

# A Hands-on Approach

**A.T. Still University makes the grade at its dental and medical schools with one-to-one notebook and tablet PC programs.**



# to Education



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A.T. Still University

A.T. Still University has embraced technology to enhance the learning process and ensure that dental and medical students are prepared to enter a healthcare industry that is adopting electronic medical records and other new technologies to improve patient care.

The university's Arizona School of Dentistry & Oral Health, for example, offers state-of-the-art facilities on its Arizona campus, including human simulation technology that allows students to practice teeth cleaning and other dental work, as well as use mock electronic patient records, says Dr. Jack Dillenberg, the school's dean. Within two years, the dental school will deploy real electronic patient records at its on-campus clinic, where students work alongside licensed dentists to provide dental work to the community.

As part of its tech focus, the dental school requires its students to purchase notebook computers. Their computers come loaded with digital textbooks and all the software that they will need during their four years of study at the university. Students have wireless Internet access on campus and Web access to course materials, such as PowerPoint presentations of their professors' daily lectures, Dillenberg says. The dental school standardized on Lenovo computers last year.

"It's been great. I love that we can have a standardized hardware and software configuration," Dillenberg says. "It takes the decision out of the students' hands, so they don't have to worry about which computer to get and what software they need. It makes it easier for us and for our students."

A.T. Still University, a leading healthcare education and research institution with campuses in Missouri and Arizona, is among a small but growing number of colleges implementing one-to-one computing initiatives.

The concept, which has seen more rapid adoption by K-12 schools, ensures there is one computer for each student in the classroom. At the college level, mandatory one-to-one computing programs are typically not campuswide. Instead, individual departments or schools deploy them for their specific programs, says CDW•G account manager Sue Guzowski.

A.T. Still University's administration leaves it up to the university's five individual schools to decide whether they implement a one-to-one initiative. The university, originally the American Osteopathic School founded by Andrew Taylor Still, established the country's first osteopathic medicine program in 1892.

Today, the university offers degrees in not only osteopathic medicine and dentistry, but also in other health areas, such as geriatric health, health administration, physical and occupational therapy, as well as full degree programs online for busy professionals.

The student notebook computer program has worked so well at A.T. Still's dental school that the university's new School of Osteopathic Medicine in Arizona has also deployed a one-to-one initiative for its inaugural freshman class this summer. Its 106 students are required to purchase a Lenovo Tablet PC as part of their studies. Dr. Douglas L. Wood, dean of the school, believes the tablet PCs will serve as good educational tools.

"We are just in the beginning stages of using technology effectively in medical education," he says. "Thus, (our) medical students are required to have notebook computers in order to take advantage of computer-assisted instruction, distance education and to be able to rapidly access the wealth of information contained within the Internet."

Elsewhere in the university, the Kirksville College of Osteopathic Medicine in Missouri has discussed using a student notebook computer program. Meanwhile, the Arizona School of Health Sciences, which focuses on allied health graduate education, requires students to purchase notebook computers but allows them to choose the brand. The strategy is currently working, but the School of Health Sciences is watching how standardization works out at the dental and medical schools. ▶



Dr. Douglas L. Wood,  
Dean of  
A.T. Still University

## Advantages of Standardization

Standardizing on one vendor's notebook computer has benefits. IT staffers only need to familiarize themselves with one computer, which speeds troubleshooting and repair, says Jean Varnold, manager of IT support services at A.T. Still University.

"It's easier for technicians to know what they're working on up front without the need to familiarize themselves with the specifics of individual machines," she says.

And because each student has the same computer with the same specifications, faculty members know their students can access all the applications they require in the curriculum.

"It puts students on the same footing," Varnold says. "Because they are on the same platform, no one has an advantage over another, technically."

This academic year, the dental school standardized on the Lenovo ThinkPad Z61m, a notebook computer that features a 15.4-inch screen, a 1.83GHz Intel Core 2 Duo processor, 1GB of RAM and a 100GB hard drive. Last year, the school standardized on the model's previous generation, the ThinkPad Z60m.

The medical school chose the Lenovo ThinkPad X60, a tablet PC with a 12.1-inch screen, a 1.83GHz Intel Core 2 Duo processor, 1GB of RAM and an 80GB hard drive. The university also purchased the tablet PCs for some faculty members to use. "Our faculty is committed to doing what's best for the students, and part of that is knowing the tools that students are using," Varnold says.

The Lenovo notebook computers have three-year warranties and feature biometric fingerprint readers for added security.

## Dental School's Success

A.T. Still's Arizona School of Dentistry & Oral Health implemented a one-to-one program at its inception five years ago. Back then, one-to-one computing was a new concept, but the school's administrators "wanted to give the students the best tools for their studies," Varnold recalls.

The school's students purchased directly from a PC vendor for the first three years until students complained of poor customer service, Varnold says. In the program's third year, students experienced problems with the vendor, saying they called the vendor, and its customer service agents didn't know which computers the school had standardized on. Other times, students received their computers in the mail

and it was the wrong model, or students were charged the incorrect price.

"It not only forced us to clean up their mess, but it put some of our students in a confusing situation at what should be one of the most exciting times of their academic lives," she says.

Frustrated, Varnold turned to CDW•G for the 2006 academic school year and, with the help of account managers Guzowski and Jeff Schilling, has not been disappointed.

