

Using Psychology to Design Better Products & Services

—
JON
YABLONSKI

—
JONYABLONSKI.COM
@JONYABLONSKI

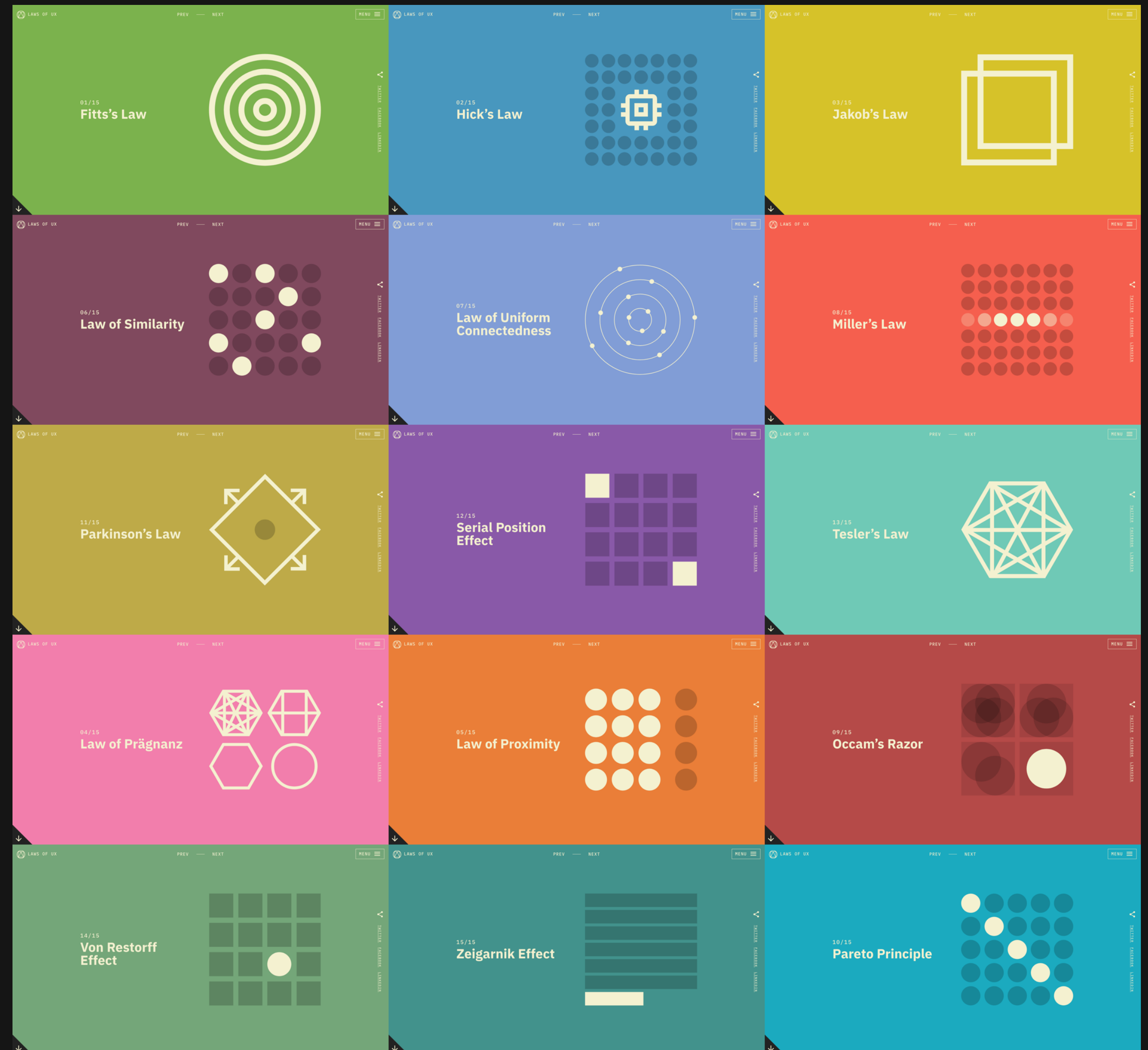
—
JUNE
2023





Laws of UX

<https://lawsofux.com>



Laws of UX

Using Psychology to Design Better Products & Services

O'REILLY MEDIA | APR 2020



JON YABLONSKI | JONYABLONSKI.COM

Chapters

1. Jakob's Law
2. Fitts's Law
3. Hick's Law
4. Miller's Law
5. Postel's Law
6. Peak-End Rule
7. Aesthetic-Usability Effect
8. von Restorff Effect
9. Tesler's Law
10. Doherty Threshold
11. With Power Comes Responsibility
12. Applying Principles in Design



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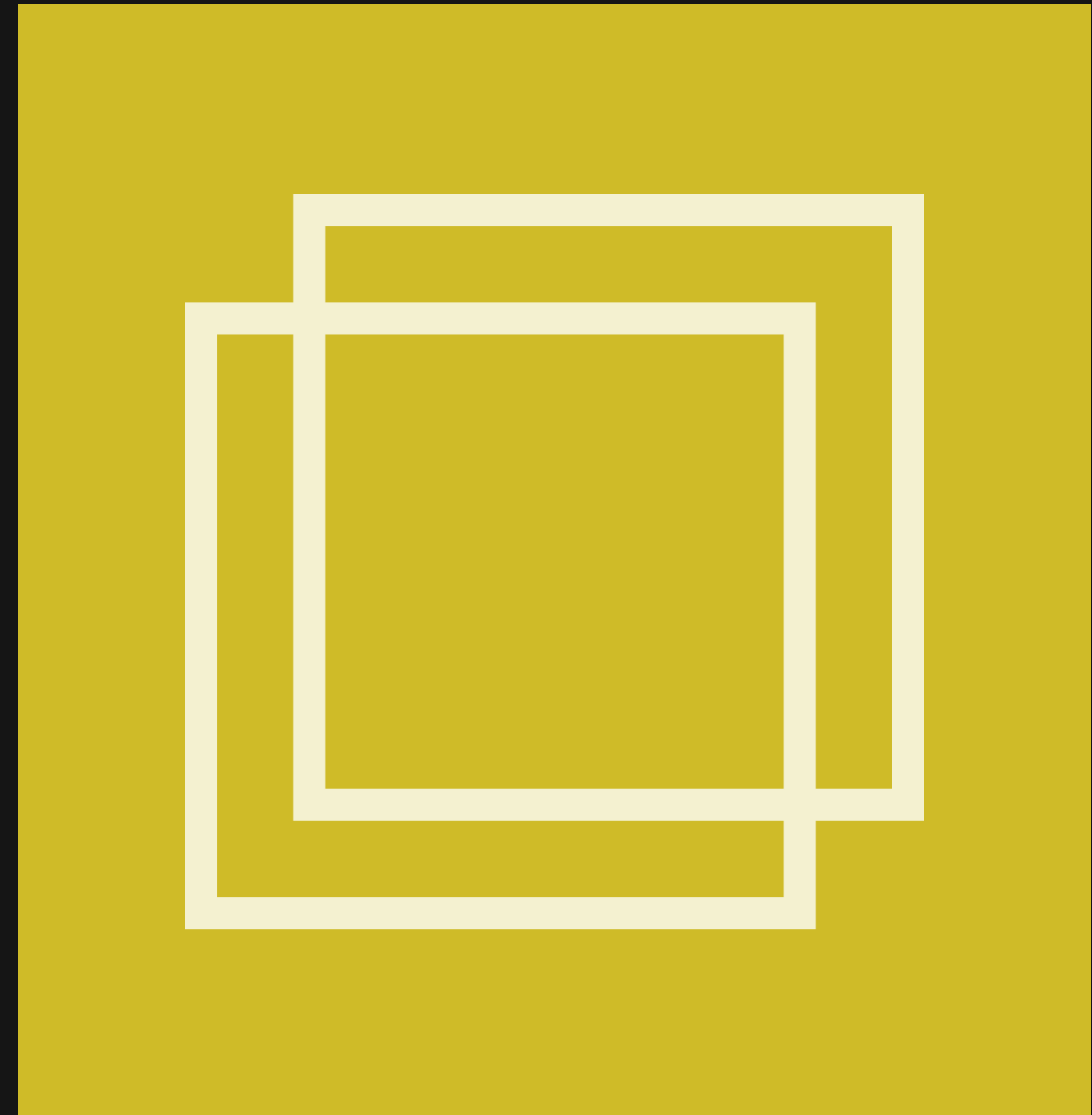
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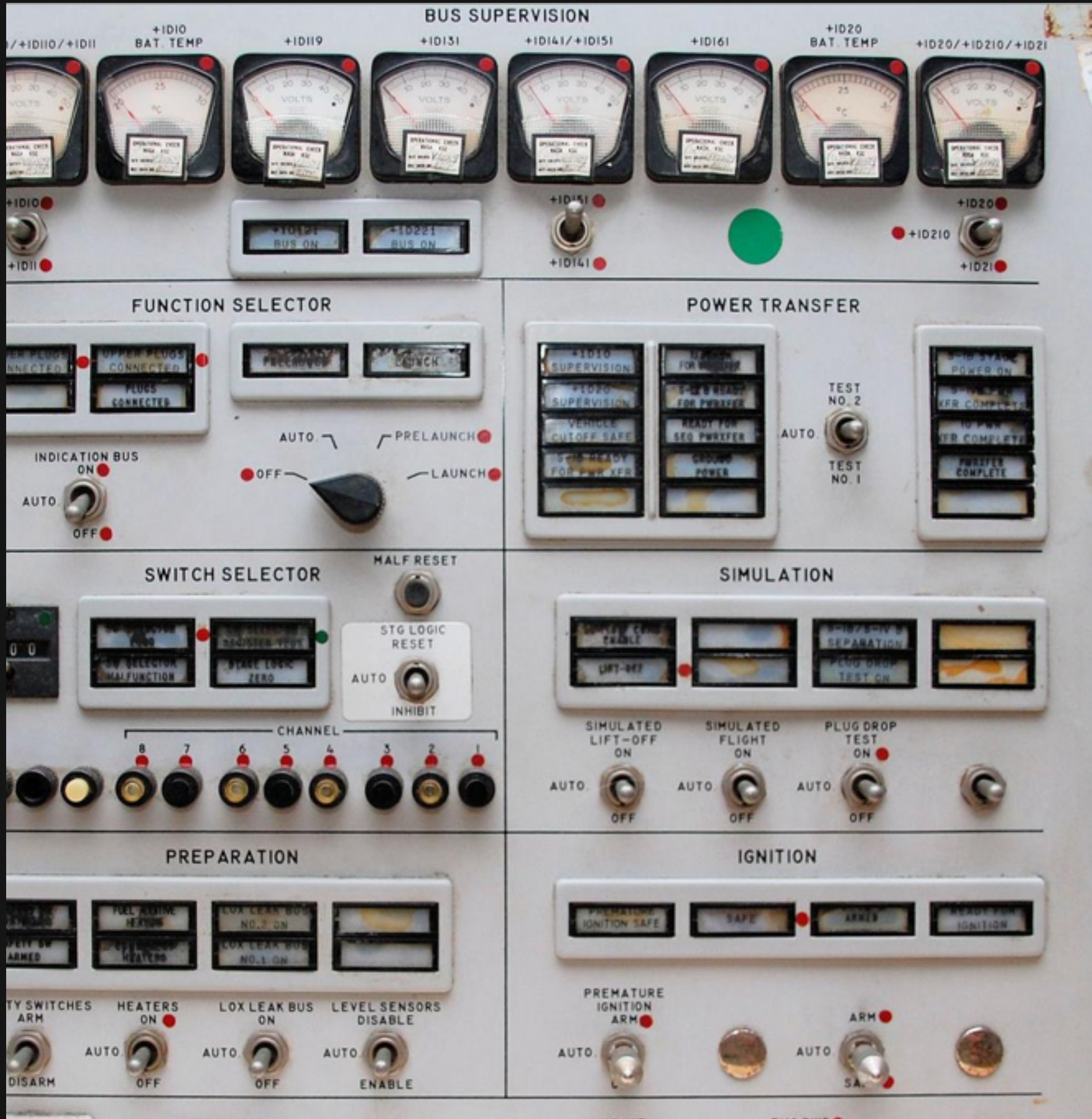


Jakob's Law





Mental Model



Checkboxes

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Enabled	Disabled	Hover	Focus	Pre

Radio

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<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	
Enabled	Disabled	Hover	Focus	Pre

Switch

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Enabled	Disabled	Hover	Focus	Pre



Ready to ship

crochet yoda

mandolorian

yoda

craftyiscool

yoda crochet pattern

the office

schitts creek

i have spoken

All categories

Clothing

Home & Living

Art & Collectibles

Accessories

+ Show more

Special offers

FREE shipping

On sale

Ready to ship in

1 business day

1 - 3 business days

Price (\$)

Any price

Under \$25

\$25 to \$50

\$50 to \$100

Over \$100

Custom

Low

to

High



All categories > "baby yoda" (8,665 Results)

Sort by: Relevancy ▾



More colors

Baby Yoda Best Day Ever Shirt, Man...

