

A: Domain Research

Weighting: 1 x Research, 1 x Poster

Due 23 August 2021 9am:

Research (in pairs): annotated bibliography and explanatory statements

Individual Poster: A4 Poster presenting specific problem/area to be explore

Due 30 August 2021 9am:

Peer Critique of posters of allocated peers (pass/fail)

This assessment requires you to look at a domain and think about how social and web/mobile technologies can be applied in a way that might help *people in that domain* to do things differently, more effectively, more meaningfully, in ways that take advantage of social and mobile possibilities for technology.

For the major assessment item in this course (not this research assignment) you will be using human-centred design methods, working in a multidisciplinary environment to develop and deliver a digital, interactive prototype that demonstrates an innovation in your chosen domain.

For this assignment, you are to investigate a potential domain for the application of mobile/social technologies, and develop an initial idea. Good ideas emerge from research, insight and experimentation, and a critical understanding of a problem space or domain.

The purpose of this assessment is to build a critical understanding of a problem space or domain. Following the exercises in our first contact sessions, you will have a list of potential domains to explore and these will be added to by teaching staff. What we are looking for is research that describes the space, previous design efforts and opportunities for new design in that space.

In this assignment, you will explore a particular domain or problem space through observation, literature review and discovery. Concentrate your research on an area/issue/concern/opportunity that you want to explore to provide a platform from which to generate more focussed ideas as individuals. You will collate their research into a contextualised bibliography and will individually present concepts inspired by the research. For example, your research might explore the issue of safety on large work sites (i.e. hospitals, shopping centres), and you would then present different ideas for how that issue might be addressed based upon the research that you did.

What to do

Annotated bibliography and explanatory statements

Define the domain or problem space you will be exploring through your research, approximately 250 - 400 words. Your domain or problem space should be specific enough to allow you to focus your research. You might think about how a particular technology or theory may be applied to the

problem space; or you might identify a dilemma within the problem space that a social or mobile technology could address.

For example, you may want to broadly explore the ways that families communicate and coordinate. To focus your research, you might choose to look at specific styles of families (extended families, young children, working parents) or focus on a particular activity that they are communicating or coordinating around (i.e. shared calendars, daycare, household chores). ***In pairs, review literature associated with that space (each student must review a minimum of 5 papers each)*** that best describe the domain or problem space; describe central social/mobile concepts that are applicable (e.g. awareness, articulation work, location-specificity), describe previous attempts to design technology into that space; and that provide insight into specific issues/considerations within that domain or problem space. *Add each paper to the course Zotero library and tag it with your domain title, for your peers to find easily come project time.*

For each paper, write 250 - 400 words critiquing that paper, describing how it is useful for your design space, articulating any insights you obtained that would be helpful for people designing for this domain or problem space. Note, your critique should not provide a summary of the paper but should highlight why it is important to your design space. In your document, each paper should be presented as Reference, Abstract, Critique. Example below:

Blázovics, László, Csaba Varga, Will Bamford, Peter Zanaty, and Frank H. P. Fitzek. 'Future Cooperative Communication Systems Driven by Social Mobile Networks'. *Wireless Personal Communications* 57, no. 3 (April 2011): 377–91. <https://doi.org/10.1007/s11277-010-0075-8>.

Abstract: "In this work we are underlining the importance of social mobile networks for upcoming cooperative communication systems. The assumption of this work is that future mobile communication systems will incorporate user cooperation, i.e. a combination of cellular access in parallel with ongoing short range links to the neighboring devices. It has been shown that user cooperation enables higher data rates, better spectral efficiencies, and reduces the energy consumption of the mobile unit. In this work the social mobile networks are identified to be a fertile ground to facilitate the cooperative use cases. By the example of the Gedda-Headz gaming community, possible links between cooperative mobile communication and social mobile networks are shown." ***Critique:*** [... your 250 - 400 words here...]

