

# Technology

## UW Room Opens for Trading

**Students at the University of Washington** Business School in Seattle will be able to track the upturning stock market for themselves at the school's new NASDAQ student trading room. Robert Greifeld, president and CEO of the NASDAQ stock market, was on hand for the official opening of the trading room last October.

The new facility is the first college-based trading room to open in the western United States, say school representatives. The room features a ticker showing stock prices; a display board running stock quotes from NASDAQ, Dow Jones

& Co., and other data on continuous feed; two television monitors with live news coverage of financial markets from CNBC and CNNfn; and 12 trading stations. Each station is equivalent to a trading desk in a Wall Street firm, complete with dual computer screens, one of which provides market data from Reuters.

Although the room's computer terminals won't allow students to complete financial transactions, the space serves as both classroom and laboratory, where students access real-time data to manage portfolios and experience firsthand what market conditions make a company a winner or loser on Wall Street. "The trading room is akin to a chemistry

or physics lab," says Vance Roley, UW professor of finance and associate dean for academic and faculty affairs in the business school.

Seattle has not had a stock exchange since the early 1930s, when the Northwest Commodities and Stock Exchange operated in its downtown. Bringing a trading room back adds "a realistic dimension to the classes we teach about risk management and futures and options," says Jefferson Duarte, a UW assistant professor of finance and former Wall Street bond trader.

The new trading room was partially funded by a \$250,000 grant from the NASDAQ Stock Market Educational Foundation.

## TOOLS OF THE TRADE

### LearnTrac and PocketClassroom Designed for Interactive Learning

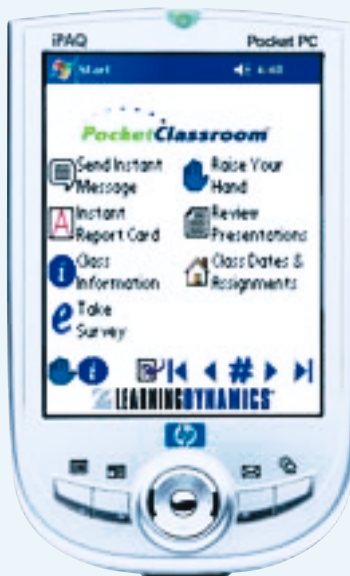
Handheld computers are quickly becoming a staple of the business world—and now they're on their way to becoming a mainstay in the classroom. eLearning Dynamics, a company based in Washington, D.C., has designed two software products to create an interactive classroom.

LearnTrac (for the Palm operating system) and PocketClassroom (for Pocket PCs) allow students to respond electronically to quizzes, polls, and discussion questions via wireless PDAs. The data is then transmitted immediately to instructors' computers, indicating how each student responded and what percentage of students answered correctly.

"The software offers educators tools such as instant messaging and 'test wizards' that allow them to develop quizzes spontaneously in the classroom and receive responses back in ways that traditional methods simply do not permit," says Chase Weir, chairman and co-founder of eLearning Dynamics.

There is a widely held misperception that software such as LearnTrac and PocketClassroom "replaces hand-raising," Weir remarks. In response, he points out that these learning tools actually increase student attentiveness and participation.

"Most students probably won't get called on in a lecture with 100 or more students, even if they know the answer to a question," says Weir. "With this soft-



ware, the professor has a powerful tool to determine effortlessly whether each student has read the homework assignment and is paying attention. You have 100 percent participation."

The software also allows professors to ask open-ended questions and receive a response from each student for discussion. It includes features that account for timing, allowing students to respond if they think they know the answer or when they've finished a particular problem.

LearnTrac and PocketClassroom already are in use at the Bryan School of Business and Economics at the University of North Carolina at Greensboro, which received 40 handheld computers contributed by Palm. Such software, says Don Sowers, the first instructor to test the program at the university level, may eventually change how instructors approach the classroom.

"It will replace many of the things we do and help us do some things differently. With LearnTrac, I know instantly how well students are learning the material. Otherwise it would be weeks into class, after the first test, before I knew how they were doing," says Sowers. "As educators, we are really trying to teach and engage our students in the learning process, and this is a tool to help us do our jobs better."

## ■ Henley Explores the Age of Interactivity

In a move that indicates just how important interactive devices such as cell phones and PDAs have become in our lives, Henley Management College in Oxfordshire, England, has created its International Centre for Media, Technology, and Culture. Officially launched in August 2003, the Centre will focus on empirical research that looks into how new mobile, media, and communications technologies are affecting the ways people live, work, and buy.



The results of such research could have far-reaching consequences for business practices, employment structures, and marketing methods, says Michael Hulme, director of the Centre. Hulme sees the Centre as an important resource to help business and education understand how technology is transforming culture.

“It is very important to understand mediated lives, if you will—how consumers and businesses live in a world that is essentially understood and derived from media and technologies,” says Hulme. “Our work is exploring what this is going to mean for organizations in the future.”

The Centre already has a slew of projects underway, including a behavioral study of interactive TV users; a survey that explores the relationships people have with their mobile phones; and research of broadband adoption and mobility within SMEs. Other activities include workshops and networking events and collaborative research projects with business schools worldwide.

Much of the Centre’s work targets mobile devices, Internet applications, contact centers, instant messaging, and interactive television that allows users to record and organize their television viewing. All of these technologies are becoming major forces

in the global environment, as more people use them to exert more control over their daily experiences, Hulme points out.

“We’re becoming more interactive with devices. We expect to be able to exercise choice and to have more control over what’s going on. As we learn to become interactive, we also learn to control how we are contacted, open up newer channels, and change structures and formats,” Hulme says. “The ways people adapt and eventually use interactive technologies are very difficult to foresee. However, they’re changing in ways we must understand.”

