

Week 7

Mini-Lectures & Activities

CMPT 363

How to understand and communicate people's needs and behaviors?

Last Week

- Prototyping (Week 6)

Previous 5 Weeks of Course (incl. Weekly Readings)

- Usability Testing (Week 5)
- Usability Inspections (Week 4)
 - Heuristic evaluation assignment
- Interaction Design (Week 3)
- Mobile & Multi-device Design (Week 3)
- The Process of UX Design (Week 2)
- Introduction to UX (Week 1)

This Week

- User Research (Week 7) 🎉

Final 6 Weeks of the Course

- Conceptual Models (Week 8)
- Instructor Feedback Meetings (Week 9)
 - Group assignment due following week
- Visual Design Essentials (Week 10)
- Systems Design/Special Topics (Week 11)
- Instructor Feedback Meetings (Week 12)
 - Group assignment due following week
- Course Wrap-up (Week 13)
- Final Exam - Aug 21st 12:00pm - 3:00pm PDT

Assignment #2 - Discovery Research and Exploratory Storyboards

For this group assignment, you will conduct and summarize discovery research, along with creating four design scenarios and accompanying scenario-based storyboards for your re-design of the Canvas Mobile App.

While I have increased the focus of this group assignment to be more towards the storyboards it is still a considerable amount of work and should be started right away

Assignment #2 - Discovery Research and Exploratory Storyboards

Deliverables:

- Each group member's name and contributions for this assignment
- User research questions (i.e. objectives)
- List of identified research (i.e. app reviews, user forums, etc.) themes, with key insights for each theme
- Four design scenarios
- Black and white scenario-based storyboards (for a total of 14-20 panels)
- Group self-assessment of storyboard mockups UX (out of 10)
 - Usability, usefulness and desirability
- Appendix: All discovery research sources and external re-design efforts

Assignment #2 - Discovery Research and Exploratory Storyboards

	Outstanding	Very Good	Good	Fair	Poor
Research Questions (i.e. Objectives) (/2)	Outstandingly well chosen and written research questions.	Extremely well chosen and written research questions.	Very well chosen and written research questions.	Moderately well chosen and written research questions.	Satisfactorily chosen and written research questions.
Thematic Analysis (/4)	Outstandingly valuable and relevant themes identified, along with a matching set of insights for each theme.	Extremely valuable and relevant themes identified, along with a matching set of insights for each theme.	Very valuable and relevant themes identified, along with a matching set of insights for each theme.	Moderately valuable and relevant themes identified, along with a matching set of insights for each theme.	Satisfactorily valuable and relevant themes identified, along with a matching set of insights for each theme.
Design Scenarios (/2)	Outstanding use of context, plot, product touch-points and goals (i.e. expected outcome). Meets all the criteria of a good design scenario by Lewis and Rieman.	Excellent use of context, plot, product touch-points and goals (i.e. expected outcome). Meets all the criteria of a good design scenario by Lewis and Rieman.	Very good use of context, plot, product touch-points and goals (i.e. expected outcome). Meets all the criteria of a good design scenario by Lewis and Rieman.	Moderate use of context, plot, product touch-points and goals (i.e. expected outcome). Meets most of the criteria of a good design scenario by Lewis and Rieman.	Satisfactory use of context, plot, product touch-points and goals (i.e. expected outcome). Does not meet any of the criteria of a good design scenario by Lewis and Rieman.
Storyboard Mockups (/10)	Outstanding usability, usefulness and desirability.	Excellent usability, usefulness and desirability.	Very good usability, usefulness and desirability.	Moderately good usability, usefulness and desirability.	Satisfactory usability, usefulness and desirability.

Assignment #2 - Discovery Research and Exploratory Storyboards

Group will submit a self-assessed mark (out of 10) for the overall user experience represented on their storyboards:

- ✓ Usability
- ✓ Usefulness
- ✓ Desirability

If I agree with your assessment you get a bonus point too!

Assignment #2 - Discovery Research and Exploratory Storyboards

Each assignment #2 group will be able to signup for a 20 minute Zoom meeting between 12noon and 5:00PM PDT Jul 7th - 9th (available now via course homepage)

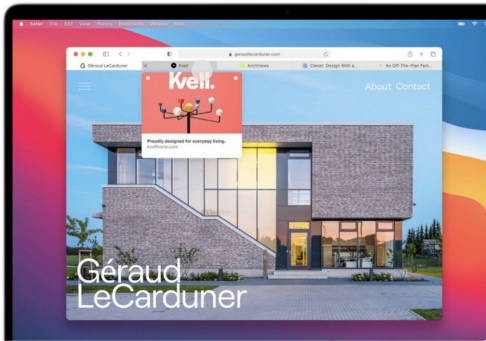
Assignment #2 Questions or Comments?

