teachers."

KEN GRAETZ, Ph.D.
Director, e-Learning Center
Winona State University

Solution

Beginning in the fall of 2003, WSU began a pilot project with 30 convertible Acer Gateway M275 Tablet PCs that were distributed to interested faculty and students. The M275 has an attached keyboard and looks much like a conventional laptop computer, but users can also rotate the screen 180 degrees and lay it flat over the keyboard to better accommodate the two basic activities of both students and faculty: reading and writing. The Tablet PC's screen is designed to interact with a complementary pen, which students and staff can use to select, drag, and open files or to handwrite notes and other communications. Featuring built-in support for wireless networks, the Tablet PC provides teachers and students with unprecedented mobility that boosts productivity, whether in the classroom, office, or library.

In addition, the mobility and pen-and-ink capabilities of the Tablet PC take the software that WSU's students and teachers use most—such as Microsoft® Word for papers and Microsoft PowerPoint® for presentations—to new levels of versatility in and out of the classroom. And with Microsoft OneNote®, Microsoft's next-generation note-taking application, students and faculty are better able to take, organize, and share their notes, whenever and wherever they need to, with the Tablet PC.

"This was a major decision for the university, and we wanted to make sure that people weren't swayed by the gee-whiz factor," says Whetstone. "We moved the Tablet PCs around to several disciplines and everyone was instantly interested, finding different uses for them." Buoyed by the initial response, WSU deployed 1,550 Tablet PCs to freshmen during registration in June 2004, and an additional 1,840 to upper-class students and faculty in the summer of 2004. e-Learning handled the Tablet PC/notebook computer exchange for faculty and staff during the summers, when staffers Kathryn Gudmundson and Joan Bernard provided educational events and one-to-one seminars for instructors. By fall 2005, a total of 6,147 Tablet PCs were deployed to 6,092 students and 55 faculty/staff, making this the largest higher-education implementation of Tablet PCs in North America.
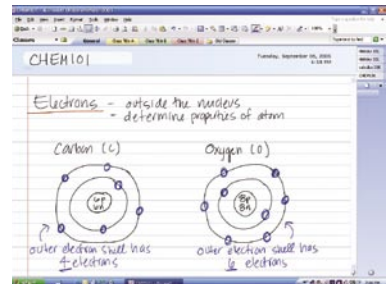
"At first, it was difficult for people to visualize the benefits and features of the Tablet PC as opposed to a laptop computer," says Whetstone. "But as soon as we put them in their hands, we could hardly get them back!"
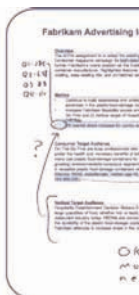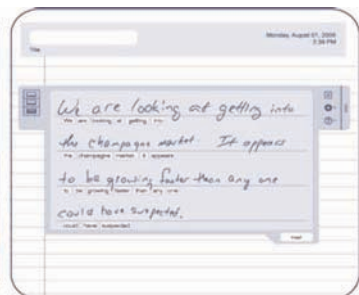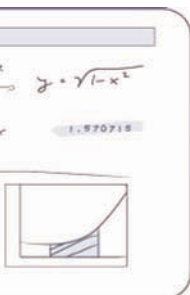
BUSINESS SITUATION

Winona State University wanted to improve learning outcomes and student/faculty interactions with a new technology platform that mirrors typical learning and instructional behavior.

SOLUTION

The university is issuing Tablet PCs, running Microsoft Windows XP Tablet PC Edition 2005. The mobility and pen-and-ink capabilities of the Tablet PC enable students and instructors to work in new ways—whenever, wherever they need to.

With the Tablet PC, students and faculty can use Microsoft OneNote to take, organize, and share their notes.

Benefits

Increased Adoption by Faculty

From the outset, faculty members took to the Tablet PC with greater enthusiasm than with the notebook computers, improving on a key success factor for the overall value of WSU's ubiquitous computing program and ensuring that the benefits of that program will be more widespread. "I've seen science faculty that wanted nothing to do with notebook computers jump on the Tablet PC program with gusto," says Whetstone.

Not only did the faculty take to the Tablet PC more readily, but it also was much easier for the e-Learning Center to train staff to use the technology than in previous years. "We had 90 percent of the teachers fully functional in less than two hours," says Whetstone.

"The Tablet PC maps into a teacher's natural learning behavior," says Ken Graetz, Ph.D., Director, e-Learning Center. "Faculty members looked at the Tablet PC and said, 'That's exactly what I do; I recognize that technique, but now that the work is in digital form, there's so much more I can do with it.' The Tablet PC makes it easy. Faculty that I never expected to see in the e-Learning Center perceive the Tablet PC as a user-friendly way to apply technology to benefit their students, and that's a tremendous ratification of the program."

Providing a Platform for New Solutions

Choosing the Tablet PC for its ubiquitous computing program provided WSU with a whole new platform for deploying additional technology in the classroom. Independent software providers are creating collaborative note-taking and learning solutions that take advantage of the inking capabilities of the Tablet PC. No longer encumbered by the limitations of traditional notebook computers, WSU is already benefiting from some of these solutions.

"Tools that enable collaborative pen-based active learning in the classroom are interesting to us," continues Graetz. "We are looking for truly collaborative tools that allow you to transform the passive role of note-taking into active learning. The Tablet PC really allows for that with some of the tools that are coming out now."

