

1. Overview

Over the course of the past two year, there have been many changes in people's everyday lives. From the way they socialize and interact with each other, to how they manage to go through their daily activities. It can be argued that the remote delivery of courses had become the new normal in the time of COVID. Therefore, coming back to campus can be challenging for a lot of students.

For international or first generation students, things could be harder. Many of them came here when the pandemic started and not only had to adjust to the pandemic and the new lifestyle that came with it, but also to a new country, language, culture, etc. Now that we have returned to campus after the pandemic, there might be new barriers these students are facing.

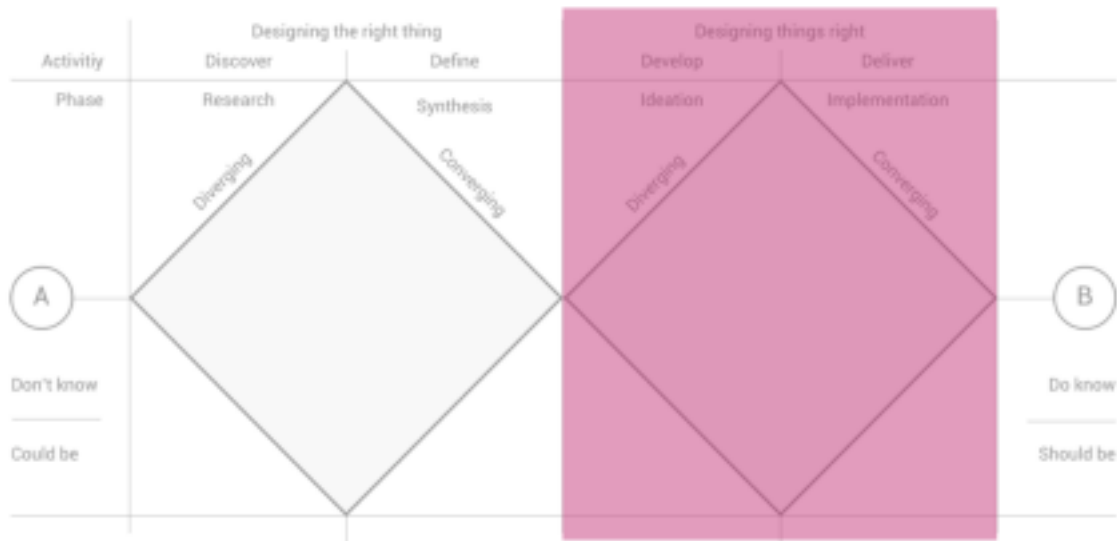
In these assignments (assignments 1 & 2), you are asked to work in your group and go through at least one iteration of the design process of interactive systems to identify *one of the main struggles or barriers of international or first-generation students transitioning back to campus* and eventually find a solution that can help with the daily lives of them in some shape or form.

At the conclusion of these components (end of assignment 2), you will have an interactive prototype of an interactive system alongside all the associated materials (personas, user profiles, ...) that will help with the future design and development of an interactive system. *You are not expected to build a fully functional or a minimum viable product.*

2. PART 1 (Assignment 1 - Problem Statement/ Design Brief)

Read Chapters 2 and 11 of the textbook. In order to complete this part, you will need to be familiar with the contents of these chapters.

In this part of the assignments, we focus on the first diamond in the double diamond of design.



2.1 Discover and Define

In the Discover phase, we observe the people (*at least 5* people from the target population), to find out about their problems, their goals, their concerns, their needs and requirements *for coming back to campus...*

Here is a list of the activities you need to do as part of this phase:

2.1.1 Method: make observations

- (i) **Use probes, contextual inquiry, or brainstorming** to find out about the problems of international or first generation students (they can be your international or first generation friends (if applicable), roommates (if applicable), family members (if applicable, e.g. they are an international and first generation student), ...) have with *coming back to campus*. This can be in the context of:
- Commuting
 - Health and safety
 - Wellness
 - Time management
 - Food and diet
 - Other opportunities or problems...

Pay attention that the focus should be on the concerns that *international or first generation students* have from going back to the *in-person* form of study.

- (ii) **Report the documentation** of the outcome of your sessions. Through scripting or taking note of the sessions, taking pictures of the boards of ideas, etc.
- (iii) Try to find **commonalities** in the data you collect through answering these questions: What are the problems or opportunities for design? What needs to be fixed? What can be enhanced? What are the needs that cannot be addressed using the current interactive systems.
Use the techniques and suggestions explained in the book for brainstorming or contextual inquiry and **document your steps and findings**.

2.1.2 User profiles, Personas, Scenarios

Based on the **patterns** you find in the data, develop **at least** (i) **two user profiles**. Develop (ii) **a persona for each of these profiles** with (iii) **a scenario** capturing how the user is expected to interact with the product.

2.1.3 Establishing requirements

We will use the **Volere Requirements Specification Template** to structure the design brief in this assignment. This should **include a sub-section for each of Functional and Non-Functional Requirements**. The Non-Functional Requirements section should contain sub-sub-sections for each of the following:

- Look and Feel Requirements
- Usability and Humanity Requirements
- Performance Requirements
- Operational and Environmental Requirements
- Maintainability and Support Requirements
- Security Requirements
- Cultural and Political Requirements
- Legal Requirements

Locate an on-line source of information about the Volere Requirements Specification Template. Obtain further information about each of these. Remember: the requirements should not be so specific as to determine the design of the interactive system. They should provide the criteria which determine whether a particular design can be considered or not. Many different potential designs can meet the requirements.

2.1.4 Use cases

Identify at least **two use cases** of the system. Associate the use cases with one of the roles in the system. You are free to use any of the use case styles introduced in the book or class.

2.2 Submission

The written report for this assignment will contain:

- An explanation of the technique used to gather data from users (alongside some exemplary pictures or notes documented), patterns found, ...
- Two user profiles
- A persona for each user profile with a scenario capturing user interaction
- Requirements
- Two use cases of the system

Marking Criteria

Soundness:

- completeness and appropriateness of the method chosen for discovery phase
- the extent to which documentation provided touches upon critical points while being concise
- user profiles are distinct from one another
- distinction between user profiles and persona
- completeness and appropriateness of requirements
- requirements do not, in a sneaky way, specify the design (design decisions and requirements are abstracted apart)
- success in identifying use cases

Presentation:

caliber and quality of written report, pictures, etc.

3. PART 2 (Assignment 2)

Read Chapter 12 of the textbook. In order to complete this component, you will need to be familiar with the contents of this chapter. In this part you need to provide a low fidelity and a high fidelity prototype of your system. This falls under the second diamond of the double diamond of design. **A detailed specification for Assignment 2 will be provided later on eClass.**