Handout for Example Class 3

In Example Class 3, you will carry out usability evaluation of another student's interface design based on her/his lo-fi prototype.

Overview

A designer will aim to create a design that she thinks is best suited for the target population of users. However, in the absence of other inputs, this design will tend to skewed towards the designer's own preferences, past experiences and individual thinking style, rather than reflect that of the lay user. After all, it takes unusual talent to be a designer (and even more so for a software engineer!). Alan Cooper mentioned in his *Inmates are Running the Asylum* book[1] that:

> "[The programmers'] frame of reference is themselves, so they only make it easy to use for other software engineers, not for normal human beings."

In an ideal design process, feedback from other people happens right from the start, even before anything is drawn up, with user studies. Feedback is also sought throughout the lo-fi and hi-fi prototyping phases and even after early versions of the product have been created, so that usability applies to as large a group of users as possible.

In this course, we do not have the time or resources to carry extensive feedback. Nevertheless, getting some feedback from at least one other person is better than not getting feedback at all.

So for this example class 3, your goal is to carry out a usability evaluation of another student's design based solely on the lo-fi prototype, and likewise someone else will do the same for your design. The usability evaluation that you will carry out is often more specifically called **heuristic evaluation**, in which you will evaluate the interface with respect to Shneiderman's eight *Golden Rules*[2] (which are heuristics, although these 8 are not the only ones, e.g. there are also Jakob Nielsen's heuristics).

All students will eventually get back a usability evaluation report for their design. You will then have some leeway in incorporating any feedback that you deem appropriate into your hi-fi prototype in subsequent example classes.

A couple of points to note. 1) The academic assessment done for this example class is only on the quality of the usability evaluation report. That is, the lab tutors will only be grading the reviewers, and your usability evaluation report has *no* academic impact on the student you are reviewing. 2) The academic assessment for the lo-fi prototype in example class 2 covers many other criteria beyond usability (see the previous lab manual for details), so be further reassured that we will not use your usability evaluation report as a proxy for our assessment in example class 2.

Tasks

Here is what you should do for Example Class 3:

- If you are not already familiar with them, read up on *Shneiderman's eight Golden Rules* and also various concepts of *usability evaluation*. These are covered respectively in lecture modules 2 and 3. You are also encouraged to read up more on these concepts in the textbook[2] or the internet, to further understand them better.
- During example class 3, your lab tutor will specify to you: (a) which other student is reviewing your design, and (b) which student's design you are going to review.
- You will then exchange emails with your 2 other counterparts if you don't already know each other's email, and you will email the softcopy version of your lo-fi prototype and writeup to the student assigned to review your design.
- Based on the lo-fi prototype emailed to you, carry out a *rule-by-rule usability evaluation* of the design, based on your interpretation of the lo-fi prototype. For each rule:
    - Discuss, with elaboration, if and how parts of the design implement the rule, or break it, stating clearly which specific parts you are referring to. If certain rules aren't relevant to the design, explain how so.
    - Give constructive and clear suggestions how the design may be improved for that particular rule, and justify why they would help.

Professional and Academic Integrity

- This is **individual-based work**, so you need to complete this work by yourself.
- As is the norm in professional reviewing activity, you are to preserve the confidentiality of the material entrusted to you for review. **Do not share** with other people the design communicated to you.
- **Do not use any form of Generative AI** to produce any part of this work, as you are expected to be able to identify the good and bad points a user interface, based on your educated judgement.

Deliverables

Every student must submit **a usability evaluation report**, with the following contents:

- A **write-up** with **nine headings**:
    - One heading for each of the 8 Golden Rules, and a last heading titled "Additional Comments".
    - The write-up **cannot exceed 3 A4 pages**. The font that is used should be **at least** 10 points in size, with reasonable page margins of about 1 inch.
    - **New: where relevant, you are required to insert screenshots of the relevant parts of the lo-fi sketch that you are critiquing.**
- On your submission you must state:
    - Your own name, seat number and your SC3061 / CZ2004 lab group.
    - The name and seat number of the student whose design you are reviewing.

Submission Instructions

Every student must submit their report **one week after the Example Class 3 session**. You only need to submit a **softcopy** version:

- Upload your submission in **pdf file format** to the NTUlearn site using the appropriate link.

Do note that if you are **late** in submitting the report, a coursework mark penalty will be imposed.

Assessment

This section provides some information on how the instructors will assess your submission.

The assessment of the report will be based on the following four components:

- **Correct understanding of Golden Rules.** Did you list the correct set of Golden Rules? Did you correctly understand them, based on the appropriateness of your comments? The key point here is: don't just read the rule and interpret it yourself – make sure you understand what the rule actually means.
- **Specific nature of critical comments.** Are you just giving general and vague comments, or are you drilling down to critique specific aspects of the design? Very specific comments are obviously much more helpful as feedback for the designer then general comments.
- **Quality of suggested improvements.** Are your suggestions appropriate, and are they well-justified? Are they specific to the design (good), or are they generic to all designs (not so good)?
- **Clarity of report.** Did you write your report clearly, using good language? Is it messy and cryptic, or properly laid out and formatted?

Summary

Here is a summary of what you need to do.

- Read up and understand usability testing and Shneiderman's Golden Rules beforehand.
- Email your lo-fi prototype files to the person evaluating your design.
- Receive lo-fi prototype by email from person whose design you are evaluating.
- Carry out usability evaluation based on Shneiderman's Golden Rules.
- Submit your report in pdf file format. Note:
    - State your name, seat number and your SC3061 / CZ2004 lab group.
    - State the name and seat number of the student whose design you are reviewing.
    - The usability evaluation report must be of no more than 3 A4 pages, and must include relevant screenshots.
    - The report must be prepared solely by you.
- Submit the report via NTUlearn on time (1 week after Example Class 3).
- Email a copy of your usability evaluation to the student whose design you are reviewing.
- Check also that you receive the evaluation report for your design from your peer reviewer by the deadline.
    - If you have not received the report, please contact your reviewer.
    - If you are unable to contact the reviewer, please notify your example class supervisor.

References

1. Alan Cooper, *The Inmates Are Running the Asylum: Why High Tech Products Drive Us Crazy and How to Restore the Sanity*, SAMS Publishing, 2004, ISBN-13: 978-067232614.
2. Ben Shneiderman, Catherine Plaisant, Maxine Cohen and Steven Jacobs, *Designing the User Interface: Strategies for Effective Human-Computer Interaction*, 5th ed., Prentice Hall, 2009, ISBN-13: 978-0321537355.