DESN445 Design Research - Winter 2022

**DESN445- Discover and Define - (30%)**

Team work (team of 2)

**Context**

This semester the whole class will work on safety in public transportation. Our community partner, ETS, is interested in exploring innovative digital solutions regarding safety in transportation. Prior to imagining new solutions, the whole class needs to understand better the components, issues related to safety and transportation. We need to understand the various actors, their needs, their experiences, in order to design useful and adapted solutions.

This is the first part of the project, the class will act as a research team, where you will all conduct research to understand and make sense of the topic presented to you. After selecting, preparing and collecting data, you will share the results of your research, present gaps and potential avenues for design solutions, to the class and to ETS. The goal for this presentation is to help you, but also the whole class understand better the topic of this part of the project and its scope, to identify and prioritize the main issues and to start discovering potential opportunities for design solutions.

**Learning outcomes**

* Apply design methodologies to tackle complex design problems
* Employ critical thinking skills to make connections, and integrate and apply knowledge from different sources.
* Share knowledge to a group
* Apply user experience design principles and methods that satisfy project outcomes
* Design a seamless experience across multiple channels.

**In this project, you will...**

1. Do the readings and the necessary research to understand important issues related to the theme of the project.
2. Select research methods
3. Prepare, conduct and analyze research
4. Share research findings with the group
5. Present potential design solutions.

**Project Calendar**

* Class 1
  + Project introduction.
  + Intro to ecosystem map and inventory of elements
* During the week
  + Start required readings
  + Choose teammate(s)
  + Prepare questions for ETS
  + Sketches for ecosystem map
* Class 2
  + Presentation by ETS
  + Select Research Methods
  + Ecosystem map peer critique
* During the week
  + Continue required readings
  + Start preparing the research
  + Recruit participants and set meetings (about 30 minutes).
  + Work on ecosystem map
* Class 3
  + Prepare research
  + Ecosystem map peer critique
* During the week
  + Conduct Research
  + Refine and finalize ecosystem map
* Class 4
  + Discuss first results
  + **Ecosystem map is due**
* During the week
  + Conduct Research
* Class 5
  + Analyze Research
* During the week
  + Finalize analysis and Prepare Presentation
* Class 6
  + **Discover and Define Presentation**

**Methods**

* Each team will select and conduct 2 of the methods from the list below.
* Each method should be covered by at least 1 team (except for “others”). Max 2 teams per method.
* Each student in the team will be responsible for **one of the methods** they selected.

Indicate your team and methods in [this document](https://docs.google.com/document/d/1ohZ5lJoG9XxVcVCXMHTj3aCwVJrCJu-edaUcPUO0mJ0/edit#heading=h.xcld4rnf02ey).

Here are the methods:

| Interview | Interviews with various service users or with other stakeholders.  *5-7 interviews* |
| --- | --- |
| Naturalistic observation | Observation of peoples, places, existing security measures, etc.  *3-4 hours* |
| Social Media Analysis | Analysis of what users are saying about ETS and safety on social media.  Twitter  <https://twitter.com/takeETSalert>  Advanced search (safe OR safety OR unsafe OR security OR Secure) (to:takeETSalert)  Facebook  <https://www.facebook.com/takeETS/>  *30-50 posts* |
| Comparative analysis | Comparative analysis of solutions implemented by other cities that are different from what Edmonton is doing.  *10-15 documents* |
| Other methods: (mind map, card sort, etc.) |  |

# Description of Deliverables

You will submit 2 deliverables: a presentation and a process document.

## Presentation (25%)

The presentation is a 15-20 minute presentation where your team presents your methodology, your findings and potential design opportunities. Presenters must also be prepared to answer questions from the audience.

Your presentation must include the following:

* Introduction
  + - Short description of project and overall goal.
* Methodology
  + - Literature review
      * List of what you read.
    - Name of chosen methods
    - For each method
      * Name of the method
      * Goal for this method.
      * Where does your method fit in the ecosystem map?
      * Number of participants or documents
      * How you recruited participants
      * What you did (e.g sample of questions asked)
* Findings
  + - Show and explain your affinity diagram overall
    - Present with more details your top 10 findings:
      * Name the finding
      * Illustrate with quotes, charts, pictures, screenshots, etc.
      * Tell us why this finding is important
* Discussion and design opportunities
  + - Present a list of 5-10 potential solutions
    - Link them to your findings and to the ecosystem map
    - You can show sketches for 1 or 2 of them if you know what you want to explore next.