Oh, Anyone Catch the Apple WWDC Yesterday?

Rene Ritchie @reneritchie · 3h
I wonder how much of the new macOS 11 redesign was intended to make iPhone and iPad apps running on Apple Silicon Macs fit in better?

@BenLeggiero@Mastodon.Social
@BenLeggiero

Or to smooth the introduction of touchscreens next year. I noticed that on the Big Sur page on apple.com, they show a touch-like cursor instead of the traditional Mac cursor



The screenshot shows a web browser window displaying the Apple Big Sur website. The page features a large image of a modern building with a glass facade. Overlaid on the image is a red box with the word 'Krell.' and a small icon of a person. Below this, there is a text box that says 'Prostely designed for everyday living.' and 'Krell.com'. The name 'Géraud LeCarduner' is visible at the bottom of the image. A small cursor is visible on the screen, indicating a touch-like interaction.

5 9:07 PM - Jun 22, 2020

[See @BenLeggiero@Mastodon.Social's other Tweets](#)

Screenshot captured by screenshot.guru

Luke Miani @LukeMiani · 6h
macOS Big Sur looks like it's totally built for touch screens.... I wonder....

Richard Waterworth
@waterworthr

Menus have "more room to breathe" 🔍



The video thumbnail shows a woman with long brown hair holding a magnifying glass over a play button icon. The background of the video shows a house with a brick chimney and a green lawn.

14 6:16 PM - Jun 22, 2020

[See Richard Waterworth's other Tweets](#)

Screenshot captured by screenshot.guru

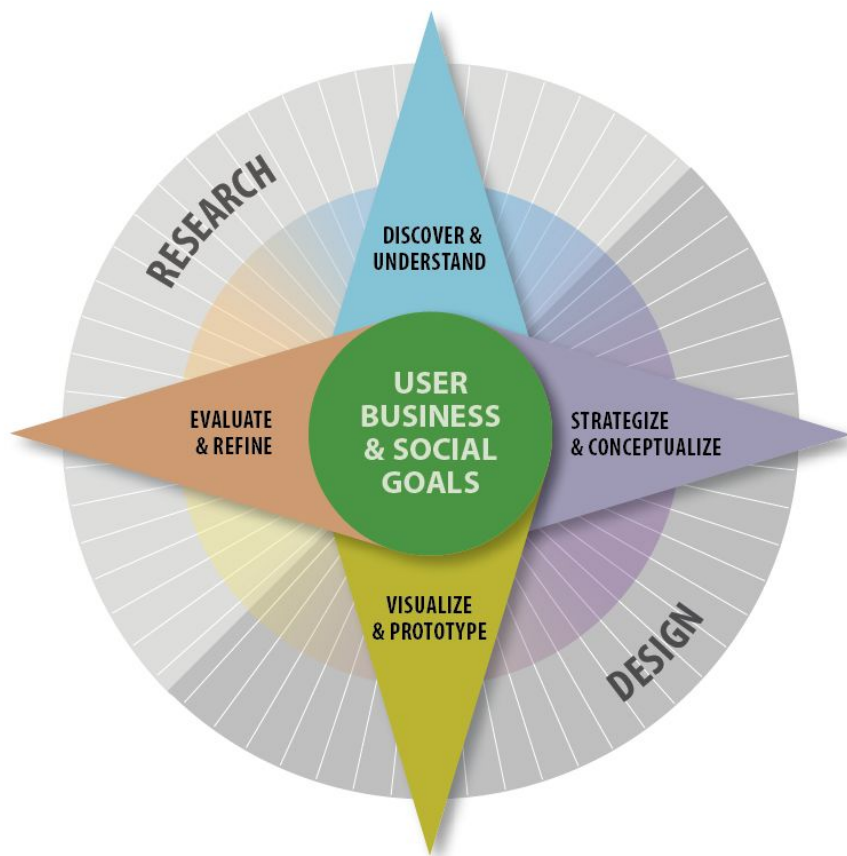
User Research

CMPT 363

“We do not see things as they are, we see them as we are.”

