Exam1 – Theory
Home exam HCI 2018
Course code: TDA289, TIG095

How to hand in your exam:

Answers must be written in English. Hand in as PDF in Pingpong "Exam 1-Theory".

Use references in a Harvard style when you use material *rephrased* from the book or elsewhere
http://www.ub.umu.se/en/write/references/writing-references-harvard
You can write like this: Usability concerns bla bla..... (Preece et al, 2015, p.999). OR you can write: According to Preece et al (2015, p999) usability concerns..

***Examples* cannot be taken from the course material.**
Use your own experiences and reflections to provide examples. **Example:** If a designer knows about *anthropomorphism*, he or she could design a robotic vacuum cleaner to look and behave more like a pet or a living creature in order to make people care for it more, and be more willing to help it when it gets stuck. However, the designer then also need to take in consideration ethical concerns, such as….

Grading (total grading for both exams):

Final grading for CTH students	Final grading for GU students
U: 0 – 15 points or U (no pass) on any assignment 3: 16 – 24 points and G (pass) on all assignments 4: 25 – 30 points and G (pass) on all assignments 5: 31 – 36 points and G (pass) on all assignments	U: 0 - 15 points or U (no pass) on any assignment G: 16 – 29 points and G (pass) on all assignments VG: 30 – 36 points and G (pass) on all assignments

Maximum points Exam1- Theory: 18 (This exam!)
Maximum points Exam2-Practice: 18
Maximum total points both exams: 36

For assistance and questions during the exam email: sara.ljungblad@gu.se.

Good luck!

Definitions and concepts from theory (total 18 points)

1. **Definitions** (6p total, max 150 words for each definition)

Explain each definition in your own words. Give **a good or poor design example** of it and describe how an interaction designer can apply such knowledge in a design situation to improve design (not from the book).

- What is affordance?
- What is a user centred approach?
- What is child-computer interaction?
- What is an interface metaphor?
- What is accessibility?
- What is external cognition?

2. **User research** (0-6p, max 800 words):

2.1) Usability, user experience, and requirements:

a) **Define** the three items of usability according to ISO 9241   (1 p)

b**) Describe** how user experience is different from usability   (1 p)

c) **Explain** what it means to base your design ideas in requirements
   (textbook pp. 353-367)   (1 p)

2.2) You are asked to re-design the mobile phone "Sleep tracker" function for the *fitbit alta* https://www.fitbit.com/se/alta (image below).

a) Imagine that you have defined a specific user group for this device. Give
    three examples of requirements (textbook pp. 353-367) you would gather.

                                                                       (1,5p)

b) What would be the **three next steps** in the design process after
    requirements gathering for the re-design?   (1,5 p)

3. **Methods for evaluation** (0-6p, max 800 words)

The Family Hub™ is a revolutionary new refrigerator with a Wifi enabled touchscreen that lets you manage your groceries, connect with your family and entertain. Users can know what's inside the refrigerator with built-in cameras. The users should easily be able to monitor and order groceries, and discover recipes.
http://www.samsung.com/uk/refrigerators/french-door-rf56m9540sr/

Now, you got a task to make the usability evaluation of the design of the screen of this Family Hub™ refrigerator, and the company will use your results for re-design of the system. You need to perform these evaluation with multiple methods. You can make your own assumptions about time and resources available (realistic). Please describe the following issues carefully:

a) What **tasks** you will identify for the evaluation (1p)
b) What **methods** you will apply for the evaluation, include both expert evaluation and real user tests (2p)
c) **How** you are going to carry out the methods and **what** you will measure (2p)
d) **How many subjects** you will use for each method and **how to get them** (1p)

References

Rogers, Y., Sharp, H. and Preece, J., 2011. *Interaction design: beyond human-computer interaction*. Forth Ed. John Wiley & Sons.

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