### TURNING ANECDOTES INTO INSIGHTS MIXED METHODS RESEARCH IN SUPPORT OF DESIGN

DALIA EL-SHIMY SENIOR UX RESEARCHER AT SHOPIFY



**s** shopify





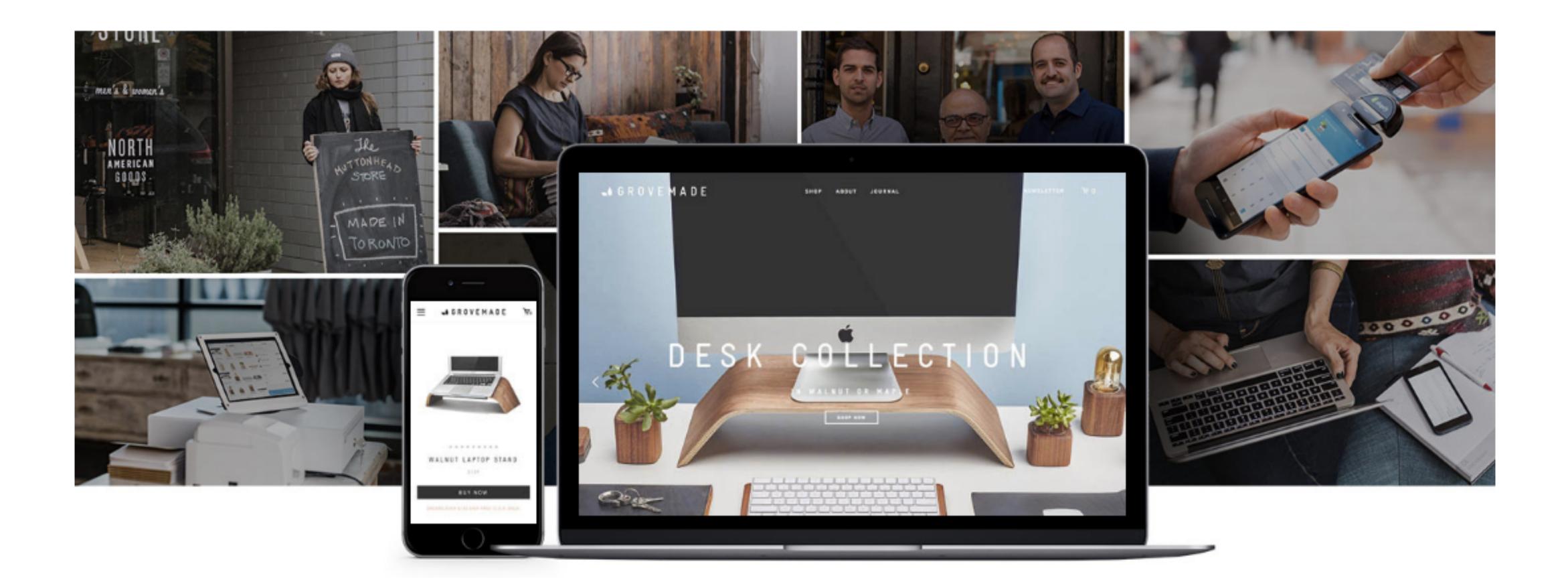
#### An ecommerce platform made for you

Whether you sell online, on social media, in store, or out of the

trunk of your car, Shopify has you covered.

Enter your email address

Try Shopify free for 14 days. No risk, and no credit card required.