Once the company was chosen to take over the program, CDW•G set up a dedicated Web site, allowing A.T. Still students to order their computers and other add-ons — such as extra power supplies or batteries — online. Students also have the option to call Guzowski directly to place their orders or ask questions. CDW•G provides brochures, which are sent along with student orientation packages, that explain how to order the computers.

"Sue is knowledgeable and a wonderful resource for students if they have questions," Varnold says. "She is personalizing this, and it helps students understand why we are asking them to invest in this resource. She guides them if they need any additional peripherals, such as printers. It's one point person for all of our students, and that's a real bonus for us."

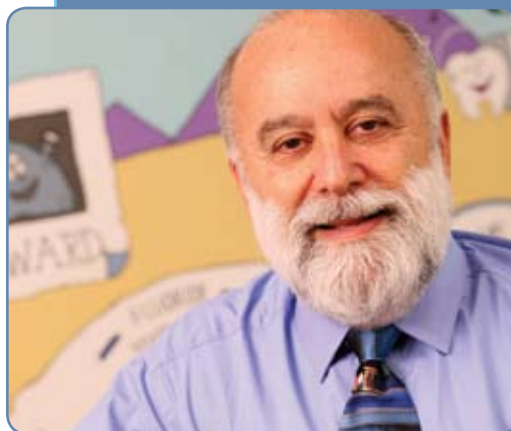
CDW•G even sponsors a student orientation that the school provides for incoming freshmen at the beginning of every school year.

The university's IT staff builds an image — which features the Microsoft XP operating system, Microsoft Office, McAfee antivirus software, and even students' textbooks when applicable — and CDW•G installs the image on the Lenovo ThinkPads before shipping them to students.

CDW•G recommended Lenovo and assisted the IT staff and school administrators with access to loaners, so they could test several models, before the university decided on the

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— Dr. Jack Dillenberg, Dean of A.T. Still University



# Putting Notebooks in Students' Hands

Colleges and universities that want to create a formal one-to-one computing initiative or simply want to offer students discounted notebook computers can turn to CDW•G for their needs.

CDW•G will offer the computers on a CDW•G Web page dedicated to each specific school. Students can purchase the computers online, or if they prefer, by calling the company directly, says CDW•G account manager Sue Guzowski.

Here's how the program works: CDW•G will negotiate with each school and provide discounted prices. The final price depends on the number of computers students at each college will or are expected to buy.

Many colleges have turned to CDW•G to offer students the option to purchase several notebook computers at a discount. A small number of colleges actually have one-to-one computer programs that require students to purchase computers for their studies, Guzowski says.

"The mandatory ones are few and far between, but it's a growing initiative," she says.

Colleges and universities can choose among multiple notebook computer vendors: Acer, Lenovo, Hewlett-Packard, Sony or Toshiba, says CDW•G account manager Jeff Schilling.

With most notebook computers coming with Microsoft Vista operating systems installed, 1GB of RAM is necessary, but 2GB is recommended for optimal performance, Schilling says. Schools also should choose notebooks with dual-core processors.

The specs really depend on the needs of the faculty and students. For example, an art school may require a faster processor and more RAM because of all the multimedia applications students will use, while students that simply need to Web surf or use Microsoft Office applications will require less processing power and less RAM, he says.

Lenovo ThinkPad Z60m last year and the ThinkPad Z61m this year.

"Those computers are known for very good video graphics, and a big, sharp display. With dental students always looking at X-rays and pictures, having a laptop with those features best fits their needs," Guzowski explains.

When administrators for the new School of Osteopathic Medicine in Arizona decided to require students to purchase notebook computers for their program, the university decided to go with Lenovo, too, because the dental school had such a good experience with the computers.

The school specifically chose a Lenovo X60 Tablet PC because mobility is important for doctors, Guzowski says. "It's lightweight and easy to carry around," she says.

Schilling says he didn't have to provide much guidance to help the university decide on which computers to standardize because A.T. Still's IT department and administrators are tech-savvy. "Their staff knows what they want. They are really technical and very knowledgeable," he says.

## Computer Maintenance

When students need customer support, they turn to the university's help desk, which is certified to support the Lenovo computers. The university's Arizona campus has seven IT staffers, two of whom are dedicated help-desk technicians. The others help with computer support when needed. The university has hired an outside customer-support firm for after-hours technical phone support.

Lenovo pays the IT department to repair computers under warranty. It's a self-repair warranty program, which is called

a "self-maintainer" program. If A.T. Still University needs a computer part, the IT department orders it online, and it's shipped the next day at no charge.

Both sides benefit from the program: the PC manufacturer saves money because it needs fewer employees to make warranty repairs. The university benefits because it can repair computers faster than the process of sending computers back to the manufacturer. The college also gets paid to do it, which boosts their IT budget.

"It's cheaper and faster and contributes to customer satisfaction," Varnold says.

The incoming students for the 2006 and 2007 school years are using Lenovo computers while the third- and fourth-year students from 2004 and 2005 are still using computers from the school's previous vendor, requiring the IT department to support both vendors. The Lenovo computers have been sturdy and have not had as many hardware issues as the previous vendor, says IT help-desk technician Tim McCormick.

## Happy With Their Choice

Varnold is so pleased with Lenovo that she's now standardizing on Lenovo for all new desktop and notebook computer purchases for faculty and staff. The university refreshes its computers every four years, and began to replace its oldest computers by purchasing new Lenovo machines last year, Varnold says.

"We are extremely happy with the computers," she says. "They are good, solid machines. We have had very few problems with them." ■

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