



COMP3511/9511 Human Computer Interaction

Assignment 1

Summer Session, 2021

User Interface Critique Concepts

DUE: Monday, January 11th at MIDNIGHT (Week 2)

A Turnitin submission link will be made available on Moodle prior to the due date. As you submit, your assignment will be passed through a plagiarism check. If there are any issues, you can re-submit the assignment and a new plagiarism report will be generated. PLEASE NOTE THAT FOR THIRD AND SUBSEQUENT SUBMISSIONS, IT CAN TAKE UP TO 24 HOURS TO GENERATE THE PLAGIARISM REPORT, SO DO NOT LEAVE THIS TO THE LAST MINUTE!

Introduction

In this assignment you will use the frameworks presented in the first two lectures (user experience goals, usability goals, heuristics and design principles) to critically analyse ONE user interface of your choice. You will also answer questions that will provide a good introduction to the next few lectures and help you to better understand the presented concepts.

This document is for both undergraduate students enrolled in **COMP3511** and postgraduate students enrolled in **COMP9511**.

Assessment

Please ensure you read the following carefully, as there is important information regarding how you are to submit the assignment.

- The assignment constitutes 15% of your final assessment.
- This assignment is to be completed individually.
- A late penalty of 10% will be deducted per day (or part thereof) late. Due to the fast paced nature of this course, assignments more than 3 days late will not be marked. Assignments submitted after 12 midnight on the due date will be marked as late.

Submission

The assignment is to be submitted electronically through Moodle as a PDF with a file size under 5MB. If your assignment cannot be reduced to only 5MB, then please discuss this with your tutor well in advance of the submission date. Submitting your assignment late because you could not reduce the file size is not an excuse.

The assignment is due and to be submitted online (using the provided link) in week 2, **Monday January 11th at MIDNIGHT**.

IMPORTANT NOTE: In the final hours or so before the submission deadline, Moodle often experiences a high load as students try to submit at once. A late submission because Moodle was overloaded is not a valid excuse. Upload earlier! Uploading your assignment earlier, will also give you a chance to make any necessary changes to your work if plagiarism is detected by the plagiarism checker upon submission.

User Interface Critique

In designing a user interface, the best approach is to perform an iterative review and refinement based on feedback from your users. This model is applied through all the stages of development. Before you start the process of designing an interface, however, it is important to know what characteristics or principles a website should

adhere to. It is important to be able to critique what makes a website good or bad, without simply stating that you do or do not like it. The critique should allude to formal user interface principles and theories and should not just be based on your own ideas. The process of providing a critique involves not just stating negative aspects of the interface, but also the good. The point of critiquing is to provide fixes or improvements to the problems encountered, using formal principles and methods. In the first COMP3511/COMP9511 Assignment, you are expected to learn how to critique **a user interface**.

Read Chapter 1 of the textbook Interaction Design (Sharp et.al, 2019). This will help you to review the concepts that are required for completing a critique, such as Design Principles, User Experience Goals, Usability Goals, and Heuristics. You will be expected to use all four of these categories in your analysis of each website.

- For Design Principles: Section 1.7.3 (p26-32) in Interaction Design (Sharp, et. al 2019). Also, further details in Chapter 1 (Norman, 1998)
- For Use Experience Goals: Table 1.1 (p22) in Interaction Design (Sharp et. al, 2019). More information on User experience goals, Section 1.7.2 (p22-26) in Interaction Design (Sharp et. al, 2019)
- For Usability Goals: Section 1.7.1 (p19-22) in Interaction Design (Sharp et. al, 2019)
- For Heuristics: section 16.2.1 (p550-560) in Interaction Design (Sharp et. al, 2019)

The following presents a list of steps that you need to follow to complete the assignment. Please set out your work clearly in a report-based format.

1. "INTERFACE"

In this assignment, you will choose your own website to analyse. The website has to be related to a content streaming service. Clearly state the website that you have chosen, and clearly state three goals of this website. What purpose does the website have to serve?

- Please make sure you review the English language (or Australian website version where available) - they are different than the international language versions (For example, Facebook is available in many languages across the world).
- The website you choose **MUST** be a DESKTOP version of the site.

2. "USERS" Who do you think would use this website? Give examples of **FIVE** different types of people that would use this website. **Try to come up with different types of people (who may have differing needs – are they primary,**

secondary or tertiary stakeholders?)! Give a short description of each of these stakeholders.