— Anaïs Nin

*How to understand and communicate
people's needs and behaviors?*



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Topics To Discuss

- User Research Methods & Processes
- Thematic Analysis
- Stories of Usage
- Discovery Research (research without users)

How to understand and communicate people's needs and behaviors?

UX Research Methods & Processes

Qualitative User Research Techniques

- **Semi-structured Interviews**
 - A core set of mostly open questions, with ad-hoc questions for more details as appropriate
- **Contextual Inquiries**
 - Observing people in their own environment, performing their actual work with a product
- **Usability Testing**
 - Having people representative of your target audience try to complete specific tasks

	Quantative	Qualitative
Generation	Surveys Card Sorts	Interviews Contextual Inquiries
Validation	A/B Testing Analytics	Usability Testing

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Research Questions (i.e. Objectives)

Before you start any type of user research, think about what you need to learn and let that guide the creation of your questions

Before You Start Any User Research Effort

Identify the questions you are trying to answer (i.e. five Ws and one H):

- Who?
- What?
- Where?
- When?
- Why?
- How?

Online Activity

Write one possible user research question involving a change to the GoSFU course registration system

Type in your response into the chat area, BUT DO NOT PRESS RETURN (YET)

Consider the “5 Ws and an H” structure:

- Who?
- What?
- Where?
- When?
- Why?
- How?

Example User Research Questions (GoSFU)

1. What do students find most helpful about GoSFU?
2. What external resources do students use with GoSFU?
3. Where are students having difficulties with GoSFU?
4. When are students using GoSFU?
5. Why are students using GoSFU?
6. What are students using GoSFU for?
7. How are students using GoSFU?
8. How do students decide which courses to register for?

For assignment #2, you need to consider what your own user research questions you **can** and **cannot** answer via “discovery research” (no direct user contact)

Time for Questions & Discussion

- What we've covered so far
 - Qualitative user research techniques
 - User research questions
- Coming up
 - Thematic analysis

How to understand and communicate people's needs and behaviors?

Thematic Analysis

Thematic Analysis

Once you have user research data (preferably directly from users via observation etc.) you will need to “make sense” of it.

Thematic Analysis

Thematic analysis is one of the most common analysis techniques in qualitative research

Thematic Analysis

The objective of thematic analysis is to find patterns (i.e. themes) within qualitative data

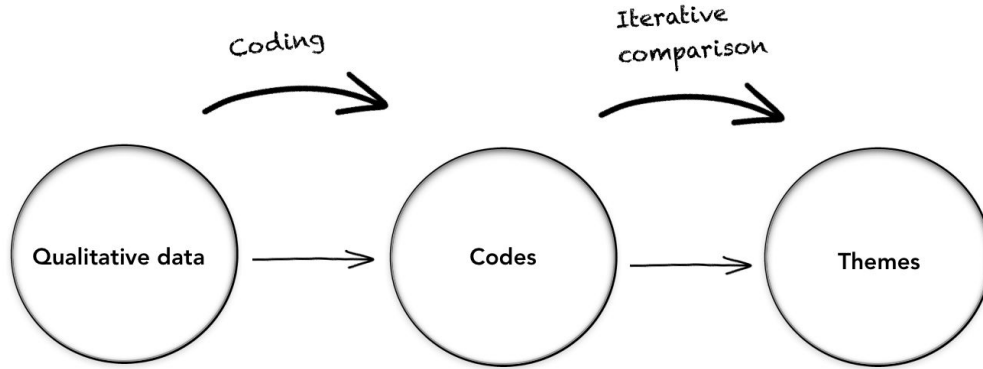
Thematic Analysis

The purpose of identifying themes is to help answer questions and find meaning within unstructured nature of qualitative data

Thematic Analysis

This technique is also applicable to almost any kind of unstructured data, for example documents, online posts, etc.

THEMATIC ANALYSIS



NNGROUP.COM **NN**/g

<https://www.nngroup.com/articles/thematic-analysis/>

Basic Process of Thematic Analysis

1. Gather qualitative data
2. Review all gathered data
3. Identify initial “codes”
4. Synthesize codes into themes
5. Review identified themes
6. Finalize and name themes

Online Activity

Let's start to do a thematic analysis activity...

