# Educational Trojan Horses

**Mike Bailey**
University of California at San Diego
San Diego Supercomputer Center
mjb@sdsc.edu

I have always found that it is difficult to teach _at_ people. It is very much like throwing a bucket of water on your plants: you can't be sure how much has soaked in and how much has evaporated or run off somewhere else. You can't even be sure if water is what they really need right now.

Rather, I believe it is much more productive to "trick" people into teaching themselves. As educators, our job is less to throw information at our students than to motivate and excite them into wanting to reach out and pull in the information.

The question then is how to do this. How do we instil educational motivation in someone so that it blossoms into intrigue and curiosity? How do we make it strong enough for them to want to reach out and figure out more? I call this an "Educational Trojan Horse" approach because you slip some education by the students when their guard is down. After all, the best education happens when people think they are exploring, not being educated.

I believe that computer graphics is _the_ key element of an Educational Trojan Horse. Graphics is such a perfect mix of technology and fantasy that it can be used to excite students as no other medium can. The video game appearance causes students to let down their guard and allow themselves to be drawn in. The ability to control, design, and simulate leads them into learning. And, they not only develop their own explanations, they are motivated to discuss it with each other.

This talk will highlight some key technologies and technology trends that can be used to create Educational Trojan Horses. It will include 3D graphics, hardware, software, web-based graphics, digital libraries, and common formats.