HangLooseandCo

★★★★★ (3)

\$14.50

🏆 Bestseller

Ad



Baby Yoda Sweater | Baby Yoda Gift...

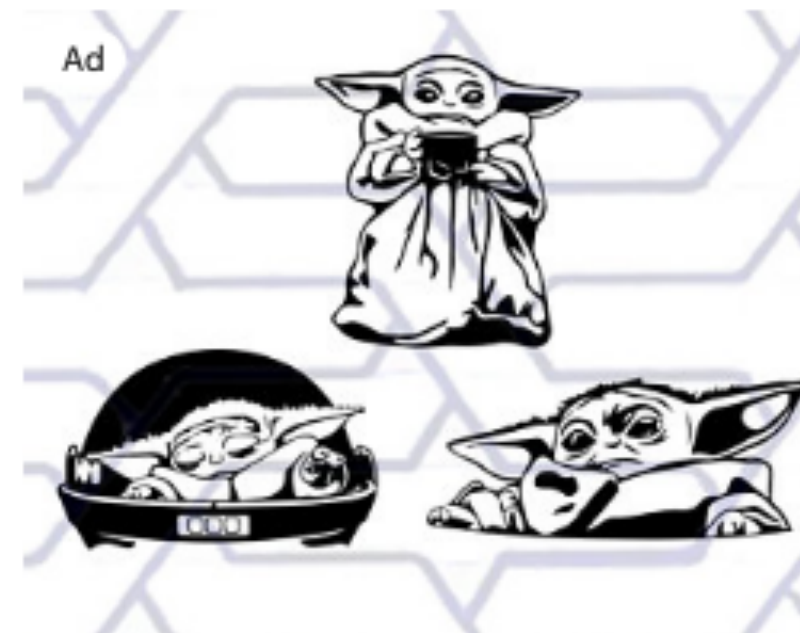
CustomGraphicCases

★★★★★ (9)

\$34.99

🏆 Bestseller

Ad



Baby Yoda/Mandalorian Bundle, Ba...

DinoStoreGifts

\$4.50

Ad

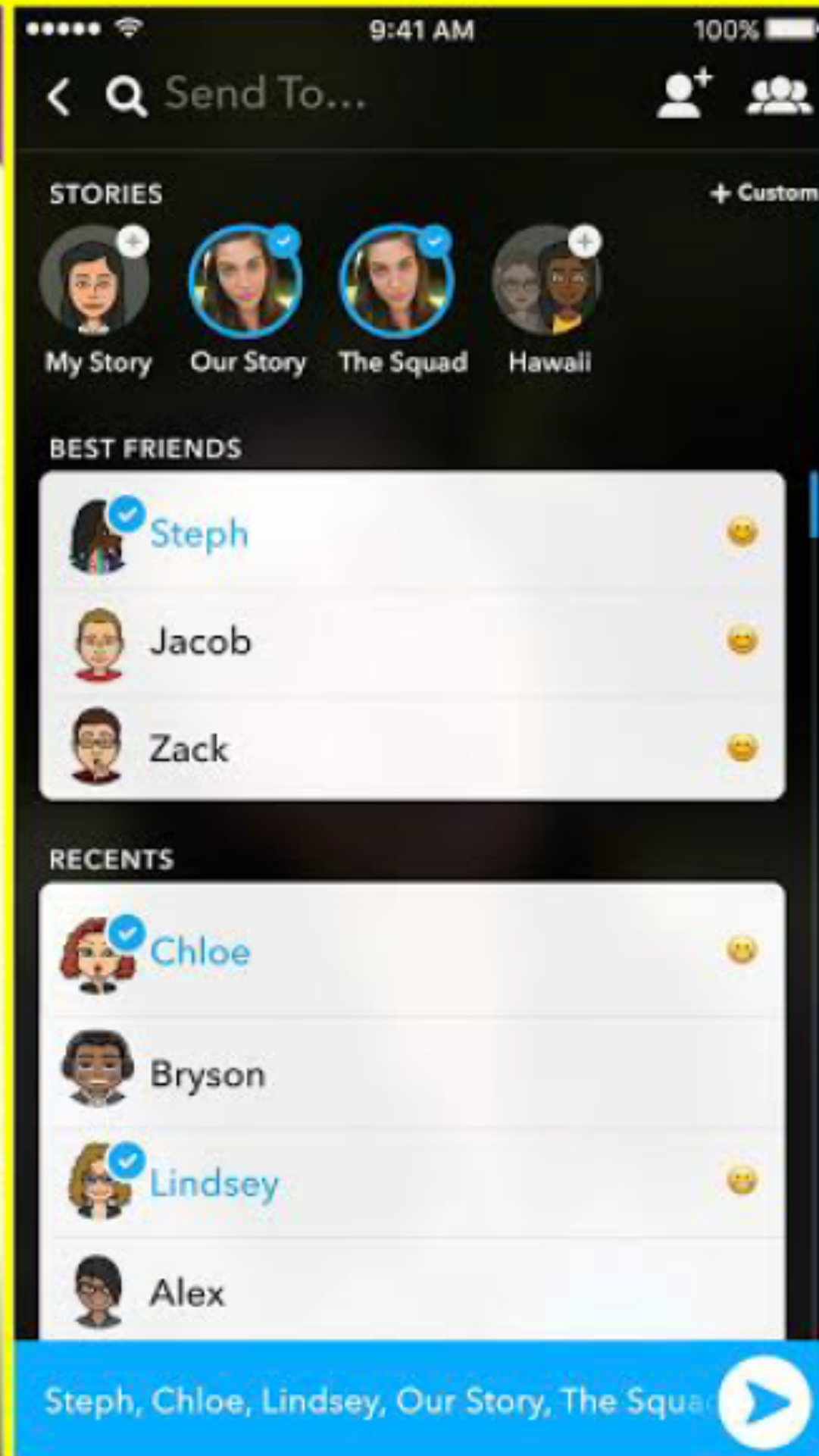
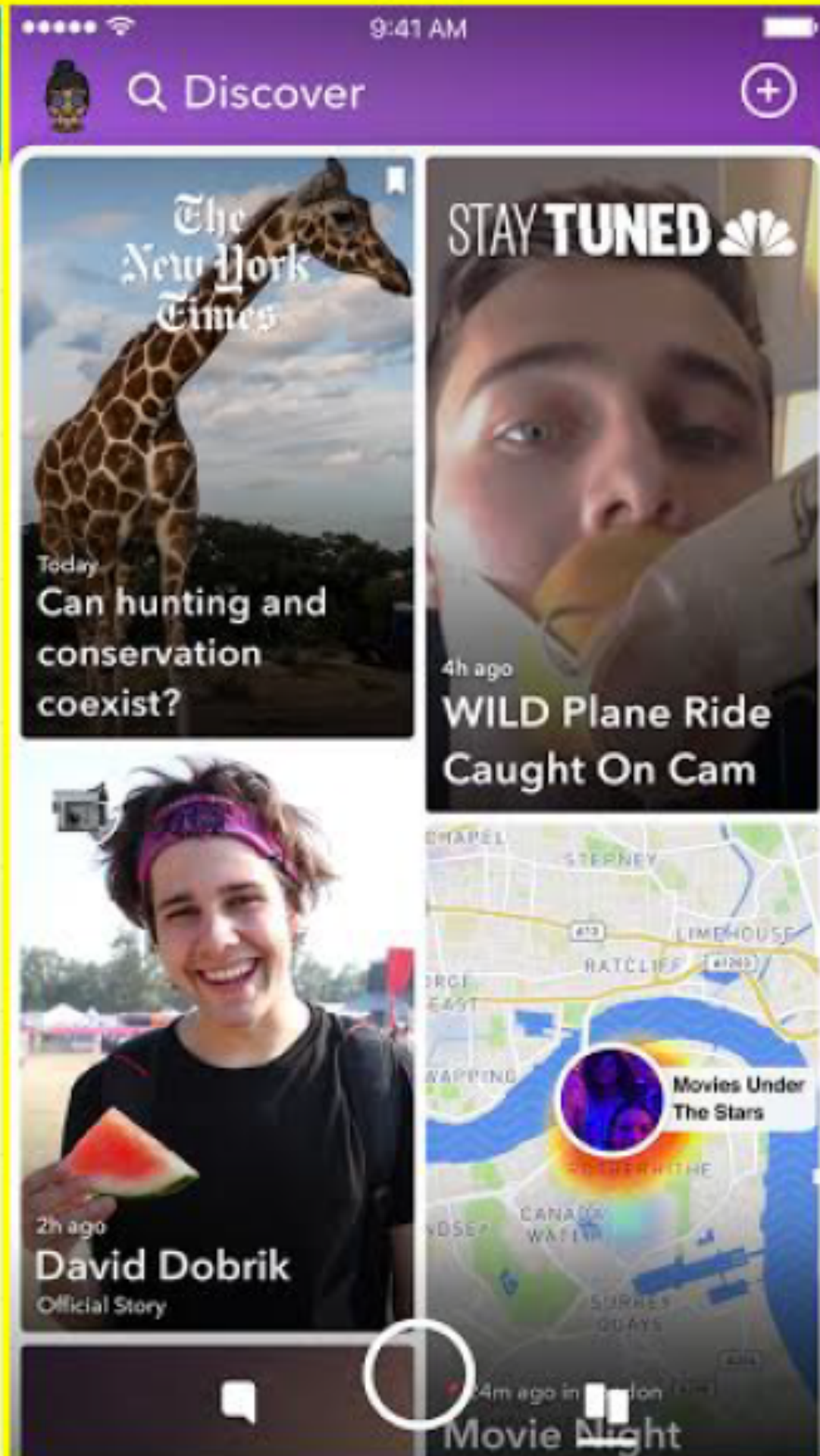
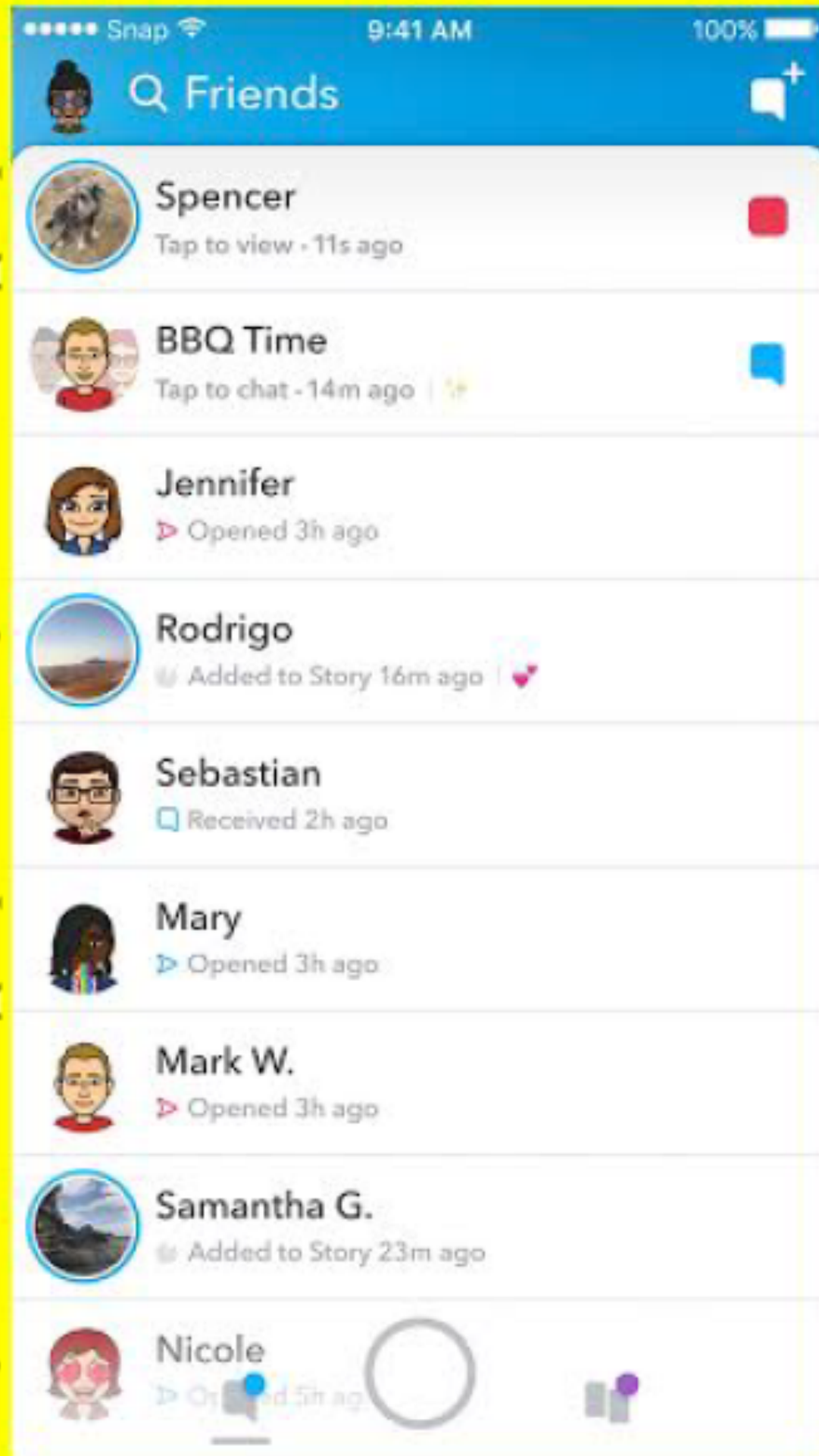


Baby Yoda svg, The Child svg, Man...

