

Homework 1:

Usability Heuristics and Information Display

Due Wednesday 1/29 @4pm on Courseworks.

What to submit:

- 5 separate PDFs with the following titles:
 - 1_positive_web_example.pdf
 - 2_positive_mobile_example.pdf
 - 3_negative_web_example.pdf
 - 4_negative_mobile_example.pdf
 - 5_class_policies.pdf
- 8 separate files with the following titles:
 - 6_Invitation_writeup.pdf
 - 6_Invitation.html

 - 7_Tinder_annotation.pdf

 - 8_Tinder_writeup.pdf
 - 8_Tinder.html

 - 9_My_info_design_writeup.pdf
 - 9_my_info_design.html

 - 10_information_foraging_theory.pdf
- Submit them separately to **Courseworks**, do **not** zip them up.
- In your write ups, please label every answer clearly for what question and part number it is.

Lecture 1 Problems:

1. Identify a **positive** example of one the 10 usability heuristics (other than #8 -Aesthetic and minimal design) in a **web application** that you use. In your write up include:
 - a. What application is the example from?
 - b. What is the usability heuristic that is being used well here?
 - c. Include an image or screenshot of the application exhibiting the heuristic well.

2. Identify a **positive** example of one the 10 usability heuristics (other than #8 -Aesthetic and minimal design) in a **mobile application** that you use. In your write up include:
 - a. What application is the example from?
 - b. What is the usability heuristic that is being used well here?
 - c. Include an image or screenshot of the application exhibiting the heuristic well.

3. Identify a **negative** example of one the 10 usability heuristics in a **web application** that you use. In your write up include:
 - a. What application is the example from?
 - b. What is the usability heuristic that is being violated here?
 - c. Include an image or screenshot of the application violating the heuristic.
 - d. Why is violating this principle is particularly egregious for this application?

4. Identify a **negative** example of one the 10 usability heuristics in a **mobile application** that you use. In your write up include:
 - a. What application is the example from?
 - b. What is the usability heuristic that is being violated here?
 - c. Include an image or screenshot of the application violating the heuristic.
 - d. Why is violating this principle is particularly egregious for this application?

5. Answer the following questions about class policies in full sentences:
 - a. What percentage of your grade is participation?
 - b. If you are going to miss a class for an excused reason, what four things do you need to do to make up the participation points?
 - c. If an assignment is due Wednesday at 4pm and you turn it in late on Saturday at 4:11pm, what is the maximum grade you can get?
 - d. When is the last minute the final project is due - after which you will receive a 0 on the final project?

Information Design Problems:

6. Recreate the invitation example from class using HTML and CSS.

You are only allowed to use the following HTML elements: <div>, ,
. All styles must be in a <style> header in CSS. You may not use the style attribute of HTML elements.

- a. Show a screenshot of your recreation
- b. Emphasizing important information.
 - i. What two information design “tools” did you use together to achieve it?
 - ii. What CSS did you use to implement it?
- c. De-emphasizing lesser information.
 - i. What two information design “tools” did you use together to achieve it?
 - ii. What CSS did you use to implement it?
- d. (submit your code as invitation.html)

7. Annotate the following screenshot of the Tinder UI.

- a. What are the 3 groups in the information hierarchy? (On the screenshot, label them with boxes that cover the entire group and number them: 1,2,3)
- b. What is the concept behind each group?
- c. Within the most complex of those three groups, what are the 3 conceptual groups inside of it? (on the screenshot, label them with boxes that cover the entire group and number them: A, B, C)
- d. What is the concept behind each of those groups?

tinder



Sean Rad, 29 ✓

Verified

♥ Like Me On Tinder

8. Recreate the Tinder information display above in HTML and CSS.

Use only basic HTML elements, <div>, ,
, etc. (there are two more elements you will need, but we aren't going to tell you what they are). Don't use <table>. You will get zero points if you use a table element.

All styles must be added in the CSS header. No inline style tags.

