

# Theory Human-Computer Interaction (2020/21)

Date Set.	<i>February 2021</i>
Submission Deadline.	<b>Wednesday 14 April 2021, 8pm</b>
Submission Location.	Upload pdf to Moodle
Estimated effort.	24 hours per individual.
Learning Objective(s) assessed:	<ol style="list-style-type: none"><li>1. To obtain an in-depth understanding of Human-Computer Interaction theory and methods in state-of-the-art research.</li><li>2. To be able to challenge and recognize advances in the state of the art in human-computer interaction research</li></ol>

## Problem Description

The Theory of Human-Computer Interaction (HCI) unit begins by discussing general theoretical concepts that make sense of HCI as a field of research. Basic tensions will be examined as they fall across a fault line of universal cognitive capabilities and socially situated action in order to frame understanding of research methods and research topics in the field. These lectures will be followed by discussions of particular topic areas within the field of HCI.

This list of topics will be issued separately on this unit's Moodle page in a file called 'THCI-Topic-Literature-2021'. Two older references for each topic will be given as a starting point for your search (e.g. using a 'cited by' function on the publisher's website).

For the coursework, each student must choose three HCI research papers (AKA 'target articles') from one of the research topic areas. They must compare, contrast and critically evaluate the methods adopted by the researchers in relation to their stated research aims. They must also state how they feel the research in the topic area might be advanced by combining insights offered by each of the three target articles. Students are encouraged to choose at least one article that uses 'behind the scenes' field research and one that relies on some form of experimental control but this is not essential: some topic areas do not lend themselves to the use of both kinds of research method.

## Choice of HCI Research Papers

For their chosen topic, students will choose three contemporary HCI research papers ('target articles') to review. Students must source at least one target article from amongst the HCI conferences and journals listed in the "THCI-Literature-Resources-2021" document on moodle. All target articles must be from peer-reviewed conferences or journals. If choosing conference papers as target articles, they must be FULL papers (c. 10 pages in length), not extended abstracts or "notes" (c. 4 pages in length). Target articles must have been published within the last six years (2015 or more recently). Note that journal articles are often much longer so may be harder to summarize but tend to have much more thorough exposition of research methods and conceptual grounding. The chosen target articles must be agreed with the unit leader BEFORE the coursework is commenced.

## **Content of Comparative Review**

The coursework specification is to write a comparative review of the chosen articles, focusing on methodological decision-making and opportunities for advancing research in the topic area. The body of your comparative review should not exceed 2000 words in length (i.e. not including title, your name and references. The word count should be stated at the end of the main body

Your comparative review will be made up of four sections:

### **Section 1**

The review should begin by briefly summarising the overall mission of research in the topic area. In other words what benefits does research in the area promise to return? (est. 250 words).

### **Section 2**

Comparative discussion of the kinds of contribution each target article attempts to make in the topic area (the stated aims of the papers, what new ideas does they intend to put forward, how they believe the topic areas has been advanced by their research). This should include selective referencing to the neighbouring literature used by the authors (approx three per paper but there are likely to be overlaps because they are all in the same topic area). (est. 750 words)

### **Section 3**

Critical and comparative discussion of the research methods reported in each paper, in relation to their aims. What methods were used, how were their use was justified, and what their methodological choices say about the respective theoretical or conceptual frame they bring to the problems they are investigating, as HCI researchers. Note that it is very rare for authors to explicitly state their theoretical frame. Rather, it tends to be locked into the mode of research they carry out. So you will need to infer their conceptual frame from the methods they have deployed (est. 750 words)

### **Section 4**

Outline further research that you consider might be done in the topic area in terms of new understanding, building a body of empirical evidence (methods or findings), or new design thinking. This could be a synthesis of the further work suggested by authors of the target articles or your own proposal based on the analysis you have reported in your comparative review. (est. 250 words).

State total word count for Sections 1-4 combined.

### **Section 5 – References**

A list of the sources you have cited in the main body of your review, formatted according to Bath Harvard style. (no word limit)

## **Conditions**

This is an individual assessment. As with all assessment this coursework is subject to the University regulations on Plagiarism. The coursework should be undertaken in the student's own time.

## **Deliverables**

Your comparative review should be submitted as a single pdf document to the Theory of HCI Moodle page, with your username included in the file name.

## Marking Guidance

The following is a *guideline* so that you are aware of what you may typically need to do.

### Distinction (>70)

The deliverables reach the standard for a merit piece of work. In addition, the assignment demonstrates a deep understanding of the relationship between the target articles, and makes novel suggestions for future developments in the topic area, linked to clear overall theoretical frame within which the research is contextualised.

### 60+

The coursework brief is clearly well understood. Good evidence of reading appropriate supplementary HCI material, influencing the analysis in the review, and the review shows an understanding of the target articles, their contributions and limitations. Correctly states and partially integrates future work as identified in target articles.

### 50+

The student has partially understood the target articles and their topic context. Some evidence of additional reading has been demonstrated. Limited compare and contrast is in evidence, with some integration but a lack of overall coherence in the review. Simply restates future work as expressed in target articles.

### <40

The student has not understood the target article. There is little attempt to appropriately review or consider the context of the work. No engagement with the theoretical basis of methodological decision-making.