LivaShopFunny

\$3.20





Home

- My channel
- Trending
- Subscriptions
- Get YouTube Red
- Get YouTube TV

LIBRARY

- History
- Watch Later
- Liked videos
- LOL Cats
- Classic Cartoons!

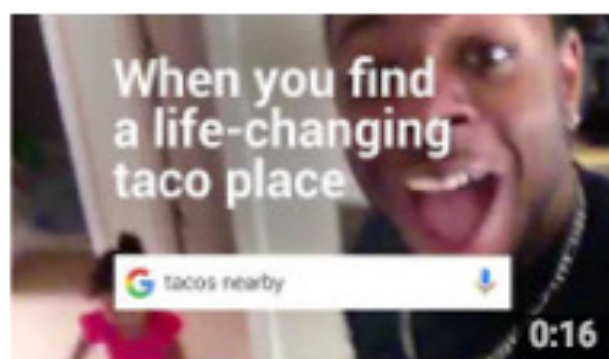
SUBSCRIPTIONS

- Nat and Friends 2
- Made with Code 1
- Google Developers
- Project Loon

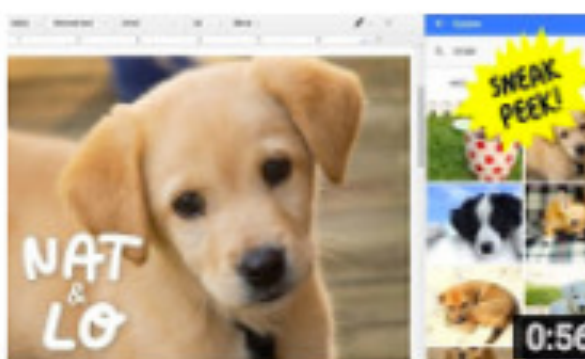
Browse channels

YouTube Movies

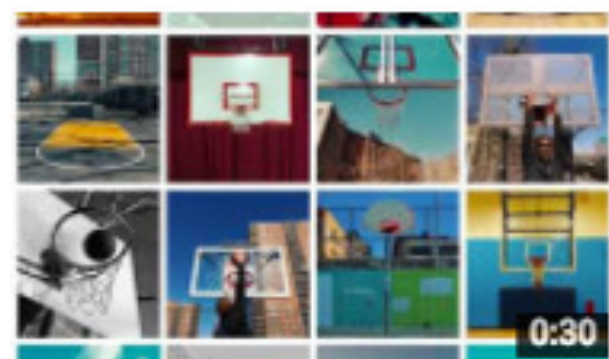
Recommended



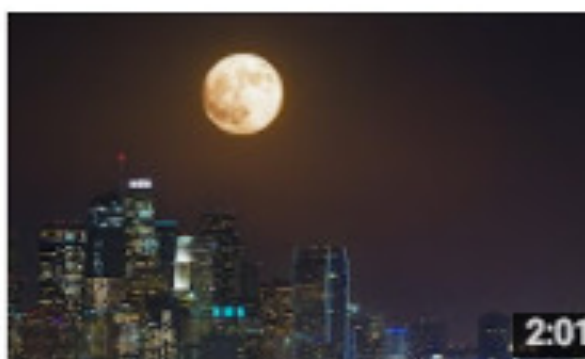
Google Search: Tacos nearby
 Google ✓
 2,123,508 views • 14 hours ago



Nat & Lo: Search Tips Sneak Peek
 Nat and Friends
 97,820 views



#teampixel: All the hoops of Harlem
 Google
 80,214 views • 3 days ago



Google - Year In Search 2016
 Google
 14,938,322 views • 10 months ago

Recently Uploaded Recommended videos for you



Home

- Trending
- Subscriptions

LIBRARY

- History
- Watch Later
- Liked Videos
- Purchases
- LOL Cats
- Classic Cartoons!

SUBSCRIPTIONS

- Nat and Friends 2
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- Google Developers
- Project Loon

Recommended



YouTube Rewind: The Ultimate 2016 Challenge
 YouTube Spotlight 190M views



Explore the Hidden Worlds of the National Parks in 360°
 Google 5M views

Google

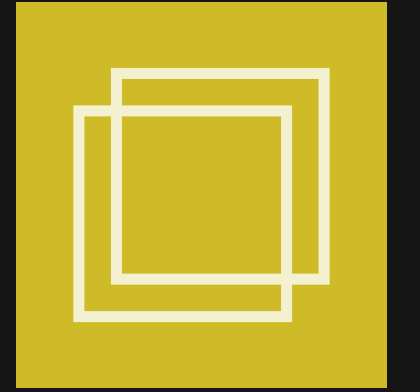


Beyond the Map, Rio de Janeiro - Ricardo's Story
 Google 91K views



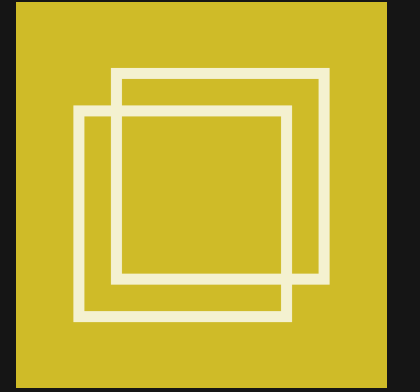
Google Home: Hands-free help from the Google
 Google 1.1M views

Takeaways



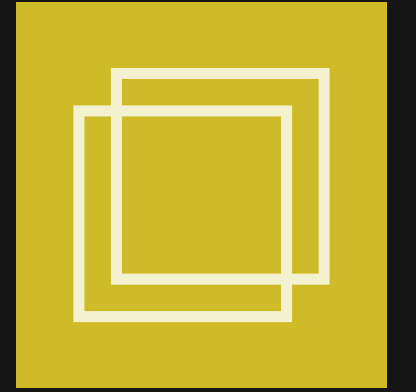
- 1. Expectations**
2. Existing mental models
3. Minimize discord

Takeaways



1. Expectations
2. Existing mental models
3. Minimize discord


Takeaways



1. Expectations
2. Existing mental models
3. **Minimize discord**

User Personas

INFO DETAILS



MIKE

"THE EARLY ADOPTER"

