

COMPSCI 345 / SOFTENG 350

Assignment 2: Design for Student “Connected Experiences”

Worth 10% of your final grade

The assignment should be undertaken in groups of 3 or 4

Each group member should plan to spend 12 hours on this assignment

Upload one submission (per group) to Canvas

Due by 8am on Monday 11 May

Aims

The aim of this assignment is to give you group work experience in conducting contextual inquiry, brainstorming, framing and reframing, storyboards and low fidelity prototyping, to conceive of a digital system that supports “connected experiences” for university students in the context of full-time, remote, online education.

Background

A physical university campus provides many opportunities for students to feel connected to a community of university students. You sit with your peers in lecture halls and seminar rooms. You bump into peers in labs and coffee shops. The campus includes signs inviting you to join various campus social groups. When you study quietly in the library, there are dozens of others also quietly studying. With self-isolation, students don’t have many opportunities to feel connected through the physical environment, physical co-presence or interaction. Physical co-presence refers to the awareness of people being present together without necessarily speaking. Physical interaction enables what is commonly referred to as “phatic communication”: verbal or non-verbal communication that has a social function rather than an information sharing function. Phatic communication can include various forms of greetings and digital “likes”.

One way to think about a student feeling connected is the following visual depiction of self and community:

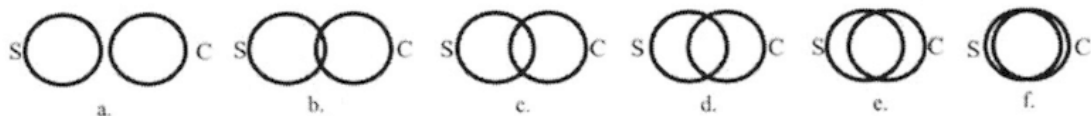


FIGURE 1. Inclusion of Community in Self Scale
(where “S” = self and “C” = community).

Figure from: Mashek, D., Stuewig, J., Furukawa, E., & Tangney, J. (2006). Psychological and behavioral implications of connectedness to communities with opposing values and beliefs. *Journal of social and clinical psychology*, 25(4), 404-428.

The goal of the system that you design and prototype is to enable students to engage in “connected experiences”, i.e., supporting feelings of connectedness with a community of university students *during university-related experiences* such as watching lectures, reading textbooks, doing homework and studying. Supporting connectedness should enable a student to “feel” part of a community. It can lead to making new friends or to receiving help on schoolwork, but should focus on supporting feelings of connectedness. Connectedness can be supported by social interaction, co-presence (such as status indicators, activity indicators, etc.), phatic communication, engagement toward civic goals, and awareness of similarities between the self

and other community members such as engaging in similar work, having similar values, and other attributes.

The context for your design is remote learning, which is the context for University of Auckland students in early April 2020. Though personas are not explicitly part of this assignment, you should think of the needs of university students as end users. Your target users use digital services including Canvas, Piazza and social media, as well as devices including laptops, smartphones, smartwatches. Your proposed solution can be integrated with one of those current technologies, or could exist on other platforms such as smart glasses or IoT devices.

Materials

For the images, sketches and wireframes, in your brainstorming, storyboard and low-fidelity prototype, you may either use paper or the digital tool of your choice.

1. Contextual Inquiry

1a. The first step is a familiarisation process of systems that support connectedness and connected experiences. These systems can include prototypes from academic articles or commercial systems. Groups of 3 should review at least six systems, and groups of 4 should review at least eight systems. Include a reference section to indicate the source of the system.

1b. The second step is to interview peers on their work practices of maintaining connectedness with their communities. The interviewees should be peers in your course who are not in your group. Groups of 3 should interview at least three peers, and groups of 4 should review at least four peers.

1a and 1b should be up to 900 words for groups of 3, and up to 1200 words for a group of 4.

2. Brainstorming

Brainstorm possible solutions to support university student “connected experiences”. These solution ideas should reflect learnings from the contextual inquiry steps and team member’s personal experiences. Encapsulate each idea with a brief phrase (and ideally also a sketch) to ensure that it is understandable. Include mentions of technology and / or devices where relevant. You should loosely group types of solutions in different areas to reveal subareas of the design space, as in an affinity diagram.

This section should include roughly 15 ideas for a group of 3 and roughly 20 ideas for a group of 4.

3. Framing and Reframing

Your brainstorming should have revealed different ‘framings’, or kinds of solutions for university students’ “connected experiences”. Choose the most relevant framings to describe. Groups of 3 should describe three framings in up to 600 words. Groups of 4 should describe four framings in up to 800 words.

4. Storyboards

For the most relevant framings from in the previous section, choose a relevant scenario and solution, and create a storyboard to depict these. Each storyboard should have 3-4 scenes (boxes) and should take up about half of a A4 sheet of paper. Groups of 3 should create two storyboards and groups of 4 should create three.

5. Low Fidelity Prototype

Choose one proposed solution to wireframe for your low-fidelity prototype. Write:

- a) a description of your proposed system, and
- b) a written description of one key interaction in a scenario.

In the prototype, include appropriate breadth and depth (on the key interaction in the scenario). Each “wireframe screen” should have adequate complexity and may include small add-ons such as colour changes to status indicators. Groups of 3 should have about four screens’ worth of content and up to 300 words for 5a-b. Groups of 4 should have about 6 screens and up to 400 words for 5a-b.

A video should be produced to demo the use of the prototype, showing the key interaction and scenario described in 5b. Videos from groups of 3 can be up to 45 seconds long and videos from groups of 4 can be up to one minute long. The video can be uploaded to any service of your choice and a link provided in your report. The video should be viewable from the link with no account creation.

Submission: A single PDF document that includes:

1. Contextual Inquiry. The text, screenshots, photos and sketches from the data familiarisation process and the interviews. Reference sources can be included as footnotes or endnotes.
2. Brainstorming. The text, sketches and image of the brainstorming.
3. Framing and reframing. The text from the framings of kinds of solutions.
4. Storyboards. The images of the storyboards.
5. Low fidelity prototype. The descriptive text, images of the prototype and a link to the video demo.

Images should be scanned by the camscanner app. Bullet points may be used for the writeup. Word counts includes figure captions, subheadings, table headings, etc.

Assignment 2 Rubric

Criteria

- Domain knowledge: Relevance of systems reviewed for familiarisation of student connected experiences.
- Work practice observation: Depth of understanding of your peers’ work practices to support feeling connected.
- Brainstorming: Relevance of proposed solutions to support connected experiences. Meaningful grouping of ideas.
- Framing and reframing: Quality and relevance of the 3-4 different framings proposed. Correct application of the concept of framing and reframing.
- Storyboards: Relevance and scope of depicted scenario to supporting student connected experiences.
- Low Fidelity Prototype: Appropriate breadth and depth to highlight scope of system and key interaction. Quality of the prototype. Relevance of interaction and scenario.
- Video: Quality of video.
- Overall quality: Clarity of writing / sketches / descriptions and professionalism of the presentation.

Assessment of criteria

Criteria are assessed as excellent, good, satisfactory, unsatisfactory or fail. A letter grade is assigned based on holistic assessment of the categories.