Essay 5: Proposing Your Work

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For my project, I want to create an organ simulator that will be able to teach humans how organs change over time when certain diseases hit them. My team has decided to use the liver as the first model for replicating this since it has about 25 diseases that we can test. Instructional tools such as this would be very beneficial to humans since they would be more alert on what they should do to keep their organs safe from any harm and this would also educate them. Although VR was a focus on my project, my team decided to create a simulator without using VR instead.

Human beings are known to remember things visually rather than by words or listening to what someone else is saying. Advances in healthcare are evolving and I want to create a simulator that will be able to not only educate people about the diseases that could be caused to their organs but also be used in hospitals for doctors to run medical simulations and educate their patients. Traditional instructions have not been as effective since they are static and not dynamic. An organ simulator using VR or other forms of graphics would be much more effective since the person would be able to see the organ change based on conditions such as environmental, dietary and pharmacological factors. Those factors could be tweaked by the humans themselves and they could simulate different situations. Using technology to teach also lowers costs of teaching by professionals. One example involves the OMSCS program, which costs a lot lesser than the traditional on-campus based program. Coding boot camps also cost about 20,000 dollars, which many people cannot afford. So, companies such as Udacity and Udemy have allowed people from all over the world to learn at the fraction of the cost that would be for a human to teach them. Instead, videos are recorded and the people are able to follow and go at their own pace.

Since healthcare costs are expensive, it would be ideal for this technology to be in the people's hands, where they can see exactly how organs change over time based on different factors. It is a lot more ideal to give them a graphical representation and would be able to teach themselves how to use it without someone else having to show them. Having user-friendly technology saves costs for teaching and training. A graphical simulation would be more interactive for the user. The only thing that is really lost is the use of paper, since that would not be needed for teaching someone how the organ changes over time. This would not only save more paper, but more money as well. This will also make people be actively involved in their health.

My team has decided to go the development route, using Unity for creating the graphics and will be using C# to build the logic. Unity is a great tool to use for building medical simulations and we hope to do as many organ simulations as possible before the semester is over.