

Assigment 3 - Perception & Desktop Interfaces (23 points + 3 bonus points)

Please keep all of your answers short and to the point, write them as concisely as possible. Please read the instructions for submission at the end of this exercises.

If you have questions regarding the tasks, please ask your tutor.

Groups of 2: For groups that have only 2 members, for some tasks a reduced amount of work is indicated with *Groups of 2:* as an identifier. This does not apply for groups that have three members.

Task 1: Experiencing things that are not there (5 points + up to 3 bonus points)

Our perceptual system is optimized to quickly recognize what is relevant to us. Sometimes, this leads to experiences of things which are not there, when the perceptive system is tricked.

- (a) **SUBMIT** a list of three illusions as well as a short description of each. The list should include one illusion per sensory modality. (max two sentences per illusion, 3 points)

Bonus: Extend the list with up to three additional illusions. The list should still not include more than one illusion per sensory modality (max two sentences, 1 points per illusion up to 3 points).

- (b) **SUBMIT** a description of how one of the above illusions can be used for HCI purposes. (max two sentences, 2 point)

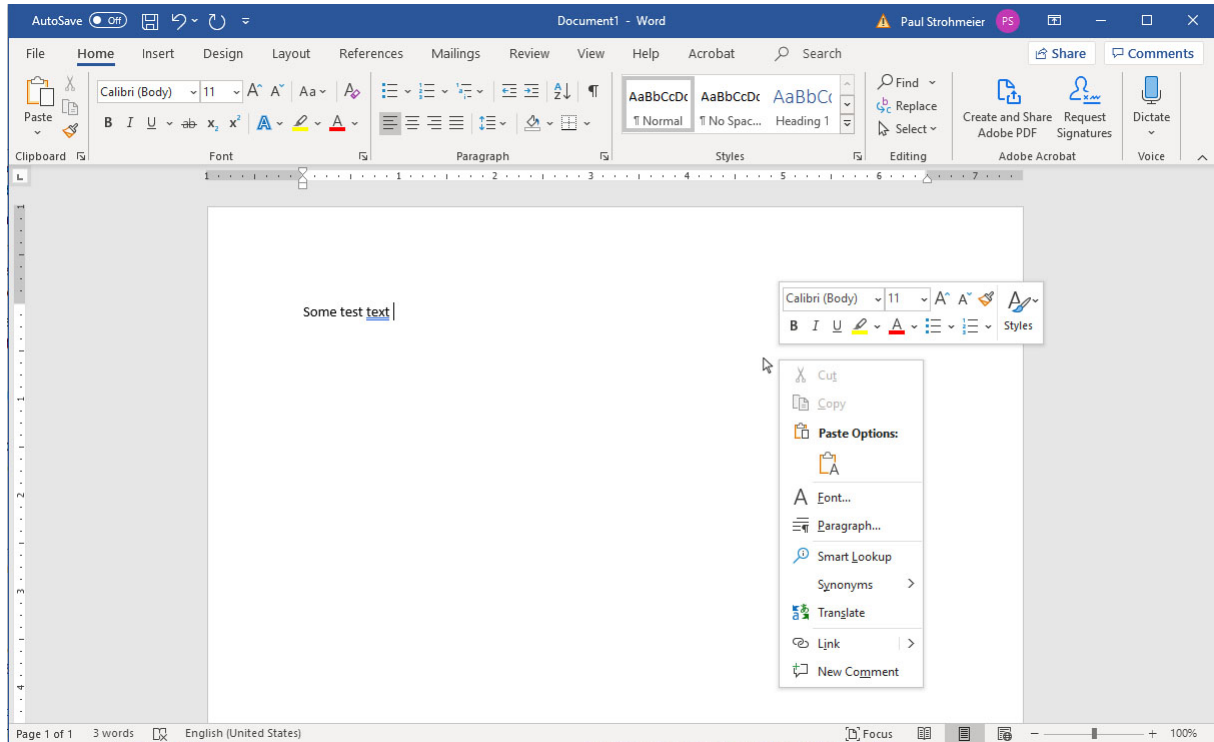
For this task, please feel free to use any sources you find on the internet or in scientific literature. If you do, add a reference of where you found the information.

Task 2: Direct Manipulation (5 points)

SUBMIT an explanation of what direct manipulation is. Use Iven Sutherland's Sketchpad as an example for explaining each of the three principles outlined by Ben Schneidermann. (Max 8 sentences, 5 points).

Task 3: Does your smartphone have a WIMP interface? (5 points)

SUBMIT an explanation of whether your smartphone has a WIMP interface or not. Make sure to explain the four elements of the WIMP paradigm, and use them for your justification. (Max 10 sentences, 5 points).



Screenshot of a recent version of Microsoft Word

Task 4: Memory & Action (8 points)

(a) **SUBMIT** a discussion of recognition and recall in the context of the above image (4 points, max 6 sentences). Be sure to ...

- ... discuss benefits and drawbacks of recognition
- ... discuss benefits and drawback of recall
- ... mention an example of where recall is used in the above image
- ... mention an example of where recognition is used in the above image
- ... provide an explanation of why so many icons are used (*Groups of 2, ignore this question*)

(b) **SUBMIT** discussion of motor performance of pointing tasks using the above image (4 points, max 6 sentences). Be sure to ...

- ... explain Fitts' Law in general terms
- ... comment on what this means for the position of the X (close button)
- ... discuss the position of the "File" menu
- ... explain the benefit of the context menu which appears when you right-click (*Groups of 2, ignore this question*)

Instructions for submissions:

- You can upload your answers multiple times until December, 9th 2020 - 11:55 pm. The most recent version will count. You cannot change your answer after December, 9th 2020 - 11:55 pm.
- If one of your group members are not contributing to the exercises, you must inform your tutor.
- This is a creative exercise. Innovative ideas and solutions are rewarded in grading.
- Please put your answer sheet and all the other relevant documents in one archive file (zip) and name your submissions according to the following scheme:
HCI_exercise_XX_GGGG.zip where XX = exercise number (e.g. 03) and GGGG = group number (e.g. G001).