Papers should be high-quality, peer-reviewed sources, ideally those archived in the ACM digital library <https://dl.acm.org>. In the first instance, papers should be those published in conferences CHI, CSCW, or DIS; or in journals Communications of the ACM, Transactions on Computer-Human Interaction, or Personal & Ubiquitous Computing, or similar venues. Add the papers you include to the course Zotero library for use in future assessment items. When selecting papers, aim for breadth of coverage - for example a paper that describes the domain, a paper or two that describe specific aspects of the domain, a paper or two that describe attempts to design technology for that space. Avoid repetition in your selection, choose papers that best support/explain what you are focussing on and that provide a breadth of context for your domain. For example, if you are

exploring the issue of household waste, don't cite 5 papers that describe the issue of household waste.

Finish with an overview statement (max 400 - 500 words) that connects the papers together in relation to the design space. Here you may choose to focus on the successes and failures of previous attempts, or on different methods/approaches used to explore the space, or synthesise these into key considerations for your chosen design space.

There is no need to provide a list of references at the end of your research document as each paper should be accompanied by its reference information. There is no mandated referencing style, however all references must use the same style. For more information on referencing styles visit <https://web.library.uq.edu.au/research-tools-techniques/referencing-style-guides>

Concept Pitch (Poster)

Taking the research you conducted, generate a poster that describes a particular aspect or problem with the potential for further exploration through the team/group project; and that outlines a process for discovery and verification that uses interaction design methods.

Your pitch should be presented as a single A4 poster, containing:

1. **A description of the specific aspect or problem you are exploring** (this might be a research question; a defined problem you want to solve; an experience you want to impart). You may include imagery or potential solutions to help portray your concept. Using the example from point 1 above, if one of the insights garnered through your research was that certain family members were consistently lax in checking & updating their activities in the shared calendar, you could then pitch to explore the potential for a reminder system that would alleviate this issue. You don't yet want to pitch one specific implementation of that solution (i.e. mobile app) - but you may put forward some ideas that you have in that space.
2. **A statement connecting your pitch to the research** and if relevant, introducing additional sources to inform your pitch. These sources do not necessarily need to be from peer-reviewed sources but might be examples of existing solutions (or approaches from other domains that relate).
3. **An outline for what approaches/methods** you would use for user and domain discovery to further your understanding of the problem space. This should draw upon methods from prior experience, discussed in contact sessions and/or discovered through your research. This should provide enough detail to *describe HOW* you would apply that approach - for example: if you propose to conduct interviews with users, you should describe who & how many will you interview and what you hope to learn (specifically) in the interviews.
4. As relevant, include images, diagrams and/or tables to support your communication. If included these should support your discussion and should illustrate key concepts difficult to explain in text.
5. Reference list for any papers cited in your pitch. As stated above, there is no mandated referencing style but all references should be consistent in style.

Peer Critique

Following submission of the research and individual pitches, you will:

- Provide detailed critique for the work of 2 other students.
- Critiques should consider both the research and the pitches; the clarity of the domain description; the relevance of the research to the domain specified; the relevance of the pitches to the domain specified; the usefulness of the methods described in verifying and uncovering the problem space.
- As you critique, you may start to see themes and/or relationships emerging between the submissions you are allocated. Note these down in preparation for team brainstorming.

Following this process, you will form theme groups for the major project.

Submission

Submission & Preparation of Documents:

For ease of submission, **each individual** must submit the Research Document and their own Individual Pitch to the Assessment Submission link on Blackboard by 9am 23 August. Submission should be a single .pdf document containing both the Research and Poster.

Shortly following the deadline, we will download all submissions and make them accessible for critique. An announcement will be sent to inform you that documents are ready for critique. Submission of critique will be through an online collaborative platform (e.g. Miro); details will be given in studio.

Criteria

This assessment will be marked across 3 parts, Research, Poster and Peer Critique according to the following criteria.

Research

- Critical, considered description of domain/problem space
- A variety of high quality (peer-reviewed), relevant sources cited (min. 5 per student)
- Concise & critical annotations clearly articulate insights from each source
- Overview demonstrates relevance of sources in application to domain / problem space
- Language and writing style are fluent

Poster

- Critical, considered description of specific aspect or problem to be explored
- Relevance and connection to prior research is clearly articulated, with additional sources provided for clarification
- Highly appropriate methods and approaches proposed to further investigate design space
- Language and writing style are fluent

Peer Critique (pass/fail)

- Considered and constructive critique of pitches with actionable suggestions for improvement.
- Critically reviews quality of research and relevance to proposed domain / problem space