

User Experience Design 2024: Coursework 1

This coursework involves three parts:

1. a short ethnographic study
2. applying some theories and concepts from lectures to the ethnography; and
3. the (speculative) design of an interactive system

All parts of the coursework are to be completed in **groups** of no more than four members. Groups comprising of less than four are allowed. Groups cannot contain a mixture of undergrad and postgrad students. If you wish to do the coursework on your own, then you can, but you will need to sign up to one of the groups available on QMPlus, making sure you are the only person in that group, and submit your work under that group.

Below we first give an overview, followed by details of each of the three parts.

The lab sessions are structured to guide you through timely completion of the coursework.

Overview

You are required to submit **one PDF document**, with all three parts of the report.

Group Responsibility. While it is fine for subsets of the group to focus on specific tasks, it is important that all members contribute to each aspect in some way. It is also important that all group members take responsibility for the accuracy and quality of the final report.

The coursework set on this module is unlikely to achieve marks in the region of 90 to 100, which is often more frequent in more programming-focused courses. The open-ended nature of the work means there is no right or wrong answer, so rarely is there no room for improvement or alternative perspectives. Marks beyond 70 are awarded for outstanding work and deemed first-class! This said, a strong submission would include rich discussions of many patterns of interaction, defining all terms from literature correctly with accurate examples, paying close attention to the various aspects of the user experience, whilst being careful to not overstate claims (supporting points with references from the course reading).

The submission date is Friday 15th March 2024, at 12:00 noon . Submit electronic copies on the QMPlus system.
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Late submissions will be penalised at the rate of 5% of the marks for this assignment for every day, or part day, they are late (except in medical and other documented, exceptional circumstances). The late penalty is applied automatically by the submission system, and even one second past the deadline counts as late; so please be sure to submit early. In particular, do not leave submission until the last few minutes, as you will risk submitting late if you have any technical problems with file size, internet connectivity, system overload and so on.

Part 1: Ethnographic Study (2,000 words maximum, 22 Marks)

For part 1 you will carry out a piece of ethnographic field work.

The ethnographic observational study will involve observing people's interactions of their use of educational technology during the early weeks of the semester. Students likely use technology during their classes e.g. laptops/phones/tablets, whilst lecturers may use a range of technologies to engage students – for example, Kahoot or Centimetre. Your job is to investigate these interactions.

Ethnography uses different research techniques, which may include observations, taking field notes, informal conversations, interviews, document analysis, surveys, filming and photography. You can obtain data about in person interactions through informal conversations, interviews, analysis of forum posts and recordings.

We suggest you avoid conducting surveys, due to the large number of students doing the coursework. If you choose to use video or photography, remember it is essential to get the permission of everyone who may be filmed or photographed prior to going ahead with this. We suggest that filming and photography are not likely to be particularly appropriate to use in the context of this study.

The first step is to agree within your group the module or modules you are going to observe. You can choose to focus on one specific module, or choose to include a number of different modules in your observations. In general, including more modules will provide you with more interactions to observe, and provide more scope for identifying patterns of interactions and behaviour within and between modules.

Having identified the module or modules, you should make detailed, in-depth observations of the interactions of students and staff in relation to the module. This will include interactions between lecturers, demonstrators and students, as well as interactions of users with the technologies used to deliver module material or to undertake tasks required in labs and/or seminars.

You should adopt an ethnographic approach: be open-minded and observe what actually happens, not just write what you expect to happen; and try to make sense of why people behave as they do. If you use informal conversations and/or interviews, be careful to avoid leading questions or approaches that put forward your own views rather than those of the interviewee.

Make extensive notes on what you see and hear - including diagrams, pictures and (if relevant) short conversational transcripts. (But remember that the focus of your discussion should be on the interaction, rather than the details of the actual systems/interfaces).

When doing the analysis of your observations, you should **look for patterns of behaviour observed by individuals or groups as they interact with the systems**, with each other and other people. You may find it more practical for subsets of your group to undertake observations, rather than all four people at each observation, and by planning the use of group resources carefully in this way you should be able to perform more observations.

***** Important note:** while you should make reference to specific observations and interactions, all references to specific individuals and module names should be anonymised, and care should be taken to ensure individuals cannot be identified due to the context within which they are mentioned.***

Here are some questions you might ask yourselves whilst conducting your ethnography:

- How well do the technologies employed support interactions between people? What difficulties or errors arise?
- What patterns of behaviour do you observe in the way people interact with each other and/or in the way they use the technology?
- How do people improvise if something goes wrong?
- How do people behave when interacting individually vs collaboratively?
- How do they make use or fail to make use of the technology and why?
- Do they use the interfaces and other resources as the designers expected?
- Does the system behave as the users expected?
- Does behaviour vary between modules?
- Does it vary with module size or content?
- How is contact and interaction maintained between in-person lectures?

