

UX Research

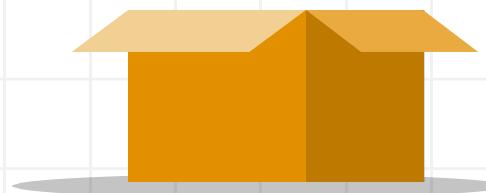
WEEK 4



Reminder (if you haven't done so)

Access Week 4's content (with the [Pre] tags) and complete the activities **BEFORE** F2F class.

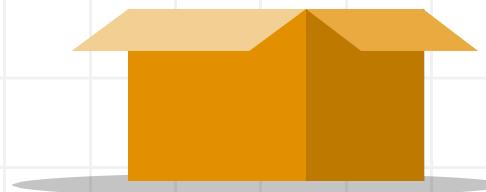
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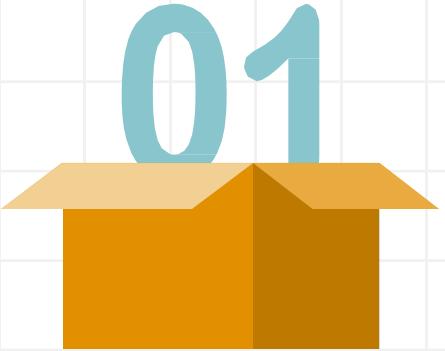


What did we learn last week?

- Understanding the Design Brief
- Identifying & Understanding the Users
- Persona & Empathy Map
- Contextual Enquiry, Focus Group, Analytics



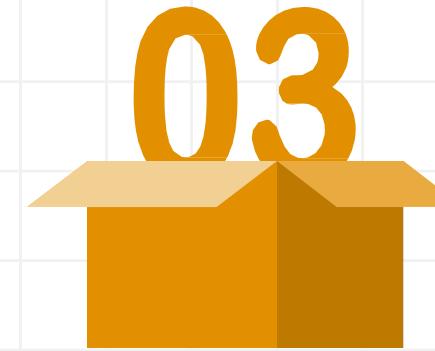
This Week



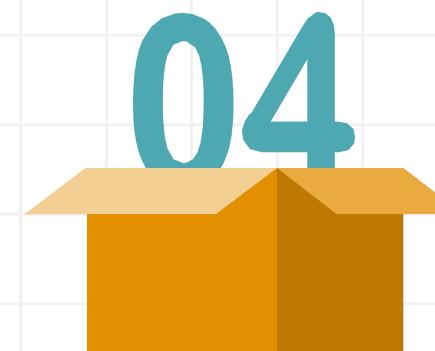
Using Existing Research
(OAL Recap)



Research Methods
(OAL Recap)



User Research (User Flows,
User Journey, Storyboard) -
(OAL Recap)



Synthesizing your research
(Affinity Mapping, Insights,
Recommendation) –
(OAL Recap)

Using Existing Research

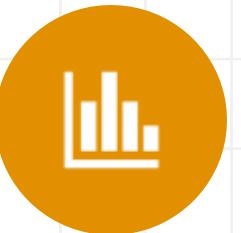


Desk Research

- ❑ Gathering data without leaving your desk
- ❑ Look at past research and other information about your user and product.



Desk Research



Website
analytics



Academic
papers



Blogs and
articles



Search engines



Videos

Benchmarking Activities

Landscape Review,
Expert Review, Heuristics Review,
System Usability Scale



Benchmarking Activities

Create a baseline for your product by evaluating it against established criteria or metrics, or against competing products.

- Benchmarking activities include:
- Landscape Review
- Expert Review
- Heuristics Review
- System Usability Scale.

Landscape Review



This is a review of all information from other competitors with similar offerings or solutions.



Screenshots of websites, articles, apps, images.



Provides a broad analysis of the strengths and weaknesses of solutions currently in the market.

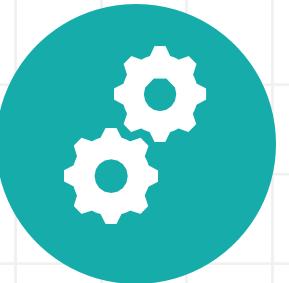


Doesn't provide unique insights.



Use at the beginning of a project.

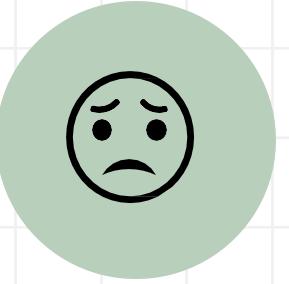
Expert Review



Identify and prioritize issues relating to the usability or user experience of a system or application.



Review your product against agreed criteria or best-practice design principles.



Effective when budget is tight.

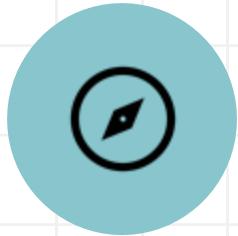


Can give a thorough overview of usability issues.

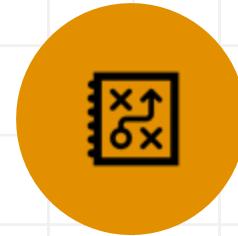
Expert Review



Ease or ability to complete tasks



Ease or ability to find / navigate



Design / content / layout assessment



Perception of usability, usefulness, credibility of information



Time to complete tasks

Heuristic Review



A rule of thumb based on experiential knowledge of how something works best.



Use at the beginning of your design project to uncover problems early.



One of the most well-known for evaluating digital products, by Jakob Nielsen - 10 usability heuristic for usability design

(<https://www.Nngroup.Com/articles/ten-usability-heuristics/>)

Heuristic Evaluation

Link: <https://youtu.be/sa5lswRd7Q8>

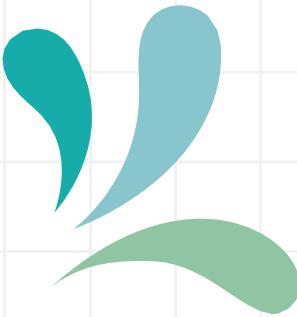
System Usability Scale (SUS)

A survey measuring user's perception of usability, a quantitative measure.

10 questions assessing 3 elements: **Effectiveness, Efficiency, Satisfaction**

Use at the beginning and end of a project. Work well with a low number of users.

<https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>



The System Usability Scale

When a SUS is used, participants are asked to score the following 10 items with one of five responses that range from Strongly Agree to Strongly Disagree:

1. I think that I would like to use this system frequently.
2. I found the system unnecessarily complex.
3. I thought the system was easy to use.
4. I think that I would need the support of a technical person to be able to use this system.
5. I found the various functions in this system were well integrated.
6. I thought there was too much inconsistency in this system.
7. I would imagine that most people would learn to use this system very quickly.
8. I found the system very cumbersome to use.
9. I felt very confident using the system.
10. I needed to learn a lot of things before I could get going with this system.

Research Methods



Research Methods



Quantitative Research

gives you answers on how often,
how many, how much, how long –
to measure / validate assumptions.



Qualitative Research

gives a deep understanding of
how people perceive their world.

Research Methods: Quantitative



Measurable



Numerical,
statistical,
mathematical



Finding can be
presented in
numbers,
graphs,
infographics

□ PROS

objectives, results can be
analyzed quickly using Excel
/ statistical software.

□ CONS

hard to uncover the “why”.

Research Methods: Quantitative (Surveys)



Most commonly used Quantitative research method: Surveys



Surveys collect information about the users, their attitudes and behaviours.



It's important to design your surveys and **frame your questions carefully**, to minimize bias.

Research Methods: Qualitative



Be objective – use
neutral words



Avoid leading questions
(i.e., suggesting a
correct answer)



Avoid blaming question
(suggesting the user is wrong)

Research Methods: Qualitative

- ❑ Qualitative Research
- ❑ A measure of quality – people's thoughts, feelings, ideas, perceptions.
- ❑ Gives you the **how** and the **why**.
- ❑ Interactive & **subjective**.
- ❑ Can include photos, drawings, sketches, video/sound recordings of what is said or done.
- ❑ Can gain great insights from smaller sample sizes.



Research Methods: Qualitative (Interview)



Image Source: Free Vector (Accessed: May 2022)

- ❑ A useful UX research method for every stage of your design process.
- ❑ Help you to discover the users' **thoughts, explanations and perceptions** through conversation.