DETAILS

AGE: 32

OCCUPATION: IT ENGINEER

EDUCATION: BACHELOR'S DEGREE

MARITAL STATUS: MARRIED

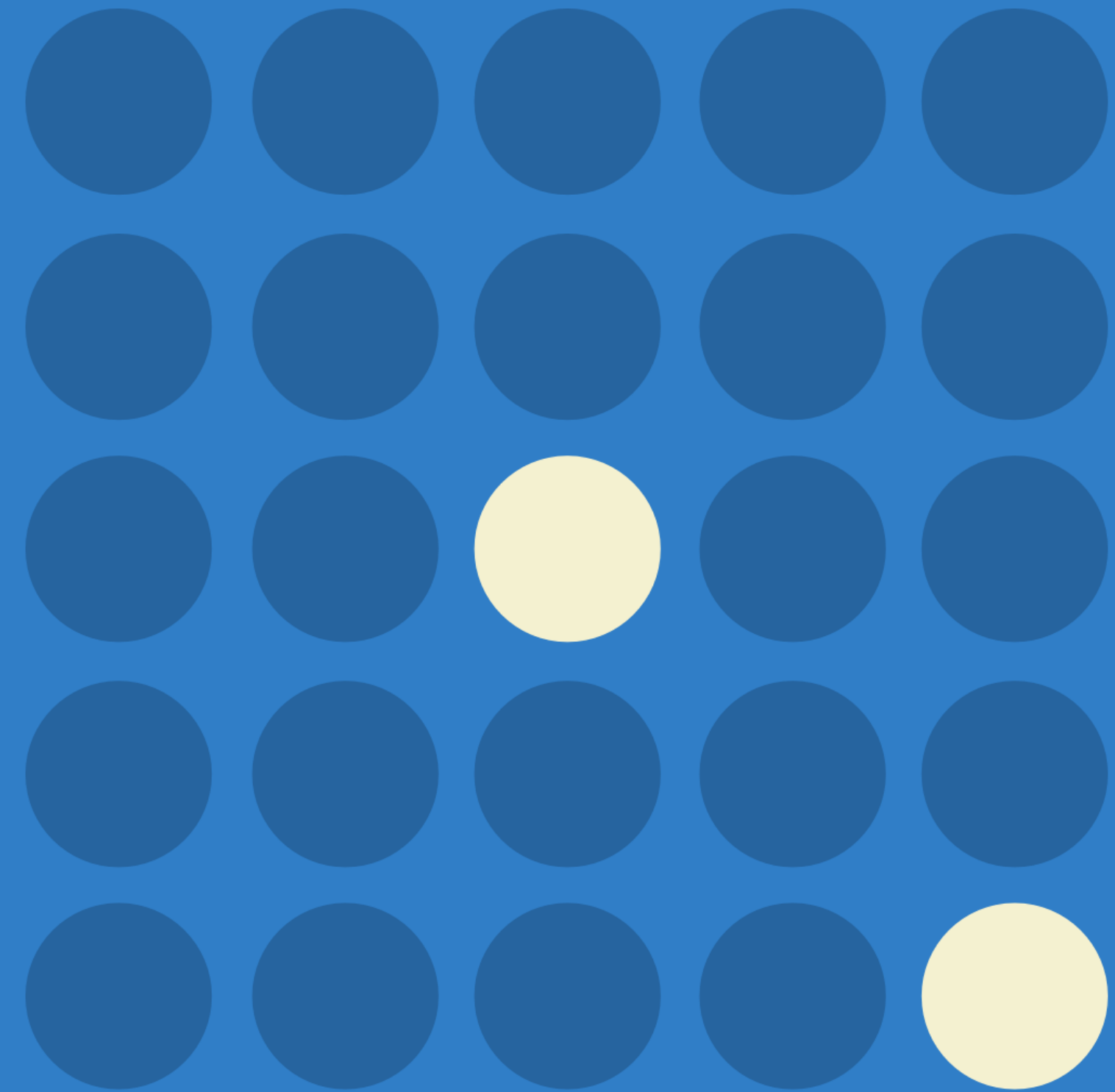
LOCATION: CHICAGO, IL

BIO

BEHAVIOR

FRUSTRATIONS

Peak-End Rule

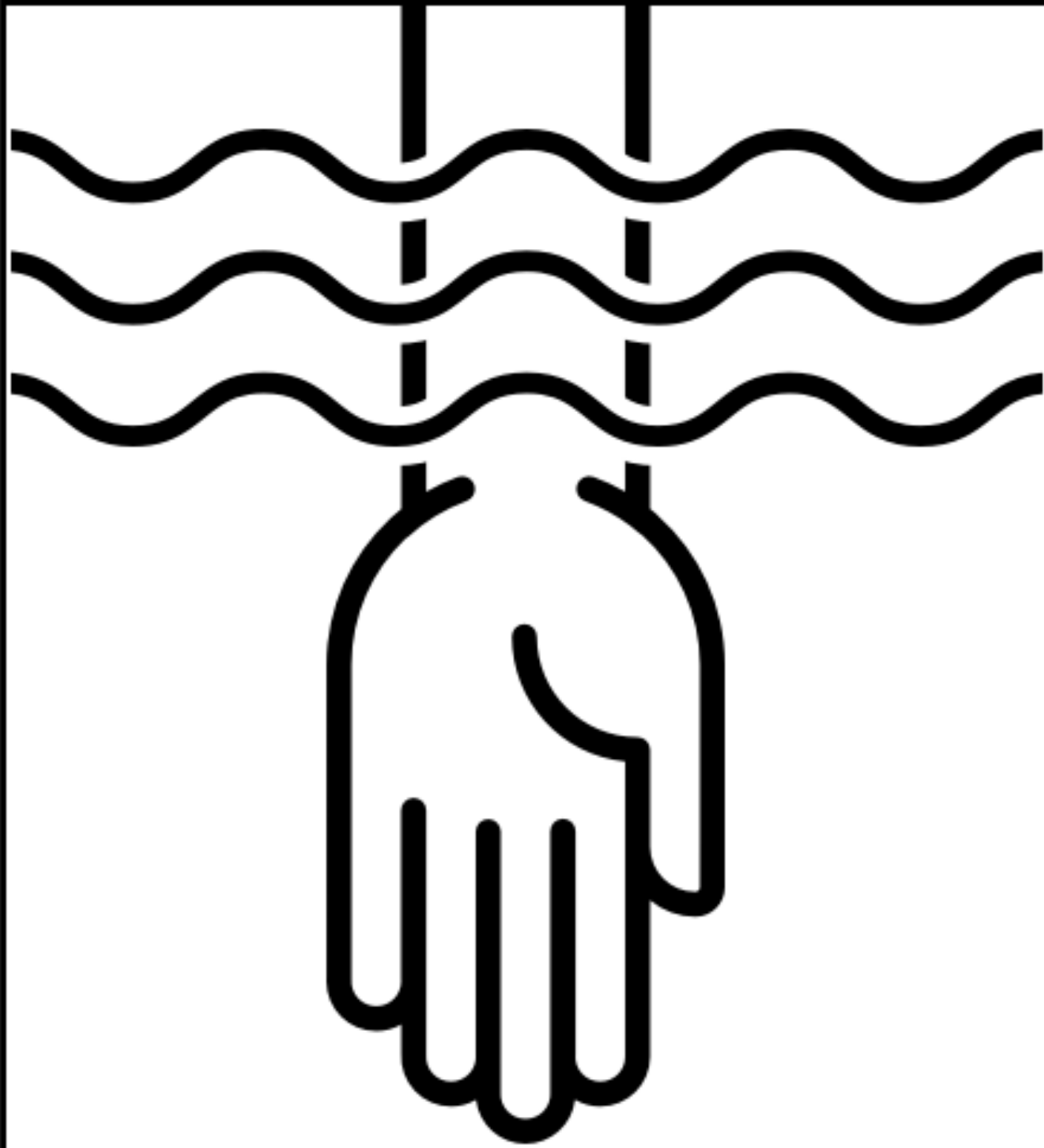




Cognitive Bias

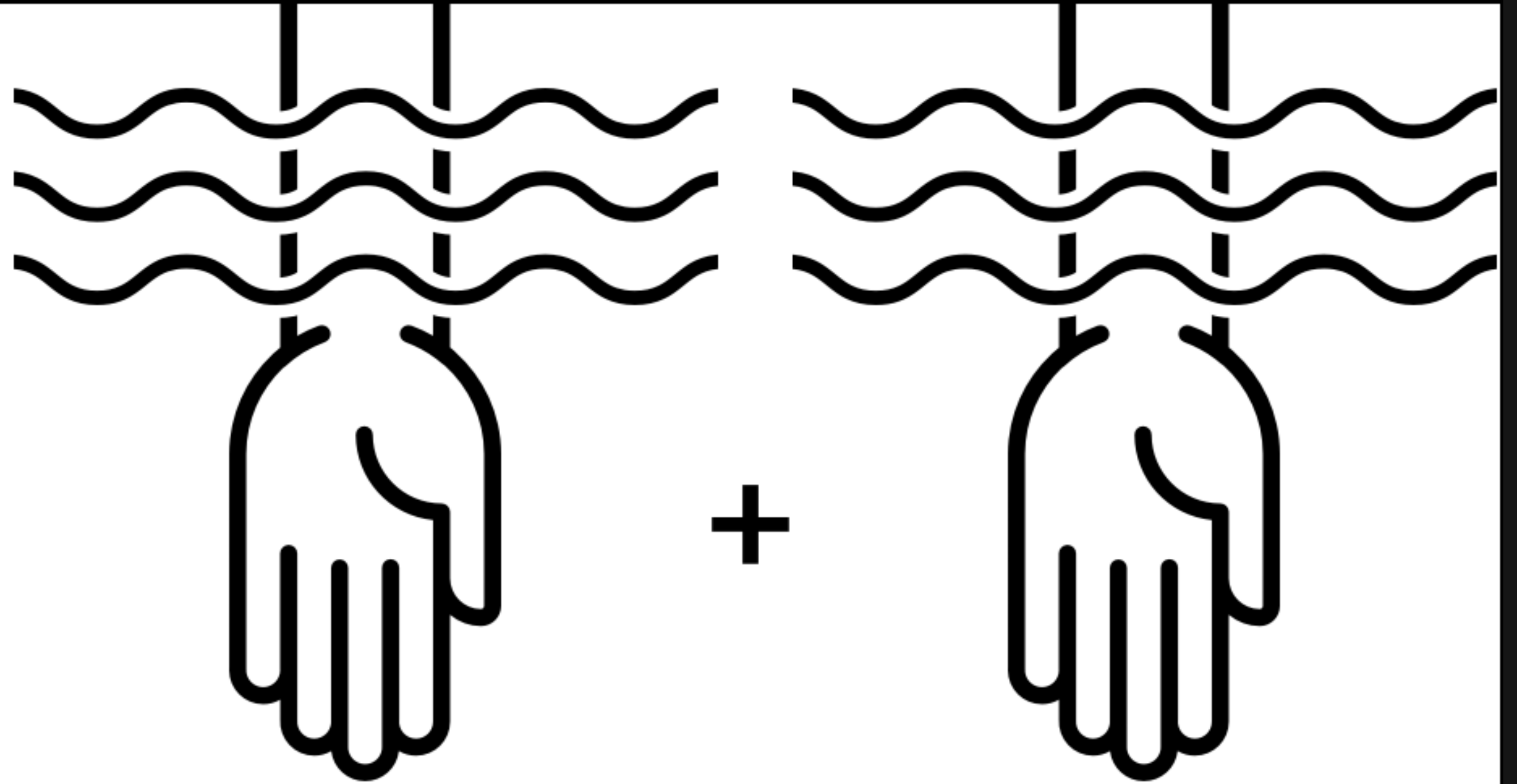
WHEN MORE PAIN IS PREFERRED TO LESS: ADDING A BETTER END

TRIAL 1



14°C - 60s

TRIAL 2



14°C - 60s

15°C - 30s

Prepare for launch



You're about to send a campaign to:
Web Field Manual Dispatch
1373 subscribers

This is your moment of glory.

Send Now

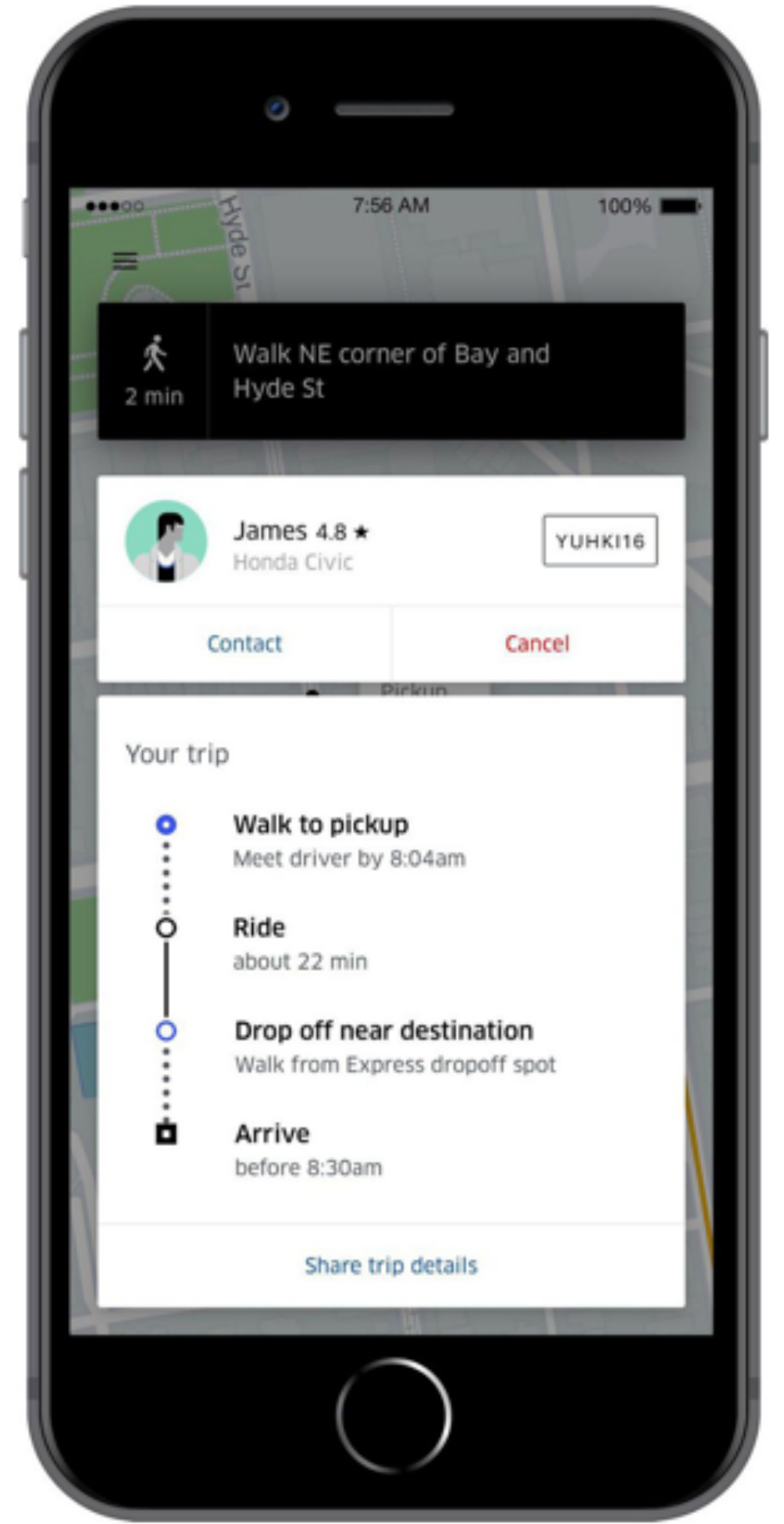
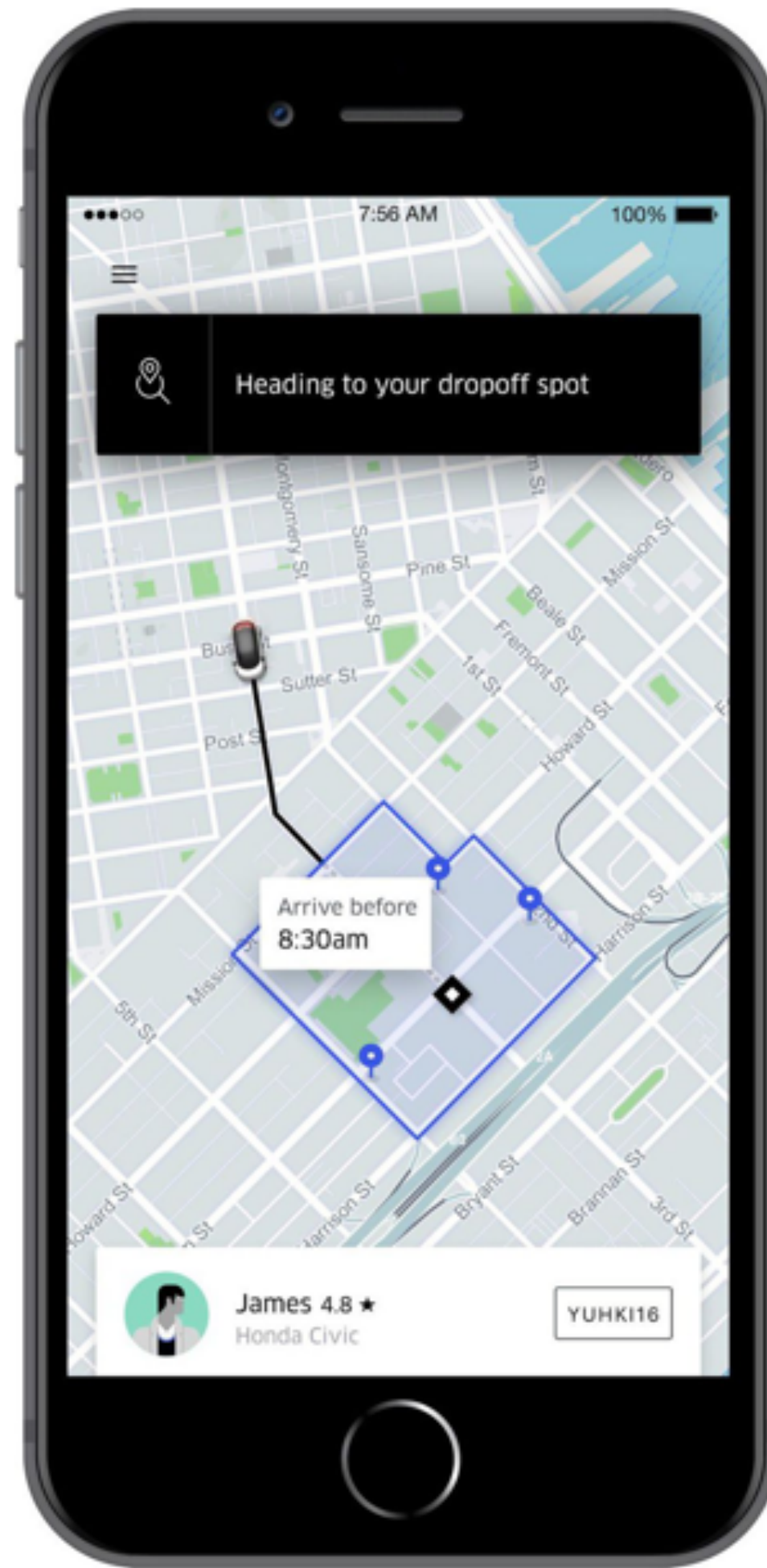
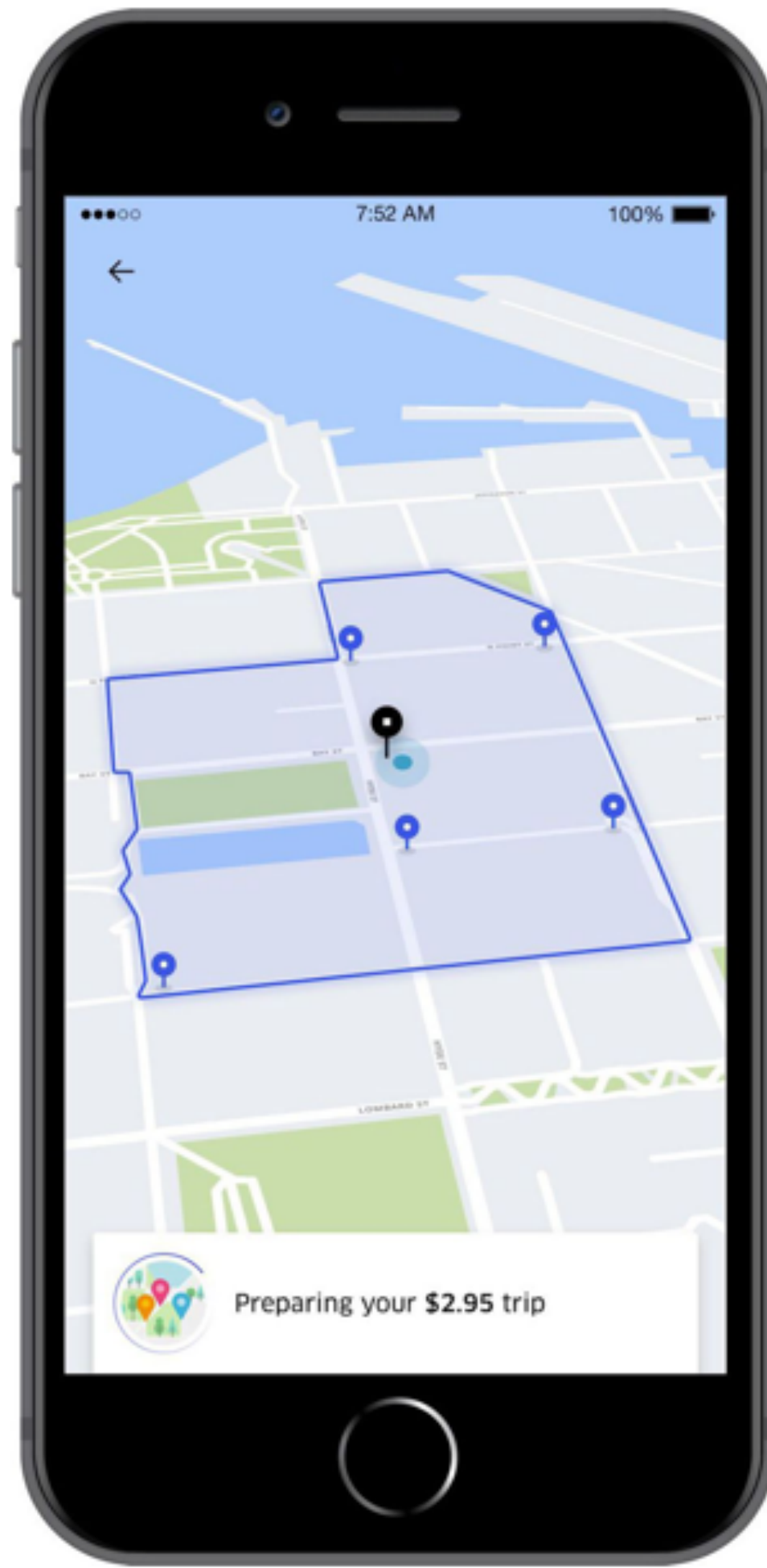
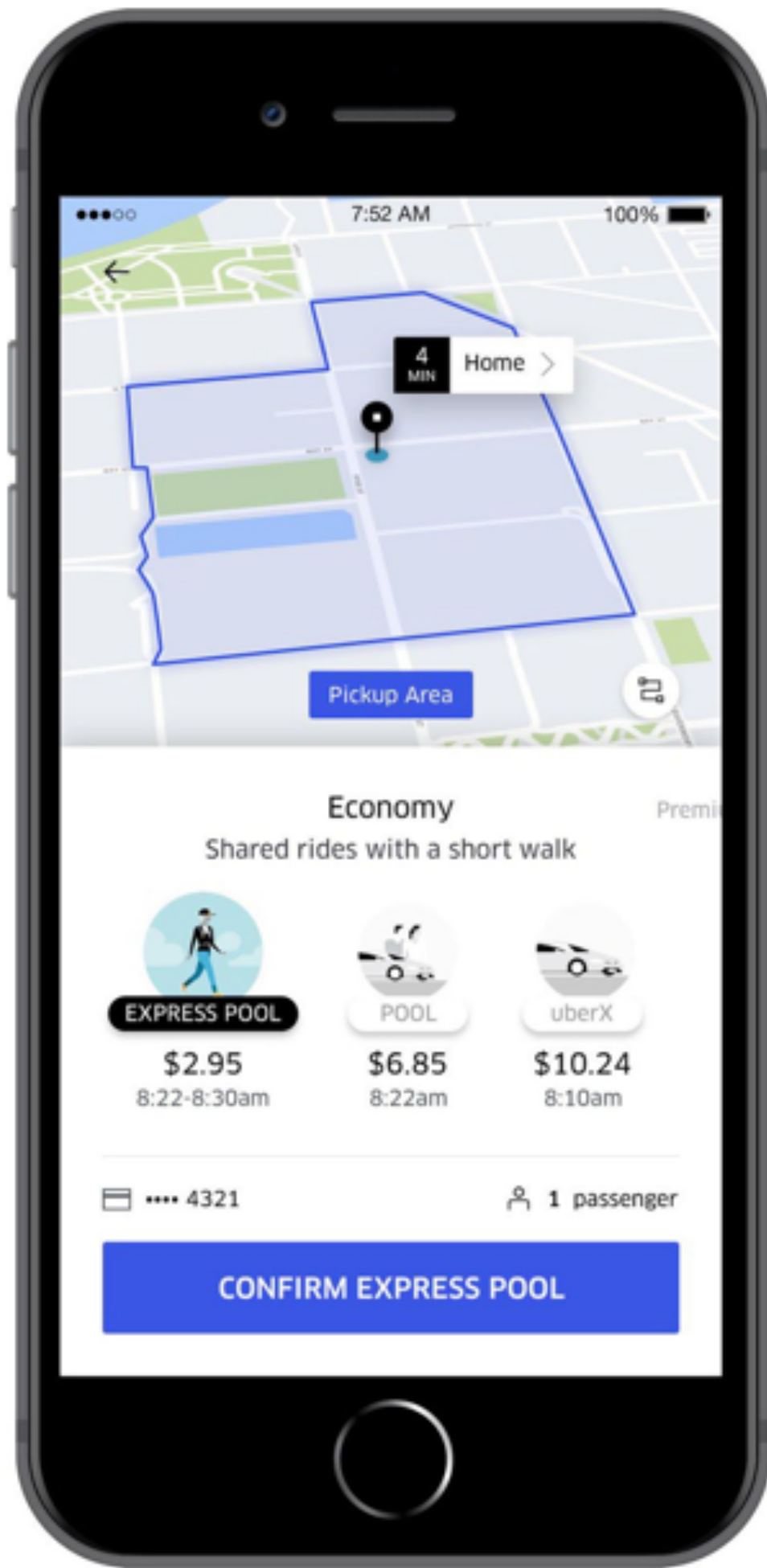
[Cancel](#)



