

MSc HCI / MRes AID Coursework

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For this coursework you will work in small groups.
The members of the group should be identified on each piece of work.

Topic

Choose an application area that involves some distributed computation but not too familiar (it is harder to critique things you know too well). This can be speculative or novel as you are not required to produce a working prototype. This also means you can select a system too complex to be considered in totality and focus on some key aspects or paths through it.

Examples:

- (i) a multi-user game played using mobile phones
(e.g. OXO, mastermind)
- (ii) an e-commerce web site
- (iii) an information system for use with a wireless enabled Swiss Army knife

Week 4 – early design

As a group - Produce a short report that includes:

- (a) A description of your proposed system and the context in which it will be used.
- (b) A series of scenarios with outline text describing what happens storyboards/mock-up screen shots.
- (c) An overview of the overall navigation structure of the system (e.g. hierarchy diagram of web site or network/state-transition diagram)

Make sure that your scenarios include the 'set-up' stage (e.g. how you established connections in a mobile/collaborative application).

Screenshots/storyboards can be submitted additionally in an agreed electronic format (e.g. web pages or powerpoint), but **MUST** be also printed in appropriate points as part of the report.

Week 8 – detailed design and critique

As a group - Refine the above design (you can include updated versions of (a), (b) and (c)) including the following additional elements:

- (d) A Hierarchical Task Analysis
- (e) A more detailed version of (c) using a recognised formal notation.
- (f) An overview of a proposed internal architecture.

Individually - Each member of the group produces a short individual report

- (g) A critique of the design using whatever criteria/techniques are appropriate

Note

The aim of this coursework is to assess your understanding of key techniques and issues in HCI. You will not be judged on the absolute quality of the proposed system, but on your ability to use appropriate techniques and criteria, to describe and critique it. In particular, you may use criteria during your critique that you were unaware of in preparing your initial design.

You are expected to read appropriate text-books and other materials, do not confine your critique to methods/information given during formal taught sessions. You should include references to additional sources used (full references to books and papers, and/or URLs for web-based materials)

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additional information

marking

Note that the coursework comprises a significant piece of work, but don't try and produce a massive tome!!

I will mark the parts of the coursework (out of 100) as follows for the MSc HCI:

part 1 - early design	
groupwork points (a), (b) and (c)	30%
part 2 - detailed design and critique	
groupwork points (d), (e) and (f)	30%
individual critique point (g)	40%

N.B. For MRes may be slightly different breakdown with larger individual critique. I will confirm this in week 4, but this will not effect the group element.

part 1 week 4 - early design

- (a) this is so that I know what you are working on!
approx 1/2 page.
- (b) a scenario is just a 'story', don't try and make it too formal remember a scenario is a single (typical) path through the system but with detail from the user's perspective:
 - do not just say what the system does:
... there's this screen and then this one ...
 - do say what the user needs to do ... e.g. ...
 - the user moves the mouse over the button at the top right corner
 - a menu appears and the user selects 'buy 1'
 - the system then displays the shopping cart screen
 - ...
 - do remember things the user may need to do that aren't directly interacting with the system:
e.g. Swiss army knife ...
 - user opens screw driver blade and puts it in the slot
 - ...

I would expect there to be 2 or 3 'typical' scenarios, but you don't need to do them all to the same level of detail.

If the system is very complex select a particular aspect.

use hand-drawings, bullet points, mock-screens as appropriate

see example of scenario used in technical documentation at:

<http://www.aqative.com/developer/developers-pack/onCue-hiw/onCue-hiw.html>

- (c) this does not need to use a standard notation (this is point (e)) just a sketch of the overall structure (see first day's lecture slides for small example).

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additional information (continued)

part 2 week 8 - detailed design and critique

as a group (mainly diagrams with some explanation where necessary)

- (d) in a way this can be seen as a formal version of (a). See Chapter 7 of my book.
- (e) this is (c) using a more formal notation - see chapter 8 for different notations you can use. You can use one of more maths-y notations, but I'd guess you'll find a graphical one easier.
- (f) NOT a detailed software design ready for coding!!this should be a diagram of main software/data components with inter-connections and information on placement (where they are in a distributed environment, server, local computer, PDA, phone etc.)

See part II of my Active Web tutorial paper at:

<http://www.hiraeth.com/alan/papers/ActiveWeb/>

for an example of architectural overviews. You'll find you need a little more detail as these are generic examples of architectures, but not a lot of more.

Individually

- (g) Critique
 - using the knowledge from the course and additional reading (e.g. chapter 4 has lots of general design principles, and equivalent parts of other text books).
 - do NOT just say "I like this interface"
 - do apply general rules and principles to your system:
 - examples:
 - screen X would need to be redesigned for the final system because it uses green text on a red background which would be unreadable for a colour blind user
 - screen Y groups similar items together and uses white space between major groups to make them visually clear
 - because the mobile phone only has a small display at point Z, there is no indication of what the user is able to do next
 - do justify whether the different elements of the design exercise (a)-(f) are coherent - does the navigation design agree with the scenarios. Could you achieve all the required tasks in the HTA given the design? Would the proposed architecture work!!

For MSc HCI I'd expect about 3 typewritten sides for this depending on your writing style (N.B. for MRes will confirm length in week 4.) Bullet point type remarks, as above, will be better than paragraphs of prose. Mainly you should be able to refer to diagrams in (a)-(f), but use additional diagrams as appropriate (if you have lots of diagrams, you will probably need more pages!)