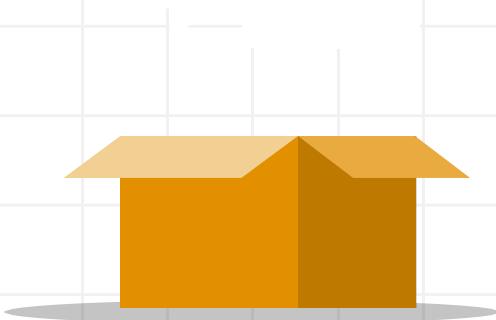
Planning an Interview

- ❑ Where, How, When?

- ❑ Prepare your questions for the interview guide.
- ❑ Think about how to frame your questions. Who will you interview? How many sessions?

- ❑ Other things to think about?
- ❑ For example, prepare a consent form, book spaces, organize recording devices, etc.

- ❑ Make a checklist.



Framing your Questions



Be clear, simple, neutral.



Ask one question at a time.



Use open-ended questions.



Build in probing questions
(Tell me more about..)



Create follow-up questions to help the user elaborate on a thought.



Avoid leading questions.

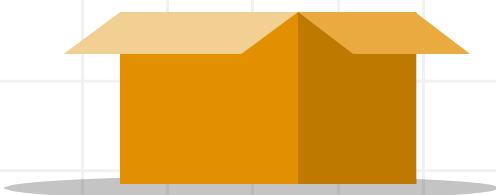


Avoid blaming questions.



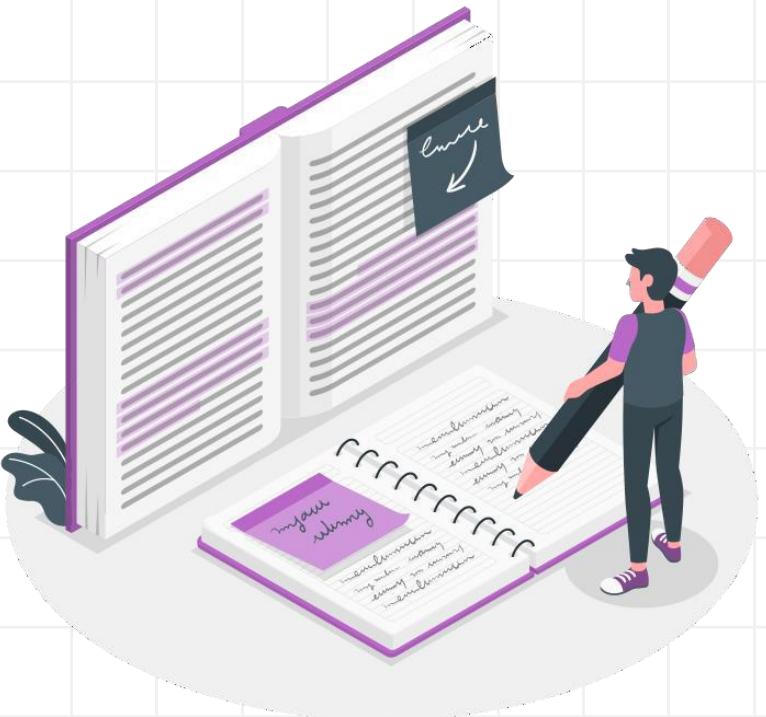
Tips for Writing Questions

- How will you **construct** your questions?
- What about the **sequence** of the questions? Start with easy then go into details?
- Do your questions **link** to the objectives of the research?
- **How would you end** the interview session?





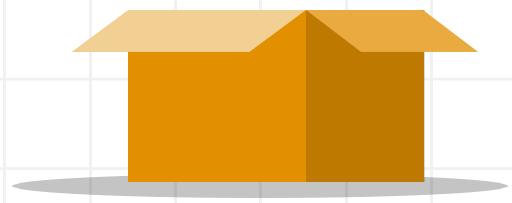
Note-taking



Note-taking techniques during the interview are important skills to master.

Practice taking Comprehensive, clear, legible notes.
It's a good practice to share the note-taking role between team members.

Looks for “clues” when taking notes.
They could be the customer’s thoughts, feelings or actions, your direct observation, facts, data or statistics.



Which of the following are applicable for User Research?

UNDERSTAND

- Requirement Gathering
- User Needs Analysis
- Competitive Analysis
- Contextual Enquiry
- Focus Groups



VALIDATE

- Rapid Prototyping
- Usability Testing
- Analytics

ANALYSE

- Personas
- User Journeys
- Content Audit
- Card Sorting
- Sitemap
- Information Architecture

DESIGN

- User Flows
- Wireframes
- Creative & Visual Design
- Interaction Design

User Research

(User Flows, User Journey, Storyboard)



User Flow/ Journey

- Path taken by a user to reach their goals within a digital product
- Purpose is to identify different ways to achieve goals in the easiest and fastest way

