CSCC10H3: Human-Computer Interaction (HCI)
Group Project: User-Centered Design Project

Project Overview:

The project is divided into four phases and is worth 40% of your final grade.

The goal of the group project is to use a user-centered approach to design, develop and evaluate an interactive system by following the HCI guidelines and principles. In groups of **6**, students will get hands-on experience in performing user-centered design as they:

- Gather user requirements for a user interface through interviews, surveys, and/or observations.
- Design and develop an interactive prototype.
- Evaluate the prototype using evaluation techniques.
- Analyze the results.

The deliverables will include:
- A project proposal;
- A report outlining the user requirements;
- An interactive prototype;
- A final report with the results achieved through the use of evaluation techniques, followed by an in-class presentation.

The above deliverables are to be completed in four phases and each phase serves as a building block to the next phase. Therefore, it is important to conduct them in sequence and submit them in time to be able to work on the next phase of the project.

The group project will provide an opportunity for improved communication and collaboration skills, organization and time management skills, and project management skills.

Note: Group members will evaluate each other's performance during the end of each phase of the project. This will be reflected in the marks students will receive where an individual student mark may differ from the group mark.

Phase I: Project Proposal

Due Date: Tuesday, May 31, 2022 at 11:59 PM EST

Worth: 5%

Overview:

Please form your group. The number of students in each group should be **6.** Your TA can help you with forming your groups.

Now start to think out-of-the-box! There are two ways you can approach this project. Either you can pick an existing and recent interface/website/application and make substantial improvements using HCI principles to solve an existing problem **OR** you can decide to create a brand new interface/website/application in order to provide a new solution to a newly identified need.

The more specific you get, the more likely you will be able to design, implement and evaluate the user interface for your project within the course timeframe. ***Please note,*** *the focus here is on the user interface and not on the other backend technological pieces that would be required to really get some of these projects working in the real world. Also, if you choose a mobile application it must involve user interaction and must have an interface.*

Each group should come up with a project proposal. The project proposal should contain the following:

1. A brief description and purpose of your project (i.e., why is it important? what is the problem? why is it a problem?)
2. The target audience (users) of the interface.
3. Propose how you will solve the problem or will meet a need. Briefly explain why it is believed that they will work. Use examples/screenshots of existing interfaces, if necessary, and include as Appendices.
4. Literature review to back-up your proposal (at least 5 academic citations are required along with a summary of each citation supporting your problem and/or solution). Please adhere to the APA citation style for in-text citations and reference list.

What to submit:

A written report with the following information:
1. Group name along with members of the group. Please include names and UTORIDs (1 page).
2. Signed Team Expectation Agreement (see next page for details).
3. Project proposal (2-3 pages – single-spaced, paragraph style, 12-point font, excluding references and appendices) as per 1-4 above.

Submission Instructions:

Please submit a single PDF file on Quercus with the following naming convention: "P1.[your group name].pdf *(for example, "P1.UXExperts.pdf")*. This will be a group submission and only one person from the group will need to submit.

Team Expectation Agreement[1]:

As part of Phase I, you along with your team members will establish a Team Expectation Agreement. This agreement is important as working in teams can be challenging at times. One source of problems is the differing expectations of team members. For example, one team member may think that an email response should come within 2 hours, while another may think that 2 days is acceptable. In order to ensure that all team members are on the same page, it is important to set expectations from the beginning. Please submit a list of agreed upon guidelines that your team intends to follow for this project. This must be **signed by all members of your team** and submitted as part of Phase I submission.

- Methods of communication (email, phone, texts, ….)
- Communication response times (email, phone, texts, ….)
- Regular Meetings (frequency of meetings, whether all meetings are mandatory,…)
- Running meetings (when, where, face-to-face vs. online, who takes minutes, …)
- Meeting preparations (whether preparation is needed, what to prepare,…)
- Division of work (how to divide work, who will decide who does what, …)
- Submitting work (when to submit, who will submit, who will review the submission,…)
- Contingency planning (what if a team member drops out, what if a team member is sick for a significant period of time, what if a team member consistently misses meetings, what if a team member is academically dishonest, …) We suggest that in these cases, a team promptly seeks help from the TA.

The above guidelines are to get you started. Feel free to add additional guidelines based on your experience of working in teams from the past, especially in cases where things went wrong and how expectations can be set to prevent those types of problems.

Grading Rubric:

Components	Marks
Report Presentation and Clarity	10
1. Brief description and purpose	20
2. Target Audience (users)	20
3. Proposed Solution or Enhancement	20
4. Literature Review	30
Total	**100**

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[1] Based on Turning Groups into Effective Teams, Barbara Oakley et al., 2004.