Human-Computer Interaction

Project Milestone 1

Due Date: June 25, 2018

This first project milestone is an individual assignment. You will begin by proposing a topic idea that could form the basis of your course project by performing a preliminary task analysis.

Project Constraints

You may work on any topic idea that centers on: (a) the creation of a new interactive technology to support a human activity, or (b) the substantial improvement of an existing interactive technology so that it better supports a human activity (or population of users). You are encouraged to be creative and innovative.

A second constraint is that you will have to involve representative users in both the design and evaluation stages. You may only recruit people who you know personally - friends, classmates, acquaintances, or family members. You may only recruit people who are 18 years of age or older.

Part A. Project Topic Brainstorming (15%)

Keeping in mind the constraints above, you will start by brainstorming possible topic ideas. When brainstorming, remember that you will have to eventually show a prototype idea to the point that it can be evaluated. You are encouraged to think "out-of-the-box" and include new or different interaction techniques.

 Your proposed project topic should be as specific as possible. The more specific you get during brainstorming, the more likely that you will be able to design, implement, and evaluate the user interface for your project within the course time frame.

Deliverable: List your 3 best project ideas from your brainstorming. Provide a 1-3 sentence description of each.

Part B. Preliminary User and Task Analysis (60%)

Step 1: Choose your most promising idea from Part A and write a short paragraph describing why you have selected this idea over your other two candidate ideas.

Deliverable: Provide a short justification for your selected idea.

Step 2: Do a preliminary search in the research literature on your chosen topic. This will allow you to assess the novelty of your design idea and set your idea in the context of related work. Key sources include: the HCI Bibliography (www.hcibib.org), the ACM digital library (http://portal.acm.org/dl.cfm) and Google Scholar (http://scholar.google.ca/). As a starting point, find at least two related papers from the research literature.

Deliverable: List at least two references, with 1-2 sentences per reference describing the relationship between the source and your proposed idea. For the references, any clear, professional citation style is acceptable, e.g., APA style (http://www.apastyle.org/).

Step 3: Problem Description
- Identify the human activity/practice which your proposed system is intended to support
- Identify the people or users who will or should be performing the activity, as well as other important stakeholders

Deliverable: A short and specific description of the high-level goals of your proposed project including the two bullet points above. This will act as an introduction to the rest of the proposal, preparing the reader for details to come.

Step 4: Scenarios
Create 3 distinct *scenarios* using a range of stakeholders that illustrate the potential utility of your chosen system. The scenarios should be directly related to the human activity you are trying to support. Remember, scenarios are interface-independent (or as much so as you are able to make them). That is, they should not include details about a particular interface design.

Deliverable: Three distinct scenarios.

Part C: Design Direction (25%)

Identify a specific high-level design approach for resolving the problem or implementing the new ideas described earlier and briefly explain why you believe the approach will work.

Deliverable: Write up your design direction as described above.

Submission

Submit a written report in PDF format consisting of the deliverables described above by the submission deadline.

Summarized List of Deliverables

Below is a summary only. Please see above for a description of each deliverable.

- Top 3 ideas from brainstorming, with a 1-3 sentence description per idea.
- Indicate which idea you have selected as your most promising idea and why
- 2 related references from the research literature with 1-2 sentences describing how each reference relates to your selected idea
- Problem description
- 3 scenarios
- Description of your proposed design direction