University of Glasgow | School of Computing Science

Assessed Coursework

Course Name	HCI4			
Coursework Number	1			
Deadline	Time:	16:30	Date:	03/12/21
% Contribution to final course mark	30%		This should take this many hours:	30 hours
Solo or Group ✓	Solo		Group	✓ Four or five
Submission Instructions	Submit through Moodle.			
Who Will Mark This? ✓	Lecturer ✓	Tutor	Other	
Feedback Type? ✓	Written ✓	Oral	Both	
Individual or Generic? ✓	Generic	Individual	Both ✓	
Other Feedback Notes				
Discussion in Class? ✓	Yes ✓	No		
Please Note: This coursework cannot be re-done				

Code of Assessment Rules for Coursework Submission

Deadlines for the submission of coursework which is to be formally assessed will be published in course documentation, and work which is submitted later than the deadline will be subject to penalty as set out below. The primary grade and secondary band awarded for coursework which is submitted after the published deadline will be calculated as follows:

(i) in respect of work submitted not more than five working days after the deadline
   a. the work will be assessed in the usual way;
   b. the primary grade and secondary band so determined will then be reduced by two secondary bands for each working day (or part of a working day) the work was submitted late.

(ii) work submitted more than five working days after the deadline will be awarded Grade H.

Penalties for late submission of coursework will not be imposed if good cause is established for the late submission. You should submit documents supporting good cause via MyCampus.

Penalty for non-adherence to Submission Instructions is 2 bands

You must complete an "Own Work" form via
https://webapps.dcs.gla.ac.uk/ETHICS for all coursework
UNLESS submitted via Moodle

HCI4 AX

Social media and global warming

Aim: To develop an interactive system that monitors, encourages, analyses or supports one or both of these topics.

Your job is to make and demonstrate an interactive system that allows people to monitor, understand or support good aspects of their lives—or lets us understand and work against bad aspects—or otherwise uses data to make our lives more enjoyable or productive.

To give you some examples: your idea could be an app to aid in global warming by educating a member of the general public about their own individual/family contributions to global warming (e.g. effects of the different transport modes the app tracks them using, or domestic energy usage recorded at home) and long–term effects on themselves, their family and neighbourhood; a web site that lets people learn about how social media systems categorise and market them, in new and engaging ways; a visualisation tool based on a communal data set, for a community to study their own social media trends in depth; and an app that shows an individual how their app patterns (via data from tracking data on the phone's app use and the SDKs it uses, for example) relate to publicly available population-scale data.

It is up to you to decide what you want to make, and what you want to use to make it… but it should not be boring. By this, I mean: you can consider this as being like a 'pitch' for a new development project or start-up, convincing me that your design idea is feasible, and also **has some form of value or interest**. In your presentation and report, to convince me, you should **give an argument and evidence for your choices**. The strongest form of evidence you can bring is the result of solid evaluation of a solid prototype, so justify the method(s) and tools you choose to use.

You *must*, however, make your work relevant to the course material. **Your design must be one or more of the following types of system: multimodal, CSCW, information visualisation, or ethical system design**. This means, for example, that a simple phone app will not be acceptable unless its design focuses on tactile, audio or a similar medium, to make it thoroughly multimodal. The same would apply to a web page or desktop app that was for a single user in isolation (i.e., not CSCW), that used such simple text/graphics that it could not be fairly called 'visualisation', and that was so standard or simple in its privacy mechanisms that it could not be called 'ethical system design'. Note again that I am happy to discuss your design ideas, to help you find something viable.

This coursework will be **done in groups of four (preferred, minimum) or five (maximum)**—please organise into teams yourselves. If you have a problem finding a team, then let me know via email, and I will help. (I regret that the group size is so large, but the class is so big. 4 means I can do ~8 minutes Q&A per group (including the time to move between groups, take notes, etc.) in the 4 hours of HCI4 sessions of the last teaching week. A group size of 3 would mean about 6 minutes, and that seems too short.)

To ensure you have a good plan, make yourselves available for discussion **during the three sessions of Week 7**. I will share a Google Doc (or similar) with you, to set up a time for your group to talk through its ideas with me, if you want to. In addition, you can email me at any time.

By the end of **Friday of week 8**, each team should email a summary/outline of their work and membership to me. This is so that I can make sure that no group is stuck or excessively short-handed, and let me offer (more) feedback. I know that coming up with a good idea that is not just new but also useful, and implementing and evaluating it, is difficult. I will be available on an individual basis to talk about (or email about) AX issues.

The time for the assessed exercise is relatively short so you may not be able to build a fully functioning end-to-end system. Your work should focus on interaction/experience design, but with enough implemented to show that the full envisioned system is clearly viable. For example, faking some background functionality, if you need to, is fine—but

justify it to me. Again, talk to me if you are not sure about this. I do want to see some kind of demo, as part of your group's video (see below)—again, think of this as a pitch, to convince me that your design concept is strong, viable, and justified. After the last lectures, you can use all of your HCI4 time for the assessed exercise.

Initial Designs

Start the process by coming up with several ideas and then sketching out rough lo-fi prototypes. Talk about them with your group colleagues. Compare them, learn from their similarities and differences, and maybe even combine their best features. You can also quickly evaluate these prototypes using methods like Heuristic Evaluation and Think Aloud. Try and test with people who are in your target user group, i.e. this might not be your classmates. If your prototypes do not work well or don't seem interesting, then start again — that is the beauty of lo-fi! Keep these versions though, so you can include them in your report. I want to read about the process of design as well as the final product.

Implementation

When you have selected one good lo-fi design, you can start to implement it. Use **any language/OS/platform you like**, although it might be a good idea to use something you are familiar with due to the short time available. Please do not spend *all* of your time implementing; this won't get you the best marks. You need to show your design process and evaluation too. Note: Although it would be good to start with initial designs made using a wireframing/prototyping tool, (e.g., Figma), but having your final system design in such a tool is not as convincing as it being a running application.

Evaluation

I want you to evaluate the prototype you implemented to show whether or how it works, and to guide design refinements that make it even better. Evaluation should occur with real end users, if you can manage it. These evaluations should be more in-depth than those you used for the initial design, perhaps using the experimental evaluation techniques presented in IS3. I want you to choose (and report on) evaluation techniques appropriate to your progress with the system design, so you should justify and explain your evaluation choices.

Video and Q&A

Send me [a link to] a video, to demonstrate, explain and justify your work. (Please email it to me **at least 2 days** before the Thursday sessions.) I'll use this as a basis for the Q&A with each group, during the last week's HCI4 labs/sessions.

Report

Your report should be a maximum of 10 pages. It should include information about your design concept (and why it is interesting and valuable), your design process, the stages of implementation you went through, and the evaluation(s) you did of the design(s). You should also reflect on the system you designed and show how it might be improved in the future. In addition to these 10 pages, you can use appendices to store additional information, e.g. detailed evaluation data, or large/complex architectural diagrams. If you are in doubt about what is 'additional', talk to me.

Marking Scheme

30% for design, 20% for implementation, 25% for evaluation, 10% for video and Q&A, and 15% for report. Note that I will use the 'delta' scheme to assess individual contributions to the group's work, and determine individual marks.

Hand-in

Report hand-in will be via Moodle. I will set up a submission page nearer the deadline.