COSC368 2020

Assignment 1: System Design Concepts: Tutor Access & Support:

Due: 5pm Wed, 16 Sept., 2020
Late submissions -15, until 25 Sept.
Worth: 25%

This assignment will help you develop critical skills in interaction design:

- identifying users and their needs, and analysing tasks;
- sketch-based generation of design alternatives;
- assessing the relative merits of design alternatives;
- written communication of interaction needs, user tasks and design rationale.

Background

TutorTech Ltd. is a startup company that wants to develop software tools to help tertiary students access tutors for academic assistance and support. They have contracted the famous interaction design consultancy YOUR TEAM NAME HERE to develop an interface design concept. They are interested to learn what tasks users might want to complete through the interface, and they wish to see some initial design concepts.

Design brief

Your design brief from TutorTech's CEO is as follows:

"*We want to develop a software system that will become indispensable for managing and coordinating online access to tutors and instructors. With COVID-19 forcing tertiary institutions to deliver courses online, TutorTech sees a substantial market opportunity in this area.*

We want you to design an interface that will help tutors, instructors, and students coordinate access to assistance. At this stage, we want to know what tasks and activities different categories of users will want & need to complete with the interface, and we want to see design concepts that convince us that you are the right people to design our final interfaces.

Your design rationale is important to us too. We want to know why you think the set of tasks and activities you identify are important to users, and if there are risks or assumptions associated with your tasks and designs, explain them. At this stage, it's important that you to convince us that you've thought hard about who the potential users are, what they need to do with the interface, and that you have considered several design alternatives.

We are not particularly concerned about the underlying technology that will present the interface to the users. We have technical engineers who will be responsible for constructing any eventual user interface. However, if your task requirements have strong implications for implementation (such as the need for mobile and desktop interfaces), you should make these requirements clear and clarify how your designs will accommodate them."

What you should do

The five key components of this assignment are as follows:

1. identification of representative users, including a discussion of the importance of supporting each user group;
2. identification of task categories, tasks within those categories, and specific uniquely enumerated scenarios for each task;
3. prioritisation of user tasks to be supported in the application, and associated rationale for those priorities;
4. sketched design alternatives, representing different ways of organising the application (note that each design is likely to be clearest if presented with the main starting page first);
5. brief design rationale for each of the approaches, identifying the pros and cons of each design;
6. identification of a primary design alternative (in sketched or wireframe form).

You are strongly advised to carefully read the "Interface Design" section of the course lectures, including "Task Centred System Design" (TCSD). Also, read the TCSD shareware book on Learn.

As stated in the lecture material, you should come up with as many early design concepts as possible (elaboration), and you should clarify and pursue the most promising ones (reduction). A small selection of the best design concepts should feature in your report.

Sketches will be very important in supporting and clarifying your intended design. Preliminary design alternatives should be legible hand-drawn sketches. Their purpose is to illustrate the intended interaction, so they should minimise ambiguity. It would be wise to scan (or photograph) your sketches, import them into a software application supporting vector graphics (e.g., PowerPoint), and embellish them with computer generated labels/callouts/arrows, etc. to identify important components. The primary design alternative can be represented in sketched or wireframe format (but remember that the primary purpose is to communicate a design concept, not a final design).

Work in teams of three to six

This assignment is most likely to be successful (i.e., you'll learn something) if it is completed in a team. I recommend teams of four or five. If you feel you have *strong* reasons for needing to work in a group of fewer than three or more than six, please email me to seek approval before August 21st, and explain the reason for the request.

It is expected that teams will remain formed for the second assignment (details

later).

What you should submit

Exactly ONE member of each team should upload a PDF document of up to 30 sides to Learn – note, ONE submission per team. The submission must include the name and usercodes of all team members, and the final page should contain a statement of the primary contributions of each of the team members.

Hints on document structure

Technical reports typically follow a similar format, including Title, Authors, Introduction, CONTENT, Conclusion. It would be surprising if your submission were to deviate substantially from this format. While there is lots of freedom over how to organise and present CONTENT, I would anticipate a structure similar to the following.

Title

Authors

Executive Summary/Abstract (*very* short summary of document purpose & outcome)

Introduction

User and Task Identification

> Including categories of users, categories of tasks, tasks within those categories, scenarios to exemplify tasks, and analysis of their priorities based on task frequency and importance.

Preliminary Design Alternatives and their Rationale

> A few pages for each sketched design and its associated rationale, pros, and cons. Note that it's best if each design alternative shows a different way of organising/representing the user interface.

Primary Preliminary Design

> A sketch or wireframe of a preferred design concept and an explanation of why it is the preferred initial design

Conclusion