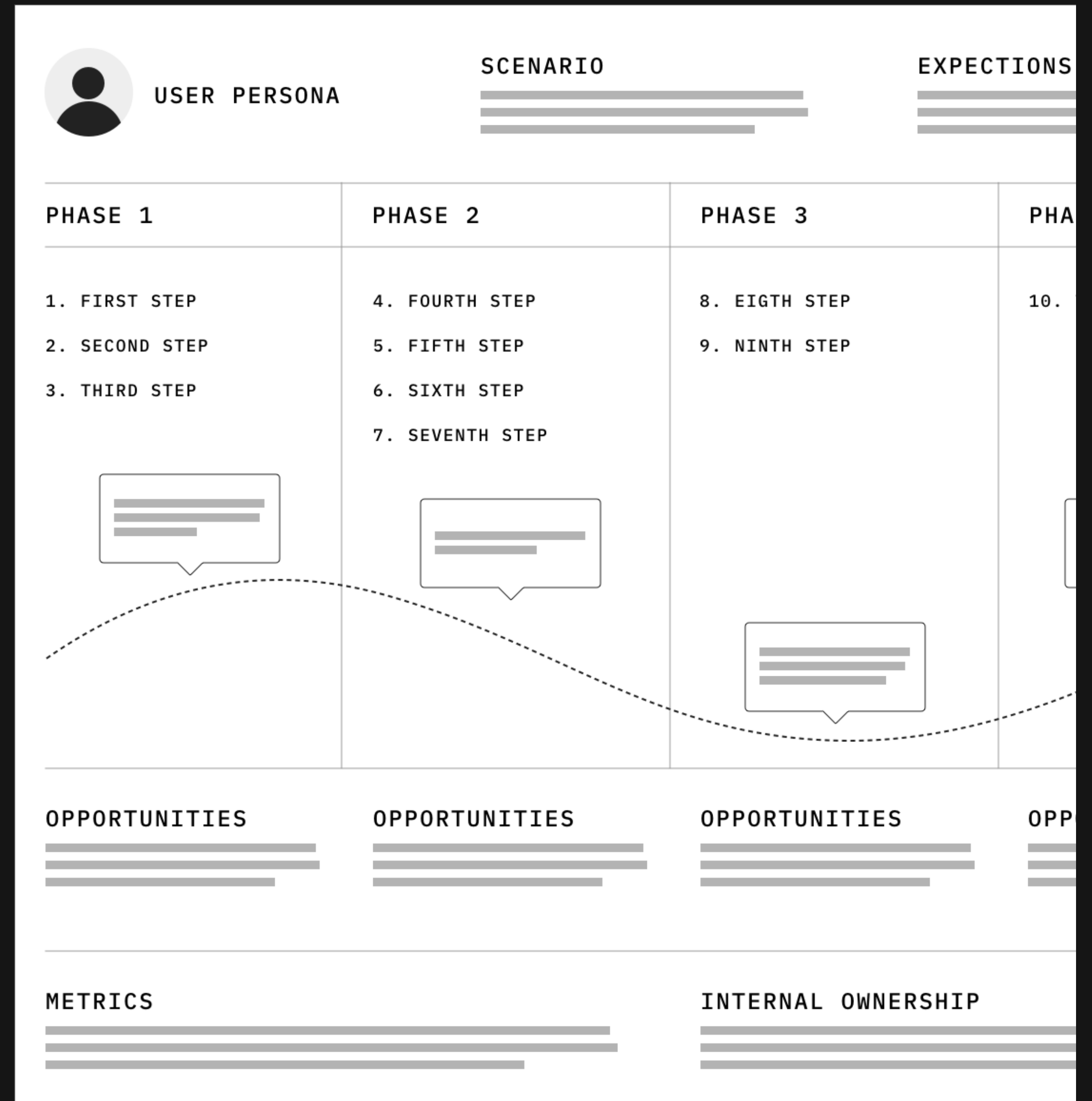


High Fives!

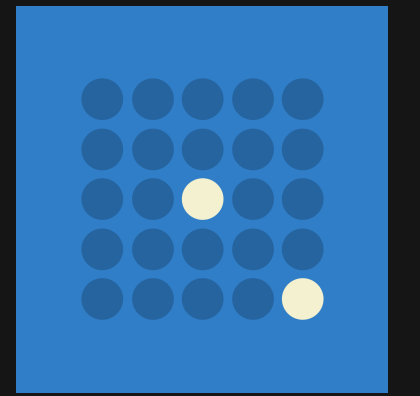
Your campaign is in the
send queue and will go out shortly.