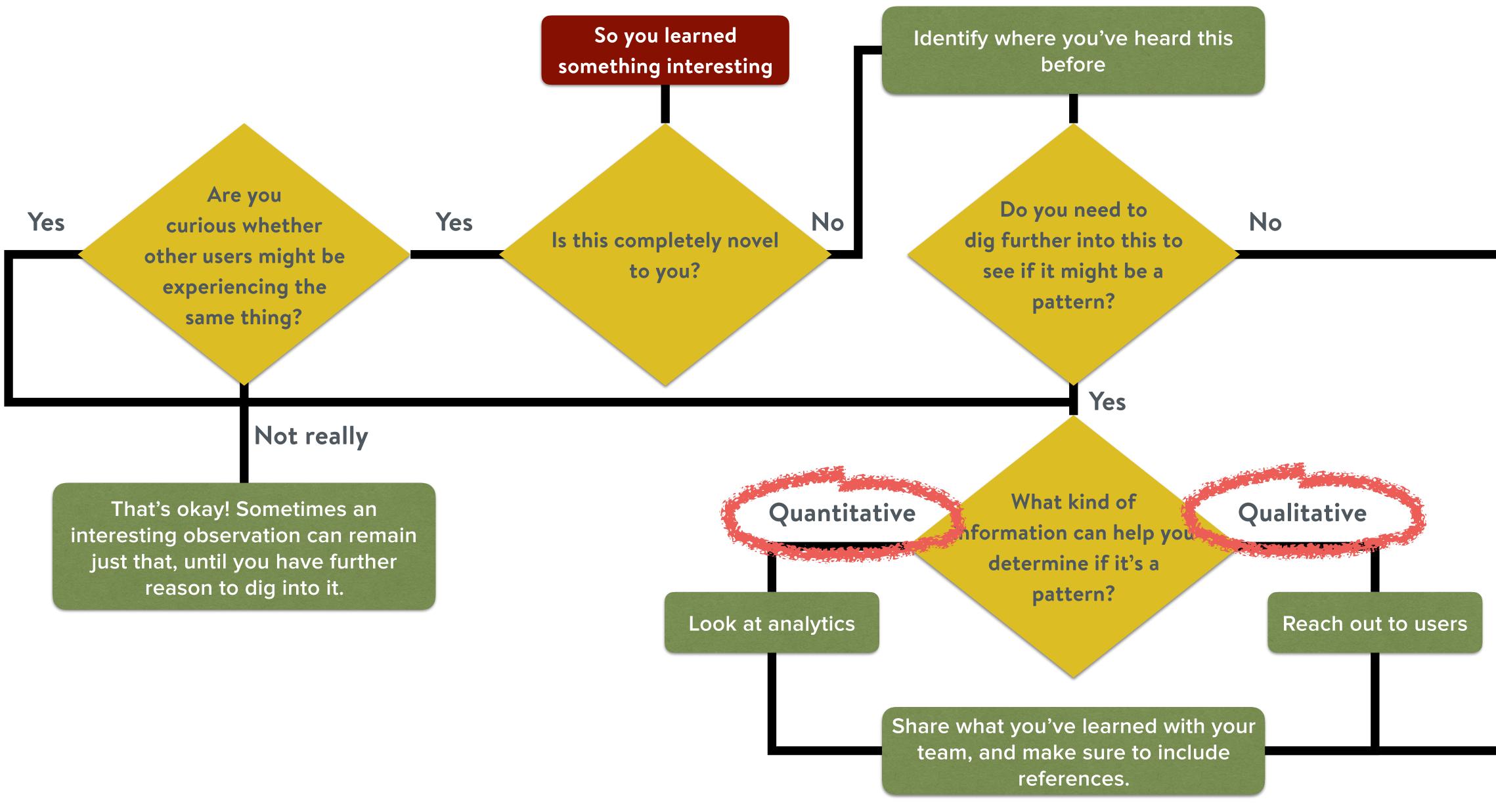






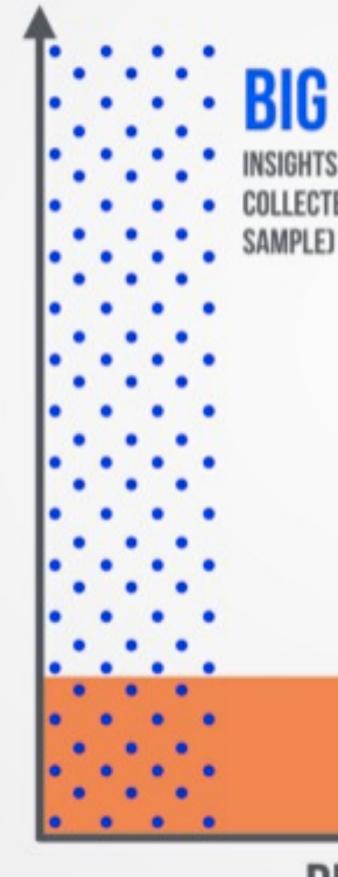








### TO FORM A COMPLETE PICTURE, BOTH BIG AND THICK DATA ARE CRITICAL BECAUSE THEY Produce different types of insights at varying scales and depths



N

**BIG DATA** NSIGHTS FROM THE SCALE OF COLLECTED DATAPOINTS (LARGE SAMPLE)

> INSIGHTS FROM THE DEPTH OF STORIES (SMALL SAMPLE)

THICK DATA

**DEPTH OF INSIGHTS** 

@TRICIAWANG



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.





# **Mixed methods research**

understand research problems."

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

- Creswell, 2015



### LET'S TALK ABOUT QUALITATIVE RESEARCH





shopify







#### Elyse's Shopify Journal

Welcome back Elyse, and thanks for taking the time to fill out your journal today!

#### \* 1. How's your theme coming along?

I'm still working on it.

It's ready to go live on my store.







### LET'S TALK ABOUT QUANTITATIVE RESEARCH



shopify

This is your chance to directly influence the upgrades we'll make to Shopify over the next year. The more we understand what's important to you, the better we can develop solutions to help you make sales and grow your business.

This survey will only take about 10 minutes. Complete the survey by Friday, March 11th for your chance to win an \$800 Apple voucher.

#### \* How would you describe yourself?

- Shopify store owner
- Working for a Shopify store owner
- Shopify partner or expert
- Previously owned a Shopify store
- Did the free trial but never launched my store



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<ul> <li>Shopify Redshift (warehouse)</li> <li>admin</li> <li>admin</li> <li>channels</li> <li>checkout</li> <li>checkout</li> <li>discovery</li> <li>discovery</li> <li>discovery</li> <li>discovery</li> <li>facebook</li> <li>facebook</li> <li>finance</li> <li>finance_ops</li> <li>finance.</li> <li>finance</li> <li>finance_ops</li> <li>finance</li> <li>finance</li> <li>finance_ops</li> <li>finance</li> <li>formation_schema</li> <li>finsights</li> <li>finsights</li> <li>finsights</li> <li>finatfacts</li> <li>instafacts</li> <li>internal_tools</li> <li>loading</li> <li>marketing</li> </ul>	<pre>WITH shops_using_debut AS (     SELECT DISTINCT _shop_key, "theme name"     FROM admin.theme_editor_customization_facts     WHERE "theme editor version" = '2'     AND "theme name" LIKE '%debut%' OR "theme name" LIKE '%Debut%'     AND "theme role" = 'main'     SELECT "shop created at (est)", "shop name", "shop permanent domain", "theme name"     FigM shops_using_debut     JOIN starscream.shop_dimension USING (_shop_key)     WHERE "shop created at (est)" &gt;= '2016-10-26' — (INSERT YOUR FAVE MIN DATE HERE)     AND "password enabled" = 'Password is Enabled' </pre>	
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Database Console Shopify Redshift\_7