Once data is collected, present your observations: You should end up with quite a lot of data, and you do not have much time, so you need to plan your presentation carefully. Drawing on your field data, describe a few interesting general categories of people's interaction (with the system and/or with each other), illustrating them with specific examples you observed, and explain what they tell us about people's interactions as well as the ease of use (or otherwise) of the systems and its various interfaces. Make sure you include some examples of real observed data.

Remember the recommendations of the ethnomethodological approach:

- try to understand interactions in the users' own terms;
- pay attention to the differences between individual and collaborative activity;
- pay attention to how people manage the social context around them.

Part 2: Design (1,000 words maximum, 22 marks)

Choose one of the challenges that emerged from your ethnographic study. **Explain a design for an interactive system to improve on this challenge in some way.**

Your design must follow the key distinction of the module by going beyond a “conventional HCI” approach only focused Graphical User Interfaces – consider aspects of social/physical context, artistic effect, and/or entertainment. Ideas for mobile, wearable and/or multimodal designs are welcome; conventional single-user, single-modality screen-based designs or mobile apps on their own are not - a mobile app can be part of the system, just not the only part and a GUI design alone.

You do not need to code or build a system or a working interface, or even be too limited by hypothetical cost considerations: but you must explain your design and give a basic prototype of the interface (e.g. via sketches, diagrams and/or storyboards) and explain how it supports or enhances the activity in question of learning in a university-level module. Justify design choices by taking inspiration from literature, in particular from later lectures.

Your design and description will be marked in terms of:

1. **Concept** – its ability to support or enhance an interesting user activity (beyond typical GUI approaches);
2. **Interactivity** – its ability to support interesting modes and modalities of interaction, whilst considering the distinction between different levels of private vs. public interaction;
3. **Justification** of design and relation to concepts from lectures (particularly later lectures);
4. **Clarity** of explanation.

Part 3: Analysis (1,000 words maximum, 22 marks)

In your report submission, include a section dedicated to answering the following questions:

1. **Norman’s design principles** include: make things visible, provide a natural mapping, and give feedback. Explain these three principles. For each principle, describe an example from either your ethnographic study or design.
2. Explain the concept of breakdown as used in **Phenomenology**. Describe an example of breakdown from the ethnography in Part 1, with reference to the ready-to-hand and present-at-hand states and the transition between them.

House Keeping (9 marks)

Up to 9 marks are available for the quality of presentation and evidence of critical thinking.

Marking Criteria

The guidelines below are used to mark each part of this coursework. Overall, the coursework is worth 75 marks, with coursework 2 worth 25 marks.

Part 1: Ethnography	5 marks	10 marks	15 marks	20 marks	22 marks
Detail of Observations	Points are justified using examples of interaction, but it is difficult to reconcile with the data collected.	Points are justified using examples of interaction, with scope to expand their description more deeply.	Points are justified using examples of interaction, clearly linked to the data collected.	Points are justified using examples of interaction, explicitly related to the data collected (e.g. through signposting).	Points are justified using examples of interaction explicitly, and comparisons are drawn between conflicting information.
Generalisations Drawn	Generalisations are drawn from the data, but in a reportative or descriptive way, considering single points.	Generalisations are drawn from different parts of the data or related work, in a way that is reflective.	Generalisations are drawn from different parts of the data or related work, suggesting how this could have broader implications for interaction design.	Generalisations are drawn using different parts of the data or related work, suggesting how this could lead to broader implications for interaction design & beyond (pedagogy).	A clearly effortful attempt, synthesising multiple data sources, and making key links to outside reading to justifying possible generalisations.
Understanding in Users Terms	Interactions tend to be discussed based on intuition rather than evidence-based.	A good attempt at considering interactions in the user's own terms – some evidence from users given but no direct quotes.	A very good attempt at considering interactions in the user's own terms, e.g., giving useful quotes from the data collected.	An effortful attempt at considering interactions in the user's own terms, e.g., giving useful quotes from the data collected. Discussion is included where the student has followed up on patterns of interaction.	Outstanding consideration of interactions in the user's terms, following up on identified patterns of interaction. Real connection has been made to interesting, personal and emotive aspects of user experience.
Details of the UXD Aspects described	Conclusions tend to relate most closely to traditional HCI concerns e.g. usability, not considering UXD aspects.	Good attention is paid to one of: individual/collaborative; public/private or broader contexts.	Very good attention is paid to two of: individual/collaborative; public/private or broader contexts.	Excellent attention is paid to all of: individual/collaborative; public/private or broader contexts.	Outstanding good attention is paid to two of: individual/collaborative; public/private or broader contexts. Points synthesised across contexts.