Journey Maps

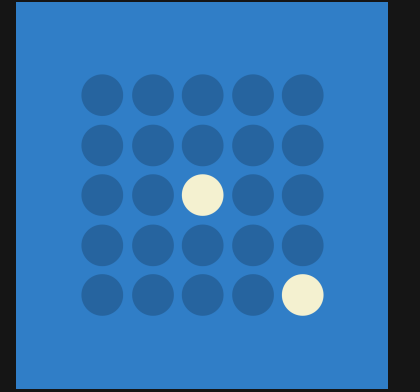


Takeaways



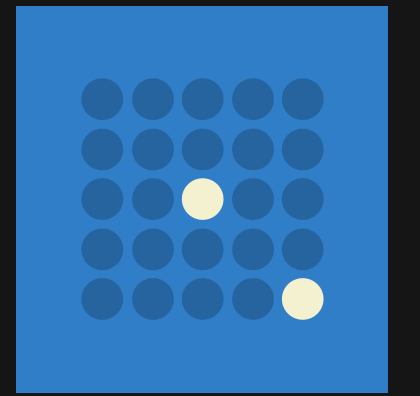
- 1. User Journey**
2. Peak Moments
3. Experience Recall

Takeaways



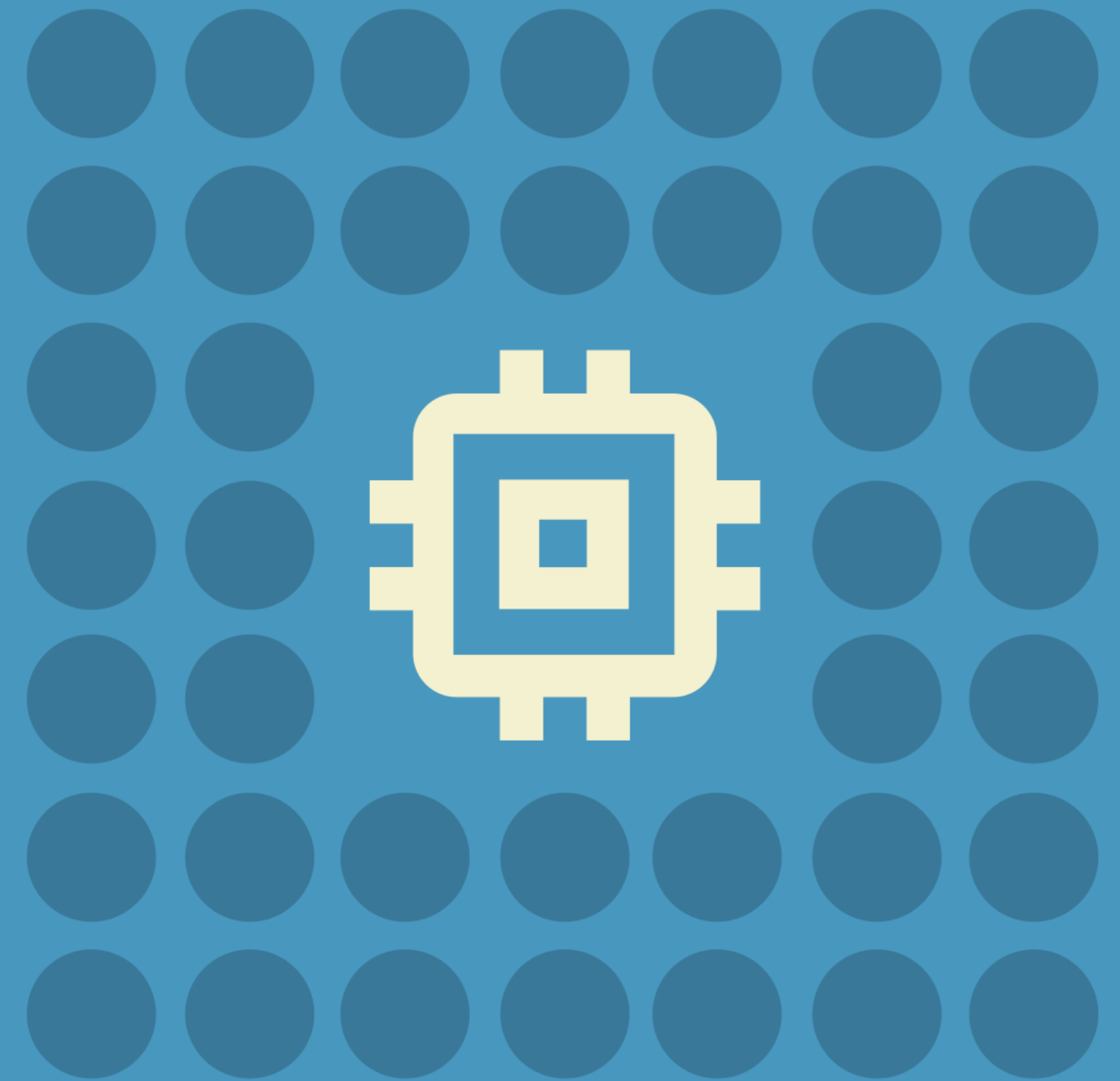
1. User Journey
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3. Experience Recall

Takeaways



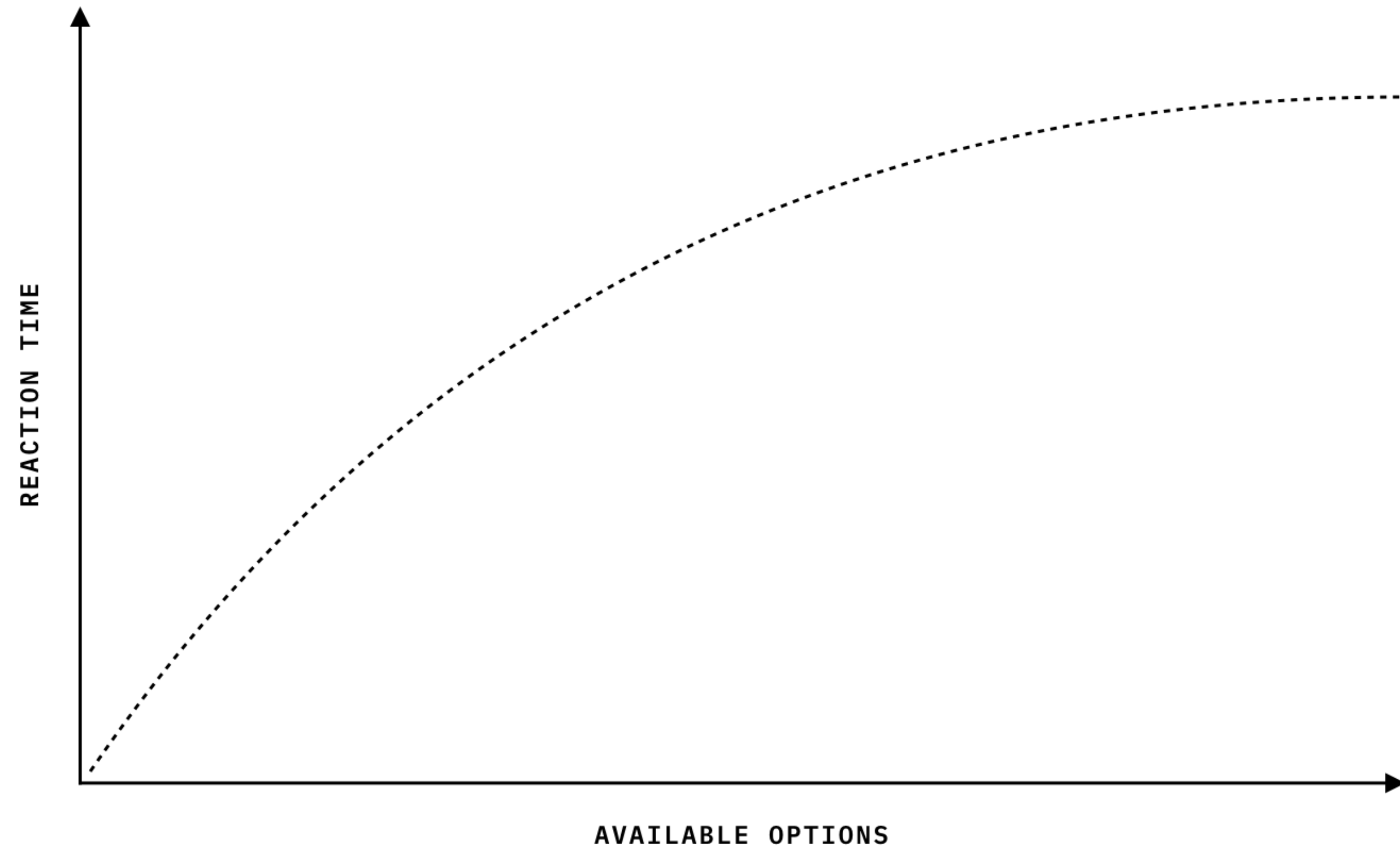
1. User Journey
2. Peak Moments
3. Experience Recall

Hick's Law

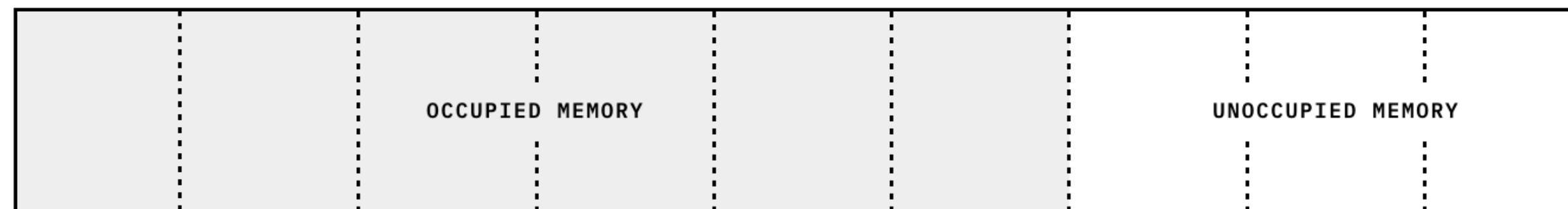




Cognitive Load



WORKING-MEMORY BUFFER









 Welcome!

Slack is a collaboration hub for teams.

Got the hang of Slack already? [Skip the tutorial.](#)

Today



slackbot 12:19 PM

Hello, I'm Slackbot. I try to be helpful. (But I'm still just a bot. Sorry!) **Type something** and hit Enter to send your message.



Type something



ALGA Detroit

Jon Yablonski



All Threads

Channels

general

random

Direct Messages

slackbot

Jon Yablonski (you)

Apps



Messaging happens in channels

Channels bring order and searchability to your team's conversations. They're organized by topic (#research), working group (#sales), or specific project (#sales-tv-ad).

Done? [Click here to skip](#)

Next Tip



Welcome!

Slack is a collaboration hub for teams.

Today



slackbot 12:19 PM

Hello, I'm Slackbot. I try to be helpful. (But I'm still just a bot. Sorry!) **Type something** and hit Enter to send your message.

Just below this message is a text input field for you to type in. Try it out. 📌



Jon Yablonski 12:20 PM

Hi



slackbot 12:21 PM

Pleasure to meet you. Let me show you a couple things about Slack.





Google

Google Search

I'm Feeling Lucky

About 158,000 results (0.52 seconds)

lawsuffix.com > hicks-law

Hick's Law | Laws of UX

Hick's Law (or the Hick-Hyman Law) is named after a British and an American psychologist team of William Edmund Hick and Ray Hyman. In 1952, this pair set ...

People also ask

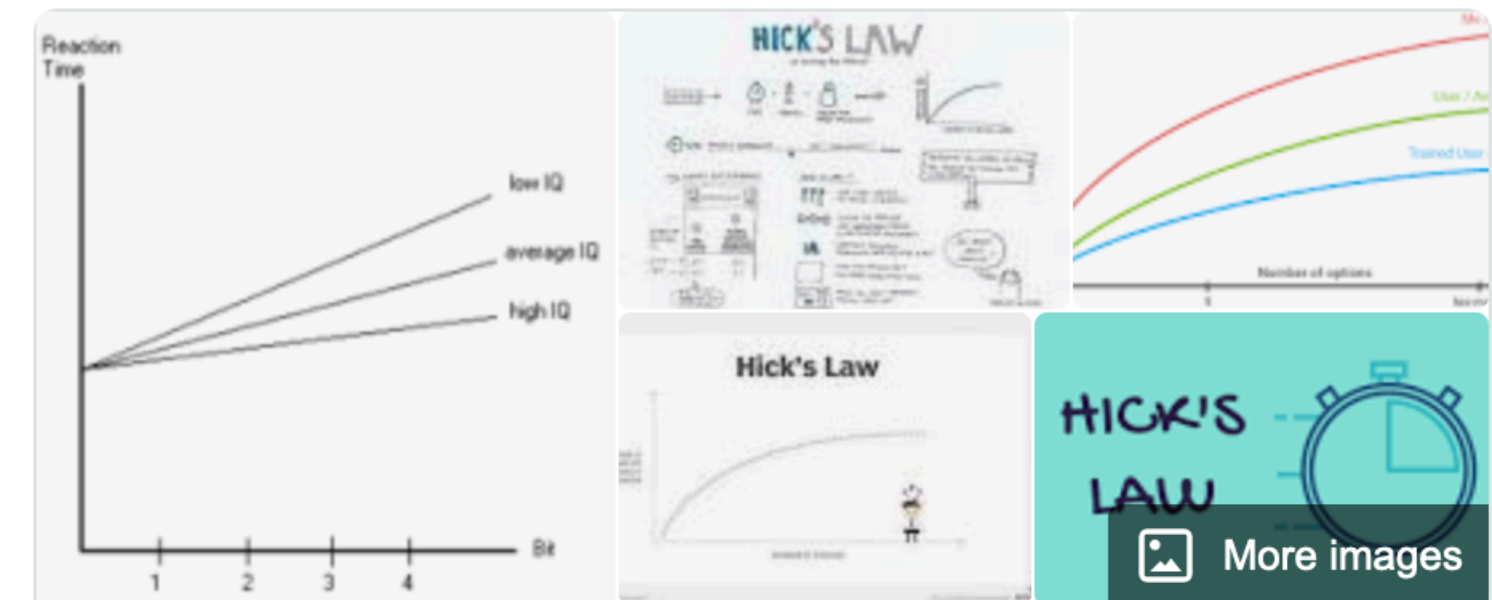
- What does Hick's Law say? ▼
- What is Hicks Law reaction time? ▼
- How relevant is Hick's Law for HCI? ▼
- What scientist discovered the mathematical relationship between responses and reaction time? ▼

Feedback

www.interaction-design.org > literature > article > hick-...