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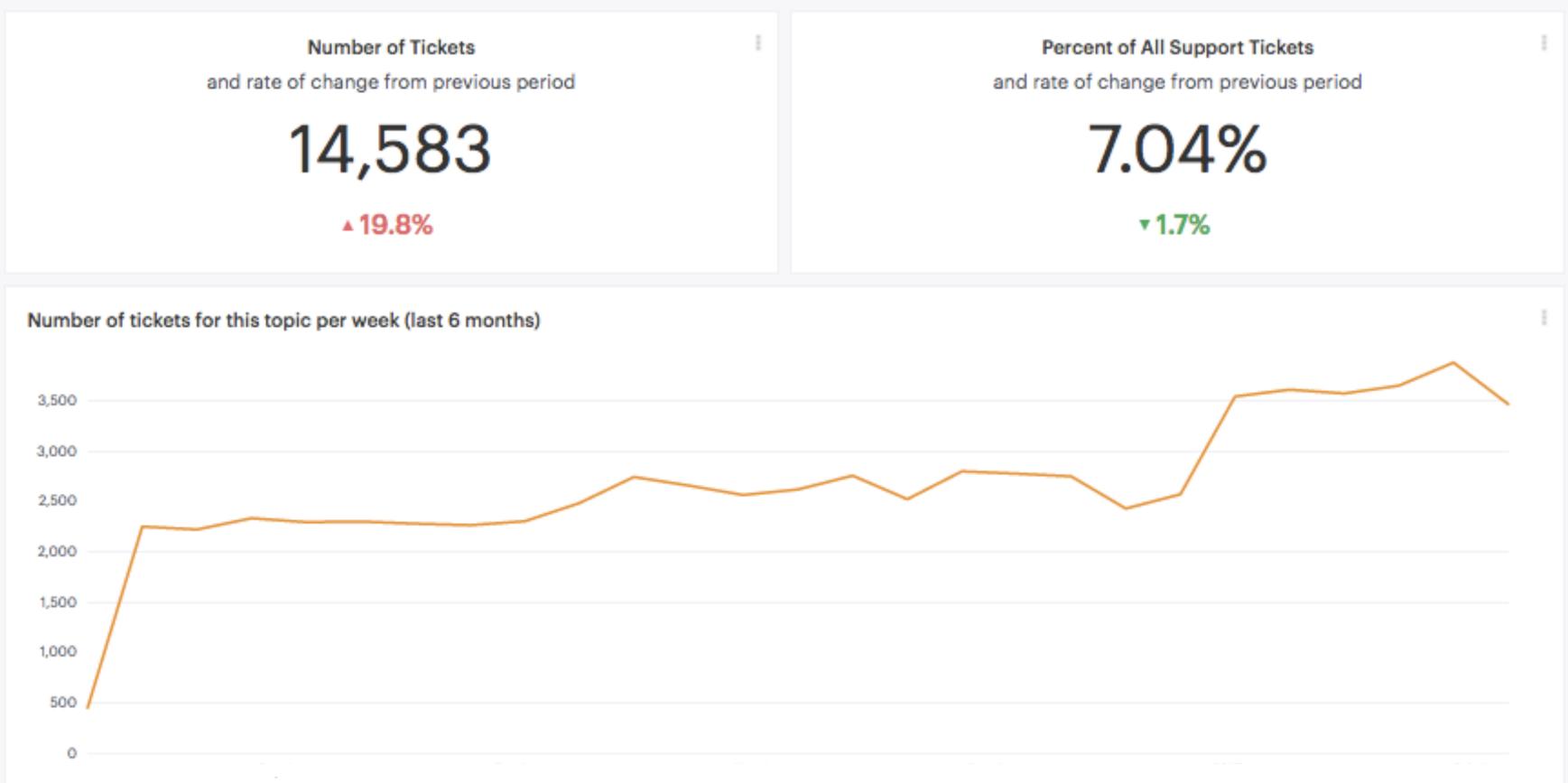
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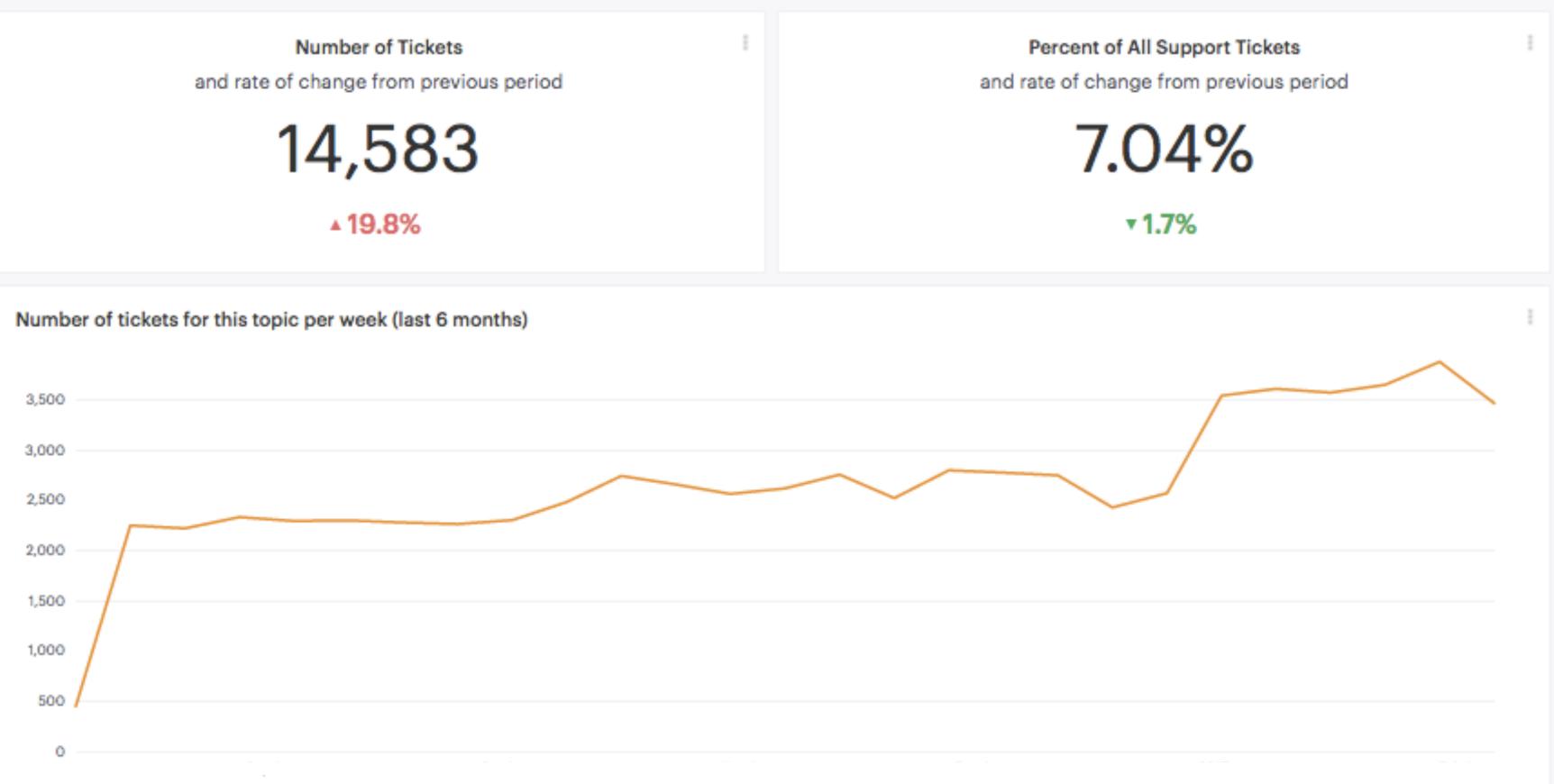


