## What's the deal with User Research anyway?

Dalia El-Shimy Head of UX Research



## A bit about me...



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## Hil

- Took this course in 2008, and TA'd it from 2009-2014
- Studied with Jeremy at the Shared Reality Lab and CIRMMT
- Earned my PhD in 2014
- Started as Shopify's first UX Researcher in Montreal in 2014
- Built the discipline in Montreal, and oversaw growth of the team from 5 people to 60+ across all offices
- Leading the User Experience (UX)
  Research function at Miro since June
  2021



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Anna

## Where distributed teams get work done

The online collaborative whiteboard platform to bring teams together, anytime, anywhere.

Start a whiteboard  $\rightarrow$ 



Mark

Contact Sales ΕN Login

Sign up free  $\rightarrow$ 



Free forever — no credit card required

#### Meetings & Workshops

#### **Ideation & Brainstorming**

Build and develop ideas with distributed teams as if you were in the same room, anywhere, anytime.

#### **Research & Design**



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**>>** 

#### Customer **Journey Map**

Paint a holistic picture of how people interact with your product or service end-to-end.

#### 🙇 Facilitation Tip Plan 1-2 hours for a kickoff session.

01 Choose the persona(s) you're focusing 10 min 02 Identify the major **phases** in the journey. 15 min Fill in customer touchpoints, positive 03 45 min and negative thoughts and feelings Be mindful, follow with a break 10 min Assign the responsible person for 04 10 min each phase Brainstorm first ideas and 05 20 min

#### Productivity Tip 🢪

opportunities with your team

Add new lanes to the CJM to focus on specific aspects of the service. <u>Tables</u> make it easy as pie to add, remove or rearrange elements.

#### Learn more

Everything you need to know before <u>customer journey mapping</u>

Miro Academy Course | User Experience <u>Design</u>



## I'm gonna mention the word "product" a lot, but what I mean by that is essentially different types of software that are used by human beings (e.g. websites, mobile apps, game, VR experiences, etc.)





# What is user experience research?





User research "focuses on understanding user behaviours, needs, and motivations through observation techniques, task analysis, and other feedback methodologies."

<u>usability.gov</u>





We're just trying to understand human beings, and why they do the things they do.

To do this we collect information.

And then we spend a bunch of time trying to make sense of this information. miro



#### How is this different from other types of research?

- It exists within the context of a broader product development process
- Its goal isn't in and of itself simply to gather knowledge
- It's conducted with the purpose of bringing about direct improvement to a product
- It focuses on behaviours rather than opinions
- It tends to occur iteratively, not as a one-off



# Why do we do user research?



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#### A few reasons...

- Because we have questions
- Because we want to test our assumptions
- Because we want to understand our users (and their behaviours, challenges, and motivations) in more depth
- Because we want to find new opportunities
- Because we want to make things better for the people who use our products



## Let's talk about where user research comes from



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## A brief historical overview of user research...

Before 1950s

1950s-1960s

System reliability phase

How long would it function without failure? SystemUserperformanceperformancephasephaseImage: the stand stand



1960s-1970s 1980s-2000s

Usability phase

How easy is it to use?



#### How do we evaluate usability?

Give your target users a series of repeatable tasks, then measure:

- Time to complete
- Task completion rate
- Accuracy
- Error rate
- Satisfaction



## "What of technology not for accomplishing tasks but for having **experiences**, for expressing one's **identity**, for flirting and arguing and living?"

MacDonald and Atwood, 2013

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## based, from user-centered to people-centered, and became known as third-wave HCI.

So we went from task-based design to experience-





## A brief historical overview of user research...

Before 1950s

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1960s-1970s

1980s-2000s

2000s-Present

Usability phase

How easy is it to use?

User experience phase



#### The 'user experience' era...

- Personal, social, cloud, mobile computing
- Contexts are broader
- Technology is more pervasive
- Shift from the utilitarian/pragmatic to the emotional/affective



## The focus has shifted from evaluating isolated **tasks**, to understanding where they fit within broader, more complex **experiences**.