Our Customers / Journey Map

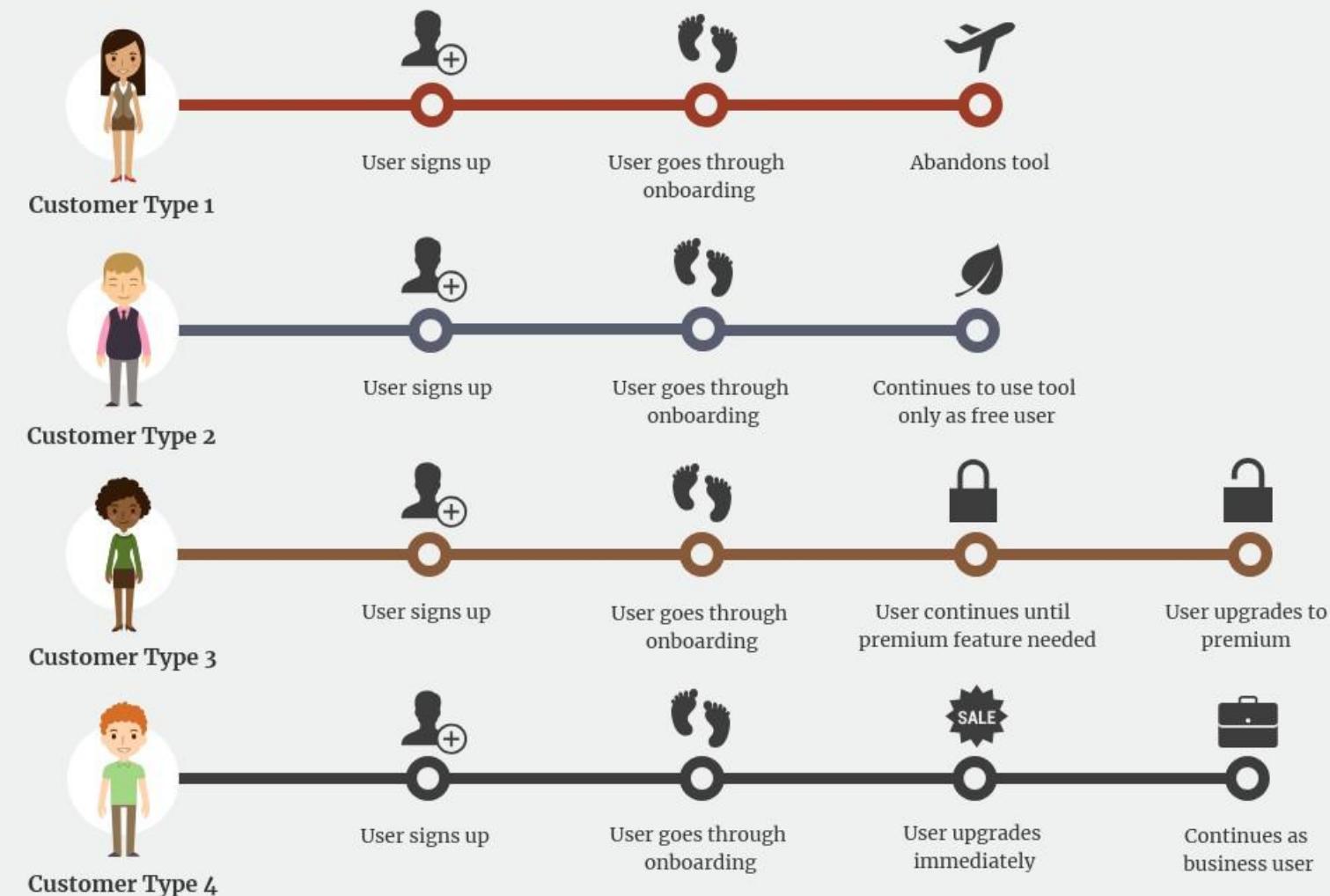
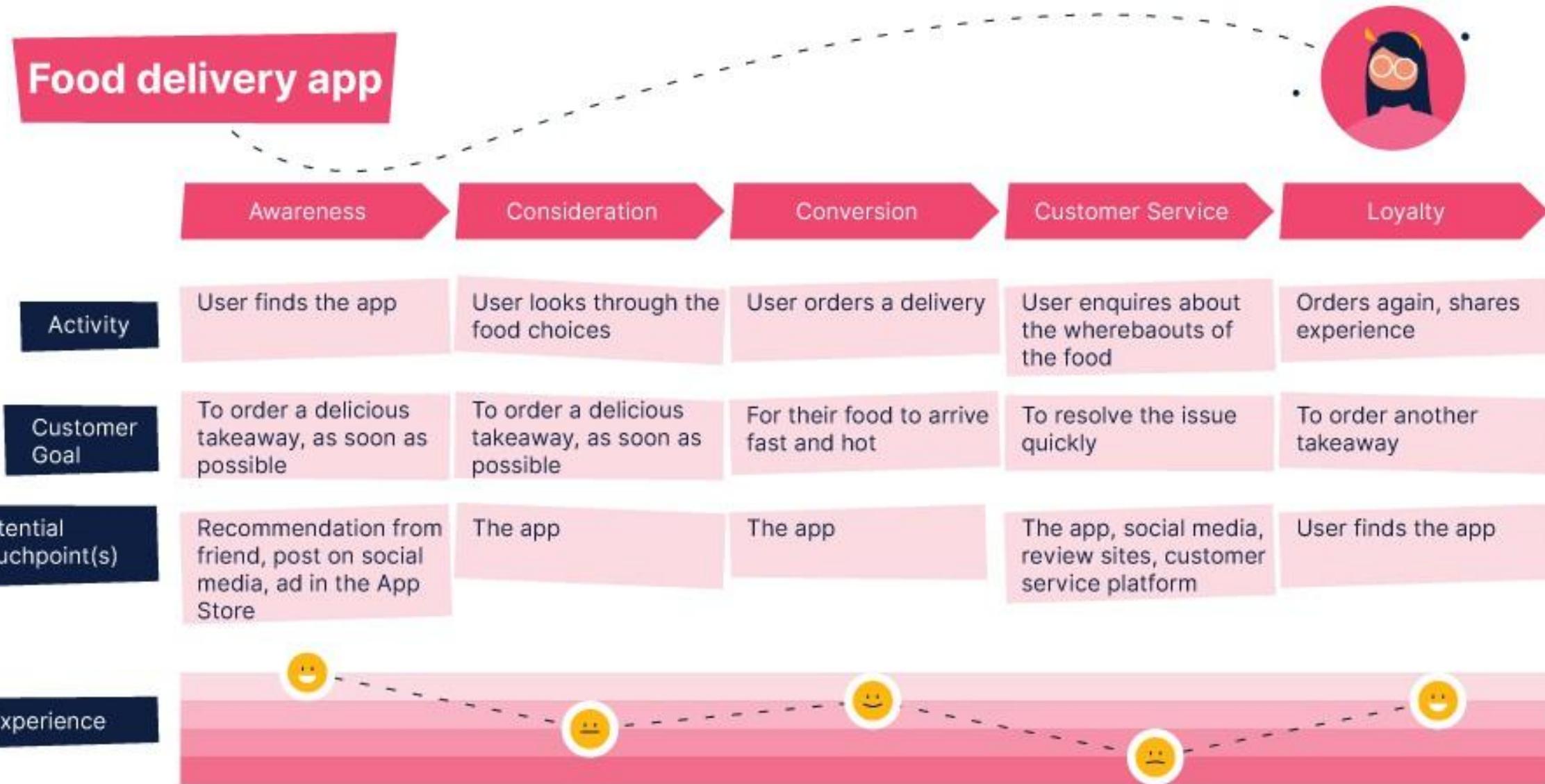


Image Source: Venngage (Accessed: July 2021)





FIRST UBER RIDE EXPERIENCE



JEN ASHBURN

32 years old
Full-time student with part-time job
Budget conscious
First time Uber user

GOALS

END: Use Uber App successfully, arrive at Lincoln Square Pancake House

EXPERIENCE: Stress-free experience getting to Lincoln Square Pancake House and avoiding parking/congestion; thrill of trying a new—potentially beneficial—experience

LIFE: Cost-consciousness, maximize offers; reliable, alternative means of transportation since she is a heavy commuter

DECISION TO USE

CHOOSE UBER DOWNLOAD APP

Saw promotion on internet for a FREE ride
Wanted to get food, but avoid the hassle of parking

Find on the App Store
Download the app **NERVOUS**

UBER APP PAGE IN APP STORE



SET UP ACCOUNT

REGISTER

Register new account
Choose outlet for creating account
Enter email and mobile number
Enter name

REGISTER SCREEN
CREATE ACCOUNT SCREEN
CREATE PROFILE SCREEN

ADD PAYMENT

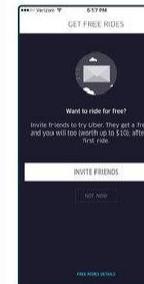
Choose method for linking payment
Redirected to third party site

PAYMENT SCREEN
PAYPAL REDIRECTION
CAMERA (SCAN CARD)

VERIFY ACCOUNT

Choose verification method for mobile device's number
Alert for referral promo—choice to continue or skip (skip)

Receive verification code
Input verification code

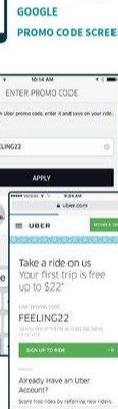
VERIFICATION INTERFACE
TEXT MSG

REQUEST RIDE

SET UP RIDE

Choose to allow push notifications
Uber App does not list free ride **CONFUSED**

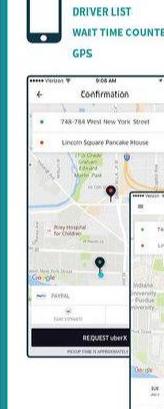
Search for first ride promo **RELIEF**
Input promo code "Feeling22" for a free ride up to \$22

PUSH NOTIFICATIONS
GOOGLE
PROMO CODE SCREEN

REQUEST UBER

See wait time
Click "Set Pick-up Destination"
Input destination address
Request Uber

Option to scroll and pick driver
CURIOUS
Input promo code "Feeling22" for a free ride up to \$22

GOOGLE MAP
DRIVER LIST
WAIT TIME COUNTER
GPS

RIDE UBER

FIND/ ENTER CAR

Phone call from driver asking for exact pick-up location **SURPRISED, RUSHED**
See driver is in a Honda Accord on app

Walk outside to wait for ride
See "car" on GPS map arriving at location
See Lyft sticker on car, not Uber (though Uber sticker is on windshield)

NEW YORK ST.
WEST ST.
INDIANA AVE.
UNIVERSITY AVE.
11th St.

TAKE RIDE

Ride up to restaurant
Converse with driver
Dropped off at destination

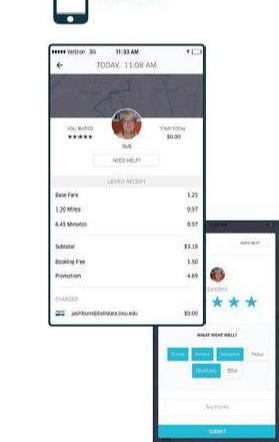
EXCITEMENT
DRIVER'S PHOTO
CAR INFORMATION
LOGO ON CAR

ARRIVAL

Arrive at destination **SATISFIED**
Transaction automatically complete
Leave cash tip for driver, unable to tip on app **AWKWARD, WORRIED**
Get receipt from app for transaction **SHOCKED**

Alert to rate driver

RECEIPT OF TRANSACTION RATE DRIVER



"That was a quick and painless drive. Didn't have to worry about parking or navigating. I hope this app on my phone to figure out how to get here."

"I want to give her a tip, but I don't have cash on me and they won't accept credit card. That is really inconvenient."

"Wow! \$ dollars for a 6 minute ride seems like a bit much. Probably would choose to drive myself instead."

The initial appeal to download the app is not just to get where you want to go quickly and safely, but that the first ride is free. This element is crucial in the desire to download the app.

The app registration experience was quick and easy, the user simply input name, email, and phone number to register.

The experience of setting up the account is an empowering one. The user has a lot of control over the entire experience, including the payment method.