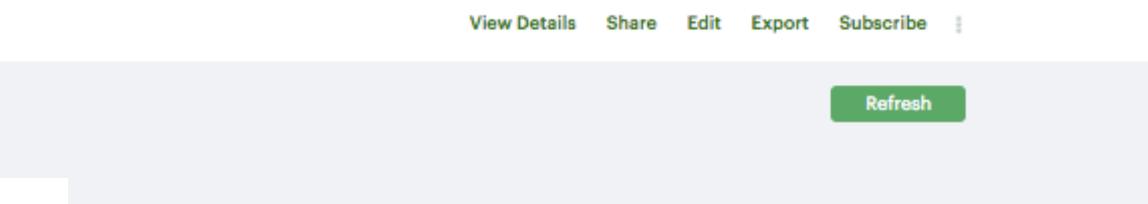
Chen Karako		
REPORT PARAMETERS		Ticket Topic
Last 4 weeks	÷	Hoket Topic

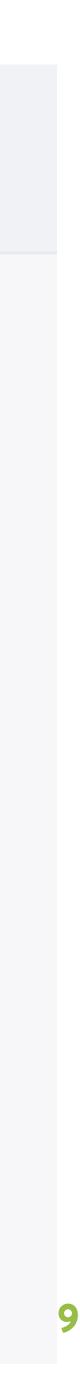
#### Support Tickets Analysis

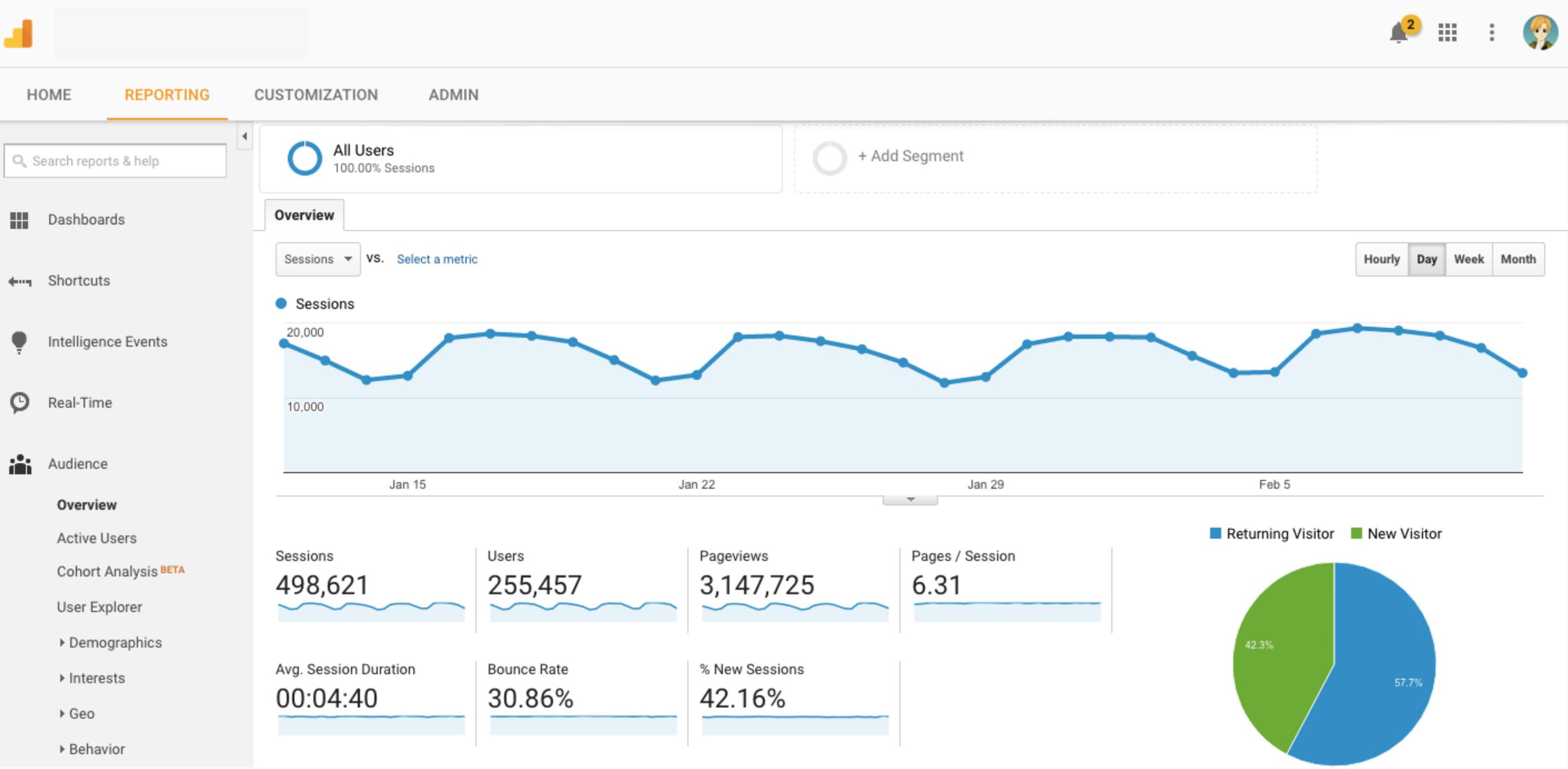
Number of support tickets for a chosen topic and period, with comparisons to an equal previous period, normalization by total number of customers, and as percentage of total support tickets.