Hick's Law: Making the choice easier for users | Interaction ...

Jul 26, 2020 — Hick's Law is a simple idea that says that the more choices you present your users with, the longer it will take them to reach a decision. It's common sense, but often neglected in the rush to cram too much functionality into a site or application.



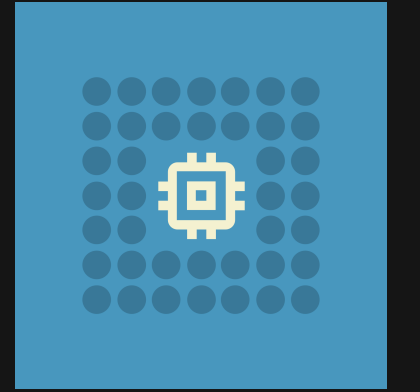
Hick's law



Hick's law, or the Hick–Hyman law, named after British and American psychologists William Edmund Hick and Ray Hyman, describes the time it takes for a person to make a decision as a result of the possible choices: increasing the number of choices will increase the decision time logarithmically. [Wikipedia](#)

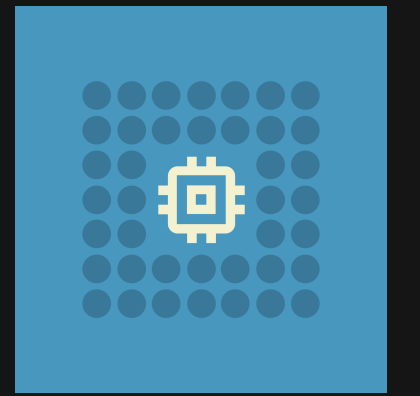
Feedback

Takeaways



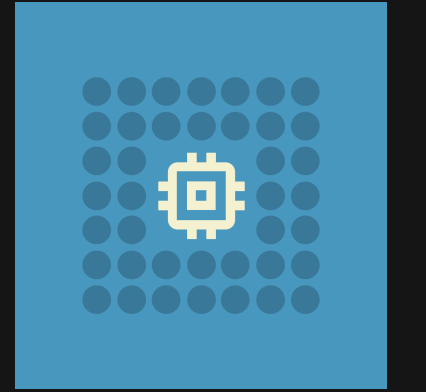
- 1. Minimize choices**
2. Smaller steps
3. Provide recommendations
4. Progressive onboarding
5. Simplification

Takeaways



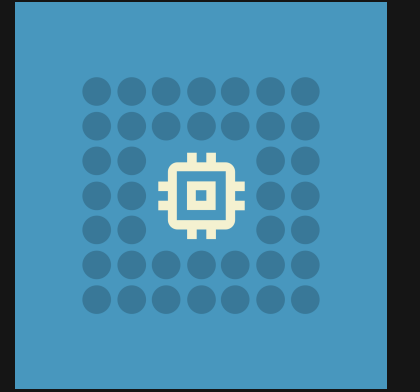
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Takeaways



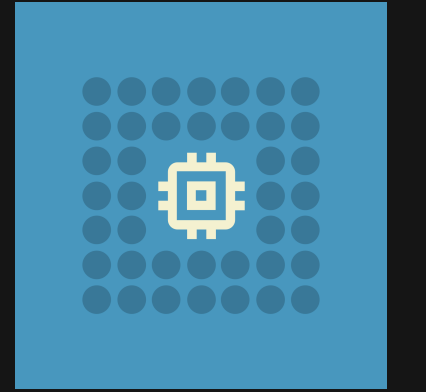
1. Minimize choices
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Takeaways



1. Minimize choices
2. Smaller steps
3. Provide recommendations
4. **Progressive onboarding**
5. Simplification

Takeaways



1. Minimize choices
2. Smaller steps
3. Provide recommendations
4. Progressive onboarding
5. **Simplification**

Card Sorting

CATEGORY 1

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

CATEGORY 2

TOPIC NAME

TOPIC NAME

TOPIC NAME

TOPIC NAME

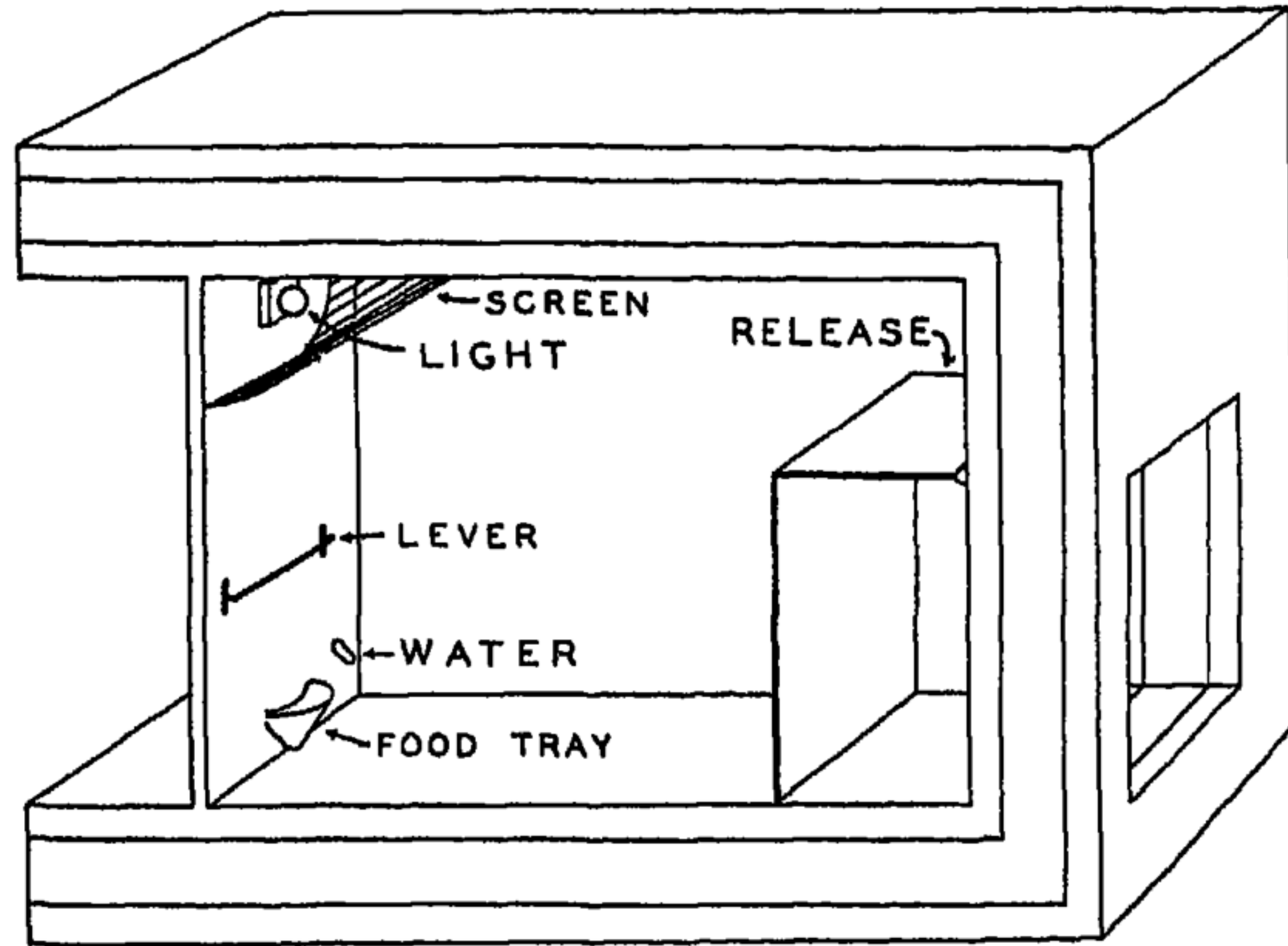
TOPIC NAME

TOPIC NAME

Power & Responsibility



OPERANT CONDITIONING CHAMBER, AKA "SKINNER BOX"



INTERMITTENT VARIABLE REWARDS

6:59

Fast Company @FastCompany · 32s

The Boy Scouts of America just filed for Chapter 11 bankruptcy protection




The Boy Scouts of America just filed for Chapter 11 bankruptcy protection
fastcompany.com

6:58

Fast Company @FastCompany · 6s


The Boy Scouts of America just filed for Chapter 11 bankruptcy protection



The Boy Scouts of America just filed for Chapter 11 bankruptcy protection
fastcompany.com

7:00


Archillect @archillect · 5s



1

Fast Company @FastCompany · 2m

The Boy Scouts of America just filed for Chapter 11 bankruptcy protection



INFINITE LOOPS

YouTube interface showing a video player and a list of recommended videos.

Video Player:

- Up Next: Sketchup House Exterior Design 5 + Vray 3.4
- Channel: Rio Ryne
- Video Title: From Google Maps and heightmaps to 3D Terrain - 3D Map Generator Terrain - Photoshop
- Views: 5,173,963
- Engagement: 10K likes, 601 comments
- Buttons: SHARE, SAVE, ...

Recommended Videos:

- Rediscover You** (Ad) DeVry.edu. Button: LEARN HOW
- Up next** (AUTOPLAY ON)
- Sketchup House Exterior Design 5 + Vray 3.4** by Rio Ryne, 2.1M views, 2:39:24
- Hefty® Party Cups - Surprise Party** (Ad) Hefty Brands, 88M views
- How to create a 3D Terrain with Google Maps and height maps** by Orange Box Ceo, 6.3M views, 20:32
- Tutorial Photoshop Underwater Turtle Island** by Elissandro Pinto, 1.2M views, 2:29:04

SOCIAL AFFIRMATION



  598

144 Comments 338 Shares  

 Like

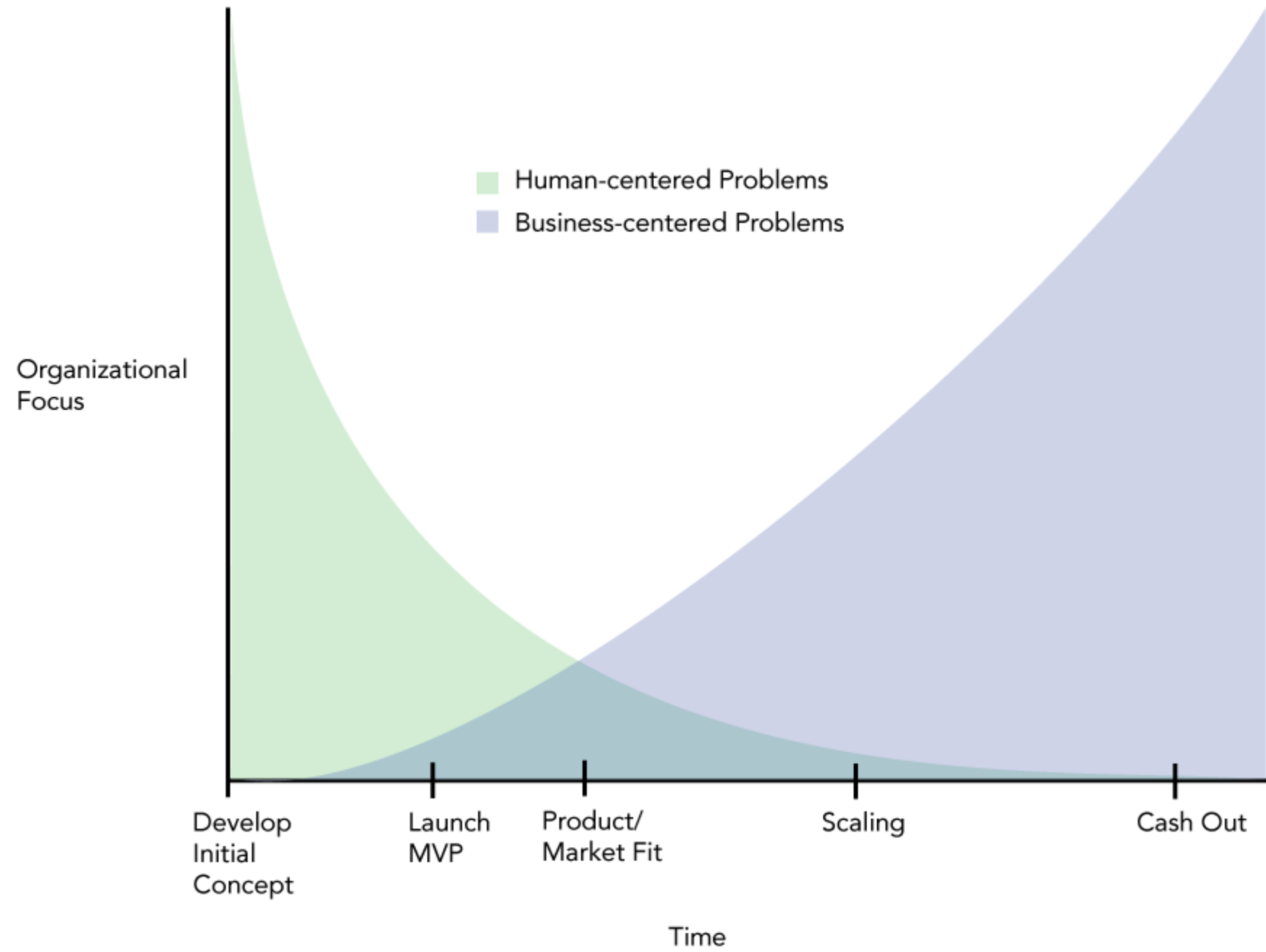
 Comment

 Share

**MOVE
FAST AND
BREAK
THINGS**



Organizational Focus Over Time



Daily Active Users (DAU)