After registering and verifying the account, provide the steps of how to use features of the app within the app itself. People tend to use the app immediately after creating the account because the need is immediate. Displaying these steps will lead to ease of use and less uncertainty about features in the app.

Display a free ride promo code once Uber App has been downloaded and the user has registered. This will make it easier and more immediate for the rider to use the free ride and request an Uber.

The experience of requesting the Uber and choosing the driver puts the rider in control, which is an empowering choice. Including prompt within the app that allows the rider to include number of passengers when requesting Uber. The driver will know how many he/she is transporting, and riders won't feel intrusive by forcing the driver to move items around to make space for riders.

The Uber car was easy to identify because the app displayed the model of car that the driver would be driving. The driver also called as she was approaching Herron. Make it more apparent that the Uber has been requested and a driver chosen. This will help riders make sure the driver

The driver was friendly and talkative. The car itself was spacious and comfortable. The driver, Sue, was considerate in asking for our preference of windows up or down. She spoke positive things about driver and rider security, which made us feel comfortable as riders.

Add a feature in the Uber App that allows the rider to tip the driver, rather than putting the pressure on the rider to tip in cash. This makes it easier for riders to tip and raises the likelihood that the driver will receive a tip.

Allow for a running deduction off of the promo code within the app, since we did not use up all \$22. This will make the

CRITICAL ANALYSIS FOR ACTION

Critical positive aspects of experience

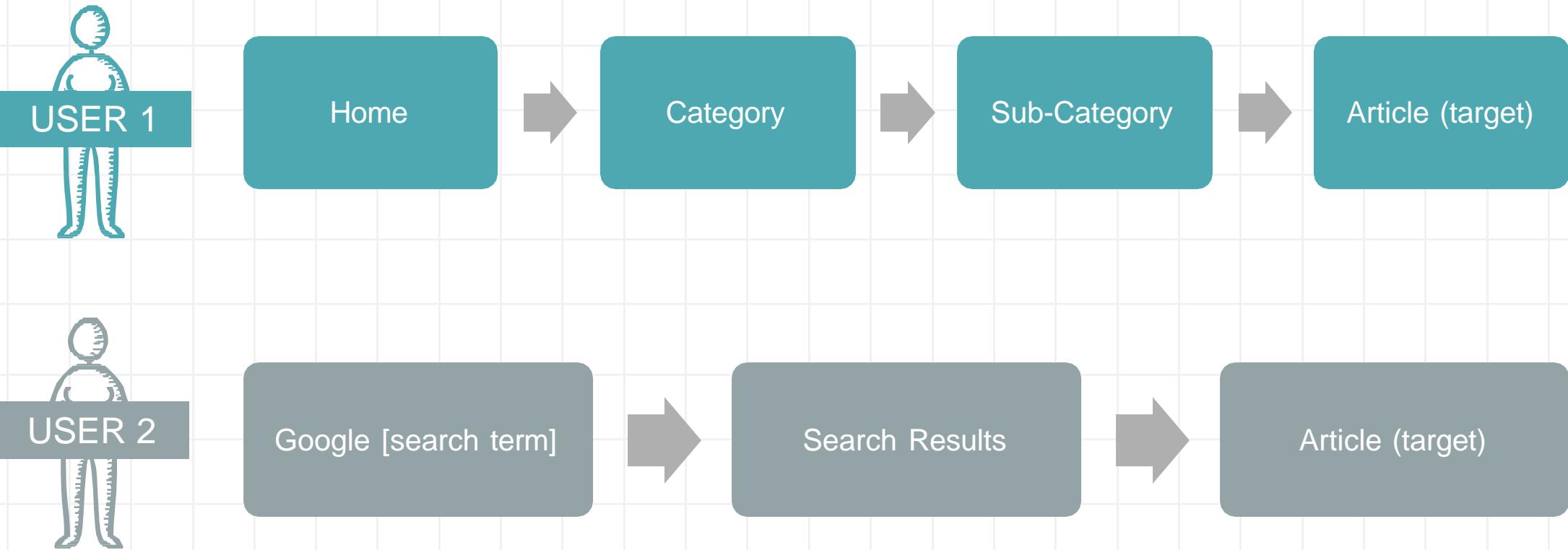
Critical points for improvement

Image Source: erinbalderson.com (Accessed: July 2021)

User Flow

- ❑ Typically working on **ONE task or goal** through your product or service, e.g. booking a car on Grab.
- ❑ Your product may have several tasks, and **different flows** for different persona (e.g. B2B vs. retail customer)
- ❑ Typically attached to a persona and/or a specific entry point

User Flow



User Journeys

- ❑ Expands beyond the task/product and how it fits in a larger context
- ❑ Example: How did the user even find out about Gojek, install the app, set it up, use it, decide to ditch it for Grab, etc.
- ❑ "The Bigger Picture"
- ❑ Also known as “Customer Journey Map” in certain situations

User Journeys

Key Features:

User Persona

User Scenario

End Goals

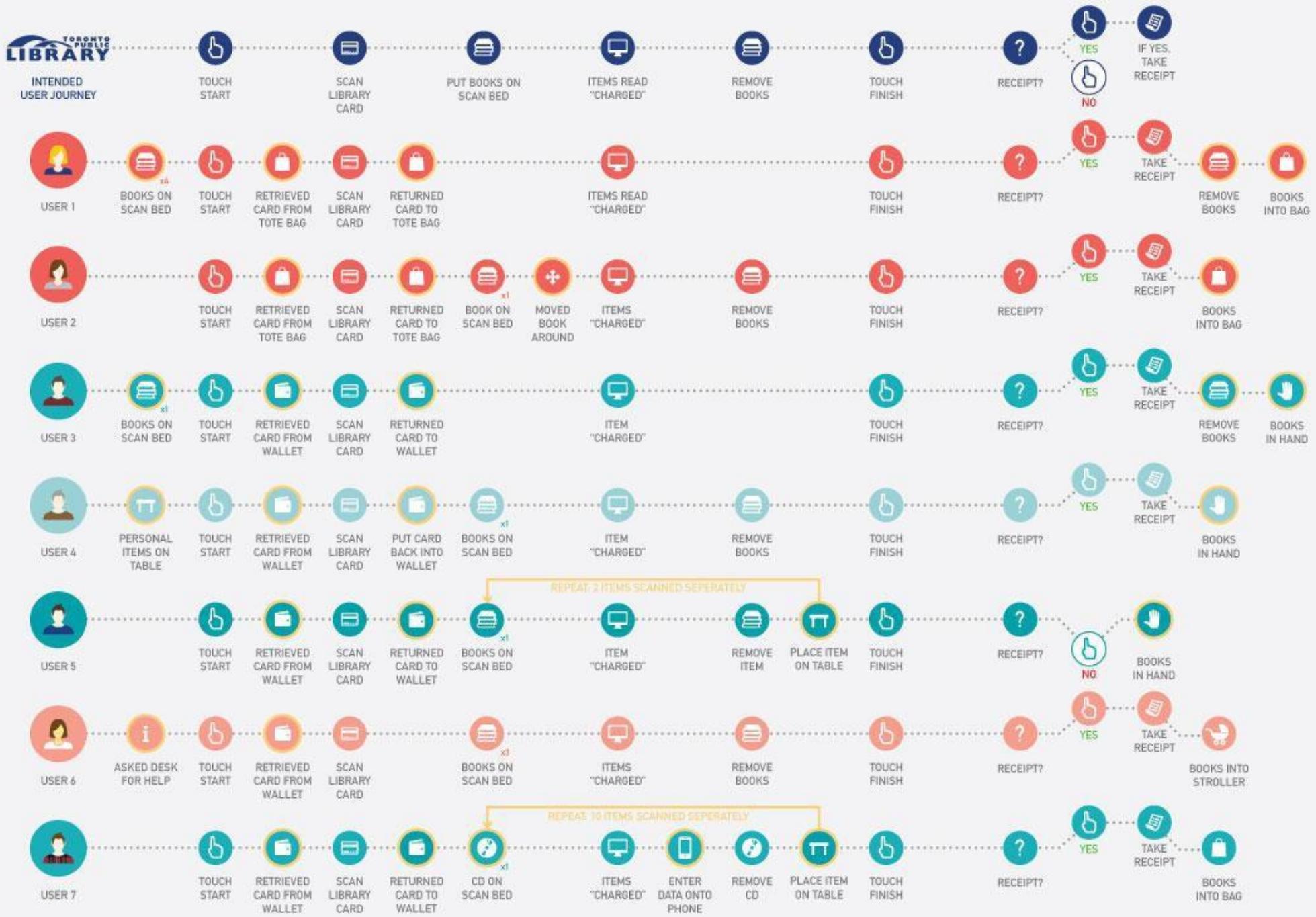
Steps

Opportunities

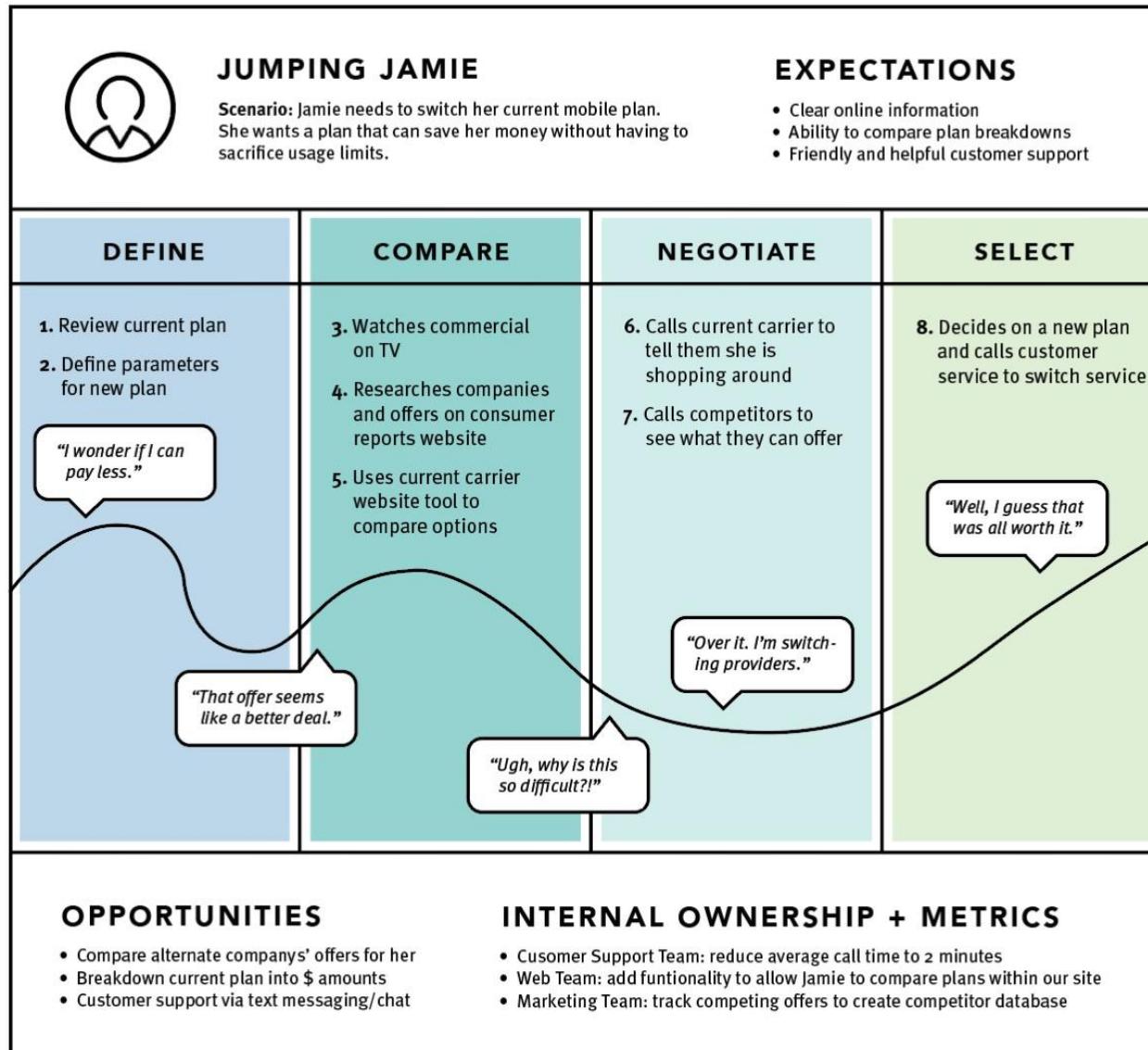
Ownership

FORT YORK
LIBRARY
EXPRESS
CHECK-OUT

USER JOURNEY MAP



CUSTOMER JOURNEY MAP Example (Switching Mobile Plans)



Online Shopping Customer Journey Map

Stages of Journey	Motivation	Searches for Websites		Browses the Site	Evaluates Products		Pay		
Activities	Wants to buy a Christmas gift for a friend	Searches products keywords on search engines	Clicks the 1st ads. result.	Checks online again and go to the 1st. original result	Checks out ongoing deals and hot sale products	Opens a product page to check product details.	Opens more product pages to compare info.	Processes to pay a preferred product.	Contacts online service for help.
Feelings									
Very Happy									
Overall Satisfied									
Unhappy									
Experiences	Excited to give a surprise to the friend.	<ul style="list-style-type: none"> Happy to see many options Confusing about how to choose. 	Annoyed at the useless info.	<ul style="list-style-type: none"> Happy with the informative shopping website, Not sure about how to find the best price. 	Surprise to see lots of discounts	Frustrated about reviews from other customers.	<ul style="list-style-type: none"> Pleased with usages & designs. Sad to see out of stock products. 	Frustrated to find only the Paypal payment option.	<ul style="list-style-type: none"> Satisfied with bank card payment. Feels unhappy to wait for a bit of long time.
Customer Expectations	Easily to obtain discount news.	More user-friendly search engine.	Allow to hide unnecessary ads.	Clear and innovative website design.	More discounts during holidays.	Higher quality products.	Faster supply chain system.	More payment choices.	Faster website speed.