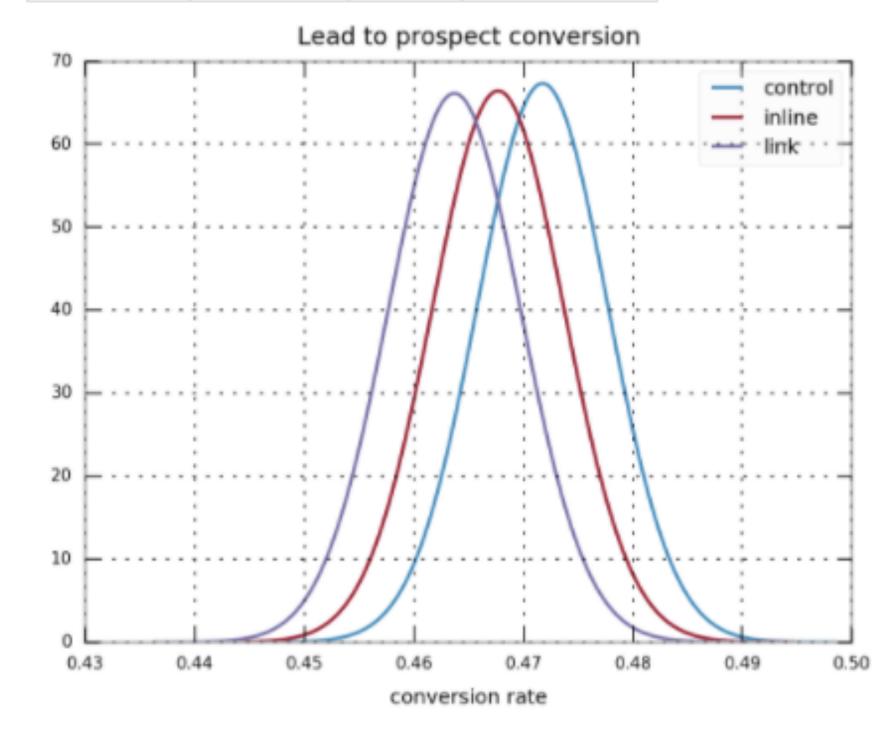


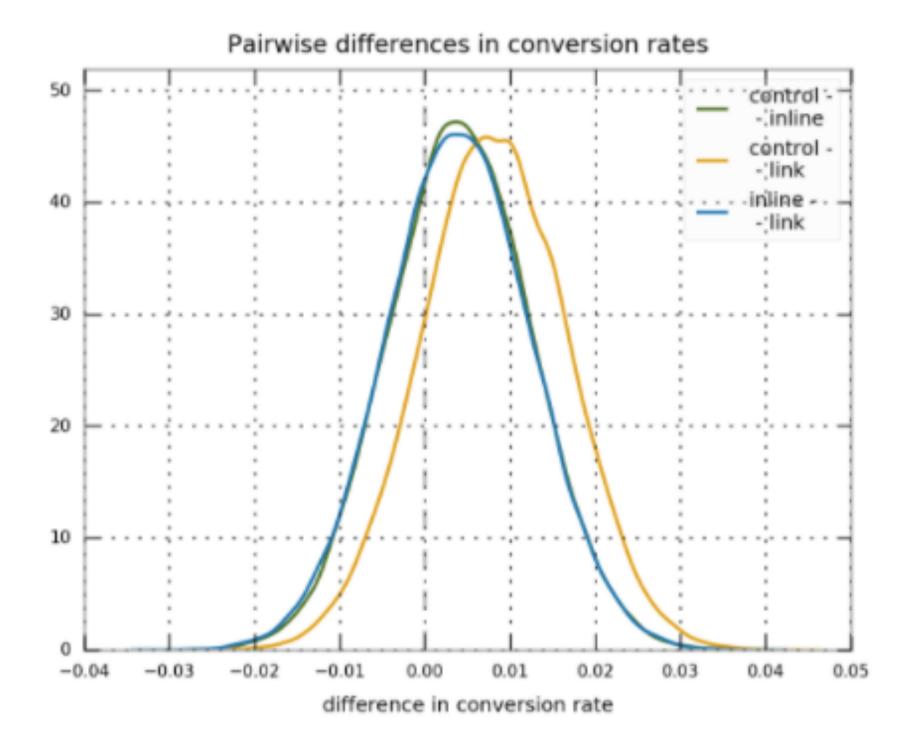


#### ExperimentsDashboard

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 TECHNIQUE?

**shopify** 

### Phase

## Question

## Method

## Findings













Idea

Think

Explore



Build







Tweak





- What potential problems might we solve? How might we gather context on the problem?







Idea



#### Qualitative

- Existing research
- Observations, interviews, diaries, internal workshops

#### Quantitative

- **Existing data**
- Establishing facts, confirming/disproving assumptions









- What are the root problems?
- What are the biggest challenges we might focus on?





Think



**Qualitative:** 

- Profiles/segments/personas
- Interviews, co-design/participatory workshops  $\bullet$

#### **Quantitative:**

• Quantify how big are the segments that would benefit from this product

# Getting shit done











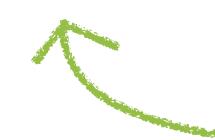








Explore



# Getting shit done

#### **Questions:**

How might we be scrappy and effective when testing assumptions and hypotheses?







#### **Qualitative:**

- Lo-fi prototype testing
- Clickable mockups

#### **Quantitative:**

Define success metrics and baseline for those project success metrics





- Can people use what we're building? •
- Is what we're building addressing the initial ٠ problems and goals?









#### **Qualitative:**

- High-fidelity usability tests
- **Diary studies**
- Beta testing

#### **Quantitative:**

• A/B tests, instrumentation, reporting













- Are people using it in the way we thought they would? •
- Did we successfully solve the problem we identified? •



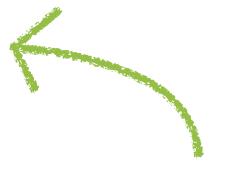






#### **Qualitative:**

- •
- **Quantitative:**







Launch



Forums/social media monitoring Open-form feedback forms

• Monitor success metrics, more reporting





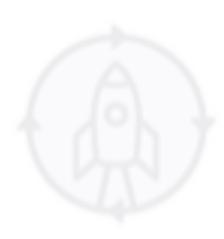
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What incremental improvements might be worthwhile? What revisions should we make to our roadmap?







Tweak

#### **Qualitative:**

- Retrospectives •
- Post-mortem
- Analysis of support tickets •

#### **Quantitative:**

- More A/B tests •
- More reporting •





Phase	Question	Qualitative	Quantitative
ldea	What potential problems might we solve?	Existing research, observations, diaries	Establishing facts, confirming assumptions
Think	What are the root problems?	Interviews, co-design/ participatory workshops	Quantify segments
Explore	How might we test assumptions	Lo-fi prototype/mockup testing	Define success metrics, measure baselines
Build	Can people use what we're building?	High-fidelity usability tests, diary studies, beta tests	A/B testing, instrumentation, reporting
Launch	Are people using it in the way we thought they would?	Forums/social media monitoring	Monitor success metrics, more reporting
Tweak	What improvements might be worthwhile?	Analysis of support tickets, retrospective	More A/B tests, more reporting



### SO HOW DO YOU GO FROM QUANTITATIVE AND QUALITATIVE TO MIXED METHODS?



**s** shopify

# **Mixed methods research**

understand research problems."