- 3. “TASKS” Choose TWO users from your list above, and analyse what is each of those people trying to accomplish when they use this website?** For each one of the two people that you identified above, please describe a function or task that they are trying to achieve when they use your selected site. You can also mention the users broader goals. Try and choose tasks that differ to give the most possible overview of your chosen interface. In one paragraph explain why you have chosen these particular users and their tasks.

Now, you will conduct a “WALKTHROUGH” of your chosen website using the tasks that you have come up with in Step 3. You do not need to write down the series of steps of the walkthrough, you just need to be aware of any issues that were encountered in the process.

- 4. “ANALYSIS” As you do your walkthrough of the interface, note down any issues you are having or any positive aspects of the interface that you see in an issues table (Your critique is based on Design Principles, User Experience Goals, Usability Goals and Heuristics found in Appendix A; for your issues table, please use Appendix B – a template provided for you to record the issues):**

- a. Now using your issues table, choose EIGHT issues from your issues table and IN DETAIL provide a critique of the issues and possible solutions. You should also take sketches/screenshots and point out specific features on the sketches by annotating the sketches. *We strongly encourage you to take regular screenshots as the websites are live and can change without notice.*

ISSUES TABLE:

- In your issues table, you may not be able to find examples of every attribute or principle and multiple criteria may apply to the same aspect of the interface. Try and uncover as many issues as possible in your issues table, but remember to only focus in detail on EIGHT issues in your actual critique.
- Number each of the issues that you discovered in your walkthrough. The issues table will then consist of an Issue Number, Description of Issue, Heuristic/Design Principle etc. that applies to this issue, Positive/Negative and a severity rating of each issue. Try and include a screenshot or sketch of the issue in the table (this may not always be possible to do). You should annotate your screenshots/sketches to make it clear where the issue presents itself. The issues table and its use will be

discussed in more detail in class in Week 2.

CRITIQUE:

- You must use all four categories in the critique: namely Design Principles, User Experience Goals, Usability Goals and Heuristics. Please use the actual terminology from the principles. You should also define the principles the first time you use them (make sure to reference where you got the definition from. **HINT:** Read the textbook).
- You must consider both positive and negative observations.
- State which aspect of the user interface is a representative example of each principle. For instance, you would note alongside your sketch/annotated-screenshots that “the arrangement of buttons provides a poor mapping because...”. Please note that stating “the arrangement of buttons provides a poor mapping...” is not a sufficient response, and you must be able to justify each of your points.

5. “SKETCH SOLUTIONS” Looking at the eight issues that you have found above, you will now sketch potential solutions to these issues that you think may improve the interface. Please annotate the sketch of your solution with what you have changed and how it has improved the interface or removed the issue that you have found. For positive issues in your issues table, think of any way that you can further improve the interaction or experience.

6. “ACCESSIBILITY” In your walkthrough, did you encounter any issues that impact the accessibility of the interface? Please describe these issues in about half a page. Please make sure that you consider more than one disability in your discussion and more than one issue.

There is a 15-page limit to this assignment. Please do not exceed the limit. The following should be used as an overall guide for structuring your report:

- A. Title Page, stating title of your assignment, your name, student number and the name of your tutor – **THIS IS NOT INCLUDED IN YOUR PAGE LIMIT**
- B. INTERFACE (0.5 page)
- C. USERS (1 paragraph, up to 0.25 page)
- D. TASKS related to TWO of the above users and justification of why you chose each of the above users/tasks (0.5 page)
- E. ISSUES TABLE & CRITIQUE (including Annotated Sketches/Screenshots)(7 pages). Within this 7 page limit, we suggest you allocated 4 pages for the issues table plus sketches/screenshots.

- F. SKETCH SOLUTIONS (6 pages) – each sketch must be at least half a page for readability
- G. Accessibility Issues and Observations (0.5 page)
- H. References - Your references can either be part of your page limit, or can be outside of this.

Note to the above: The number of pages above are guidelines and suggested maximums for each section. You do not need to fill the suggested space. The maximum for the report is 15 pages in total, please note that the title page does not contribute to this page limit.

Formatting

Please read the following carefully, as there are **marks for your formatting and presentation**.

- The report should be presented in an A4 document.
- 12-point font should be used for the main body of text.
- The report, *excluding* the cover pages, must be a maximum of 15 pages.
- Consider including the following: (HINT: Use this as a checklist)
 - o Page numbers
 - o Headers/Footers on each page
 - o Consistent font sizes (e.g. Use the same font size for all headings)
 - o Line spacing
 - o Correct use of paragraphs
 - o **Use of the spell checker and grammar checker**
 - o Correct use of professional referencing techniques in both the body of the text as well as including a full list of references at the end. For more details about how to reference within a report, please use the following resource: <https://student.unsw.edu.au/harvard-referencing>
 - o Include your personal details such as name, student number, tutorial time, and tutor on the title page.

