

One and a half hours

The exam will be taken on line.

This paper version is made available as a backup

In this event, only MCQ answers written in the boxes on the exam paper will be marked.

All other answers should be written in a separate answer book.

**UNIVERSITY OF MANCHESTER
SCHOOL OF COMPUTER SCIENCE**

User Experience

Date: Thursday 26th January 2017

Time: 14:00 - 15:30

Answer ALL Questions from both Section A and Section B

Use Blackboard to answer all questions. Use the SEPARATE answerbook for Notes and Diagrams - these will be marked.

The use of electronic calculators is permitted provided they are not programmable and do not store text

[PTO]

Section A

This section is multiple choice. Answer ALL questions from this section.
Write your answer directly into the box provided for each question.

a) What are the five key properties of UX? (Knowledge) (1 mark)

- A. Utility, Effective, Efficient, Affective, Engaging;
- B. Robust, Effective, Efficient, Affective, Engaging;
- C. Utility, Effective, Efficient, Learnable, Engaging;
- D. Utility, Effective, Efficient, Affective, Robust;
- E. Utility, Effective, Robust, Affective, Engaging.

b) What are 4 aspects of which the principles of Engaging Experience are built up on (hint - NOT the Principles themselves)? (Comprehension) (1 mark)

- A. Dynamics, Interactology, Excitification, Arousal;
- B. Dynamics, Interactology, Gamification, Arousal;
- C. Group Dynamics, Interactology, Gamification, Flow;
- D. Group Dynamics, Funology, Gamification, Flow;
- E. Group Dynamics, Funology, Gamification, Arousal.

c) What are the two main danger points to remember when undertaking UX by Participatory Design with individuals? (Application) (1 mark)

- A. Testing the design and engineering failures;
- B. Testing the design and group think;
- C. Group think and ethical failures;
- D. Engineering failures and experimenter bias;
- E. Experimenter bias and testing the design.

d) What are 4 Barriers to Effectual Use? (Knowledge)

(1 mark)

- A. Computational Exclusion, Use in Developing Region, Digital Exclusion, Situational Impairment;
- B. Illiteracy, Use in Developing Region, Technical Impairment, Situational Impairment;
- C. Illiteracy, Technical Impairment, Digital Exclusion, Computational Exclusion;
- D. Illiteracy, Use in Developing Region, Digital Exclusion, Technical Impairment;
- E. Illiteracy, Use in Developing Region, Digital Exclusion, Situational Impairment.

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e) How does UX relate to previous Human Factors work? (Comprehension)

(1 mark)

- A. They aren't related;
- B. UX is mostly about product design;
- C. UX adds emotion and fun to mainstream HCI;
- D. UX is mostly about interface engineering;
- E. UX is just another name for HCI.

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f) What are the two main danger points to remember when undertaking UX by Participatory Design with a Focus Group? (Application)

(1 mark)

- A. Testing the design and engineering failures;
- B. Testing the design and group think;
- C. Group think and ethical failures;
- D. Engineering failures and experimenter bias;
- E. Experimenter bias and testing the design.

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g) Which are four principles of efficient design (Usability)? (Knowledge) (1 mark)

- A. Progressive Disclosure, Scalability, Self Description, Perceivability;
- B. Simplicity, Situational Awareness, Learnability, Understandability;
- C. Familiarity, Stability, Openness, Robustness;
- D. Scalability, Self Description, Openness, Understandability;
- E. Consistency, Familiarity, Stability, Robustness.

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h) Which of 4 are Usability Models? (Comprehension) (1 mark)

- A. Barrier Walkthrough Model, Human Processor Model, KLM, GOMS;
- B. Human Processor Model, GOMS, Keystroke Level Model, KLM-GOMS;
- C. "Goals, Operators, Methods, and Selection rules" model, WCAG, Keystroke Level Model, KLM-GOMS;
- D. Barrier Walkthrough Model, "Goals, Operators, Methods, and Selection rules" model, KLM, GOMS;
- E. Human Processor Model, GOMS, Keystroke Level Model, WCAG.