- "An approach to research in the social, behavioural, and
- health sciences in which the investigator gathers both
- quantitative (close-ended) and qualitative (open-ended)
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- Creswell, 2015





Provides detailed perspectives Captures the voices of the participants Captures complex phenomena Is based on the views of the participants, not the researcher Appeals to people's enjoyment of stories Adapts to context

Strengths



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



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

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

# Three mixed methods designs



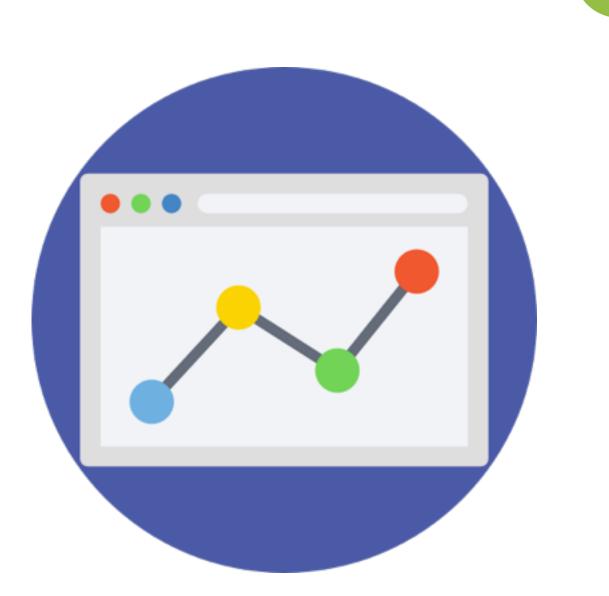
Convergent design Explanatory sequential design





