CASE STUDY

The Wharton School of the University of Pennsylvania

The Wharton School uses Macromedia technology to explore new methods of learning and to create highly interactive, web-enabled simulations that challenge students to think strategically.

The Organization
The Wharton School is recognized around the world for excellence at every level of business education. Wharton was founded in 1881 as the nation’s first collegiate business school. It is dedicated to intellectual leadership and innovation in teaching, research, publishing, and service.

The Challenge
The information technologists at Wharton support the institution’s core mission—to create and disseminate business knowledge and to build leaders of integrity who will impact the practice of business worldwide. The computing environment at Wharton is constantly advancing to meet the needs of the community it serves.

The Solution
The Alfred West Jr. Learning Lab is Wharton’s development center for exploring new methods of learning. Based on faculty specifications, the lab team creates highly interactive, web-enabled simulations that challenge students to think strategically.

Take OTIS, for example, a web-based trading and investment simulator built with Macromedia ColdFusion and Flash. OTIS receives a live stock market data feed. Typically, each student is given a million virtual dollars to manage a portfolio—fulfilling assignments that range from mitigating risk to beating the S&P average. OTIS is only one example of Wharton’s wide range of high-tech instructional development offerings. For a deeper look at the work of Wharton’s Learning Lab, visit the Macromedia Showcase. www.macromedia.com/cfusion/showcase/index.cfm?event=casestudydetail&casestudyid=22013&loc=en_us

Faculty members detail the specifications for the Learning Lab applications, and developers rapidly build prototype tools around their ideas—enabling teaching in ways otherwise not possible. “Rather than sit in an ivory tower and think about the impact of information technology on education, we build tools to actively explore how technology can enhance the learning process,” said Kendall Whitehouse, Senior Director, Information Technology. “Over time, (we hope to) discover which approaches are the most profound and durable, and then continue to explore those further.”

Customer Profile

Name: The Wharton School of the University of Pennsylvania

Industry: Higher Education

Location: Philadelphia, PA
San Francisco, CA

Size: 280 faculty
4,600 degree students
8,000 Executive Education participants
77,000 alumni

URL: www.wharton.upenn.edu

Technology Solutions:
ColdFusion® MX 7
Flash® MX
Flex® 1.5
Rich Internet applications are replacing conventional HTML interfaces daily at Wharton. Witness SPIKE, Wharton’s award-winning intranet that ties together the entire student experience into a single, thin-client, customizable interface. “With ColdFusion, Flash, and Flex, we are pushing Macromedia technologies to the limit—and succeeding,” said Whitehouse. Wharton is adapting its existing infrastructure to ColdFusion, Flash, and Flex to deliver synchronous data and content to students wherever they are: on a train looking at a handheld device, walking down hallways looking at plasma screens, or on a standard web browser.

Plasma screens? Dan Alig, IT project leader, explains. “Basically, we continuously play a hand-coded Flash application that pulls information from the same database and data feeds as the SPIKE interface. Students get a synopsis of what is happening that day, that minute, just walking by large plasma screens around campus.” That would include news, events coming up in the next hour or two, market conditions, as well as the current group study reservations.

Group study reservations? Nearly 60 breakout rooms (loaded with essential high-tech study gear such as dual LCD monitors, smart boards, and more), are so popular that students can sign up in advance for a specific time slot over the Web. Students can check on the availability of a room at any moment and reserve the room from any desktop. A dynamic bar chart on the SPIKE interface and on the plasma screens displays each room’s occupancy rate in real time.

Text messaging is being woven into Wharton’s computing fabric. “We’re using the SMS gateway in ColdFusion MX 7, which is very, very easy to do. We had the code running in less than a day,” recounts Alig. “The first day of classes, it can be difficult for students to find where they need to go next. They will be able to query the short code via cell phone and their schedules and room numbers will be text messaged to them.” Another new SMS interactive application will send out available group study rooms and take signups by text message.

As Alig states, “Anyone with a cell phone capable of text messaging can easily find what they want.”

The Wharton solutions go on and on: interactive seating charts built with Macromedia Flex, student polling using Flash, twenty-some interactive learning simulations, multi-round course auctions for elective classes, global access to Wharton research for half a million subscribers in four languages, and collaborative communication in Macromedia Breeze 5.

**The Results**

“With Macromedia technology, especially Flex, so much of the rich experience is built into the tool, developers can spend time on applying logic, rather than on the interface itself,” said Alig. Rapid prototyping, decreased development time, and sharing the workload between designers and coders is a winning combination. Responding rapidly to student and faculty input is essential.

**Benefits Summary**

- Rapid prototyping enables effective collaboration with faculty to build teaching simulations
- Rich Internet applications improve usability compared to conventional HTML applications
- Technology supports institutional goals in innovative ways
- Students have better access to information, new ways of learning, and a quicker introduction to Wharton student life

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