Taylor Blaine Startin
Extra Credit Assignment
CS 6750 – Human-Computer Interaction
Georgia Institute of Technology – OMSCS – Fall 2016
10/27/2016

1. (From 2.1) These days we often have multiple interfaces or solutions that accomplish the same goal yet are nothing alike. For this, think of an interface you've used that you view as having a bad design. Now think of a similar interface you've used that has a good design. An example would be Google Maps versus Apple Maps. Briefly describe the two interfaces (~50 words). What makes the good interface good (~50 words)? What makes the bad interface bad (~50 words)? Since this could be highly preferential, describe any good qualities about the bad interface that you can think of as well as any bad qualities about the good interface (~100 words). How would combine the two to have the best of both worlds (~50 words)

    - Rubric:
        - +1.0 for choosing a good interface and sufficiently describing it
        - +1.0 for choosing a bad interface and sufficiently describing it
        - +0.5 for the interfaces being similar
        - +1.0 describing good qualities about the bad interface
        - +1.0 describing bad qualities about the good interface
        - +0.5 for describing how the interfaces could be combined

2. (From 2.4) Take some time and do a little research on apps or interfaces that are available for some who is impaired visually, auditorily, or haptically. Select an app/interface of your choosing and describe it and the impaired perception it is designed for (~100 words). How does is interface emphasize the other types of human perception that aren't impaired (~100 words)? What designs within the interface make it make it a good choice for those with the impairment (~50 words)? What designs within the interface make it make it a bad choice for those with the impairment (~50 words)?

    - Rubric:
        - +2.0 for researching an app/interface and sufficiently describing it
        - +1.0 for sufficiently describing how the other perceptions are emphasized
        - +2.0 for describing the pros/cons of the app

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3. (From 2.5) From your everyday life, select an interface that has remained consistent for quite some time due to the consistency it also has not grown because of it. Describe the interface, why it is useful (~100 words). Then, describe how the interface might be improved in order to become useful for more users and get some growth while remaining consistent (~100 words). Describe other strong principles about the interface (~50 words). What changes would you make to the interface to leverage those other principles (~50 words)?

    - Rubric:
        - +2.0 for finding a consistent interface and describing it.
        - +1.0 for describing how the interface could be improved while remaining consistent
        - +1.0 for describing the other good qualities/principles of the interface
        - +1.0 for coming up with two or more ways to leverage the other principles

4. (From 2.6) Think of an interface that leverages representations in its design. In the design, describe both the good and the bad representations. Describe the interface and what representations are helpful and/or what parts being not helpful (~100 words)? Now, describe the analogies of the representations (~100 words). What do these actually represent (~50 words)? What is risked by using these analogies (~50 words)?

    - Rubric:
        - +2.0 describing the interface
        - +1.0 describing good/bad representations
        - +1.0 describing what the representations mean and are intended for
        - +1.0 for describing what was risked by using these

5. (From 2.8) Think of your own situational interface that you've come up with and isn't publicly available on computers or as apps AND that uses distributed cognition (other than driving and using a paper map). Describe the situation and how the tasks are distributed between the different areas (~100 words). Now think of a way how you could develop an interface for your phone or computer that would do the same thing. In what ways would this new interface cause the user to require more cognition due to deficiencies within the app (~200 words)?

    - Rubric:
        - +2.0 describing a classic pen and paper or other situational interface that they use.
        - +3.0 coming up with their own app idea that can replace this pen and paper tactic

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Due: Sunday, October 31st, 2016, by 11:59PM UTC-12 (Anywhere on Earth).

So, here's the extra credit opportunity: submit up to 5 suggested questions for future assignments in the class. Each question will be worth 2 extra credit points. Questions should fit into our current structure for the class: each question should correspond to a single (clearly labeled) lesson, each question should be answerable in 300 words, each question should consistent of multiple parts, and each question should be graded out of 5 points. As part of the question, you should also include a rubric for how the question would be graded. An example of a question and rubric are available at the bottom of this post. It's possible to get partial credit for this, either by submitting fewer than 5 questions (if you'd like) or if we deem some of your questions are sufficiently detailed.

A couple notes:

- As always, anyone receiving above a 90% in the class will receive an A. Depending on the final class distribution, we may lower that threshold as well. However, we'll make that decision *before* adding in the extra credit scores. That way, no one is penalized by others' completion of the extra credit by virtue of being passed in the distribution.
- This is only for the first five assignments. We may offer a similar extra credit for the last five, although those are more of mini-projects than written assignments, so I'm not quite as concerned about those.
- These 10 points will be added to your raw assignment score. So, if your score on the first five assignments was 85/100 and you get full credit on the extra credit, your assignment grade would now be 95/100.
- Extra credit submissions are due October 31st, via T-Square.

As an example, here's an assignment and its rubric from earlier this semester:

In the lecture, we give five suggestions for reducing cognitive load in interface design: using multiple modalities, letting the modalities complement each other, giving the user control of the pace, emphasizing essential content while minimizing clutter, and offloading tasks from the user onto the interface. Select two of these tips. For each tip, select an interface from your everyday life that violates the suggestion. Briefly describe the interface (~25 words) and the violation of the tip (~25 words), and then describe a redesign of the interface that would incorporate the tip into its design (~75 words).