



My 30-day TestSphere challenge - how was it

Ulad Ramanenka




badoo_tech



Ulad Ramanenka

Sr iOS QA Engineer at Badoo

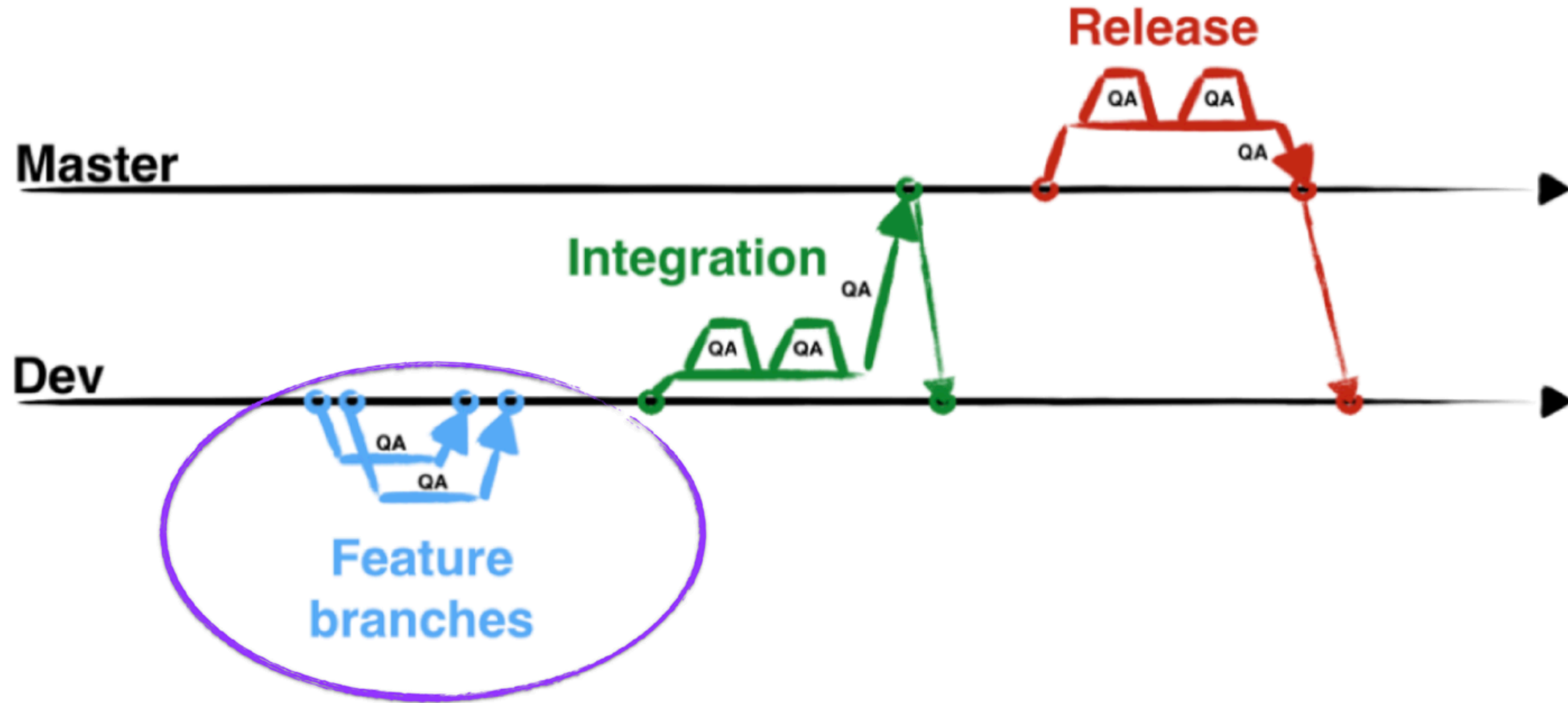


A world map in a dark blue color with numerous small red heart markers scattered across the continents, representing global usage. The text is overlaid on the map.