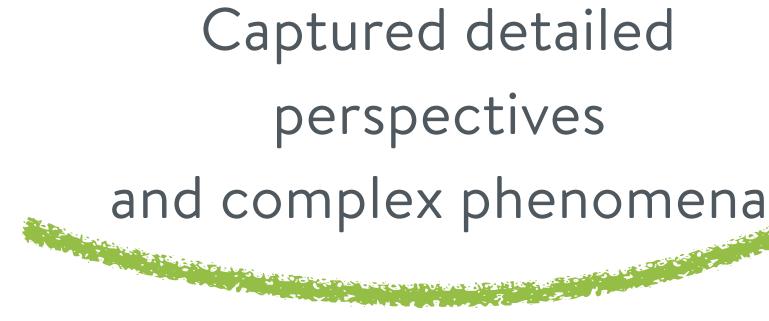
Exploratory sequential design













Study large numbers of people

Captured detailed perspectives and complex phenomena





# Explanatory sequential design

### Discover patterns for large numbers of people





# Enrich them with details and context







# Exploratory sequential design

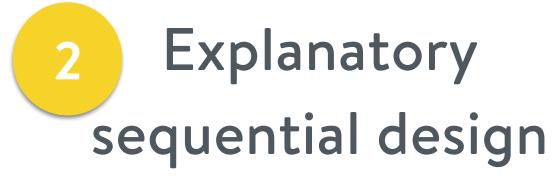
# Capture the stories of few

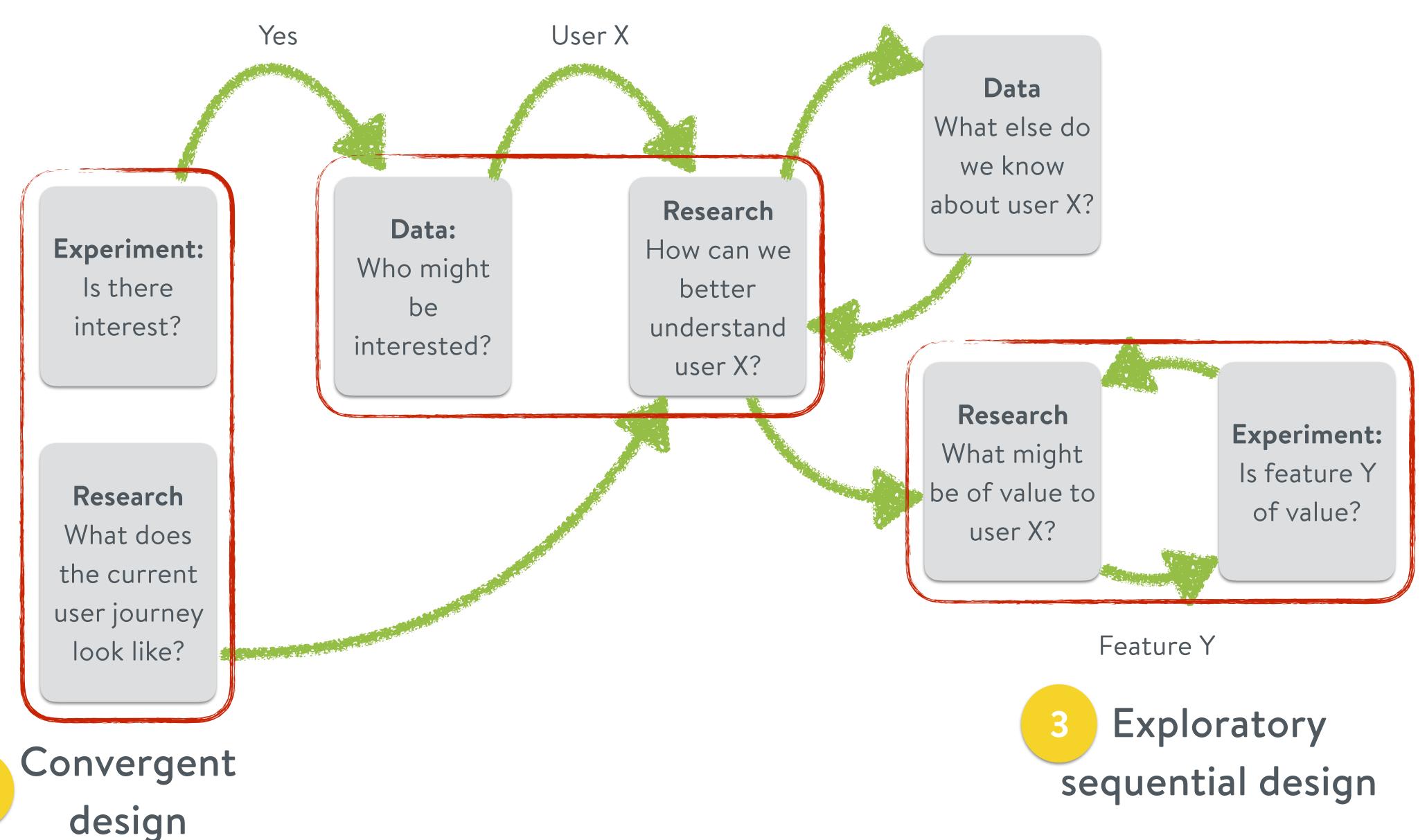


#### Draw conclusions for large samples



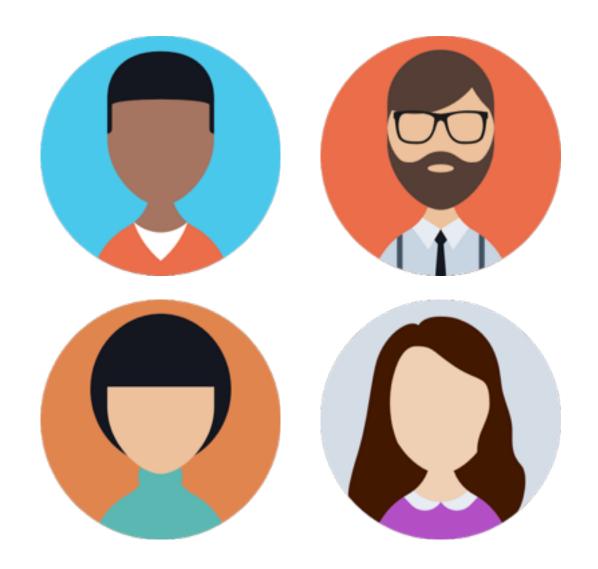








