

## Universities take a real-world approach to data warehouse education. *by Shirley S. Savage*

**B**usiness intelligence (BI) is taking on a dual meaning as more and more colleges and universities are turning business students into tech-savvy trendsetters. Leading institutions such as Northwestern University's Kellogg School of Management, University of Arkansas, University of Arizona, University of Dayton and the University of Georgia are increasing their offerings of courses and research on data warehousing. Why? It's just good business.

"It has to be the business side driving this kind of initiative," says Mark Jeffery, associate professor in the Center for Research on Technology and Innovation at Kellogg. "We want to train our MBA students and executives, who aren't technologists, that this is the power of the technology from a business perspective. This is the real value of IT and the trend for the future."

### Keeping your edge

Keeping a business vital in a highly competitive environment requires organizations to employ people at all levels who know how to gather data, analyze it and use it to make decisions that can improve business and boost revenue. That's why more and more professionals are heading back to the classroom.

Students of all ages are learning new concepts about marketing and the importance of BI. Marketing used to be just about getting messages out, says Martha Rogers, adjunct professor at Duke University's Fuqua School of Business. Now the goal of marketing is "to have customers teach us how to make money and grow," she says. That's why BI is an essential part of today's curriculums.

What is the basis for BI? In most cases, it's



# Anytime, *any* anywhere, classroom

data. There are thousands of students and faculty worldwide who are learning about data warehousing and data-driven decision making by accessing learning materials and using BI tools on the Teradata University Network (TUN), notes Hugh Watson, professor of MIS at the University of Georgia's Terry College of Business. As a result, BI increasingly is seen as a best practice for business leaders. "The general practice of ensuring that the education of

business leaders includes the value of data warehousing is a best practice for business intelligence," says Mark A. Beyer, research director at Gartner.

Familiarity with data warehouse systems is a real plus for job-hunting students since many companies have openings in that area. Because of the solid background in BI and data utilization, "demand for our students has jumped in the last few months," Watson says. In fact,

## Tools and theory in practice

Many schools offering data warehouse education are taking advantage of the Teradata University Network (TUN), a free platform for academics offering access to Teradata software and applications over the Internet.

In 2002, Teradata launched TUN to foster education of data warehousing, business intelligence (BI) and database administration (DBA). "What differentiates Teradata's initiative is that leading academics are primarily responsible for the evolution of TUN," says Hugh Watson from the University of Georgia's Terry College of Business.

Watson and two other leading academics in the MIS field, Barb Wixom, program director of MS MIT at the McIntire School of Commerce, University of Virginia, and Jeff Hoffer, professor of data management, University of Dayton, joined forces with Teradata to develop the Web-based portal. The academic board has expanded to include leadership in Asia and Europe, as well. The network serves more than 1,000 academic members from over 600 universities in more than 30 countries such as: Australia, Canada, China, Germany, India, Mexico and Switzerland.

Schools love it because it makes their jobs easier; students love it because they have more success getting jobs.

"I don't have the time to install software and hardware, support it and deal with it. I just want to teach it," says Wixom. "TUN enables professors to stay up to date with practice. In fact, they might even be ahead of practice for once."

IT students appreciate the value of the hands-on education opportunities TUN provides. "TUN is a win-win, win-win, win-win situation," says Wixom. "Teradata is increasing brand awareness and thought leadership, students get leading-edge skills, professors are more effective and employers receive skilled recruits." —S.S.

Anne Marie Reynolds, technical director of data warehousing for Continental Airlines, hopes to see data warehousing become a growing part of universities' IT curriculum. Students need to know that there are wonderful opportunities available for the data savvy, she says.

### Real world in real time

Teradata has worked with professors at several universities, including Kellogg's Jeffery, to develop real-world case studies that introduce new concepts and teach decision-making techniques. Most students seem to appreciate the reality check. "The ROI [return on investment] for the Kellogg Teradata customer relationship management [CRM] case was like getting hit over the head by a ton of bricks," says a Kellogg MBA student. "This was such a great case—it made me realize the importance of looking at the big picture."

University professors are incorporating case studies of companies such as Royal Bank of Canada (RBC), Continental Airlines, Harrah's Entertainment and others into their curriculums because it offers an effective way for students to learn. Students retain a relatively large percentage

of the material in a case study versus a relatively small percentage from a lecture, explains Jeffery.

Written by three university professors along with Continental, a Teradata-funded study published in the University of Minnesota's *MIS Quarterly Executive* journal reveals how real-time data warehousing and BI saved the airline and helped enable the carrier to move from worst to first, and then from first to favorite.

Research is another important way business is utilizing academia. Take, for example, the Stanford Global Supply Chain Management Forum at Stanford University, which conducts research in the theory and practice of excellence in global

supply chain management. More than 30 industrial organizations, including Teradata, support the work of this esteemed research institute. Forum co-directors Hau Lee and Jin Whang, noted experts on supply chain management, use their work with the forum to provide new insights to graduates via executive education.

### Lesson learned

What's the lesson in all of this? Today's university programs are prepping the next generation of IT and business school grads to walk into a job with practical data warehouse skills that can be put to use from day one. IT majors are learning how to manage and exploit large databases while MBAs are discovering how to use data to improve business analysis and CRM. In both cases, the curriculum is centered around real-world examples and on real-world systems.

The same applies to executives returning to the classroom where they study best practices. After completing an executive program of study, these executives—whether they are CIOs or general managers—return to work with a fresh perspective and ideas that can be applied to their jobs.

Whether you're a seasoned executive or a 20-something student looking for your first job, data warehouse education will benefit you now and in the future. You'll gain new skills to operate in this data-intensive business world. As a result, you'll become a more valuable employee, enabling your company to reap the rewards of your newly found knowledge. **T**

*Shirley S. Savage has published articles on technology, energy and science.*

## Teradata paves the way

Ten years ago you'd be hard-pressed to find data warehouse education in schools. Hailed by analysts as a leader in data warehouse education, Teradata has helped to expand university offerings—and help fuel the IT talent pool—by participating in industry forums, offering software and hardware, and funding academic research.

By supporting education efforts, Teradata provides new insights to executive education programs focused on enterprise technology. Northwestern University's Kellogg School of Management offers a three-day program, "Driving strategic results through IT portfolio management," that examines how to unlock value from IT investments and deliver improved business results. The University of Virginia's MS MIT program at the McIntire School of Commerce is designed to groom future CIOs by using business cases to understand how BI benefits organizations. —S.S.