SENG2260 Assignment 1

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1 Assignment Outline

School of Electrical Engineering and Computing
SENG2260/SENG6260 – Human-Computer Interaction

Assignment 1: Low Fidelity Prototypes (20%)

Submit using Blackboard by **EOD Friday September 14th 2018**

Design problem

The following is the design problem that each group will undertake:

There is increasing interest in virtual and augmented reality display technologies and the immersive interactive environments that they enable. Although head-mounted display technology is not new, 2018-2019 will see an unprecedented release of VR/AR systems for mainstream use, e.g. Facebook's Oculus Rift, Microsoft's HoloLens, HTC/Valve's Vive, Samsung's VR Gear and Sony's Playstation VR. In addition to the challenges of engaging with a general user base, it is unclear what the VR/AR "killer app" will be. Previous research has explored military, medical and educational use of similar technology. However, as these advanced user interfaces enter mainstream usage there are exciting opportunities to explore new applications of this technology and consider how this may impact human-computer interaction (HCI)/user experience (UX) approaches to designing, prototyping and evaluating user interfaces.

The **group project** this year will consider the use of the Microsoft HoloLens[1] in a library. Your group must design the user interface for a library-based HoloLens interactive system.

Low Fidelity Prototyping

In this group assignment you will do your first prototype for your team project, which will be your interface design as a low fidelity prototype. This tends to be a paper prototype but could be cards, storyboards, low tech (e.g. cardboard) mock-up or a combination of these. The low fidelity prototype should be able to handle at least three use scenarios. These scenarios could be the scenarios you described in the task from lab 3.

Later labs offer you an opportunity to start building the low fidelity prototype. The lab and workshop time in week 7 is set aside to test the prototype on your classmates.

In the week 7 your participation in testing is required. Prior to this step, your team should have conducted a *heuristic evaluation* of your prototype and corrected any errors or examples of bad design that had arisen. This prevents you from wasting valuable user testing time discovering things that could have been discovered without involving users. This strategy is aimed at getting the most value out of your test users.

Choosing What to Prototype and Test

You may need to adjust your scenarios so that they explore the riskiest parts of your interface. A part of your interface is **risky** if its usability is hard to predict, or if its usability strongly affects the usability of the whole system. For example:

- **Novel design**: Parts of your interface that are new and different are potentially risky. By contrast, a username/password form is not risky because it is a familiar and well-understood idiom.

[1] See https://www.microsoft.com/en-us/hololens

References

[1] Place holder.com

2 Appendix