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# Question #1

What are some examples of interfaces where evaluating tasks might be more important? What about ones where evaluating experiences might be more important?





## But how do we measure all this?

We're really good at evaluating tasks, but less so experiences.





"Evaluation has been a dominant theme in HCl for decades, but it is far from being a solved problem."

Kaye et al., 2007





## There is no "one-size fits all" method



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# Let's talk about qualitative methods











http://uxmag.com/sites/default/files/uploads/anderson-richard/sandersdiagram.jpg







A pilot workbook and tools for preparation, including a disposable camera, pens and stickers (from case 2 in chapter#4).



youngsters (more playful).



participant has room to make a collage of photos and notes, and on the right he can pick icons to use. On the bottom is an overview of the questions.

A screenshot of a 7days page as it is filled in by a participant. The colored post-its are comments made by different members of the research team.

Photos from "Convivial Toolbox: Generative Research for the Front End of Design









The toolkit included Velcro modeling pieces for participants to express themselves.

Detes

Photo from "Co

session, each team in the workshop had produced a different, yet thoroughly realized game theme.

Among the toolkit's many components were non-specific, colorful objects, and specific plastic pieces and game parts.

#### eperative Research for the Front End of Design'



# Let's talk about quantitative methods









 1→ What type of meeting were you in when you launched the Miro app from your videoconferencing software? \*







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Database Console Shopify Redshift\_7

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#### Support Tickets Analysis

Number of support tickets for a chosen topic and period, with comparisons to an equal previous period, normalization by total number of customers, and as percentage of total support tickets.







Comparison	Confidence	Rel. Increase
control converts higher than inline	69%	
control converts higher than link	83%	
inline converts higher than link	68%	

Group	Conversion	Total	Observed rate
control	3,347	7,095	47.17%
inline	3,227	6,900	46.77%
link	3,167	6,830	46.37%





# So how do we choose the right method?



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Let's dig into that.

# Remember earlier when I said "[User Research] exists within the context of a broader product development process"?





# Product Development Process













# Product Development Process







### Discover

Gather initial thoughts on problem and impact of solving it

### Define

Become experts of the problem domain, both internally and externally

## Design

Plan how the problem will be solved, explore and evaluate various solutions







## Build

Iteratively build and ship small, quality components of the solution

### Launch

Publicly release the solution to users

## Maintain

Iterate on the solution based on user feedback and usage





# Question

# Method

# Question #2

When do quantitative data and qualitative UX research best complement each other?A. During the early stages of a projectB. During the latter stages of projectC. Both





# Discover

#### Questions:

- Who are our audiences and what behaviours, unmet needs and challenges do they exhibit?
- $\cdot$  What is happening today/has historically happened in this space?







### Discover

#### Qualitative:

- Look at existing research (internal and external), identify gaps/assumptions/ hypotheses
- Conduct additional interviews, observations, diary studies
  Quantitative:
- Look at existing research (internal and external), identify gaps/assumptions/ hypotheses
- Conduct additional data and trend analysis





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- $\bullet$





### Define



#### **Qualitative:**

- **Quantitative:**
- addressable markets
- problems
- Define success metrics

# Define

What are the most impactful problems to focus on? What are the root causes and consequences of those problems? What will be meaningful to measure today and down the the line?



Conduct more interviews, observations, and diary studies

Conduct surveys to identify segments and measure total

Conduct data analysis to measure existing impact/reach of











### Design

# Explore

#### **Questions:**

- How are users faring with the concepts we're • developing?
- To what extent do they understand the designs, • flows, and content we've put together?



#### Qualitative:

- Conduct concept/paper prototype/lo-fi prototype/clickable mockup testing Quantitative:
- Measure baselines for success metrics
- Conduct experiments (incl. A/B tests)



- Can people use what we're building? •
- To what extent is it addressing the issues • posed by the problem we're trying to solve?



#### **Qualitative:**

- Conduct high-fidelity usability tests
- Offer early ("beta") access and gather feedback

Quantitative:

- Conduct experiments (incl. A/B tests) •
- Build out instrumentation and dashboards

# Buid







### Build



- Are people using our solution the way we • thought they would?
- To what extent did we succeed in solving the • problem we initially defined?