Part 2: Design	<u>5 marks</u>	<u>10 marks</u>	<u>15 marks</u>	<u>20 marks</u>	<u>22 marks</u>
Detail of description	A brief explanation is given of what activity is being targeted by the design, and how the design will support this in a broad way.	A good explanation of how the design supports an activity, with specific reasons given for design choices, but scope for more detailed explanation. Aim might be broad e.g. to support engagement in lectures.	A very good explanation of how the design supports an interesting activity, with specific detailed reasons given for design choices, but scope to link these better to the initial project aims e.g. (supporting Aim 1). Aims might still be broad e.g. support engagement in lectures.	An excellent explanation of how the design supports an interesting activity, with specific detailed reasons given for design choices. These are linked closely to the project aims, which are novel and interesting (e.g. not just to support engagement).	An outstanding explanation of how the design supports an interesting activity, with specific detailed reasons given for design choices. These are linked closely to the project aims, which are novel and interesting (e.g. not just to support engagement) – course literature used to focus the design.
Details of the UXD Aspects described	Some attention is paid to one: - social - aesthetic - privacy - entertainment aspects.	Some attention is paid to two of: - social - aesthetic - privacy - entertainment aspects.	Detailed attention is paid to two of: - social - aesthetic - privacy/entertainment aspects. E.g. makes reference to literature or discusses different viewpoints.	Attention is paid to three of: - social - aesthetic - privacy - entertainment aspects.	Detailed attention is paid to all the elements. This must include references to literature or discussing different viewpoints.
Beyond traditional GUI approaches	The design is largely GUI based and doesn't connect with later ideas from the course.	The design focuses on a GUI but might incorporate more UXD focused ideas as an add-on.	Design includes two modes or modalities which integrate with another in an effective way.	Design includes many modes or modalities which integrate with another in an effective way.	Design includes many modes or modalities which integrate with another in a surprising and creative way.
justified using concepts from lectures	Some justification is given based on concepts from the lectures, but there is scope to be more precise. I.e. might be inaccuracies in theories.	Good justification is given based on concepts from the lectures but could be better evidenced. E.g. authors are mentioned but not cited.	The design is justified using concepts from the lectures and is cited appropriately. Cited works are largely from earlier lecture materials e.g. Norman's principles – repeated in part 3.	The design is justified using concepts from the lectures and is cited appropriately. There might be discussion on concepts from later lectures (even if not cited fully).	Virtually every aspect of the design is justified using concepts derived across a range of the lectures and is cited appropriately. Discussion from later lectures is cited correctly.

Part 3: Analysis	<u>5 marks</u>	<u>10 marks</u>	<u>15 marks</u>	<u>20 marks</u>	<u>22 marks</u>
Norman Definitions	Only 1 definition is given but is explained well.	Not all definitions are included but are generally sound.	All definitions are included but might have inaccuracies.	All 3 definitions are given and are accurate, possibly even citing Norman's work.	All 3 definitions are faultless, directly grounded in Norman's work.
Norman Examples	The examples of principles are generally okay but could be clearer.	A solid example for each principle is given, not related to the ethnography nor design. Some examples are slightly tenuous.	A solid example for each principle is given, drawn from the ethnography or design. Some examples are slightly tenuous.	A solid example for each principle is given, drawn from the ethnography or design. No examples are tenuous.	A solid example for each principle is given, drawn from the ethnography or design. Student has gone above and beyond suggesting how to improve each principle.
Phenomenology Definitions	A brief description of breakdown, perhaps with some inaccuracies.	A solid discussion considering breakdown, although the description is simplistic and could be expanded with respect to related work.	A very good discussion considering breakdown – although, there are opportunities to discuss other concepts.	Excellent explanation, considering all aspects of breakdown, but scope to discuss its links with phenomenology or comparing with other literature (e.g. flow).	Outstanding explanation, considering all aspects of breakdown, and considering its links with phenomenology or comparing with other literature (e.g. flow).
Phenomenology Examples	A brief description of an example of breakdown, although slightly tenuous.	A solid discussion of an example of breakdown - however, there are opportunities to provide more details and speculate on potential solutions.	A very good discussion of an example of breakdown, but with scope to discuss solutions in more detail.	Fantastic example of breakdown discussed, in the context of the ethnographic study, with suggestions for solutions described clearly.	Virtually every possible aspect of breakdown is analysed in relation to the given example, including figures of suggested designs to support breakdown.

Housekeeping	<u>2 marks</u>	<u>4 marks</u>	<u>6 marks</u>	<u>8 marks</u>	<u>9 marks</u>
Clarity of Presentation	Report is illegible. Poor grammar. Drastically over/under word count.	Patchy writing. Possibly rushed to the deadline, but within word count.	Clear writing. Writing is solid - although scope to be more academic in style.	Clear writing. Academic style of delivery. Effective layout of document.	A spectacular report, with virtually no issues.
Evidence of Critical Thinking	Largely no consideration of different viewpoints or literature from the course.	Some consideration of different viewpoints, although links could be better made to course readings.	Multiple viewpoints considered and links made to course readings – although could be properly cited.	Multiple viewpoints considered and links made to course readings – cited correctly.	Virtually all claims are justified in the context of background literature, correctly cited, showing effortful engagement with the module content. Figures used to great effect.