

**CS 3205 - HCI in Software Development**  
**Assignment 1: Project Proposals**  
**Mark Floryan**

**Submission:** Submit your write-up as a .pdf file on Collab  
**\*You WILL lose a point (10%) if your submission is not a pdf file.**

**SUMMARY:**

For this simple assignment, you will be defining a project to work on for the rest of the semester. You will be either developing a new or improving an existing interface for some system of your choice. You should keep in mind the full project requirements when choosing (i.e, homework assignments 2-5). In future assignments you will be analyzing the users of your system, designing and implementing various prototypes, and performing empirical evaluations of your prototypes. Be careful not to choose a project that will make these later assignments too difficult. Please come talk to me if you are unsure about this.

You will NOT NECESSARILY end up working on the project you define for this assignment. I will be posting a representative subset of the submissions, and you will be able to choose which project(s) you care to work on. We will then form teams of no more than 4 students with whom you will work on all future homework assignments for the course. Of course, if you prefer to work alone then you may. However, I strongly encourage you to work in a team, as this better simulates the reality of the workplace.

**GUIDELINES:**

I suspect most project ideas will fit into one of the following categories:

1. **New Software / Application:** You might choose to define a brand new software application or device that does not yet exist. In this case, you should provide an overview of the software or device. For these projects, you will have to develop more than one prototype for assignment 3 so that you can perform an empirical evaluation of your prototypes. Make sure that you focus on why the user interaction with the system is interesting. How are current similar systems not efficient or simple to use and how will you improve the interaction?
2. **Improving an existing software:** You might also choose to select a current device, piece of software, game, equipment, etc. and focus on improving the usability. This type of project would require you to build fewer prototypes, but I will expect a more detailed analysis of the current system. You will then, in later assignments, empirically compare your prototypes to the current system to try to show some kind of improvement.
3. **Novel Interactions:** Have an idea for a brand new type of human computer interaction? Don't be afraid to try something daring. Maybe you want to design a way to play guitar by making facial expressions, or selecting files on your computer with gesture controls. Feel free to get creative.

Note: Try to be careful NOT to define too broad of a project. It is preferable to focus on a particular aspect of a system in great depth rather than to prototype an entire system all at once. For example, don't tell me that you are going to "completely redefine the SIS website". Rather, consider choosing a single aspect of SIS such as searching for open classes, and focus deeply on improving the usability of this single feature.

**REQUIREMENTS / DELIVERABLES:**

Everyone should submit a write up in PDF format on Collab. Your submission should be at least four but no more than ten pages in length. You will not be graded on the length of your assignment specifically. A pithy, yet exceptionally detailed description in three pages is preferable to a verbose eight page description. Your write up should contain, at least, the following pieces of information:

1. **Abstract:** Provide a high-level overview of the product you will be focusing on. What does it do? What purpose does it serve? Does it already exist?
2. **Problem Definition:** Define precisely the scope of the project you are proposing. Exactly what aspects of the systems interface and usability will you be working on. Why is it important to get the usability of this system right?
3. **Prototype Brainstorming:** What kinds of interfaces might potentially be useful for this system? No need to be super detailed here, just provide some high-level thoughts on possible solutions for designing and / or improving the given product.
4. **Expected Results:** What information do you intend to learn from this project? What results do you expect to present? Are you trying to design an interface to maximum profits? To maximize traffic? To minimize frustration? At the end of the semester, what solution will you present and why is it important?

\*Note that the overall purpose of this document is to convince me that this project is interesting and that it is unclear how best to solve the problem.

#### **GRADING:**

Grades on this assignment will be assessed as follows:

- **Problem Definition (4 pts):** Was the problem / system clearly defined and explained? Did you clarify the scope of the project adequately? Did you provide a well thought out set of goals for the project?
- **Creativity (2 pts):** Is the idea novel, interesting, and/or creative? Is it very unclear how best to design this particular system? Is there a wide range of potential interfaces for this system?
- **Written Clarity (2 pts):** Was the technical writing clear and precise? Was the writing polished?
- **Formatting (2 pts):** Does the document look professional?