### **Qualitative:**

- Monitor support tickets/forums/social media
- Gather feedback from in-context forms  $\bullet$ Quantitative:
- Populate dashboards
- Monitor success metrics

# Ship







### Launch





• users?







#### **Qualitative:**

- Participate in retrospectives/post-mortems •
- **Quantitative:**
- Conduct A/B tests •
- Continue monitoring success metrics •

What incremental improvements or revisions to our roadmap might be most impactful to our





Maintain

Continue monitor support tickets/forums/social media



# How questions change over time

# Are we building the right thing?



http://radar.oreilly.com/2014/02/building-the-right-thing-vs-building-the-thing-right.html

# Are we building the thing right?

Completion







# How do we decide about qualitative vs. quantitative?



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This is all about piecing all the insights together and seeing the broader picture that emerges.

# Well, we ideally do both... ... and then triangulate.





"Triangulation allows us to have greater confidence and richer insights than is possible to achieve through a single method alone. We aspire to form a comprehensive narrative of what we know about the current and future users of our products

rather than methodologically siloed insights."

Sara Belt, Spotify





"Value to the user is qualitative. Value to the business is quantitative. In order to make holistic decisions, you have to create a representation that makes that translation."

Erika Hall, Mule Design





"Integrating big data and thick data provides organizations a more complete context of any given situation. For businesses to form a complete picture, they need both big and thick data because each of them produce different types of insights at varying scales and depths."

miro Tricia Wang, Sudden Compass



When you combines statistical trends with stories and personal experiences, the collective strengths of both provides a better understanding of the research problem than either forms of data alone.









# We call this mixed methods research.





"An approach to research in the social, behavioural, and health sciences in which the investigator gathers both quantitative (close-ended) and qualitative (openended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems."

John Creswell, University of Michigan



# Strengths

Qualitative

Quantitative

Provides detailed perspectives Captures the voices of the participants Captures complex phenomena Adapts to context Is largely participant-driven Appeals to people's enjoyment of stories

Is relatively efficient when it comes to data collection and analysis Draws conclusions for large numbers of people Investigates relationships within data Appeals to people's preference for numbers

## Weaknesses

Is time-intensive when it comes to data collection and analysis Studies few people Has limited generalizability Loses scale Is subject to the researcher's biases

Does not record the words of the participants Is impersonal Provides limited understanding of the context of participants Loses resolution Is largely researcher-driven



Which is better?A. Doing quantitative first, then qualitativeB. Doing qualitative first, then quantitativeC. Both of the above are goodD. The order doesn't matter



# Question #3



# Three mixed methods designs



Convergent design Explanatory sequential design





Exploratory sequential design

# Convergent design



Captured detailed perspectives and complex phenomena



### Study large numbers of people





# Explanatory sequential design

Discover patterns for large numbers of people

### Enrich them with details and context



#### REPORT



# Exploratory sequential design

### Capture the stories of few



### Draw conclusions for large samples



REPORT

## **IMPORTANT DISCLAIMER:**

Very few people are equally skilled at both qualitative and quantitative. The real power lays in understanding enough about both types of methods, and their respective strengths and weaknesses, to be able to have informed conversations and forge collaborations.







Now that we've covered the theory, let's focus on one foundational technique...

# The user interview

(aka what you're actually using throughout your course project)







# On interviews...

# Pros

- You get to really deep-dive into a topic with participants
- They can evolve as you learn
- A good interview can be very engaging for your participants
- You can learn and share stories
- Sharing audio or video snippets can be really powerful

# Cons

- They are time-consuming to recruit for
- They are time-consuming to conduct
- They are time-consuming to analyze
- You can only speak to small sample set

Conduct interviews when you want to deep-dive into a topic with participants, and/or aren't sure yet what the full set of questions to ask might be.