## Process Book (5%)

The goal of this deliverable is to present your process and to show the work you did. Include the following elements:

* Research worksheets
* [Reading worksheet](https://docs.google.com/document/d/1JdB3QnhDqa9FTVl9wJoIrZABviza5FHRhDiKjuA9SdA/edit) for all required readings and 5 of your own readings
* Raw data. For example:
  + Questionnaires and participant results (e.g. note you took)
  + List of social media posts analyzed.
  + Screenshots and pictures of results.
  + etc.
* Other relevant documents (eg. sketches of design solutions).
* Teamwork (filled as a group) *- see templates below*

Note: the process book should have a coherent and cohesive look (e.g. same size for level 1 headers) but does not need to have an original, unique and professional visual style. It can be done in Google doc.

| **Format**. PDF.  **Due date**. February 14, 2022  **Where**. In Class and On Blackboard   * Presentation: DESN445\_DiscoverDefine\_SmithJane\_Presentation.pdf * Process: DESN445\_DiscoverDefine\_SmithJane\_Process.pdf |
| --- |

**Evaluation Criteria**

### Presentation of findings (/25)

All required content areas are addressed and covered in depth.

* Methodology
* Findings
* Discussion and design opportunities

Presentation

* Overall presentation quality / clarity
* Design of the presentation document
* Use of expert vocabulary related to interface design
* Arguments (use of readings, user research, etc.)
* Respect of time allotted

### Process Book (5)

* All required content areas are addressed and covered in depth.

# Readings

**Required readings and videos**

* Bruce Schneier: The security mirage

<https://www.ted.com/talks/bruce_schneier_the_security_mirage>

* ETS Safety and Security:
  + <https://www.edmonton.ca/ets/safety-and-security>
  + <https://www.edmonton.ca/ets/safety-security-personnel-support-staff>
  + <https://www.edmonton.ca/ets/safety-security-tips>
  + <https://www.edmonton.ca/ets/TraXSafe>
  + <https://www.edmonton.ca/ets/safe-ride>
* Applying digital to everything - Janet Hughes

<https://www.youtube.com/watch?v=wy8jgRLej0U>

* Read the articles related to the methods you will do:

| **Methods** | **Readings** |
| --- | --- |
| Interview | **User Interviews: How, When, and Why to Conduct Them**  <https://www.nngroup.com/articles/user-interviews/> |
| Naturalistic observation | **The Role of Observation in User Research** <https://www.uxmatters.com/mt/archives/2018/09/the-role-of-observation-in-user-research.php> |
| Social Media Analysis | **Using Social Media for User Research** <https://www.smashingmagazine.com/2017/03/using-social-media-user-research/> |
| Comparative analysis | **Comparative analysis** <https://www2.gov.bc.ca/gov/content/governments/services-for-government/service-experience-digital-delivery/service-design/methods-and-tools/service-analysis/comparative-analysis>  **A Guide to Competitive Analysis for UX Design**  <https://xd.adobe.com/ideas/process/user-research/guide-to-competitive-analysis-ux-design/> |
| Other methods: (mind map, card sort, etc.) | Service Design tools <http://www.servicedesigntools.org/taxonomy/term/1>  Find one reading related to your method. |

* 5 other readings or videos

**Optional Readings**

* Research Repositories for Tracking UX Research and Growing Your ResearchOps

<https://www.nngroup.com/articles/research-repositories/>

* UX Research Cheat Sheet

<https://www.nngroup.com/articles/ux-research-cheat-sheet/>

* Ethnography in UX  
  <https://www.nngroup.com/videos/ethnography-ux/>
* How to Collaborate with Stakeholders in UX Research

<https://www.nngroup.com/articles/collaborating-stakeholders/>

* Interpreting Contradictory UX Research Findings

<https://www.nngroup.com/articles/interpreting-research-findings/>

**Appendix 1: Teamwork Planning**

**1. Names, email and phone number for each team member**

* Brett Johnson | 306-261-5186 | [Johnsonb232@mymacewan.ca](mailto:Johnsonb232@mymacewan.ca)
* Ryley Goodine | | goodiner@mymacewan.ca

**2. When are you going to meet outside of class?**

* Brett
  + Open availability
* Ryley
  + Wednesday, Thursday, Friday - all day usually works for me unless my work hours conflict. Weekends will work as well.