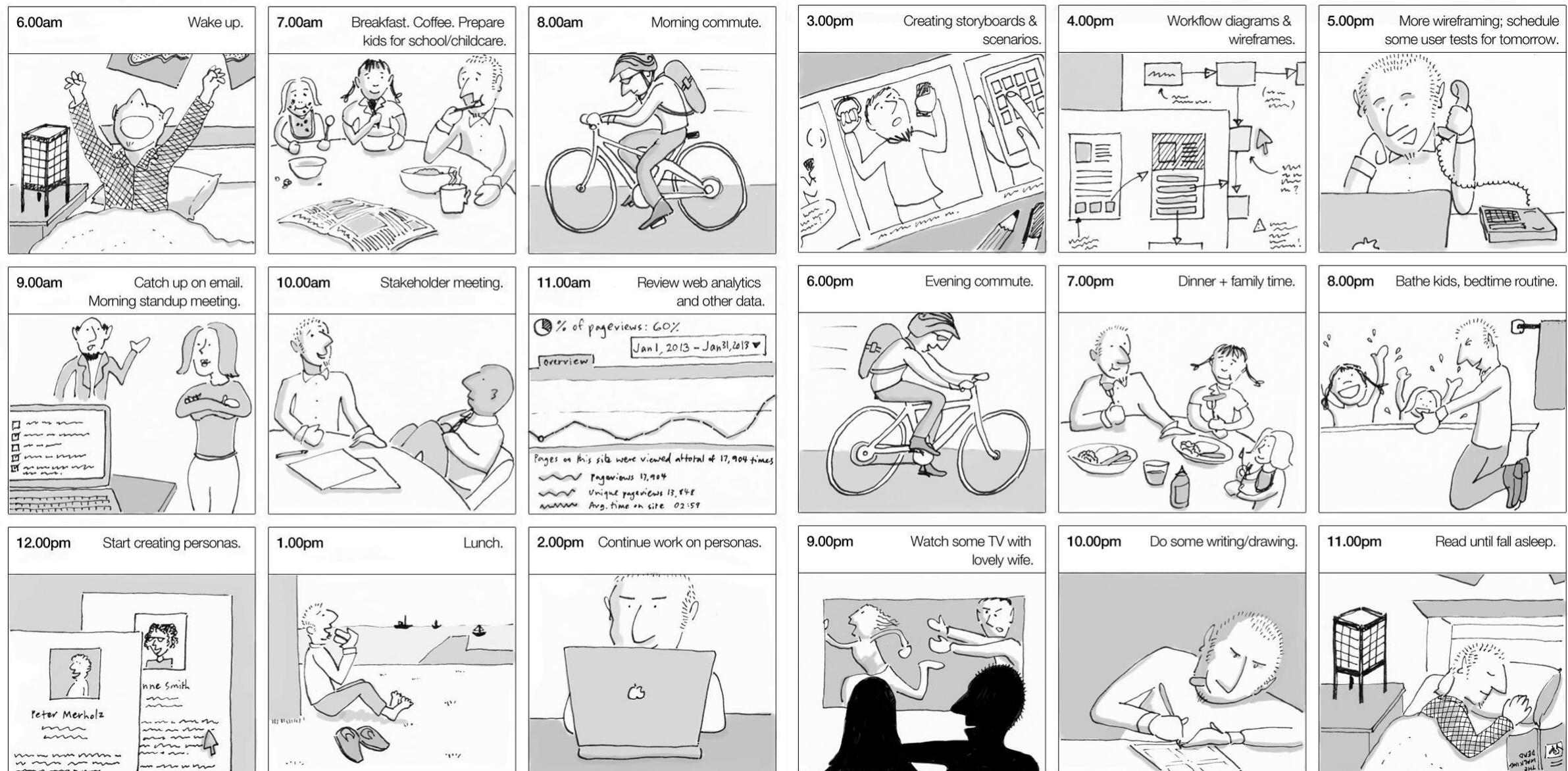
“A Day in the Life” Storyboard

- Catalogues the typical daily activities of a persona
- Descriptive walkthrough in the form of:
 - **Graphics / Infographics**
 - **Comic Strips**
 - **Video**
- Helps with understanding the motivations for a persona's behaviour or action
 - Provides insights into what customers think and do outside the scope of interaction with the device or system
 - Can be used in conjunction with Persona



A Day In The Life Of A UX Designer

by Matthew Magain (@mattymcg)

See all "day in the life" comics, and submit your own at: <http://uxmastery.com/dayinthelife>

**8:00 AM**

Alex reviews meetings scheduled for the day on his Teams mobile app. A notification also shows that a new report is available for review.

**9:00 AM**

At his office, Alex uses the Teams app and checks on the "Store Performance Tab" to review store metrics. He notices the sales forecast for the Boston store are trending low. Alex @ mentions Katie asking her for insights.

**10:00 AM**

Alex comes across an article on the company's Yammer network and shares it on his Teams "Retail" channel. He marks the conversation as important and @ mentions the entire channel asking them to come prepared with ideas at their next meeting.

**11:30 AM**

To prepare to lead a presentation at his next meeting, Alex navigates to the "New Employee Orientation" channel, to review questions asked by new employees in previous sessions.

1:00 PM

On the Planner app, Alex notices he has an upcoming task to ensure readiness for the product refresh. He needs to confirm if the distribution of shelf sets has been completed in all the stores.

**2:30 PM**

Alex uses Teams chat to see if Cecilia is available for a quick chat. He starts an audio / video call with her to check if shelf sets have been completed. Alex adds Katie, the store associate, to their call, to check on the distribution of shelf sets.

**3:30 PM**

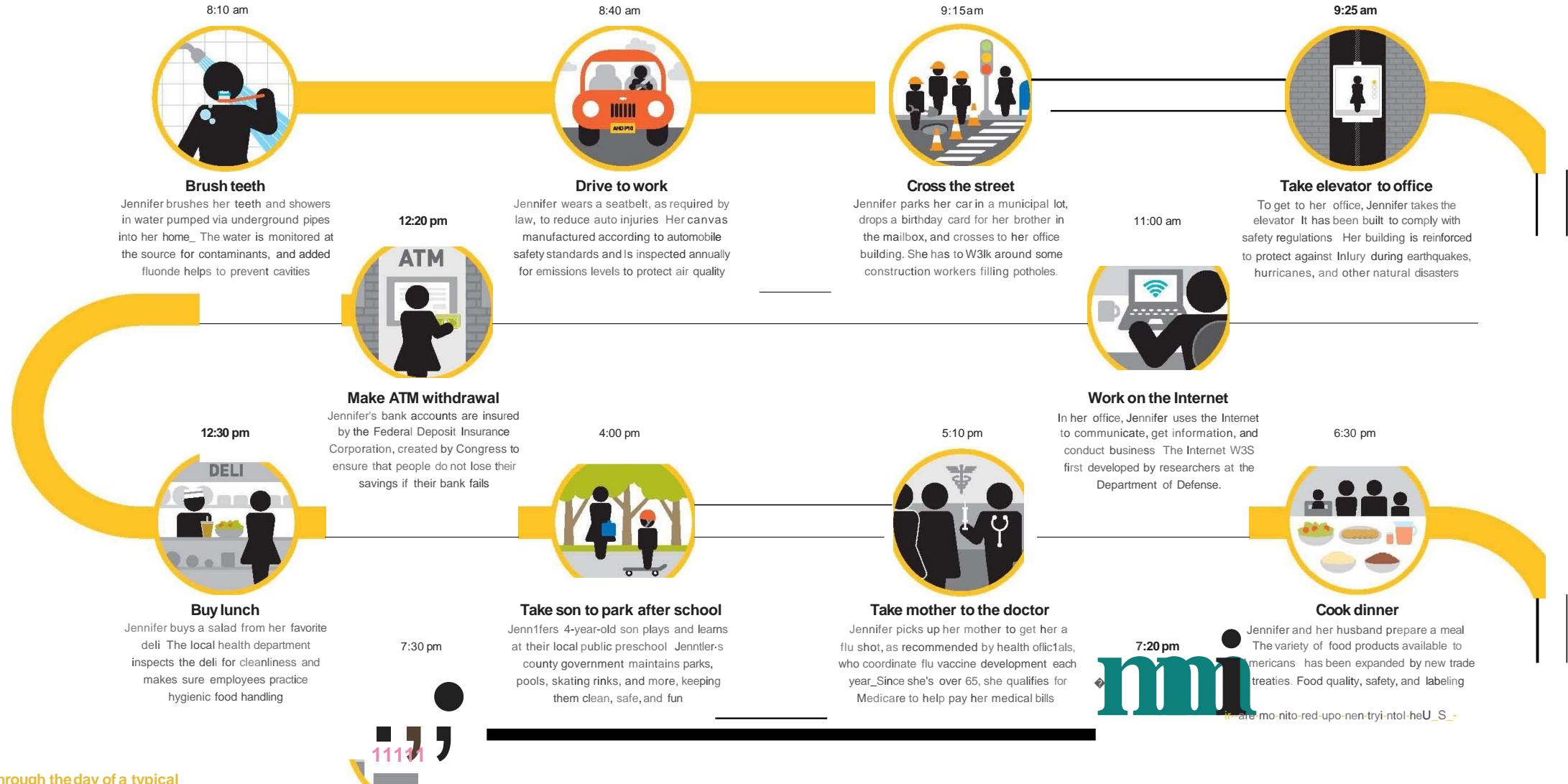
Based on the conversation with Cecilia and Katie, Alex creates a Wiki tab on the Teams channel and creates a checklist for every store to use as guidance for the campaign. Since this is a Wiki, Alex encourages all team members to contribute on lessons learned.

**5:00 PM**

Alex receives an email and realizes a few employees still need to complete a mandatory training. Using a past email with the list of trainings, he forwards the email to the Teams channel's email address. He asks all employees to review their mandatory training completion status to be compliant.



A Day in the Life



A walk through the day of a typical American woman reveals an array of public investments that help us build capabilities, decrease risks, and increase resilience. The legacy of such investments is all around us—so much so that we tend to take them for granted.



Put baby to bed

Their daughter wears flame-retardant pajamas, cuddles a teddy bear appropriate for a child her age, and sleeps in a safe crib, all thanks to consumer protection and safety regulations.



Research Methods: Factors

- The research **goals & questions**
- The project **stage**: are you at the beginning, middle or end of a project?
- Stakeholder or leadership **requirements**:
does your leadership team needs hard numbers
 - are they data driven?



CLASS ACTIVITY 1

Group

Breakfast of champs, check!

Icy cold shower, done!

Clothes and work bag, ready!

Time to seize the day,
Look out, World!

Oh, NO...
It's a Sunday.



“A Day in the Life of...” Storyboard creation

In a group of 3-5, create a set of comic strip featuring “A day in the life of <your persona>”

1. Among your members, identify a frequently used mobile app
2. One of your team members will be the Persona for this exercise
3. Create a comic strip featuring “A day in the life of <your persona>”
4. You can utilize the comic strip tool on Canva to complete this:

<https://www.canva.com/create/comic-strips/> (**Sign in with NP credentials**)

Team leader to submit **PDF** file via: BrightSpace > Assessment > Assignments > Week 4: Class Activity 1 - A Day in the Life of.. Storyboard ***Include all team members' names**

Naming Convention: DUX_Storyboard_TeamLeaderName.pdf

Deadline: Before Week 5 class

Synthesizing Your Research

(Affinity Mapping, Insights,
Recommendation, Competitive Analysis)





Synthesis



What is Synthesis?

