

# MHCI (H/M) 2019/20 Summer Exam Feedback

Euan Freeman & Harry Nguyen

## Overall

With the shift to the online, open-book exam format, most questions in this year's exam paper required you to apply knowledge, analyse and solve problems, and present well-justified arguments for the cohesive decisions you would make across a range of scenarios. This paper was slightly different from previous MHCI exams, where some marks were awarded for bookwork (i.e., recalling course material). Since this is an HCI course, usability and user experience should be the main factors that inform your arguments and decision making, and we were pleased to see everyone take this perspective in their answers. Overall, exam performance reflected that the learning outcomes had been achieved satisfactorily.

## Q1 (a)

This question was worth four marks, so answers were expected to provide a total of four (dis)advantages for visual and/or auditory output. Overall, very good answers were provided.

Marks were not awarded for simply negating a previously stated point (e.g., “*visual disadvantage is users need to divert attention from the road; auditory advantage is users do not need to divert attention from the road*” would be awarded one mark).

## Q1 (b)

This question asked for your opinion on whether or not vibration from a smartwatch would be a useable and useful way of presenting info. Both answers (i.e., good and bad) were correct, and marks were awarded for the justification of your opinion. Four marks, so expected four unique points to argue for your position. Marks were available for contrasting vibration with other output modalities, for comparing the smartwatch form factor with a smartphone, or for reflecting on the limitations of using vibration, so several ways of obtaining full marks.

Marks were generally not awarded for restating answers from Q1a (e.g., repeating the audio advantages as advantages of vibration).

## Q1 (c)

The question was about context as defined in Lecture 6 and repeatedly used throughout the course. A small number did not answer the question correctly, presumably misunderstanding what “context” meant. Four marks on offer for two pieces of context information; one each for correctly identifying a valid piece of context info obtainable from a mobile device, one for describing how it could be used to improve usability or interaction.

### Q1 (d)

As specified in the question, this was about evaluating an implemented version of the app. As such, marks were only awarded for discussing and justifying how you would evaluate an implemented product. Some people instead discussed evaluation methods used early in the design process, showing no clear link to the scenario in the question. The question worth eight marks so expected eight well-justified points.

Marks were awarded for discussing an appropriate aspect of evaluation design, with a clear link to the scenario. For example, discussing points such as indoor vs outdoor evaluation, evaluating on a bicycle on the roads vs on a stationary bike, metrics that can be captured about cycling + interaction, etc.

### Q2 (a)

Question asked for your recommendation of AR smartphone app vs AR glasses app vs VR experience. All options were correct, with marks awarded for justifying your decision. There were six marks available, awarded as such: for each point of justification, one mark was awarded for being correct and relevant, and one mark was awarded for showing a clear link to the museum brief. For example, *“I would choose AR glasses because they do not block the wearer’s view of their surroundings”* would receive one mark, with an additional mark for stating that this therefore *“improves safety because visitors are less likely to trip, walk into other visitors, or bump into museum exhibits”*. Overall good performance was observed on this question.

### Q2 (b)

There were two broad approaches to this question. Some stated (dis)advantages of exocentric context placement, whilst others contrasted exocentric with egocentric. Both approaches are acceptable with marks awarded for both. Six marks on offer, so expected six valid points about the (dis)advantages of exocentric, with a clear link to the scenario.

Marks were not awarded for simply stating the pros/cons of exocentric placement from the lecture slides. Answers needed to have a clear and cohesive link to the museum scenario.

### Q2 (c)

This question asked for a discussion about social acceptability and safety, but it was fine for answers to focus more on one of these in particular. Marks were awarded for valid points contrasting the safety of these technologies, for highlighting social acceptability concerns, and for contrasting the museum situation with other usage scenarios. Any permutation of these topics was fine. Since there were eight marks, we expected eight unique points that were well-justified and valid.

### Q3 (a)

Short essay style question asking you to discuss and contrast the (dis)advantages of touch-screens, mid-air gestures and speech interfaces in the context of in-car interaction. This context was important – answers needed to have a clear relevance to the driving scenario.

There was a good variety in answers for this question, and most showed good consideration of the challenges of interacting with a computer whilst driving.

Marks were generally not awarded for stating generic points about the differences between these user interface technologies, unless they had a clear link to driving. There were 12 marks on offer, with six for stating advantages and six for disadvantages. Additional marks were also awarded for correct and insightful points that were relevant to the answer.

### Q3 (b)

This is another short essay-style question, asking you to take a position and justify it. We wanted answers to choose a side (positive or negative effect) and present an argument for it. Both positions were valid, with marks awarded for the justification in your discussion. There needed to be a clear link to the driving scenario, since the question was explicitly about “the driver experience”.

This was the lowest scoring question on average in the exam, mostly because some answers didn’t use their essay to present an adequate argument.