Improved Student Learning

To enhance the teaching and learning experience, educators need to promote anytime, anywhere student learning, facilitate increased collaboration, and connect students, teachers, and learning resources. The Tablet PC is a powerful, versatile, and ultra-mobile solution to help meet these challenges.
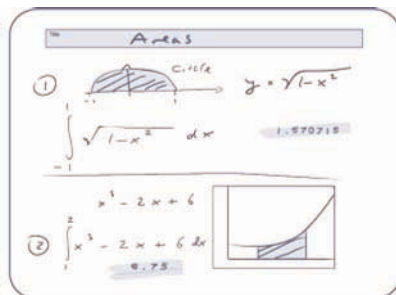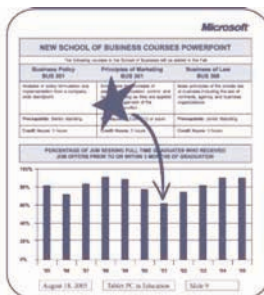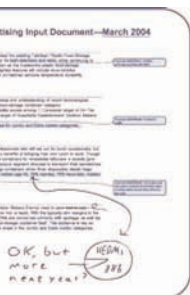
"Any time you see a technology that can be used in dance and music and also in engineering and math, you've got a technology that embraces different learning styles. That's the beauty of Tablet computing."

KEN GRAETZ, Ph.D.
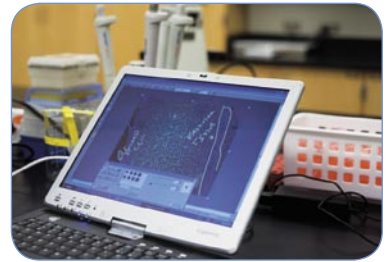Director, e-Learning Center
Winona State University

At WSU, the Tablet PC has enabled new levels of student-educator engagement and collaboration, both inside and outside the classroom. The ability to use the Tablet PC to take, annotate, and share notes in real time using pen-and-ink applications saves time for both educators and students and makes for a richer, more interactive classroom experience. Using the Tablet PC, teachers and students are able to record lectures and synchronize the audio with their presentation notes. Lectures can then be made available for review and selective playback at any time. Students can also locate and relive the lecture at the precise point a note was taken. For students, the powerful functionality, wireless capabilities, and unique form factor of the Tablet PC turn almost any location into a remote classroom or study hall, where they can access the resources they need to succeed—including notes, presentations, graphs, images, and reading materials—in one mobile and powerful device: their Tablet PC. For educators, the Tablet PC is a mobile podium, office, and message board, where they create classroom presentations, annotate papers, keep their students up-to-date on materials and grades, and much more—whether on campus or at home.

Says Graetz, "We're already seeing students and faculty using the Tablet PC in ways that are transforming what they do. So they are literally teaching in a different way—in a more effective way, and in a way that they could not do without the Tablet."
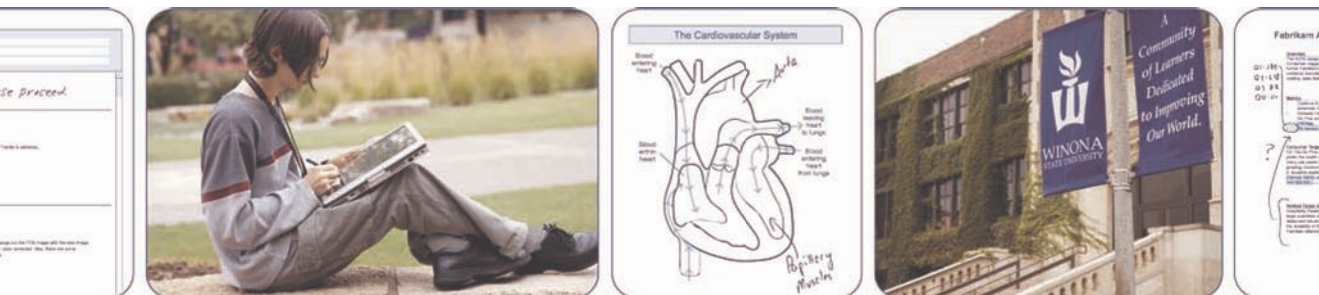
Winona State University is expecting the Tablet PC to extrapolate on the benefits of the notebook computer program—improved student learning, increased computing mobility, improved access to online information, better communication between students and faculty—because the Tablet PC closely mirrors natural teaching and learning behaviors. Since deploying the Tablet PCs, the university is already benefiting from increased acceptance of technology by the faculty, enriched learning and teaching processes, and improved learning outcomes.

Winona State University has deployed over 6,000 Gateway M275 Tablet PCs to its full-time students and faculty/staff.

To find out more about the Tablet PC and Microsoft solutions for education, and how they can meet the targeted needs of your institution, visit:

www.microsoft.com/tabletpc

PRODUCT SOLUTION ITEMS

The Microsoft Office System
• Microsoft Office Professional Edition 2003
• Microsoft Office FrontPage® 2003
• Microsoft Office OneNote 2003
• Microsoft Office PowerPoint 2003
• Microsoft Office Word 2003

Microsoft Windows XP Tablet PC Edition

Microsoft Internet Explorer 6

Tools and Utilities
• Microsoft Windows Journal
• Snipping Tool

HARDWARE
Acer Gateway Tablet M275E
Acer Gateway 450 E

CUSTOMER DETAILS
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URL www.winona.edu

TEMPLATE TYPE
Windows Tablet

COUNTRY
United States

INDUSTRY
Higher Education

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