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i) Which are four principles of Emotional design? (Knowledge) (1 mark)

- A. Personality, Ego-ness, Oneness, Flow;
- B. Flow, Quality, Learnability, Visualness;
- C. Aesthetics, Oneness, Personality, King Principle;
- D. Quality, Aesthetics, Flow, Pleasantness;
- E. Satisfaction, Personality, Openness, Oneness.

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j) What was the key focus of HCI? (Knowledge)

(1 mark)

- A. Emotion and Fun;
- B. Objective metrics;
- C. Affective Computing
- D. Subjective measures;
- E. Qualitative reporting.

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Section B

Answer ALL questions from this section.

1. What does GOMS stand for and what does it involve? Include each term and a one sentence description for each; along with a one sentence description of what is involved to gain full marks. (Knowledge) (2 marks)

2. Describe the Archival Method as it relates to Requirements Elicitation? In one sentence, describe what the archival method is along with a short description of how it relates to gain full marks (Comprehension) (2 marks)

3. You only have 2 weeks to elicit some user data. How do you go about this? Include a paragraph description for how you go about this (the tools and techniques you choose), and a one paragraph discussion of how they relate to each other to gain full marks. (Application) (4 marks)

4. What is Modern User Experience and how is it applied? To get full marks you should demonstrate substantive knowledge of the topic with in-depth analysis. You may want to use examples (and diagrams if appropriate) to help your analysis (Analysis) (4 marks)

5. How do Aesthetics and Visual Complexity relate to each other? To get full marks you should demonstrate substantive knowledge of the question and substantive ability to synthesise information learnt in another part of the unit. You may want to use examples (and diagrams if appropriate) to help your analysis (Synthesis) (4 marks)

6. Ars Technica discusses 'Social network structure helps trends emerge from simple interactions' - <http://arstechnica.com/>

'Everyone knows that you want skinny jeans tucked into your boots. Ten years ago everyone knew that you wanted boot cut jeans to go over your boots. But how does everyone know these things? How does one option out of all the possible alternatives get chosen as the standard and then reach universal acceptance?

The origin and emergence of social conventions has long beguiled cognitive scientists, sociologists, linguists, and philosophers. Prominent ideas have assumed that institutionalised mechanisms – like a centralised authority or incentives for collective agreement – are required for shared conventions to become prevalent. Newer social evolutionary ideas, by contrast, have suggested that networks of locally interacting individuals can spontaneously and unintentionally self-organise to produce global coordination, even in the absence of formal institutions.

This sort of self-organisation has been very difficult to demonstrate, especially on any meaningful scale. Now, a mathematician and a sociologist have teamed up to show that global social conventions can in fact emerge spontaneously from local interactions, even though the people involved have no idea that they are coordinating anything. There's just one condition: the people have to be hyper-connected".

In around 250 words, discuss this in terms of the topics surrounding User Experience.

You should interpret the article, add your insight (using experience created from your UX/CS training), and produce a 'mash-up' of the two focusing on aspects of the article you think are important, rationalising why, and linking it to other work you have read, work you have done or seen, prior knowledge, or real world experience. Apply a knowledge of information not explicitly taught in the unit. Detail any use of formal/informal sources your ideas are based on (these can be formal such as [Law, 2009] or informal such as 'recent news article on BBC detailing xyz'). You should include argument, ideas, opinions and thoughts and show a critical analysis or secondary interpretation.

I understand that it can be difficult to not just produce a summary (but a summary is often never required). Think to yourself, what do I bring to this 250 words, could anyone have created the 250 words by just reading the article and without your training and insight? If the answer to the last question is 'yes' then you will lose marks; instead change your answer by adding your insight based on your expertise. To get full marks you should demonstrate the ability to apply a knowledge of information not explicitly taught in the unit. Wide-ranging use of sources located by the candidate. Argument, ideas, opinions and thoughts based on formal sources, and showing a critical analysis or secondary interpretation. You may want to use examples (and diagrams if appropriate) (Creativity) (4 marks)