**3. Where are you going to meet (digital platform, room, etc)?**

* Brett
  + \*\*\* live downtown so anyplace is easily accessible for me \*\*\*
  + Digital platforms ,Discord, Google Meets,
* Ryley
  + Live on the west end so getting downtown is around a 30 minute drive, possibly an hour if taking the bus.
  + Digital platform with Discord works well.
  + Personal discord server link instead of messaging on our profile: https://discord.gg/qHzhPxJx

**4. How are you going to communicate (which platform and how often)?**

* Platforms:
  + Discord and Gmail are the primary means of communication

**5. We have created a Google Drive folder for our group**

* Yes

**6. For each team member, name 2 strengths and 2 challenges that the other team member should be aware of. Discuss how this could impact the project. I identify 1 strategy to overcome each challenge.**

* Brett
  + Strength
  + Challenge
* Ryley
  + Strength
    - Computer programming skills
  + challenge

**7. Responsibilities**

Create a list of tasks and indicate which team member is responsible for each of them.

| **Tasks** | | **Ryley** | **Brett** |
| --- | --- | --- | --- |
| **Communication** | Set up Team Meetings | [x] | [x] |
| Take Notes |  |  |
| Time/Objectives Tracking |  |  |
| Maintain Google Drive | [x] | [x] |
| Add other tasks |  |  |
| **Discover and Define phase** | Method X (Social Media Analysis) | [x] |  |
| Method Y (Comparative Analysis) |  | [x] |
| Add tasks |  |  |
|  |  |  |
|  |  |  |

**8. What will be your strategies to ensure cooperation and equal distribution of tasks?**

Constant contact over the week on discord?

**9. What is your preference for leadership** (informal, formal, individual, shared)**?**

* Brett
  + Shared leadership is my preference, seeing as we are a team of two there shouldn’t be a need for a formal leadership role in this project.
* Ryley
  + Agreed

**Appendix 2: Teamwork Assessment**

**1. Overall, how effectively has your team been working together on this project?**

| 1 | 2 | 3 | 4 | ***5*** |
| --- | --- | --- | --- | --- |
| not at all | poorly | adequately | well | ***extremely well*** |

**2. What is the percentage of work done by each member of the team** (eg. Troy: 50%, Nancy: 50% OR Troy 75%, Nancy 25%).

Ryley: 50%

Brett: 50%

**3. Create a list of tasks and indicate which team member did these tasks.**

| **Tasks** | | **Ryley** | **Brett** |
| --- | --- | --- | --- |
| **Communication** | Set up Team Meetings | [x] | [x] |
| Take Notes | [x] | [x] |
| Time/Objectives Tracking |  |  |
| Maintain Google Drive | [x] | [x] |
| Set up Discord Server | [x] |  |
| **Discover and Define phase** | Social Media Analysis Method | [x] |  |
| Comparative Analysis Method |  | [x] |
| Coded Social Media Posts | [x] | [x] |
| Code Team Affinity Diagram |  | [x] |
|  |  |  |

**4. Do you think each member of the team should get the same mark?**

***Yes*** / No

yes

**5. Please explain why** (respecting deadlines, doing weekly assigned work, quality of the work, present and active in class, prepared for in-class activities, quality of communication between teammates, etc.).

Work completed with respect to the deadlines, and we’re present and active in the group discussion during and outside of class.

**6. What do you suggest** (same mark, -5%, -10%, -20%, etc.)?

Same mark

**7. Give one specific example of something you learned from each other that you probably would not have learned on your own.**

Making the association between the feelings and opinions of ETS riders and other services and products provided by other transportation organizations; in particular, comments found on Twitter about contact payment methods and the lack of fair gates — directly correspond to the identified services and products, already being used in other transportation systems.

**8. Suggest at least one specific, practical change the team could make that would help improve everyone’s learning.**

Have a clearly outlined plan of work for the project for each stage, so collecting and analyzing information is easier to perform.