New University logo


Faculty of Business and Information Technology

INFR 4350U: Human Computer Inter. For Games

**Assignment Outline**

**Note:** Assignment should be submitted with the same group that was formed for Lab activity 5 (Lab activity 5 + Assignment)**.**

The aim of this assignment is to measure the outcome of students' learning in terms of knowledge acquired, understanding developed and skills or abilities gained in relation to achieve the learning outcomes and criteria:

* Identify and apply strategies to find appropriate solutions
* Select/design and apply appropriate methods/techniques
* Present and communicate appropriate findings
* Use critical reflection to evaluate own work and justify valid conclusions
* Take responsibility for managing and organizing activities
* Demonstrate convergent/lateral/creative thinking

The assignment will have two options, one option is tailored around **development** and the other is **more research**, one of these options should be selected. It is recommended that the assignment be done in pairs. A written write up should be submitted which includes a cover page with the team members names and their chosen option. Please make use of tables and diagrams when necessary.

**Option 1: Research:**

* For the research option, a specific game genre should be selected by the team, and based on the genre an appropriate video game should be chosen to be playtested.
* The first step requires you to do a heuristic evaluation:
  + The length of time or game section to be played should be determined, and a set of heuristics should be selected (e.g. PLAY, GAP).
  + During the evaluation session, the evaluator goes through the interface several times by playing the game and inspects the various dialogue elements. Throughout this process they will take notes of key usability or user experience issues. Afterwards, they will cross reference and compare their notes to a list of recognized usability principles (the heuristics). These heuristics are general rules that seem to describe common properties of usable interfaces. What is discovered must be recorded and corresponded to a heuristic. The cross referencing can be done in pairs.
* In the second step, you design and conduct a playtest and record what is discovered from the players, then compare the results from what you found in the heuristic evaluation to what was discovered from the players. You need to describe the playtest plan, what approach you chose to use to gather data, and if you did an interview/questionnaire to provide that information.

**In your write up, you also need to provide a description of the results from steps 1 and step 2, and a final paragraph describing the overall critical analysis of the game and the genre.**

* + **Was there issues that were only discovered from play testing or only from the heuristic evaluation?**
* *Deliverable: Documentation with cover letter, chosen game genre, game description, heuristic guideline, playtest plan, results of step 1 and 2, and critical analysis discussion.*

**Option 2: Development:**

* For the development option, you can download a pre-existing game that is compatible with unity or you can use an older project of yours. You need to document the game you selected, and if it was open source to provide the links for it. You also need to describe what is the original interaction the game has.
  + What kind of actions can the user perform?
  + What input does the game take, be specific. (e.g. WSAD, Mouse input)
  + And how the input to actions are mapped. (e.g. Left click -> Attack)
* Your next step is then to brainstorm, design, and develop a new type of interaction that is different from the original interaction. For example, if the game used keyboard+mouse interface before, could you use eye tracking, makey makey, or leap motion as the new mapping for input to the game? I would like to see you experiment with a new type of user interface by selecting a new hardware or software from the ones available in your lab. In your write up, you need to describe this process of how you decided on the new interaction by reflecting on the course material. Did your new mapping work? What worked and what didn’t?
* *Deliverable: Documentation with cover letter, selected game and link if it was open source, description of the original interaction, description of the process of selecting a new interaction, description of the new interaction mapping, and final thoughts on the updated interaction. Also provide a short video showcasing the interaction.*

**Weightage:**  15 %

**Due:** November 21st