

Assignment #1: Human-Computer Interaction

Design Your Own Interaction...

Due on D2L February 11th, 2022 by 11:59 p.m.

14% of Total Grade

This assignment is all about proposing a new design for an interactive device or piece of software using the concepts we have learned thus far using the HCI lecture notes and videos.

Directions:

- Think about an activity or hobby you enjoy, or perhaps a task that is commonly done in your field of study. (From here on in, we'll refer to this as the "area of choice.") Is there some kind of technology that is used in the area of choice that would benefit from a redesign? Or is there a way that technology could make things better?
 - Your job is to design a new interactive device or piece of software that meets the aims of human factors (remember those include improving efficiency, health/safety, and worker satisfaction).
- In a Word (or Google, Overleaf, or whatever you choose) document, begin by giving an overview of the problem you are trying to solve or the reason you are proposing your design. Include general background information on your area of choice and discuss specifically (in detail) the task(s) that your design will be related to. Include pictures if it helps. This section should be at least 250 words.
- In as many words as it takes (remember quality over quantity is what matters, make your words count) describe your new design in detail, again using sketches, diagrams or other images if it helps. Include the following in your description:
 - How your new design relates to the tasks described earlier. How is the problem being solved, or how does the design meet the three primary aims of human factors which include improving efficiency of the task, health/safety, and worker satisfaction.
 - How would you objectively (observe the user's behavior) and subjectively (assess user's attitudes, emotions, etc.) measure your new design's ability to meet the three aims of human factors 1.) efficiency, 2.) health/safety, and 3.) worker satisfaction.
 - Address how your new design considers all rungs of the *Human-Tech Ladder* (hint rungs include: physical, psychological, team, organizational, and political). That is, what are the human factors considerations in this new design from a physical, psychological, team, organizational, and political standpoint.
- Organize the document in a logical way, using headings and title styles.

Ideas for inspiration:

- Is there something in your area of choice that is done mostly manually, be it on paper or with lots of manual work with data on a computer? Can you see ways to improve this?
- Let's say you like gaming. Is there a game you could design to inform or change peoples' attitudes in your area of choice?
- You don't have to focus on software – anything with a computer chip inside will work (which is many things these days!). Be creative! If you like working with kids, for example, what sort of interactive toys could you design for certain activities?

Have fun!

Marking Scheme:

Marks	Requirements
10	A general overview of the area of choice gives the reader a good sense for what happens in that area.
13	Details about the specific tasks related to the proposed design are clear and complete.
6	The proposed design relates to the area of choice and the tasks described earlier.
6	It is clear what problem is being solved or what is being improved for the users.
25	States how the new design meets the three primary aims of human factors.
25	Details the objective and subjective measurement strategy of the new design.
15	Addresses how the new design considers all rungs of the <i>Human-Tech Ladder</i>
100	Total