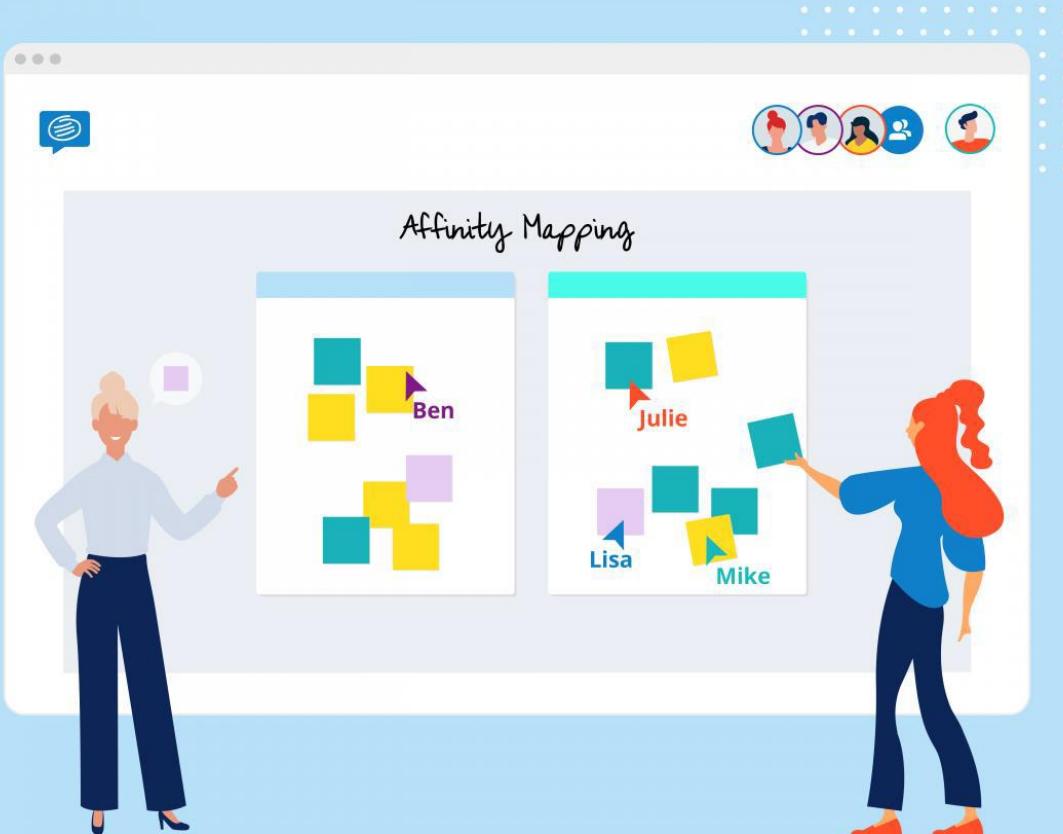
- ❑ A sense-making process where you uncover meaningful insights from the data you collected from your research.
- ❑ A visual process – make your visual data collected visible. Paste them on a board / wall.
- ❑ Synthesis and insight creation is best done collaboratively.





Affinity Mapping

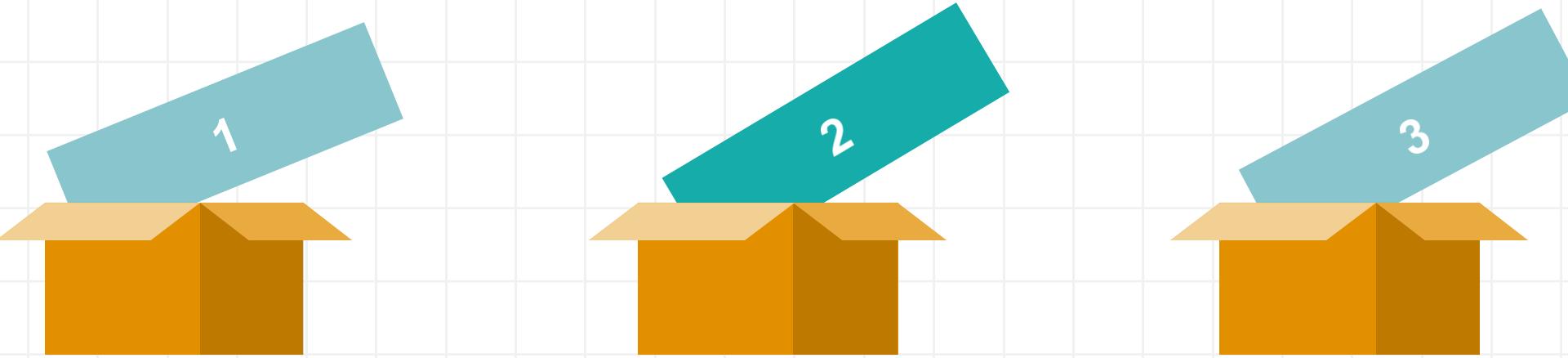
What is Affinity Mapping?



A method to gain a complete picture of the research process.

It will reveal trends, themes, and areas of opportunity for discovery and improvement.

3 Major Steps to Affinity Mapping:



Write down
individual
observations on a
sticky note.

Place the sticky
notes on a wall,
grouping similar
items together.

Refine the groups
and label them.



Step 1

Step 2

Step 3

Step 4

Step 5



Example #1

New Ideas Affinity Diagram

For this example, the UX team brainstormed ideas about community collaboration. As you can see, community collaboration is just one of the categories that they were discussing. That category was then dissected into **three subcategories** including **users**, **contributors**, and **evaluation**.

In this example, the UX team also used **voting stickers** for everyone to **rate the best ideas** in the diagram. By using an affinity diagram, this team was able to gather their ideas for the UX design team to improve the customer journey.