Example Thematic Analysis

R1: “When I was a graduate student I loved working in Library A because it is such a lovely place to work. The difficulty here is – I hate working in Library B, I think it’s a slum; it’s an airport lounge, erm, I can’t stand Library C which is even more of a slum; I don’t care for Library D very much, so I don’t like working there. But when I go abroad – I’ve just been to Washington; working in Library E there is very pleasant and I enjoy that, although you don’t get much done because people come and talk to you and show you things, there’s chat and you can’t do long stints, at Library E, at 3.45 they ring a bell and you have to go and have tea.”

R2: “I love Library G to work in, it’s a pain in the arse to get things out, because you know, you, everything is, you know, you have to go and order it, but its thirty minutes minimum you know, but I love going in there, sitting in there and working in there. I think it’s just amazing as a building and I never really thought about the extent to which the environment affects me.”

Source: Qualitative HCI Research: Going Behind the Scenes, by Ann Blandford, Dominic Furniss and , Stephann Makri

Example Thematic Analysis — Possible Codings?

R1: “When I was a graduate student I loved working in Library A because it is such a lovely place to work. The difficulty here is – I hate working in Library B, I think it’s a slum; it’s an airport lounge, erm, I can’t stand Library C which is even more of a slum; I don’t care for Library D very much, so I don’t like working there. But when I go abroad – I’ve just been to Washington; working in Library E there is very pleasant and I enjoy that, although you don’t get much done because people come and talk to you and show you things, there’s chat and you can’t do long stints, at Library E, at 3.45 they ring a bell and you have to go and have tea.”

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Time for Questions & Discussion

- What we've covered so far
 - Thematic analysis
- Coming up
 - Stories of usage

IT'S

INTERMISSION

TIME!

How to understand and communicate people's needs and behaviors?

Stories of Usage


Scenarios

A story of people and their activities, including reaching their primary goal

Example Scenario

“Emma, a sales manager, needs to arrange a meeting with her 5-member sales team (Becker, Kim, Taylor, Olsen and Singh) to work out the details of an upcoming promotion for their newest product ReadBetter. Using the meeting room booking system from her office computer she determines when they can all meet this week and reserves a room with a projector for the meeting.”

Common User Models - Personas and Empathy Maps



Amy the Accountant

Associate Director of Financial Advising | Age 43

Amy has been working at her firm for 6 years, and was recently promoted to a director-level supervisory position. She's a techy, highly educated power user.

Goals & Objectives

- Responsible for accuracy of all reports created by employees in her division
- Needs to see an overview of current billable hours per month completed
- Wants quick reference for relevant tax code info while reviewing reports

Behaviors

- Learns and uses keyboard commands to save time with repetitive work
- Prefers to have her employees send her work for feedback before deadlines
- Keeps key parts of the tax code printed and pinned on her office walls for quick reference

Traits

Multi-device use

Domain experience

Multi-tasking

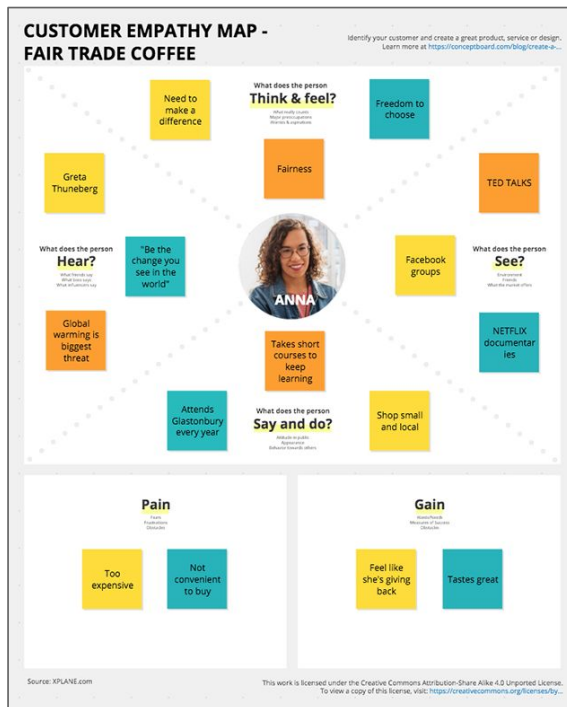
Product loyalty

Familiarity with product

Tutorial usage

Amount of time spent with product

<https://www.nngroup.com/articles/persona/>
<https://conceptboard.com/blog/create-a-customer-empathy-map-in-6-easy-steps/>



User Story

As a role,

I want to goal/desire

so that benefit

Example User Stories

As a Central Canadian Bank customer, I want to withdrawal funds from an ATM so that I have the cash I need on hand.