# Interviewing task





### Interviewing isn't natural

- It goes against how we've been trained to behave socially
- It requires us to set our personalities aside
- It means we actually have to listen to other people
- But there are certain skills that can help us do all this



# Fun fact

Why do bad interviewing techniques seem so familiar?





https://ux.shopify.com/making-a-murderer-lessons-for-ux-research-fb1ade501c26


#### "The questions suggest the answers."

### So rare



### "The case worker tainted the interview."

Law and Order: Criminal Intent - "Crazy"



171199

#### During an interview

- Ask open question
- Ask non-leading questions
- Remain neutral
- Embrace silence
- Probe appropriately



# **Open questions**

Don't...

... ask questions that encourage one-word answers:

- 'Do you do this OR that?'
- 'Is this important to you?'

### **Do...**

...encourage participants to tell 'stories'

- 'Tell me about the last time you...'
- 'What do you think about...'

# Non-leading questions Don't...

... put words in their mouths:

- 'How annoying do you find this thing?'
- 'As a do you think it's easy to use?'

### **Do...**

...allow them to reflect their experience in their own words:

- 'Tell me your thoughts on...'
- 'How have you found doing [this thing]?

# Remaining neutral Don't...

...agree too much:

- 'Yes that's great'
- 'Well done'

### **Do...**

show with your eyes that you understand and keep conversationencouragers simple:

- 'Mm hmm'
- 'Okay'
- 'Fair enough'



Embracing silence Don't...

...worry about filling in gaps:

- If you doubt yourself or your question
- If your participant pauses

### D0...

...generally shut up:

- After you're done asking a question
- After they're done responding





@userfocus

# What a interview should look like



#### Participant

#### Facilitator

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# Probing appropriately Don't...

...interrogate people:

- 'Do you actually mean that?'
- 'Are you sure?'

### Do...

...play dumb:

- 'Can you tell me a little more about that?'
- 'What do you mean by...?'
- 'Why's that?'





# Transcript task





### Now that we've covered the basics, here are a few more pro-tips.





# Playing dumb...

... really works to your advantage. It gives room for your participant to be the expert.

#### The privilege of asking questions



Dalia El-Shimy Follow C



https://ux.shopify.com/the-privilege-of-asking-questions-9870c7ba9810

# Advanced interviewing techniques

#### Boomerang





### Echo

#### Columbo



NN/g - User testing facilitation techniques



# Boomerang

Think like a politician! Try to avoid helping participants, or giving them the answer. If they ask you a question, just turn it back on them in a nonthreatening way.

- Participant: 'Do I have to register to use Miro?'
- Facilitator: 'What do you think?' or 'What would you do if I wasn't here?

This prevents you from leading the user by directly answering their question, without having to ignore it.

?' uld you do if I



## Echo

If the participant sounds unsure or confused, try repeating the last thing they said in a slightly interrogatory tone.

- Participant: 'This is not what I use Miro for.'
- Facilitator: 'Not what you use Miro for??'

This allows you to encourage the user to say more without judgement or suggestions.



## Columbo

This is about playing dumb, just like Columbo used to do during his investigations, and hoping the user will help you out. You can do this by asking the participant partial questions.

- Participant: 'Do I have to have a Miro account to collaborate with someone on a board?'
- Facilitator: 'So you're wondering if...'

This allows you to ask users questions on the fly when you can't think of a non-leading way of doing it.





# Never ask:

- 'Would you use this?'
- 'How would you design it differently?'
- 'What features do you think are missing?'
- 'What would you want?'

Participants help us understand their behaviours and challenges. We then design solutions accordingly.



#### To summarize:

- Ask open question
- Ask non-leading questions
- Remain neutral
- Embrace silence
- Probe appropriately
- Play dumb
- Use the advanced techniques (Boomerang, Echo, and Columbo)
- Don't ask people what they want
- Don't ask them if they'd use something



#### And lastly! Don't forget to think about your tech setup

- How are you going to record the interview? (audio/video/ notetaker)
- Are you doing this in person or remote?
- Should other people from your team be able to sit in on the interview?





### Thank you! dalia@miro.com