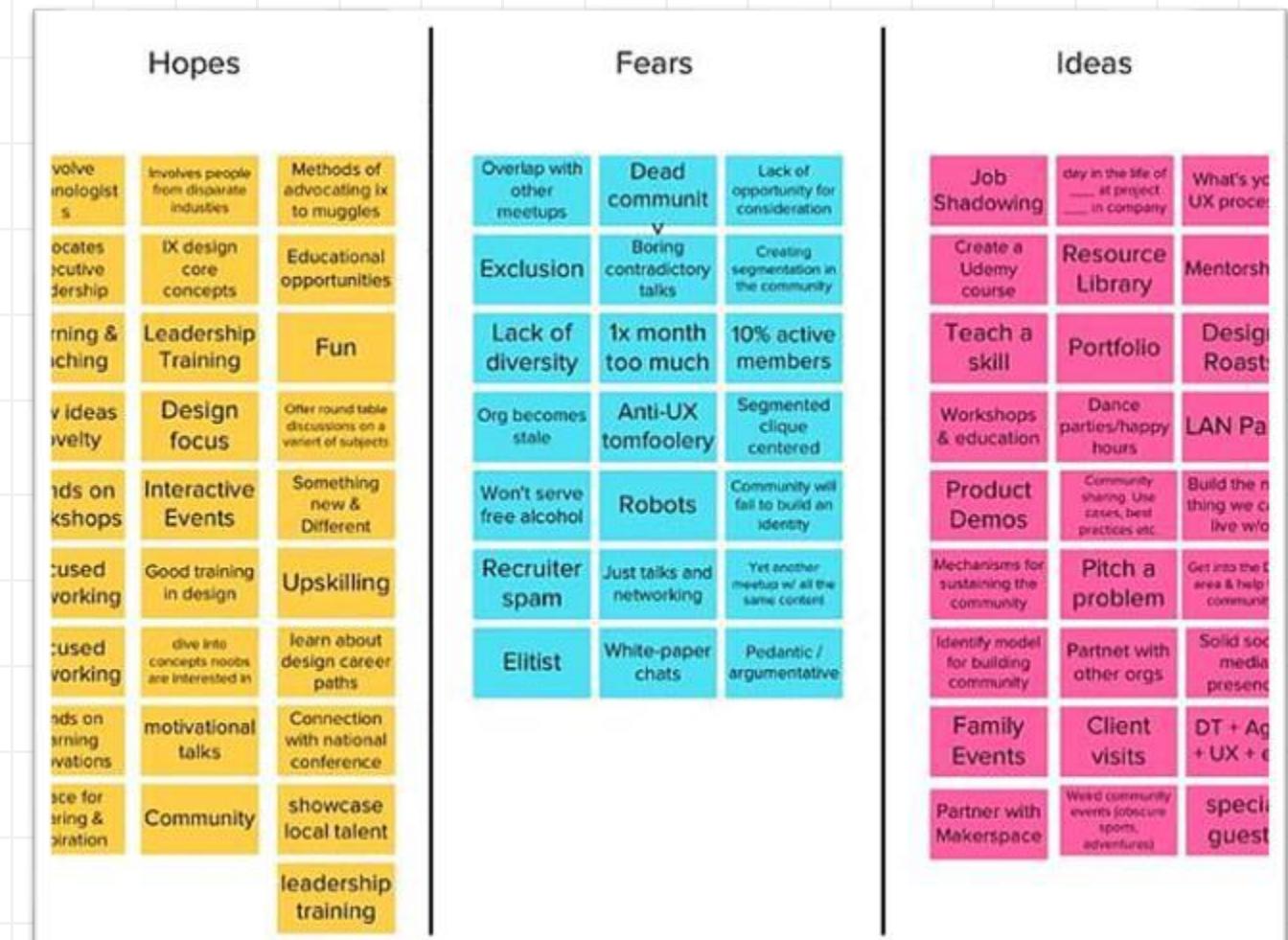
Example #2

Customer Journey Affinity Diagram

Unlike the first example, this one is focused on the **customer journey**. With an affinity diagram like this, the UX team can **consolidate research** learned from customer interviews and user insights.

In this example, you can see the UX team separated their research into three categories including **hopes**, **fears**, and **ideas**. These categories help the team understand its target market on a deeper level.

Plus, the UX team can see hopes, fears, and ideas at a glance, which makes it easier to brainstorm solutions.





Example #3

Organizational Affinity Diagram

All in all, affinity diagrams are used to **organize** and **gather information**. In this example, you can see everything you need to know about purchasing camping gear.

This diagram reviews key factors to keep in mind including fabric, set-up, sleeping room, and cosmetic elements like color and zipper.

This diagram gets to the heart of what an affinity diagram is for: keeping information organized so you can see **data at a glance** when you're trying to brainstorm solutions. It also features several **subcategories** to keep data organized.



Affinity Diagramming



Link: <https://www.youtube.com/watch?v=C4nYxZteJY>

Insights

Creating Insights
& Recommendations

What are Insights?



The truth

True and novel finding about user motivation that leads to an opportunity for your team to explore.

User's story

Tells your user's story – their challenges, needs and wants, motivations, suggesting clear and actionable next steps.

Meaningful Insights

- ❑ Reveal the true motivation that drives people's actions
- ❑ Relevant to your brand and organization
- ❑ Resonate with whom it is about
- ❑ Functional and immediately start to inspire solutions



Creating Insights & Recommendations



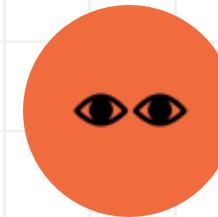
Discuss the themes you found during the synthesis process – the patterns, connections, relationships uncovered.



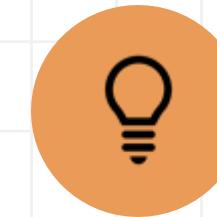
Write down the insight that links to the themes on post-it notes. Review them.



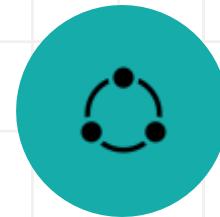
Allow enough time for reflections.



Review your insights. Do they still make sense?



Create recommendations to address the insights.



Share your insights & recommendations with your team / stakeholders.

“If I had an hour to solve a problem and my life depended on the solution, I would spend the **first 55 minutes determining the proper question** to ask, for once I know the proper question, I could solve the problem in **less than five minutes.**”

Albert Einstein
Theoretical Physicist

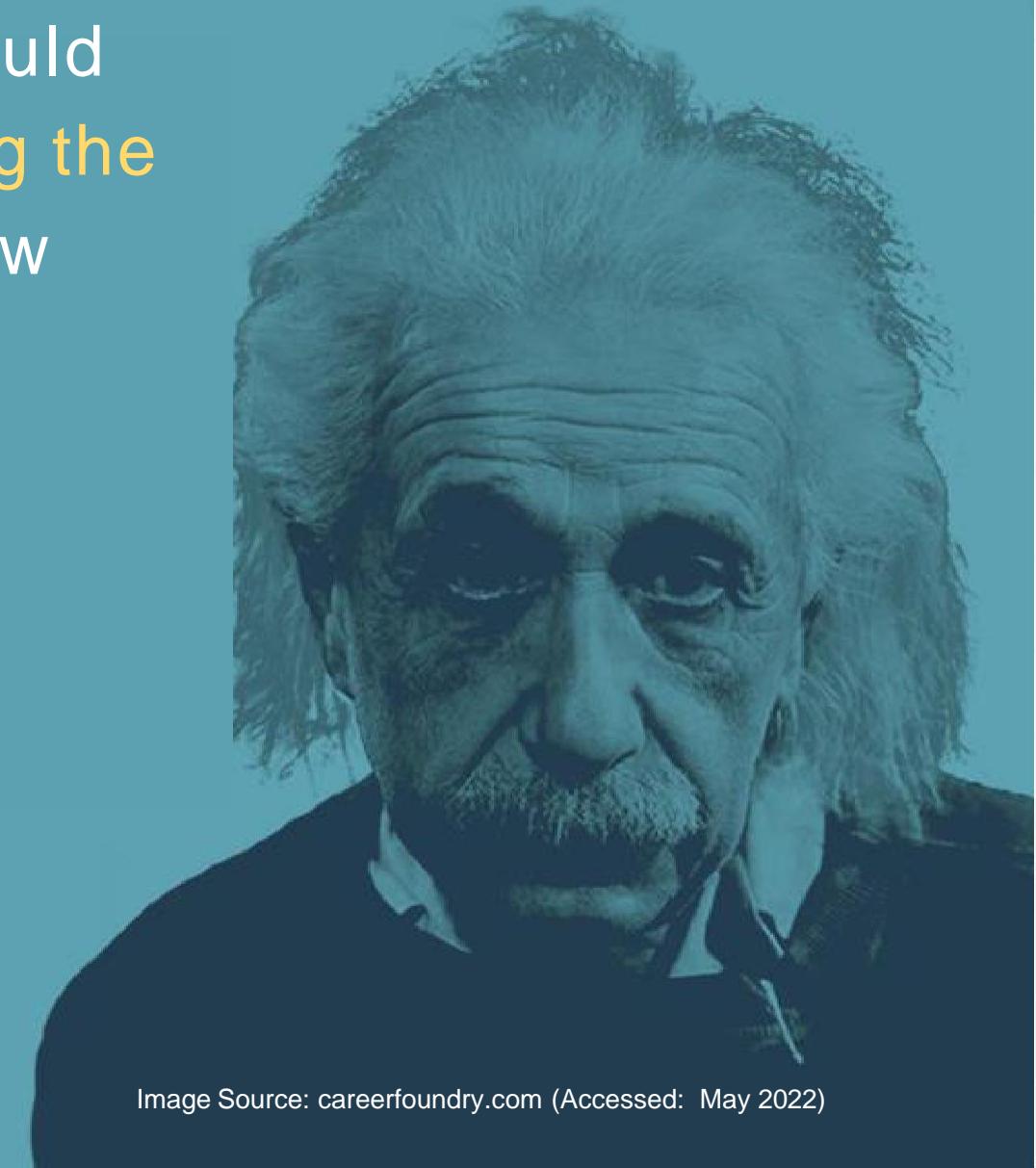


Image Source: careerfoundry.com (Accessed: May 2022)



Next Week...

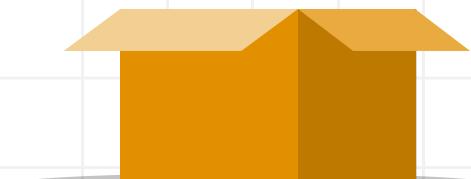


ASYNCHRONOUS

OWN TIME,
OWN TARGET

White Space Week (Online Asynchronous)

- Access BrightSpace materials at your own time from Monday, 19 May, 9am onwards and complete CAs
- NO [Pre]-Class learning** for Week 5
- Self-initiated Asg1 check-in with your tutors via Microsoft Teams, within Working Days Office Hours.



Q & A

References

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