As a Central Canadian Bank customer, I want to transfer funds from one account to another so that I have the funds to cover a large cheque.

Jobs To Be Done

A framework, or really a lens, to focus on customer motivations

The JTBD Framework

Whatever product you are involved in, considering asking the question, what job is your product hired to do?

What is a Job-To-be-Done?

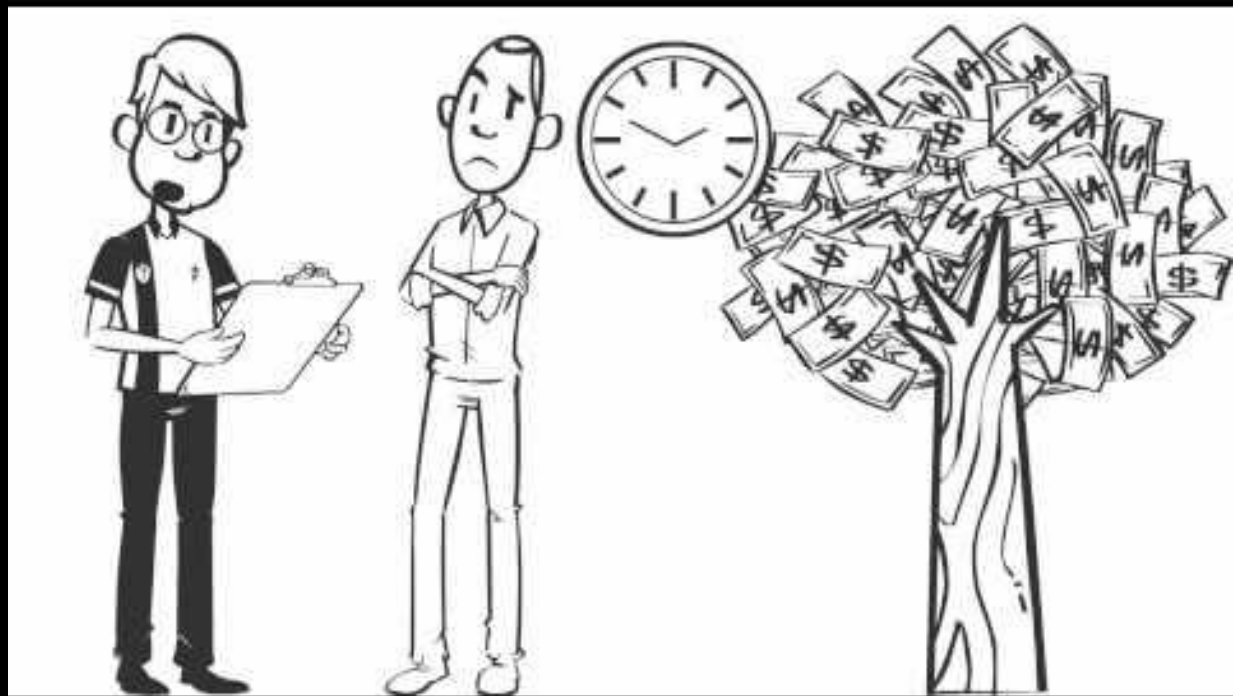
The premise is simple: customers don't just buy products
They "hire" them to do a job.



