

The Next Hot Career for the Gaming Age: Simulation

by (ARA)

Since teenagers first picked up joysticks and batted small blips of light back and forth on TV screens, parents have been shaking their heads and saying "You'll never make a living playing video games!" The booming computer graphics industry has proven them wrong, and simulation, an outgrowth of that industry, is poised to become the next hot career inspired by those old video games.

"Simulation focuses on a student's ability to combine science, mathematics and programming to create 3-D real-time animation," says Mary Clarke-Miller, academic director of the Art Institute of California - San Francisco's recently launched "Simulation & Virtual Environments" bachelor's program. As a career choice, simulation is a growing field with applications that cut across a host of other industries, from emergency management to military training.

"In the fullest sense, simulation strives to create a perceived reality where interaction can take place just as it does in real life, and in real time," says Christian Greuel, an instructor at the Art Institute in San Francisco.

Some current applications of simulation include:

- * Disaster and emergency planning for cities. Municipal managers and emergency preparedness officials use interactive, three-dimensional representations of a city, its residents, places and objects to help train emergency respondents, and predict the possible outcomes of their emergency preparedness plans.

Simulation, says Toby White, a fire protection engineer in Arup's San Francisco office, "allows engineers to explore different scenarios and their potential outcomes."

- * Helping aerospace engineers or architects simulate the real-life performance of their aircraft design or building plans.

- * Training the military to better interact with people of different cultures. "We are working on simulations that allow people to act out their cultural characteristics as 'avatars,' " says Laura Kusumoto, vice president of studios for Forterra Systems Inc. of San Mateo, Calif. "If we can successfully capture the subtle cultural differences of people, then we can create a more realistic environment where the military can better prepare for operations involving human contact, such as peacekeeping, relief and reconstruction."

"Given the market growth and demand for visual simulations, we believe that developing students' artistic talent, combined with the knowledge and skills of simulation, real-time three-dimensional model making and programming, our graduates will have an edge on finding a range of employment opportunities in a number of fields," says Clarke-Miller.

To learn more about a career in simulation, and the Art Institute of California's simulation program, visit www.artinstitutes.edu/nz.

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