Evolution of a Biology Professor

FROM THE MICROSCOPE to the Mac? It's not so far a leap as some may suspect. according to Ric Matthews, a science professor at Miramar College, and one of the district's leading experts in instructional technology.

"When teaching the sciences, we have so much instrumentation around that is classified as technology," Matthews said. "It's a natural progression for us. We scientists didn't wake up one day and say, 'Oh my gosh, technology!' I always thought the two complemented each

Matthews taught a telecourse as far back as 1977, so by the time he came to the district in 1982, he was well-versed in and comfortable with the idea of alternative teaching methods involving plugged-in tools. Matthews was elected the local academic senate president, then served four years on the statewide academic senate board.

"That's when statewide teaching technology began to blossom," he said. "I became the first technology chair for the state academic senate, and was very fortunate that if something new happened in technology, I was right

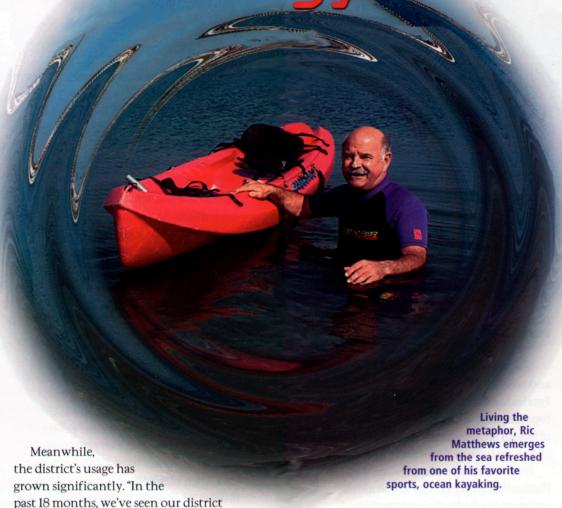
there to see how it worked. We developed a master plan for a California Virtual University. It was an educational master plan that advocated as well as practiced instructional technology."

By the mid-90s, Matthews was a wellknown and respected user of instructional technology methods in the district, and worked with other likeminded professors on developing and refining the use of video conferencing and web-based teaching methods.

A longtime champion of the Mac who had a genuine interest in computers even "in the pre-Nintendo days," Matthews became known for his instincts, helping new, tech-based teaching ideas flourish, gently guiding reluctant but willing professors toward futuristic methods.

In 1998, Matthews became the first person to teach in the district using interactive video conferencing, offering a human genetics class for both Miraman and City college students.

"I was at one site and the students at another," he said. "We did it the entire semester and it was a great success."



grow from four to maybe 20 courses online," Matthews said. "I anticipate that what we'll see as a whole will be maybe 40 courses online."

Matthews remains active in the California Virtual Campus, a project that continues to grow and prosper. Again this June, community college faculty from around the state will converge on Mesa College for a five-day institute in how to get teaching material online.

Along with all the tech talk, though, Matthews stays tuned to the human elements.

"Here's one of the things I like about online teaching," Matthews said. "In a classroom setting, participation is often practiced by the least shy. However, if you do a threaded discussion online, where students have the chance to think about their answers, you will get a much more active response."

Does all this mean, though, that human connection among students and teachers could be lost forever?

"Actually, I think this kind of teaching reminds us how important interaction really is," Matthews said.

ZDCCD ONLINE

Miramar College President Pat Keir is leading a small districtwide task force that will develop a comprehensive online associate degree program. The new program will be managed by Miramar, but will serve as a portal for the entire district's credit and noncredit online offerings. Development has been "fast tracked" so some courses may be offered as early as this fall. A new dean, Judith Baker, hired to oversee SDCCD ONLINE, starts work on June 25. Meanwhile, faculty districtwide are being encouraged to develop online courses. Student services, from registration through advising, will be integrated into SDCCD ONLINE, creating a true virtual college.

"What we need to do as online teachers is make sure interaction remains integral, and that students are rewarded for participating."

Participation has always been important to Matthews, who moves in at least two different worlds.

"My evolution has been a divergence, in terms of career," he said. "I've tried to go down both paths. I could give up science and go to tech, or the other way. But right now I enjoy the balance. I don't mind staying in the middle of the road."

Web Pioneers

Their covered wagons were computers, and the wheels that pushed them forward, the software systems within. While the San Diego Community College District as a whole is in the midst of rigorous training in instructional technology, a few folks in the San Diego Community College District qualify as pioneers of using web technology in their teaching and seminars. These faculty and staff members forged ahead before the big push began, learning from their successes and mistakes, and helping establish the future.

FRED GARCES This Miramar College

chemistry professor began using web-based teaching in Fall 1999, transferring class materials to his site at www.miramar.sdccd.net/faculty/fgarces.

"I realized immediately how it helped students, because it gave them access to

material that was otherwise tedious to access," Garces said. "Before, I had a resource binder in the library that had lecture notes and handouts.

Once Garces learned how to use Netscape Composer, he was able to transfer those materials to his digital library, now using web-based teaching in his five chemistry prep classes.

"I can organize my lecture notes for them, offer sample exams, provide online handouts," Garces said. "The students have

been very receptive. They feed off each other as they explore and discuss."

Garces gave a presentation regarding his use of web-based teaching at the PacBasin conference last December. The text can be found at www.miramar.sdccd.net/faculty/ fgarces/fgarcesinfo/fogdoc/PacificBasinPo.

"Many of the younger professors are very open to web-based teaching, while others are not," Garces said. "My take is that we are here for the students, and whatever helps them have greater access can only be seen as a positive."

MARY GROSS

It was at MiraCosta College some six years ago that English professor Mary Gross first began implementing her early-bird ideas on computerbased teaching.

"I started teaching the students basic skills for Microsoft Word, and started incorporating e-mail projects into the assignments," Gross said. "It was also kind of a training ground for threaded discussion."

Gross would eventually begin involving the creation of web pages and web-based searches, using these to advantage in her English as a second language (ESL) classes.

"By the time I came to Miramar College and started using online teaching, I was using Blackboard then WebCT," Gross said. "I took some classes at UCLA to get my online teaching certificate, then last fall I taught my basic composition class online."

Her methods must have worked. Gross saw her students show off a 100 percent pass rate on the English 56 exit exam.

"Normally we're lucky to get 75-80 percent," she said. "I attribute the perfect pass rate to online teaching. There is mandatory participation, no hiding in the background."

Gross has found similar success with her ESL students, who after two to three weeks in Microsoft Word lessons and computer basics are not only swimming along nicely, but also sit



side-by-side working together.

"The goal is to get them writing and using the computer," Gross said. "They love the fact they can express themselves freely

without being embarrassed."

Gross says she has more frequent contact with students than ever before because of e-mail. "I like the fact they can go home and re-listen to the lectures," Gross said. "Online teaching extends the classroom. It doesn't need to be used in all of our classes, but we need to recognize the Internet is a permanent part of our lives."