Lab Assignment 4

Human Computer Interaction

CLO 5-6

Spring 2018 (BCS-7 A/B)

Total Marks: 30   **Deadline: 23-06-21**

Brief

This is a group assignment to be completed in a group of 4 maximum. Review and share the user needs you brainstormed. Your team will develop a design for your mobile web app addressing any novel solution (Your own idea), fleshing out your design ideas by creating a

1. Point of view
2. Seeking inspiration
3. Storyboarding
4. Making paper prototypes

• Task-1 (Team Point of View)

Step 1: Make a Team Point of View

First, your team should write down a point of view (that relates to the brief) in a sentence or two.

What is a point of view?

It's your take on a high-level design strategy, before designing a solution.

- For example, if you wanted to improve the check-out experience at the grocery store, your point of view might be: "waiting in line is intrinsic, but the boredom is not". This would lead to design solutions like showing news or playing games while waiting in line.
- Alternatively, your point of view might be "with a good scheduling interface, no one should have to wait in line." This might lead to better ways for employees to staff registers and consumers to pick them.
- Or, you might have a totally different point of view: let's make grocery stores more like farmers' markets, where payment is distributed across the stands that have the food.

All of these are valid points of view as they suggest different possibilities and have different implications/entailments for what constitutes a good design. They do not restrict your thinking to one solution - they are general enough to give scope for multiple solutions.

What makes a good point of view?

It should clearly express the problem/opportunity. And it should make clear what a good solution would accomplish. Have a group meeting and write down your ideas.

Remember that you will work on this project in a group. Thus, coming up with a good point of view that you can successfully tackle in limited time is crucial as a team and delegate tasks accordingly.

Task 2: Make an Inspiration board

Your next step is to find inspiration for the solutions you will be brainstorming. Inspiration can be existing applications, artifacts, products, services, or anything that relates to your concept. For this web search is your friend (potentially useful sites include Google, Google Scholar, the ACM Digital Library, TechCrunch, Engadget...). Some things you find will be quite related, but it is important to interpret "related" broadly. The relationship could be very concrete or very abstract. It may be that a carrot-peeler or a measuring cup is your inspiration for an elegant and ergonomic software interface design. You may be inspired to improve upon an existing service or go in a totally different direction. Think outside the box and find as much (i.e., diverse inspirations) as you can. An "inspiration board" is a tool to help you do this.

Team Inspiration Board:

1. Start an inspiration board by listing 5-10 words that relate to your design idea or point of view. These words can be anything -- from similar designs to feelings that the idea generates.
2. Once you've listed your words, come up with at least five inspirations, and share them by providing **links or images within your assignment submission**. For each inspiration, **give a brief (1-2 sentences) and insightful explanation of why you chose it** (What did you take away from it? What did you learn from it?... In other words, why did it inspire you?). Each of these inspirations should offer a different perspective to the design you are working on.

Benefits of Inspiration Boards:

- Making an inspiration board helps you understand the existing landscape, sort of like a competitive analysis.
- Inspiration boards help inspire you to do things you wouldn't have otherwise thought of.

As an example, if you were making a travel app, your words could be: relaxing, paradise, getaway, Europe, blue, etc. Then, some inspirations could be tripadvisor.com, souvenirs,

twitter, Bank of America mobile banking app, and so on. You should not be submitting inspirations with tripadvisor.com, travelocity.com, expedia.com, as these websites all offer the same type of services and therefore, do not add anything "diverse" to the set. While it's true that Google has a clean minimal layout and the iPhone has a beautiful design, citing those as inspiration wouldn't be very specific.

[Here's a concrete example](https://drive.google.com/file/d/0B83mQAPNBiV3VEVzY2JwM1dmRFU/view)

(https://drive.google.com/file/d/0B83mQAPNBiV3VEVzY2JwM1dmRFU/view)

of an inspiration board, found below the overview section, where you can see the existing products/systems/etc. that help establish the problem space being explored. On the right are the words that related to the designer's design ideas.

Remember to be creative. Think big, then focus in with an insightful and specific explanation of how your inspirations *inspired* you.

Task 3: Create a Storyboard

Next, use your inspiration to come up with a design idea that address/engage your point of view. Illustrate the idea with a storyboard.

A storyboard is a comic-strip-like set of drawings about what your interface does and how it is used to accomplish tasks in a real usage scenario.

A good storyboard should clearly demonstrate who the user is, the usage situation, and the user's motivations for using the interface. It should show what the user can accomplish with your interface, but it needn't (and often shouldn't) show a specific user interface design. For a storyboard including an app screen, the details of the screen are not relevant, but what those screens enable you to accomplish.

Each storyboard should comprise 5-8 panels and fit on two 8.5" x 11" sheets of paper. Use a thick pen like a Sharpie---ballpoint pen or pencil is not acceptable. A thick pen is a good reminder to focus on the high-level and not sweat the details at this point.

Remember that the storyboard should diverge, meaning that they represent different design ideas that address the same point of view. Check some examples of story boards from the internet to make it clearer.

For submission, present your hand drawn story board.

Task 4: Build a Paper Prototype

For this step, lay out your storyboards so the team can see them. Take some time to discuss the different ideas you've had. Make sure you discuss the strengths and weaknesses of your design, and how well they achieve the goals set out by your point of view.

Try not to argue at this stage and be supportive of team members views, as if you argue it means you'll be up alone pulling late nights, while your teammate is sleeping, angry you didn't pick their idea.

Working as a group, make a paper prototype. It should clearly connect to your point of view but do so in a creative way.

Quite likely, each prototype will instantiate your storyboard, but that's not required. A paper prototype concretely shows <u>all</u> the essential elements of a user interface, except that it's implemented with pen on paper, as opposed to pixels and code.

Paper prototypes must be hand-drawn. No computers and printers are allowed. Again, it helps focus on the concepts, and saves you from wasting hours twiddling pixels. Years after taking this course, you would find that paper prototyping was favourite part of the class because of its effectiveness for rapid ideation.

For example, if you were designing a mobile transit application, your prototypes could take two different approaches to addressing the point of view that users should be able to find out when the next bus will come. The prototypes should be complete enough to "run" a new user through each task. When you're done, everyone on your team should sign the prototypes. (Note: the story here is very linear, but your process doesn't have to be. You can start making a paper prototype, then change your mind. Align your prototype with your storyboard as much as you can; no need to be perfect. Don't try to split up the work just to get the assignment done, where one person makes the storyboard while the other makes the prototype. That's not very effective.) Your prototype interface should enable people to navigate, recover from errors, and change their mind. Check out the

 Hanmail video (https://www.youtube.com/watch?v=GrV2SZuRPv0) for inspiration.

Your paper prototypes should show sketches for all important areas of your site/app. If X is an area of your site that's not very relevant to your task (like maybe the copyright policy of piazza isn't very important for designing the use case of this class) then you don't need to show it. Remember, this prototype is all hand-drawn (no computer tools), so it should be really fast to come up with ideas. In fact, that's precisely the point of this assignment: now is the time to do the hard-conceptual work of figuring out your information architecture and functionality.

For submission, make a small video of a user going through your prototype and share the link of the uploaded video alongside your paper prototype.

Assessment

Alongside your submission there would also be a group presentation.