Theodore Levitt
Harvard Business School

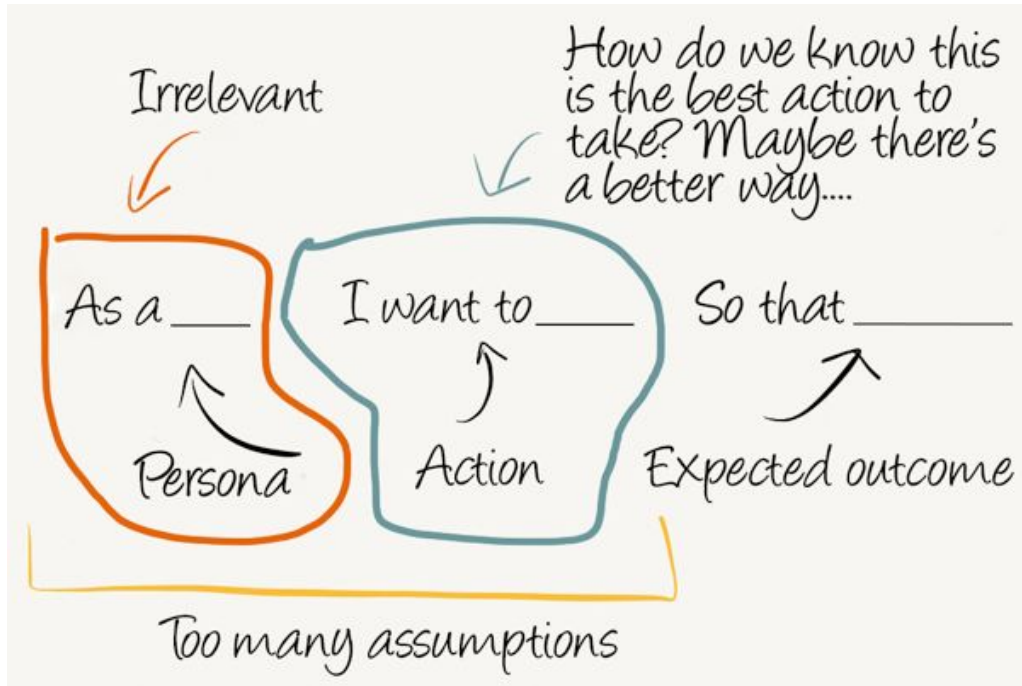
October 28th 2013 at www.BusinessofSoftware.org

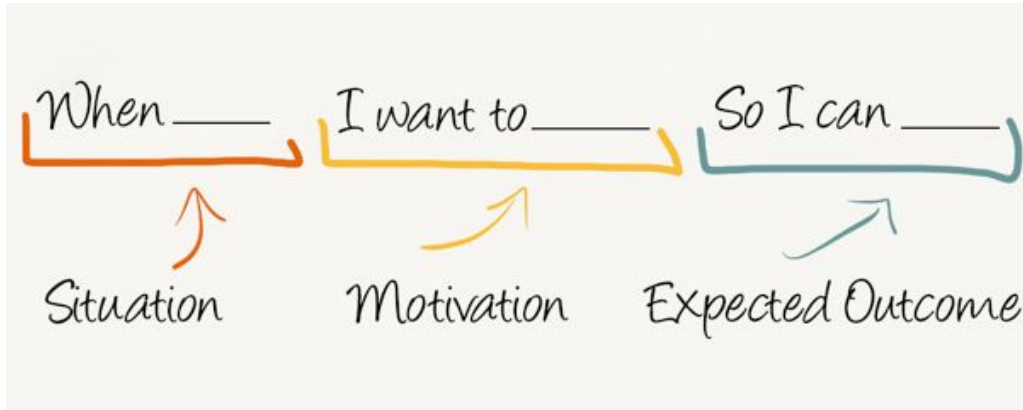




Job Stories

A job story is an alternative to traditional user stories to collaborate and capture product requirements





Example Job Story vs User Story

→ more on the situation
When I am running low on cash I want to get access to some additional funds So I can have the cash I need on hand.

As a Central Canadian Bank customer, I want to withdrawal funds from an ATM so that I have the cash I need on hand.

*↓
more on person side*

Example Job Story vs User Story

When I need more funds to cover an upcoming large cheque I want to know ahead of time So I have the funds to cover the cheque.

As a Central Canadian Bank customer, I want to transfer funds from one account to another so that I have the funds to cover a large cheque.

Ways to Represent Stories of Usage

- User Stories
- Scenarios
- Jobs To Be Done
- Job Stories

Online Group Activity

Create several job stories for students using the Canvas Mobile App. Job stories are often an effective way to start creating design scenarios!

Let's use your chosen group communication/collaboration platform for this activity.

Job Story format:

When [situation],

I want to [motivation]

So I can [expected outcome]

Contact me via Blackboard Collab chat area with questions etc.

How to understand and communicate people's needs and behaviors?

Discovery Research (research without users)

Discovery Research

When direct contact with users is not possible, or in preparation of actual user research, alternative research methods might be appropriate

CAVEAT: Direct user research is always preferred and the most reliable

Discovery Research Methods (no user contact)

- User discussion forums ✓
- Application reviews ✓
- Comparative analysis
- Try out the application/website yourself ✓
- Construct a Jobs to be Done list
- Existing end-user documentation ✓
- Support FAQs (frequently asked questions)

Summary

- User Research Methods & Process
- Thematic Analysis
- Stories of Usage
- Discovery Research (research without users)