Monthly Active Users (MAU)

Time On Page (TOP)

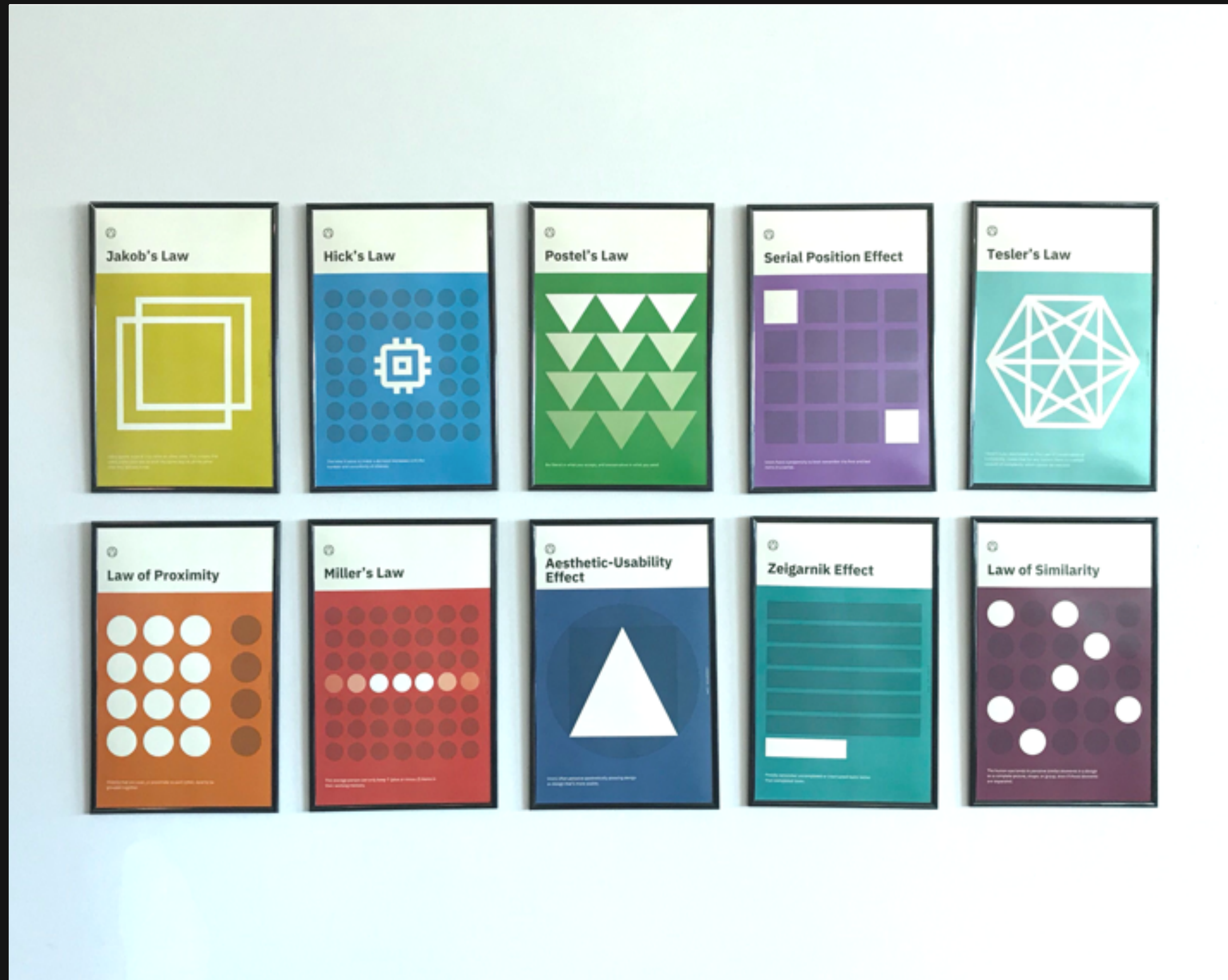
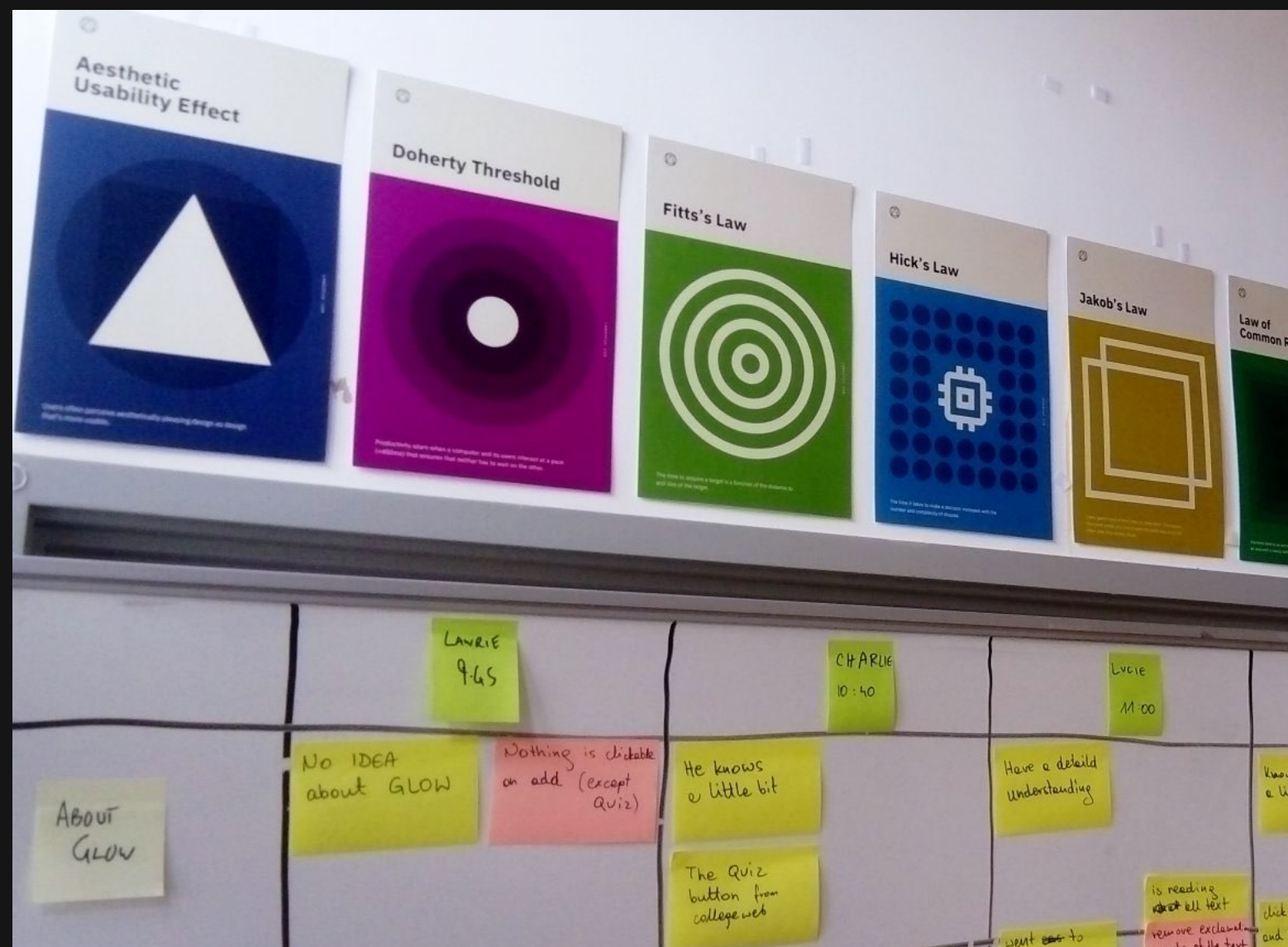
Time On Site (TOS)

Quantitative data tells us lots of useful things

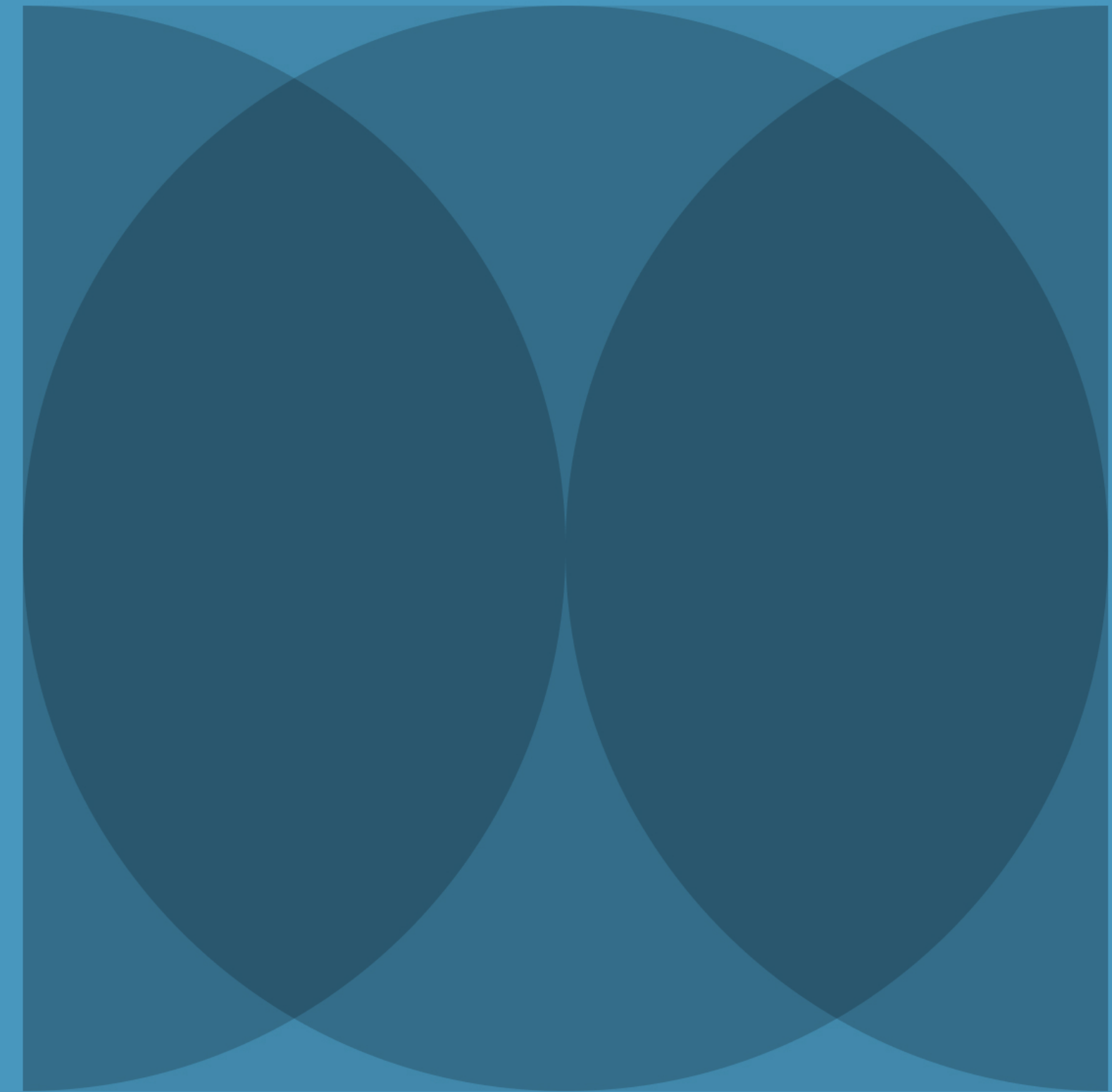
Except for *why* users are behaving a certain way or *how* the product is impacting their lives

Applying Principles





Design Principles



Clarity over abundance of choice

According to Hick's Law, we know that the time it takes to make a decision increases with the number and complexity of choices available.

To achieve this we must:

- Limit choices to no more than 3 items at a time
- Provide brief explanations when useful that are clear and no more than 80 characters

Laws of UX

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O'REILLY MEDIA | APR 2020



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Q&A