

# CS/SE 4HC3: Human-Computer Interfaces

## Assignment 1 – User Interface Critique

**Due Date:** Wednesday, Oct. 24, 2018 at 4:30/at the START of class (hard copy in class, soft copy in assignment drop box)

**Late Submissions:** Accepted late (online) until Wednesday, Oct. 31, 4:30pm, at a 15% per day penalty.

**Grading:** This assignment is worth 10% of your final grade.

**Individual Work:** This assignment is **not** group work and must be completed individually.

Being able to identify what works and what doesn't work in a user interface is an important element to being able to design your own usable interfaces. For this assignment, you will do just that—write a critique of a software user interface you are familiar with.

Minimally, your critique should discuss both positive and negative aspects of the UI. However, it is more important to indicate *why* something works or doesn't, than to simply point it out. You should structure your critique around the design principles proposed by Norman (e.g., discoverability, affordances, feedback, etc.). You should also consider issues such as mappings, use of modes, and other concepts discussed in class. What will be marked: How well you explain or justify the choices the UI designers made; your choices of relevant principles and discussion; along with necessities for journal paper submission such as a grammar, spelling, and SIG CHI formatting.

Extra: If you still feel you need more content, once you have discussed the relevant concepts above, you may want to investigate how the UI does or does not prevent different types of slips or mistakes (Norman Ch 5).

In the case of a negative aspect of the UI, you should propose alternatives that would improve its usability, and explain why you feel the change would improve it. In the case of positive aspects, it can be helpful to point out alternative design choices that would have resulted in a *poorer* degree of usability – i.e., to reinforce why the developer got it right – especially if you can reference *other* similar software that do use this poorer alternative choice in a similar situation.

Some ideas for what kinds of software you can critique:

- eCommerce websites (e.g., ebay, Amazon)
- University websites
- Social networking websites (e.g., Facebook, LinkedIn)
- Smartphone interfaces (e.g., the iOS or Android “desktop”)
- Mobile apps
- Video games
- Learning Management Systems (e.g., Avenue to Learn)
- Drawing software (e.g., Paint, Corel, Adobe Suite)
- CAD software (e.g., AutoCad, 3D Studio Max)
- Productivity software (e.g., Microsoft Office – Word, Excel, etc.)
- Financial software (e.g., tax software)

Ask if you are unsure if something is acceptable to critique. In some cases, you might also consider the interaction between the software UI and the hardware. For example, consider video games (e.g., how effectively is the controller used? Did the developer use strange button or joystick mappings, or would this game benefit from having an alternative control style?), or smartphone applications (e.g., Did they do something interesting/unusual with the sensors available to the device? Did they use tilt control when they should have used touch?). For an example of desktop software, a CAD program might have use the mouse for object placement, when the discrete input of a keyboard would be more appropriate.

Your critique should be approximately 1500 – 2000 words in length and written in the ACM CHI format. You can (and should!) include figures as appropriate, but your critique should be no longer than 6 formatted pages. (Hard limit. In addition to the quality, thoroughness and correctness (e.g., use of terminology) of the arguments made by your critique, you will also be graded on quality of writing (clarity, grammar, spelling mistakes, etc.), organization/presentation of arguments, and adherence to the required format. All sources should be referenced in the ACM style. This includes text, images, and concepts borrowed from other sources. Be sure to cite the actual book that you use.

An old sample critique (written by Rob Teather, using a different set of principles) will be posted to give you some ideas of how to proceed. The principles are from another book, so you **SHOULD NOT** use them here. This is meant to give you a general idea only.

### Submission Notes

Hard copy submission in lecture. Also submit your document file or a PDF by the date specified above to the link provided in the Avenue to Learn website.

Familiarize yourself with the department's policy on plagiarism and the university regulations on plagiarism and academic misconduct.

**THIS ASSIGNMENT IS INDIVIDUAL WORK.** Similarly, you must cite \*all\* sources (e.g., websites, books, papers, etc.) according to the reference style specified in the CHI template. Instances of group work and failure to reference sources will be treated as academic misconduct. Marks will be deducted for citing a book you have not used, or neglecting to cite a book you used.