INFO3315 Human Computer Interaction

Worksheet 1 - Introduction to HCI (2026)

When you have completed this worksheet, you should be able to:

- Define the term human computer interaction
- Explain the relationship between user experience and usability.
- Evaluate an interactive product and explain what is good and bad about it in terms of the goals and core principles of interaction design.
- Outline different design rules and explain how you would use them in practice

A – Field of Human Computer Interaction

1. What is Human Computer Interaction? Browse the Internet or lecture notes for the answer.
2. Browse the works presented in the CHI 2026 conference:

https://dl.acm.org/doi/proceedings/10.1145/3772318

All the papers listed on this page are accepted for the Conference on Human Factors in Computing Systems (CHI) 2026 conference, an international conference specifically for the field of Human Computer Interaction.

Select ONE article that is of interest to you and extract the following information from the article:

a) Title of the paper
b) Purpose of the research or study
c) Information about the participants
    - Total number of participants
    - Age and background
d) Type of data collected and how this was done
e) Main findings of the study

It is alright if you do not understand everything that you are reading. The idea here is to introduce you to the field of HCI and its research.

3. a) If you are a reviewer for this conference, do you think the work in the paper is related to the field of human computer interaction? Justify your answer by drawing the link between your answer in Part A, Question 2 and Question 1.

   b) [Workshop] Share your findings with another person. Identify the similarities between the information that you have both extracted.

B – Importance of Interface Design

1. Explain the term user interface. Provide examples of user interfaces that you have encountered today.
2. Browse the newest and coolest bad designs under the category "Things that don't work the way you expect" in the Bad Human Factors Design website:
   http://www.baddesigns.com/examples.html
   For both these examples, make notes of the following by asking yourself:
   a. Would you have worked out the steps to use the interface, from the provided picture, as described by the author?
   b. Do you agree with the author's classification that this is a bad design
   c. Do you agree with the author's suggestions to improve the design? If you disagree, what are your suggestions to improve the design?

C – Design Goals and Rules

1. a. State each of the six usability goals.
   b. For each of the usability goal, describe how the design of a product is designed to fulfil the goal. You can include a screenshot or a picture of the product if it helps. Based on your answer, can a single product fulfill all the usability goals?
   c. Rank the usability goals in the order of importance (most to least based on your opinion) to be fulfilled by a product. Compare your rankings with another fellow course mate.

2. Complete the table below:

Design Rule	**Generality (High/Low)**	**Authority (High/Low)**	**Example**
Design Standards			
Design Principles			
Design Guidelines			
Design Patterns			
Dark Patterns			

   Generality – Is the rule applicable to many situations (high) or a specific situation (low)?
   Authority – Crucial to be adhered (high) or depends on situation (low)?
   If the authority is high, elaborate what you would do in order to adhere to the rule.

3. In order to read this sentence, you must have successfully opened this PDF file from Canvas using a web browser.
   a. Describe your experience of using each interface to perform the task successfully. For each interface, state whether you think each interface design is good or bad. Outline aspects of the interface in the description to support your case.
   b. Select the THREE most important usability goals from Question 1(c). Translate each goal into a specific question. Then, use these questions to assess how well each interface fares with respect to the usability goals.
   c. Compare your answer in part (a) to part (b). Is there a relationship between usability goals and your experience of using the interface?
   d. Assess each of the interface with respect to each of notable design principles:
      - Visibility
      - Consistency
      - Affordances
      - Feedback
      - Constraints
      - Mapping

      Take notes, using screenshots of the interface, how the interface adheres or violates each design principle.
   e. Compare your answer in part (a) to part (d). Is there a relationship between the adherence/violation of design principles and your experience of using the interface?
   f. [Workshop] Share your findings with your course-mates. What can you conclude?

4. Let's take a closer look at design principles and design guidelines.
   a. Evaluate Ed forum interface using Nielsen 10 Usability Heuristics. If the interface does not fulfil the rule, suggest ways to improve the interface so that the heuristic is fulfilled.
   b. Repeat question (a) using Schneiderman's Eight Golden Rules.
   c. Compare Schneiderman's Eight Golden Rules with Nielsen 10 Usability Heuristics and your results in part(a) and part(b).