My prediction for how educational technology is going to change in the next ten years not only includes more user integration of technology but I believe (or at least hope that) we will see a major change in the current methods of teaching in which we move away from the “sage on the stage” format and towards the “guide on the side” format, which illustrates a learning driven paradigm. I hope that teachers will be able to incorporate more active and interactive learning modalities. The idea of students sitting in chairs and receiving the information from a lecturer is a product of the industrial revolution and the training of workers, and I believe that the need for that system is no longer valid. Students need to be able to process information and synthesize new ideas as well as to be able to collaborate with others in a productive manner. I require my students to move beyond the memorization of the information to the understanding of process and what happens when things change. Students will be able to move through the learning activities at a pace that is appropriate for them. There was an article in the Kansas City Star recently about a school in Kansas City that is currently doing this now. There will be constructivist learning opportunities as well as collaborative activities to meet the changing needs of the workplace.

Ten years from now I think that we will see a surge in the use of simulation software and the creation of work places in which students will work as a group, but from remote locations (think online gaming collaborations like Everquest or World of Warcraft). I also think that the interactivity of the simulations will be greatly enhanced. The use of holographic equipment will be available to be incorporated into the activities in such a way that the student will feel as if they are actually in the simulation environment and doing the activities. I already utilize simulation software in which the students use a mouse to manipulate laboratory equipment and perform lab activities like Western Blot assays on the computer. I think that the technology is going to improve so that the simulations will incorporate data from the participant using data acquisition equipment (gloves, mobile devices attached to the body) that will allow the simulation to run as if the individual was actually performing the movements (rather than using a mouse to do so). We are on the way to that in that the Wii game system is starting to do some of the movement tracking of the players and to bring in the holographic imaging abilities and link them with the movement monitors and the simulation area will provide training devices that have visual, sound, movement, and tactile feedback for the student.