It is our experience that many CSE students who study HCI go on to work in design and UI work, where reporting is highly regarded. You **must** take pride in your reports and make them presentable. They are easy marks you cannot afford to lose.

Learning Outcomes

1. User Interface Critique

- Be able to define the user experience goals, usability goals, heuristics and design principles.
- Apply your understanding of the user experience goals, usability goals, heuristics and design principles to formally evaluate a user interface.
- Identify both positive and negative aspects of design.
- Understand how the design of a system is influenced by the intended audience.
- Consider accessibility issues.
- To understand the practical issues of real-world interface design and evaluation.

Plagiarism

If plagiarism is detected a maximum penalty of zero marks will be awarded for this assignment. Note that all cases of plagiarism are reported to the School Plagiarism officer. **All assignments are run through a plagiarism checker so it would be ill advised to copy and paste either from the web, or from another student. Assignments are checked against a database of past and present submissions, along with online websites and other resources.**

What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own. *
Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

<https://student.unsw.edu.au/plagiarism>

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.
- Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne.

References

Sharp H, Rogers Y and Preece J (2019) Interaction Design: Beyond Human-Computer Interaction, 5th Edition, John Wiley, Indianapolis

Norman DA, (1998) The Design of Everyday Things, MIT Press

Appendix A

| Design Principles | Some User Experience Goals | Usability Goals | Heuristics |
|--------------------------|-----------------------------------|------------------------|--|
| Affordance | Satisfying | Effectiveness | Match between system and the real world |
| Visibility | Enjoyable | Efficiency | User Control and Freedom |
| Feedback | Fun | Safety | Consistency and Standards |
| Constraints | Entertaining | Utility | Help users recognise, diagnose and recover from errors |
| Mapping | Helpful | Learnability | Error Prevention |
| Consistency | Motivating | Memorability | Recognition rather than recall |
| | Aesthetically pleasing | | Flexibility and Efficiency of Use |
| | Frustrating | | Aesthetic and minimalist design |
| | Boring | | Help and Documentation |
| | Rewarding | | Visibility of System Status |
| | Annoying | | |

You can find detailed definitions of these design principles, user experience goals, usability goals and heuristics in your textbook (Sharp, et al 2015):

- For Design Principles: Section 1.7.3 (p26-32) in Interaction Design (Sharp, et. al 2019). Also, further details in Chapter 1 (Norman, 1998)
- For Use Experience Goals: Table 1.1 (p22) in Interaction Design (Sharp et. al, 2019). More information on User experience goals, Section 1.7.2 (p22-26) in Interaction Design (Sharp et. al, 2019)
- For Usability Goals: Section 1.7.1 (p19-22) in Interaction Design (Sharp et. al, 2019)
- For Heuristics: section 16.2.1 (p550-560) in Interaction Design (Sharp et. al, 2019)

and also in the first two sets of lecture notes.

Appendix B

Appendix B: Please use the following Issues Table format to present the issues you have found in your selected website

| Design Principles | | | | | |
|-------------------|----------|-----|-----------|-------------|-------------------|
| Reference | Severity | +/- | Principle | Description | Sketch/Screenshot |
| | | | | | |
| | | | | | |

| User Experience Goals | | | | | |
|-----------------------|----------|-----|-----------|-------------|-------------------|
| Reference | Severity | +/- | Principle | Description | Sketch/Screenshot |
| | | | | | |
| | | | | | |

| Usability Goals | | | | | |
|-----------------|----------|-----|-----------|-------------|-------------------|
| Reference | Severity | +/- | Principle | Description | Sketch/Screenshot |
| | | | | | |
| | | | | | |

| Heuristics | | | | | |
|------------|----------|-----|-----------|-------------|-------------------|
| Reference | Severity | +/- | Principle | Description | Sketch/Screenshot |
| | | | | | |
| | | | | | |

Reference:

Choose how you would like to number or reference your issues

Issue Description:

Describe briefly and succinctly the issue

Principle:

State the Design Principle, User Experience Goal, Usability Goal or Heuristic this issue applies to/is an example of.

+/-:

Positive or negative, can use a + or a – to denote

Severity:

0 = Not a usability issue (a technical bug)

1 = Cosmetic issue (fix if there is time)

2 = Minor issue (should fix)

3 = Major issue (must fix)

4 = Showstopper (cannot release until fixed)

You can also organize based on priority of fixing the issues, of course priority is usually given based on the severity of a particular issue.