Use only the following images from this location (do not copy the images to your local machine)

- http://coms4170.cs.columbia.edu/2020-spring/hw/hw1/tinder_images/tinder_logo.png
- http://coms4170.cs.columbia.edu/2020-spring/hw/hw1/tinder_images/tinder_person.png
- http://coms4170.cs.columbia.edu/2020-spring/hw/hw1/tinder_images/tinder_verified.png
- http://coms4170.cs.columbia.edu/2020-spring/hw/hw1/tinder_images/heart.png

- a. Show a screenshot of your recreation
- b. How did you implement the thin grey line under the logo:
 - i. What is the HTML element?
 - ii. how did you style it?
- c. How did you implement the border the rounded corners:
 - i. What is the HTML element?
 - ii. how did you style it?
- d. How did you get the white heart to show up on the solid grey background:
 - i. What was the HTML element?
 - ii. Why did it work?
- e. How did you get the heart to be next to the "Like me on Tinder" text:
 - i. What is the HTML element?
 - ii. how did you style it?
- f. How did you get the **verified image** to be next to the "**Sean Rad, 29**" text (it's okay if it's not completely centered within the line – this varies between browsers):
 - i. What is the HTML element?
 - ii. how did you style it?
- g. How did you center the element containing the Tinder logo:
 - i. What is the HTML element?
 - ii. How did you style it?
- h. How did you center the element containing the text "Like me on Tinder":
 - i. What is the HTML element?
 - ii. How did you style it?
- i. (submit your code as tinder.html)

9. Information Design for Undifferentiated Text

Below is some undifferentiated text. You must design and implement (in HTML and CSS) this information so that the important elements are emphasized according to the information hierarchy principles discussed in class.

- Same implementation rules as before: no tables. no inline styles.
- Do not use color (other than shades of black, white, and shades of grey)
- Do not use icons.
- You may re-order the information and re-phrase the information, as long as the meaning is preserved.
- We recommend designing the concept first (on paper, or PowerPoint), before translating it into HTML.
- There are infinite ways to do this. Focus on helping someone who does laundry a lot be able to quickly read the instructions to make sure they get it clean and don't ruin it.
- If you have never done laundry before and cannot relate to this user... wow – you are truly exceptional. But you still have to do this assignment. If you have to, interview someone who does know how to do laundry to help you think though what information is most important for them to know.

Undifferentiated text:

100% COTTON. COLD WASH MACHINE. DO NOT DRY CLEAN. WASH DARK SEPARATELY. DO NOT BLEACH. WASH INSIDE OUT. DO NOT TUMBLE DRY. LINE DRY IN SHADE. WARM IRON ON REVERSE. MADE IN CHINA. RFC# 910911-040

- a. Show a screenshot of your implementation.
- b. What are the 3 conceptual groups in your information design:
 - i. What is the concept behind the conceptual grouping the user will see first?
 - ii. What is the concept behind the conceptual grouping the user will see second?
 - iii. What is the concept behind the conceptual grouping the user will see Third?
- c. In conceptual group 1:
 - i. What important information did you emphasize?
 - ii. Why?
 - iii. What two heuristics did you use together to bring it out?
- d. In conceptual group 2 (same questions):
 - i. What important information did you emphasize?

- ii. Why?
 - iii. What two heuristics did you use together to bring it out?
- e. In group 3: (same questions)
 - i. What important information did you emphasize?
 - ii. Why?
 - iii. What two heuristics did you use together to bring it out?
- f. Did you use color?
- g. (submit your code as my_info_design.html)

10. Information Foraging Theory Questions

- a. Why do aesthetics matter to helping users find information?
- b. When is using icons bad?
- c. Find an example of a website that has **good simple labels**.
 - i. Show us a screenshot.
 - ii. Explain one of the labels, and write one sentence about how it is important for a specific user to find information.
- d. Find an example of a website that does a **good job of omitting labels**.
 - i. Show a screenshot
 - ii. What could the labels have been?