'Berkeley Is a Fertile Garden'

Cross-Pollination of Ideas Is What Ken Goldberg Has in Mind for CyberSemester

by Jacqueline Frost

Ask him to describe his research on the industrial applications of robotics and Assistant Professor Ken Goldberg launches into a detailed discussion of geometric algorithms.

Ask him to explain the meaning behind a "tele-robotic" art project he installed and he effortlessly recounts a metaphor of culture and the evolution of the World Wide Web.

"I would not go so far as to say that I am *both* an artist and an engineer, but I can say it will be my lifelong work to achieve that dual identity," Goldberg says.

Successfully straddling that scholarly divide between science and art, technology and culture is Goldberg's goal. "My interests are at the crossroads," says Goldberg.

And that created the theme of a new lecture series he helped organize for CyberSemester.

Called "Art, Technology, and Culture, A Campuswide Colloquium at

UC Berkeley," the series "focuses on new insights occurring at the intersection of art, technology, and culture."

(For the schedule of speakers, visit the web site at http://ieor.berkeley.edu/~goldberg/lecs/)

Goldberg says he sees the CyberSemester as a catalyst for the cross-pollination of ideas. "Berkeley is such a fertile garden," he says. "There are an astounding number of world authorities here."

And while Goldberg says he is cautious about "offending the territorial borders," between disciplines, he sees a great opportunity for the campus to share insights and explore new technology.

An assistant professor in the Department of Industrial Engineering and Operations Research, Goldberg has also developed an international reputation as a pioneer of robotics art.

He studied art history in Europe as an undergraduate and earned his doctorate in computer science from Carnegie Mellon University. "Understanding the issues which are at the center of contemporary art is as much work as understanding engineering. It's as much of a demanding intellectual process," he says.

At the University of Southern California, where he held a joint appointment in computer science and electrical engineering systems, Goldberg was co-director of the Tele-Garden, a live community garden tended by a robot arm controlled by users on the Internet. Online since July 1995, more than 12,000 people have planted seeds in the community garden. Goldberg sees the project as a metaphor for the web-emerging from a medium of hunters and gatherers foraging for information to one of a more settled community with the patience to tend and water a garden.

"We are trying to increase the attention span of web users," says Goldberg. "When you plant a seed in our garden, nothing happens for a couple of weeks. Those who come back to nurture that seed will get a reward. We are exploring what kind of community emerges."

The Tele-Garden, now on exhibit in Austria, won several awards and was featured in the national news. You can visit the site online at http://telegarden.aec.at.

Goldberg joined the Berkeley faculty in July 1995. Also in 1995, he was one of 30 young professors nationwide chosen as a Presidential Faculty Fellow, an honor that carries a grant of \$100,000 a year for up to five years from the National Science Foundation.

He is using the funds, given to young faculty to pursue innovative teaching and research projects, to support students and a new lab in Etcheverry Hall where he is working on designing simple, efficient assembly robots.

