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Dial Soap

Homework #7

On the topic of assistive technologies, the first thing that comes to mind for me is human computer interaction. As a computer science major, I understand the importance in today's world of being able to interact with a computer in a quick and accurate fashion. While this is easy to do when you have full control of your hands, eyes, etc., it becomes much more difficult for those who have a disability that limits the responsiveness of their limbs or for those who have lost limbs completely. Many companies have realized that this is a problem, and have worked on solutions for those who cannot use normal human interface devices, such as a mouse and keyboard.

One of the most interesting technologies that is currently being developed is mind to computer control technology. This technology allows the user to interact with the computer using only their brain signals, and they move the mouse by "moving" their arm, and the device recognizes the brain signals and sends it to the computer in the correct way. "Paralyzed from the neck down, but connected to a computer by a wire implanted into the top of his brain, he used his thoughts to draw a rudimentary circle on the video monitor, to pick up objects with a robot arm and even to play simple video games -- chatting with researchers while he did so." (http://articles.sfgate.com/2006-07-13/news/17303990\_1\_brain-science-pilot-study-robot-arm). As a quadriplegic, Matthew Nagle, from the article just mentioned, probably never imagined that he would be able to use a computer like he used to ever again. This technology is amazing for him, it allows him to do just that, use a computer in a very intuitive way again.

Although the technology is still young, it holds great promise for the future. Right now, we are still communicating to our computers through a mouse and keyboard, but perhaps sometime in the future we will be using the computer with just our brain waves. I think that starting off the technology in such an amazing and helpful way is highly beneficial to the future success of the technology. All projects need to go through some testing before put out in to public, and I know I wouldn't mind at all being one of the test subjects for something as revolutionary as brain-computer interaction.