



Online access makes teaching analytics a snap at St. Cloud State University

Dr. Richard Sundheim, Professor of Information Systems

Industry

Education

Business Issue

A St. Cloud State University professor wanted to teach data mining to his Decision Support Systems class without needing to install a product in a computer lab or make students purchase the software and install it on their own computers.

Solution

SAS® OnDemand for Academics connects to a SAS-hosted server over the Web. Students can use the software wherever they have Internet access. There is no need for campus IT support, no cost to professors and minimal cost to students.

Benefits

SAS makes it easy for students to build and test models and get a true understanding of the power of data mining. By learning sought-after skills like data mining and SAS, students are much more marketable.

Understanding analytics and data mining is increasingly important for business, economics and statistics majors, as it gives them a competitive edge in a challenging job market. But to successfully incorporate these disciplines, professors need a straightforward and economical teaching tool.

Dr. Richard Sundheim, St. Cloud State University Professor of Information Systems, found that tool by choosing SAS® OnDemand for Academics to teach his Decision Support Systems course. By connecting to a SAS-hosted server over the Web, his 20 students can access SAS data mining tools through a user-friendly, point-and-click interface at no cost for professors and minimal cost to students.

Quick and easy access

Until recently, SAS offered the software to universities and colleges in the same manner most analytical software companies typically do: installed in a computer lab or purchased by students to install on their laptops. Both options have drawbacks. Overworked university IT departments don't want another program to install and maintain, and high-powered laptops are needed when using analytical programs. Even installed in the computer lab, time constraints came into play. "Lab hours are somewhat restricted, and you only have so many copies in one lab on the campus," Sundheim says. "By being able to use SAS anywhere, students spend more time learning about data mining and less time waiting at the computer lab."

With SAS OnDemand for Academics, the lab problem is moot. "A lot of students like to work after midnight. For them, being able to access SAS from their home computer over the Internet and not having to go during lab hours is a big plus," Sundheim says. "It's particularly positive for students with full-time jobs, or who commute quite a distance, since their time on campus is limited. Being able to do the assignments from home is almost essential for these students."

Scheduling a classroom is now easier. Due to high demand for classroom labs, it used to be difficult to schedule the lab where SAS® Enterprise Miner™ had been installed. "Now all you need is Internet access. Maintenance is done by SAS so our tech support doesn't have to worry about maintenance problems." Not only can any classroom lab be used; an ordinary classroom with wireless access could work for students with laptops.

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Sundheim says he can teach in more depth with the online version. Without SAS OnDemand for Academics, he had to factor the time a student could spend at the computer lab in selecting a homework project. Some students got little from the class because they couldn't spend enough time at the computer lab.

With SAS OnDemand for Academics, the excuses went away and software usage went up. "They really enjoyed working



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with the software. It was more than just a tool to get the homework done. It was a very enjoyable experience. This past semester all the students ended up knowing the software very well – including those who wouldn’t have used it quite as frequently if it hadn’t been so convenient,” Sundheim says.

Sundheim uses SAS OnDemand for Academics: Enterprise Miner for his class (SAS OnDemand for Academics: Enterprise Guide and SAS® OnDemand for Academics: JMP® are also available). By the end of the first class period, he’s helped the students access the trial data and begin working with it. “The students like the point and click because it’s quick and you don’t have to remember the code, especially as it comes with graphics,” Sundheim says. With traditional data mining tools that require programming, it could take weeks to do one model. With SAS OnDemand for Academics, students can work on multiple models. “It’s a tremendous timesaver. Students are wowed by it,” Sundheim says.

Providing real-world experience

Sundheim is a longtime SAS user who employs the software for his own research and consulting projects. Traditional approaches to teaching data mining use a preconstructed set of data that is very clean. That doesn’t reflect the real world, where data is often a mess.

With SAS, Sundheim has been able to bring in outside data. In one class, he had great success with a project for a small financial company where the students developed credit risk models. “It was a good joint project for the students to get exposed to a real problem where data isn’t always clean as it is in books,” explains Sundheim.

It’s the ability to do these kinds of projects that helps students become more marketable. Sundheim increasingly hears from students that data mining experience, and learning SAS, is a plus when interviewing for a job. “They can talk intelligently about data mining,” Sundheim says. “One of my students recently got an internship here in town and told me that taking a data mining class made a favorable impression on the company.”



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