

Assignment 4: Prototyping

Due: April 13th BEFORE class

The goal of this assignment is to practice end-to-end rapid prototyping of a design. You may complete the assignment alone or in pairs. You are welcome (and encouraged) to do the assignment on your own project/product. If that doesn't work, you are welcome to pick something else relevant that you'd like to design.

A: Problem statement and short description

1. [2 points] Please provide a 1-2 paragraph high-level problem statement and description of your product/project. What are you creating? What is the main idea? Who are the intended users? Give us some context to understand what you are trying to do.

B: Construct a user journey

2. [3 points] Create a written narrative (1-2 paragraphs) that describes your chosen user journey. Who is your user? What are their characteristics? What do they care about? What are they trying to achieve? How will they use your design/product to do something that they want to do?

3. [3 points] Draw a storyboard, on paper, that depicts your user and what they are doing as they enact your chosen user journey. Make sure to illustrate the different actions/activities involved. Write captions on your storyboard that describe what each step is showing. Include photos of your storyboard.

C: Paper prototype

4. [4 points] Construct a paper prototype that someone can "use" to achieve the task(s) associated with your user journey. The number of "screens" will vary depending on your project, but try to choose task(s) that would involve roughly 7-12 different screens. Work on keeping the amount of detail you add to your prototype to a minimum while still making it clear and easy to understand. Also, make sure to make the flow clear (i.e., how to move from one "screen" to the next). Include photos of your paper prototype.

D: Paper prototype testing

The goal of this part is to test your paper prototype on someone and iterate on it based on their feedback. You are welcome to test on anyone, although it is obviously better if you can test on someone who would be a real user. Make sure to explain to your user what you're asking them to do. Take photos/notes as they interact with your prototype. Keep track of questions they have.

5. [3 points] Describe who you tested your paper prototype on and their characteristics. Describe what you told them and what you asked them to do. Describe how the test went: what questions did they have? What mistakes did they make? What did they not understand? Include photos of the user interacting with your paper prototype.

6. [2 points] Discuss how you would iterate on your paper prototype based on the user feedback. What would you change? How would those changes improve the prototype? (**Note:** you do not need to actually update and recreate your paper prototype, although this is encouraged).

E: Digital prototype

7. [3 points] Use a digital prototyping tool (recommend Figma or Sketch) to create a digital prototype that iterates on your paper prototype based on the results of the testing you did in part D. i.e., your digital prototype should represent the same tasks that your paper prototype represents but should also incorporate the user feedback you received in part D. Include screenshots of your digital designs.

8. [2 points] Use InVision to add interaction to your digital prototype. Think about: hotspots, button clicks, scrolling, etc. Include screenshots and a description of the interactions you choose.

F: Digital prototype testing

The goal of this part is to test your digital prototype on someone and iterate on it based on their feedback. You are welcome to test on anyone, although it is obviously better if you can test on someone who would be a real user. Make sure to explain to your user what you're asking them to do. Take photos/notes as they interact with your prototype. Keep track of questions they have. [Note: The user should NOT be the same person as in part D. Choose someone else].

9. [3 points] Describe who you tested your digital prototype on and their characteristics. Describe what you told them and what you asked them to do. Describe how the test went: what questions did they have? What mistakes did they make? What did they not understand? Include photos of the user interacting with your prototype.

10. [2 points] Discuss how you would iterate on your digital prototype based on feedback from your user. What would you change? How would those changes improve the prototype? (Note: you do not need to actually update your prototype, although this is encouraged).

G: Reflect

11. [2 points] Reflect on your design process. Compare and contrast the pros and cons of paper prototyping and digital prototyping and describe how these pros and cons affected your work.

[1 point] One point will be allocated to grade the overall quality of your technical writing.

What to submit

Please submit a pdf report with specific answers to questions 1-11 above. **Keep the same structure I have used in the assignment description.** You will be graded using this structure. Points will be deducted if you fail to use the correct structure!

Include photos and screenshots in your pdf report where appropriate. In addition, save and submit any electronic files you generate for your digital prototype.

Create a zip file of your assignment submission (pdf and digital files)

Name the file A4_NetID.zip

Email your submission to hci_c75d@sendtodropbox.com