# So leverage the strengths of each method...



### Voices, stories, complex phenomena, details

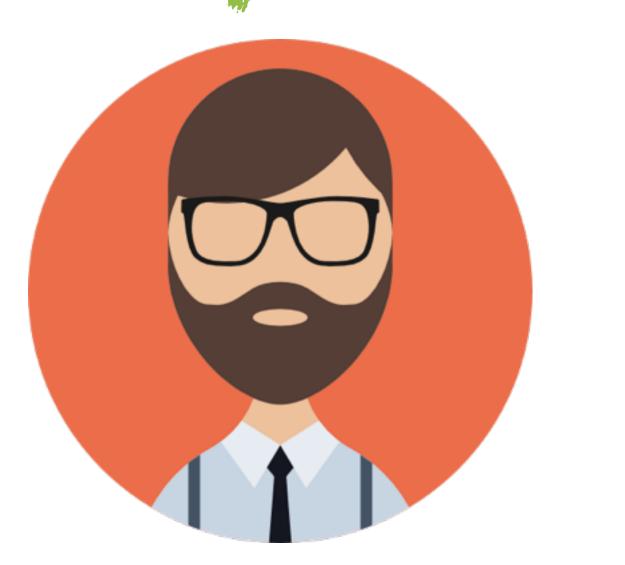


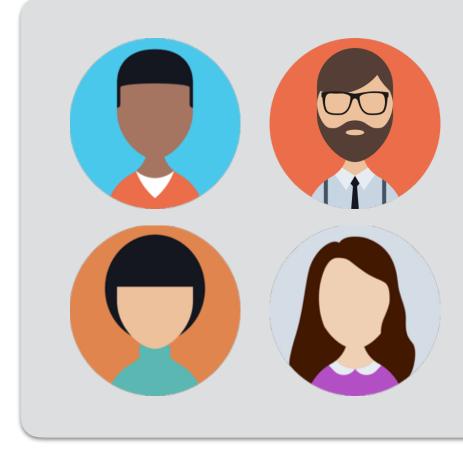
### **Objectivity, efficiency** statistical trends, relationships between data



40

# ... to go from anecdote to an insight













### THANK YOU!

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> Or shoot me an email: dalia@shopify.com



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