### DATABIT

A study from the School of Information Management at the University of California at Berkeley has found that in 2002, the world’s population generated enough new information to fill **500,000** U.S. Libraries of Congress. According to the study, 5 billion gigabytes of new data were created. That’s equivalent to **800 MB** per person (or a 30-foot stack of books) and is a 30 percent increase over the study’s findings in 1999.

## NEWSBYTES

### ■ PCs FOR IRAQ

Madar Research, a research firm based in Dubai, United Arab Emirates, predicts that Iraq will purchase 450,000 PCs every year between 2004 and 2008. The firm also estimates that the country's IT spending will surge up to US\$1.42 billion by 2008, as it rebuilds its technological infrastructure. The rebuilding has already begun. In July, seven Iraqi ministries and three Baghdad community governments were furnished with computers, copiers, and printers by an aid organization.

### ■ TOO MUCH INFORMATION?

The newest challenge facing business IT professionals may be "information life-cycle management" (ILM), the ability to cope efficiently with the deluge of data now descending on today's companies. *Computerworld* reports that when users at the recent Storage Networking World conference were polled electronically, 33 percent said they planned to implement an ILM strategy in the next year, while 30 percent said they would do so within two years. ILM includes identifying appropriate data storage formats, backing up data, and purging obsolete data. The problem facing IT specialists, however, is that reliable products with which industry could launch an all-out ILM strategy effectively are still in development.

### ■ E-FRAUD ON THE RISE

According to security vendor VeriSign Inc., Internet fraud is increasing as much as, if not more than, Internet use. In its study titled "Internet Security Intelligence Briefing," VeriSign found that while 81 percent of secu-

rity incidents, such as hacking, originated in the U.S., the U.S. generated only 48 percent of online fraud. Of all U.S. online transactions, 6.2 percent were fraudulent, with 52 percent of those fraud attempts coming from outside the U.S. The lack of legal jurisdiction over international fraud contributes to the problem, the study found.

### ■ GRID FOR LEARNING

In October, the Chinese Ministry of Education and a dozen universities launched a new computing grid that may become the world's largest used for remote learning. By 2005, it may become one of the largest computing grids in the world. The grid, which is powered by 50 IBM xSeries servers, will handle applications for institutions such as the University of Hong Kong and Peking University.

### ■ QUICK, NOT EASY

Last October, the Geneva-based European Organization for Nuclear Research (CERN) and the California Institute of Technology in Pasadena set a new speed record for transmitting data via the Internet.

CERN announced that it sent 1.1 terabytes of data at 5.44 gigabits per second (Gbit/sec) to a lab at Cal Tech in 30 minutes, surpassing the previous record of 2.38 Gbit/sec. That feat is equivalent to sending the data on a full-length DVD movie in 7 seconds. Researchers on both ends of the transmission hope that this record will move one step closer to instantaneous transmissions of large amounts of data over the Internet.



## ■ A New Way to Research

A new business-oriented online search engine was recently launched by the eBusiness Research Center (eBRC) at Penn State University's Smeal College of Business, University Park, Pennsylvania. The new engine, titled SmealSearch, could become one of the most comprehensive collections of business research documents on the Internet, say eBRC representatives.

SmealSearch, located at <http://smealsearch.psu.edu>, finds and catalogs a wide variety of materials, including academic articles,

working papers, white papers, consulting reports, magazine articles, and published data about business. It does so by searching the Web sites of universities, commercial organizations, research institutes, and

government departments. It provides users with early access to the newest working papers and notification when new documents are added to the database.

SmealSearch categorizes information by author, title, publishers, abstract, and citation rates. In addition, SmealSearch accepts user submissions.

Traditional search engines on the Web only go so far when it comes to



academic research, says Lee Giles, David Reese Professor at Penn State's School of Information Sciences and Technology and creator of the technology on which SmealSearch is based. "In the future," he says, "we predict the evolution of increasing numbers of powerful niche search engines that address the specific needs of specific audiences."

SmealSearch is built on the CiteSeer technology platform, which is equipped to develop and deploy search engines in other disciplines such as biotechnology, entrepreneurship, and physics. The engine represents the second search engine launched by eBRC in the last year, following the late-2002 launch of eBizSearch, which finds information related to e-business.

## BestofBiz Gold Takes Aim at Exec Ed


In the higher education market, information has become a powerful currency, one that the U.K.'s London Business School hopes to convert into growth for its executive education. It recently launched a virtual learning environment, BestofBiz Gold, an

enhanced and expanded sequel to its award-winning online resource for business information, BestofBiz.com.

BestofBiz Gold provides hundreds of articles and essays on business, as well as access to mediated discussion groups and Web-based conferencing. It is available only to the school's executive education clients and corporate market, explains Russell Altendorff, director of

information systems. "It provides us with a competitive advantage over other business schools that have not created such a content-rich portal for their clients," he says.

LBS created the site in association with Bloomsbury Publishing Plc. In addition to publishing the Harry Potter book series, Bloomsbury owns a comprehensive business database, *BUSINESS: The Ultimate Resource*, which is included on BestofBiz Gold. The site is maintained by 30 business information and library professionals and is regularly updated as the LBS and Bloomsbury databases grow.

Offering BestofBiz Gold is a way to solidify the school's place as a primary provider of executive education, says Altendorff. "In the current climate, we feel we must protect our executive education market," he says. "Customized for executive education, BestofBiz Gold helps us retain more students and keep growing our base of students." 

### DATA BIT

**Ironically, the U of California – Berkeley information management study also found that information stored on paper, such as books and documents, has increased 43 percent since 1999, as people print out electronic documents. However, film photography is giving way to digital photography, with an approximately 9 percent decline in the use of film since 1999.**