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CS6460 – Educational Technology
Assignment 5

My previous Assignment essentially covers my team's approved project proposal for the class. In this assignment, I will briefly summarize on the project and expand on what contributions we expect this project to bring to the educational community.

The project's idea is to build a system that can showcase the human anatomy in 3D and allow the user to explore different parts of the human body. While many products out have this functionality, we want to expand on this by allowing end users to interact with the 3D body parts and simulate diseases by changing parameters. For example, an end user could focus on an organ, such as the liver or kidney, and change factors such as increase in sugar, alcohol consumption, etc. Today, a product by BioDigital also contains simulations for diseases (About BioDigital, 2018), although the extent of how in-depth is not clear to our team due to the need to license the product. Based on promotional videos and demos, these simulations may be in the form of short 3D videos.

We also aim to expand on this by adding integration with Healthcare Data Standards, such as Health Level 7's Fast Healthcare Interoperability Resource (FHIR) to allow the tool to be a more effective simulation of actual patient scenarios (E., 2013, March 3). Integrating FHIR is also one of our challenges as there is a vast amount of medical terminology data that we will need to parse and account for in the application to provide a good real-time simulation to the end user.

To hone in on how we believe this can help the community, this tool could help bring in-depth education about the human anatomy to multiple audiences. A school-grade student or adults without healthcare backgrounds could learn about anatomy and visualize what happens to the human body in different scenarios without having to visualize a real person going through these stages. Meanwhile, with more detail, a medical student could use this tool as an encyclopedia and even a way to understand Healthcare Data Standards, Electronic Health Records, and simulate patients using FHIR integration. Perhaps even physicians themselves could benefit of this tool as a way to help their patients visualize different scenarios or as a reference tool.

References:

- About BioDigital. (2018). Retrieved February 05, 2018, from https://www.biodigital.com/about
- E. (2013, March 3). What is 'FHIR' and why you should care? Retrieved February 9, 2018, from https://blog.interfaceware.com/what-is-fhir-and-why-should-you-care/