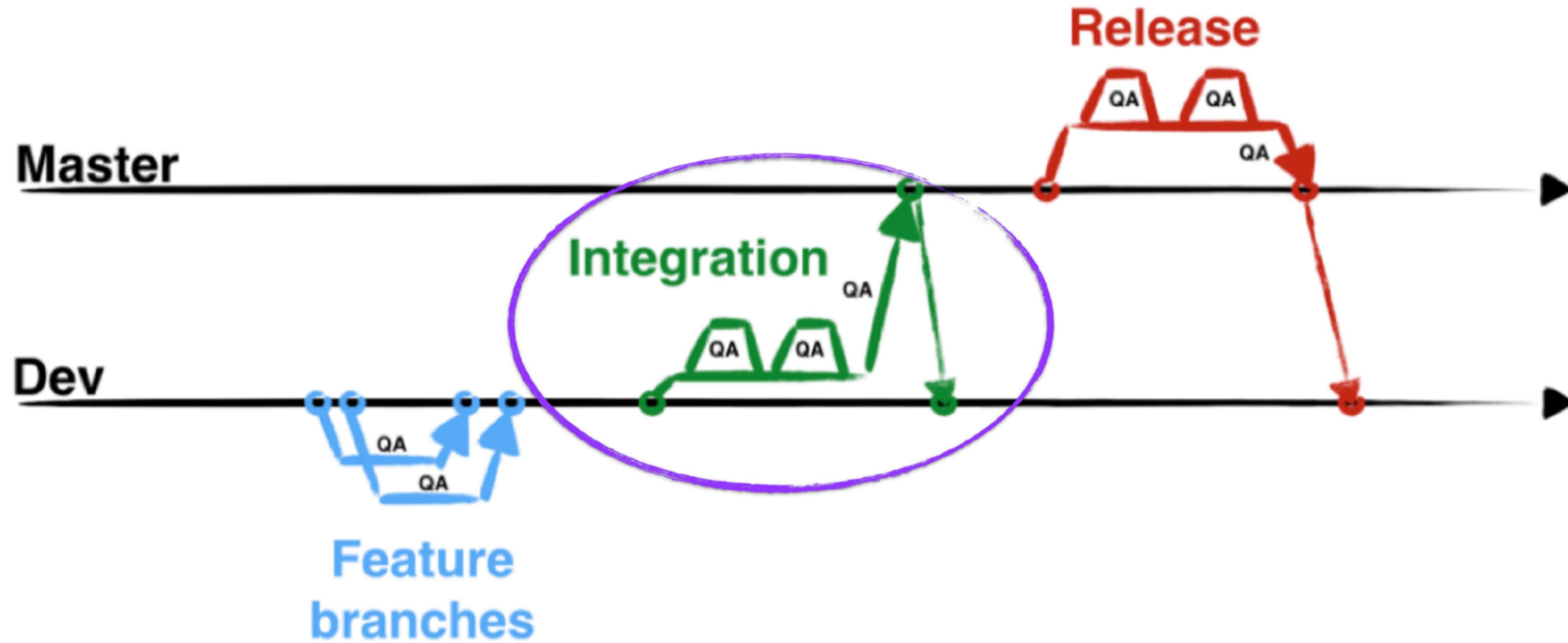
>400 000 000

people all over the world
use Badoo

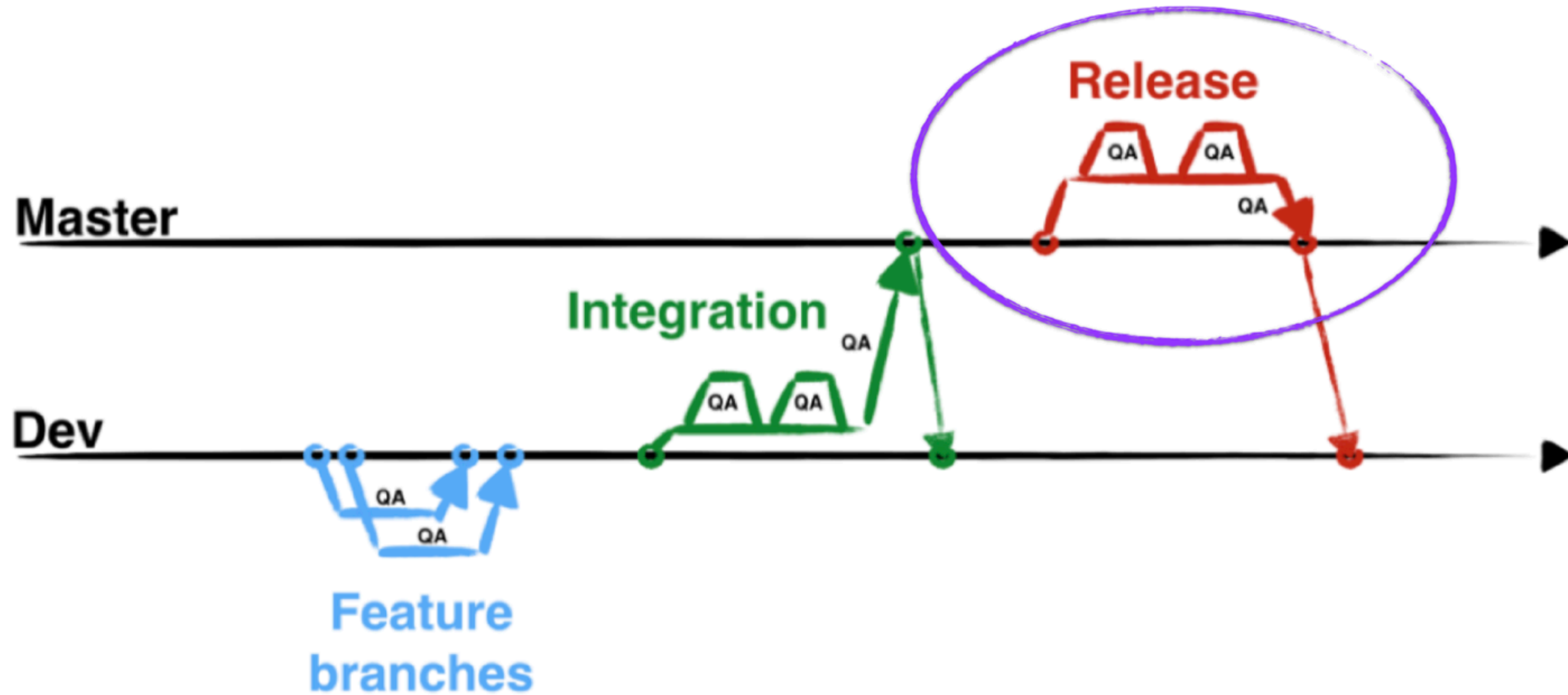
Our GIT flow



Our GIT flow



Our GIT flow



TestSphere



TestSphere

100 cards
divided into 5 categories:

- Heuristics
- Techniques
- Feelings
- Quality aspects
- Patterns



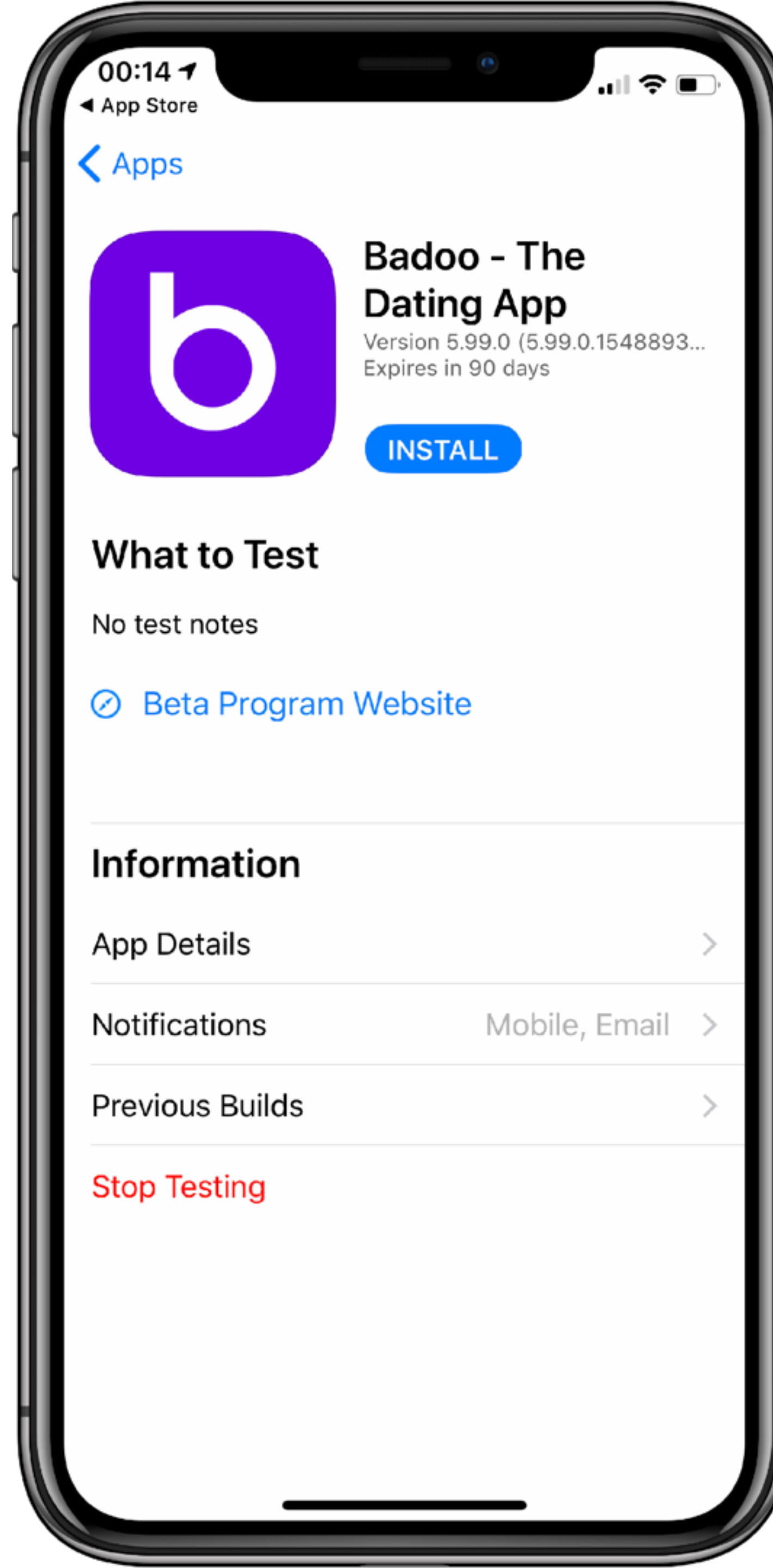
TestSphere

20 cards per category, and each one contains:

- a testing concept
- a slogan
- three examples

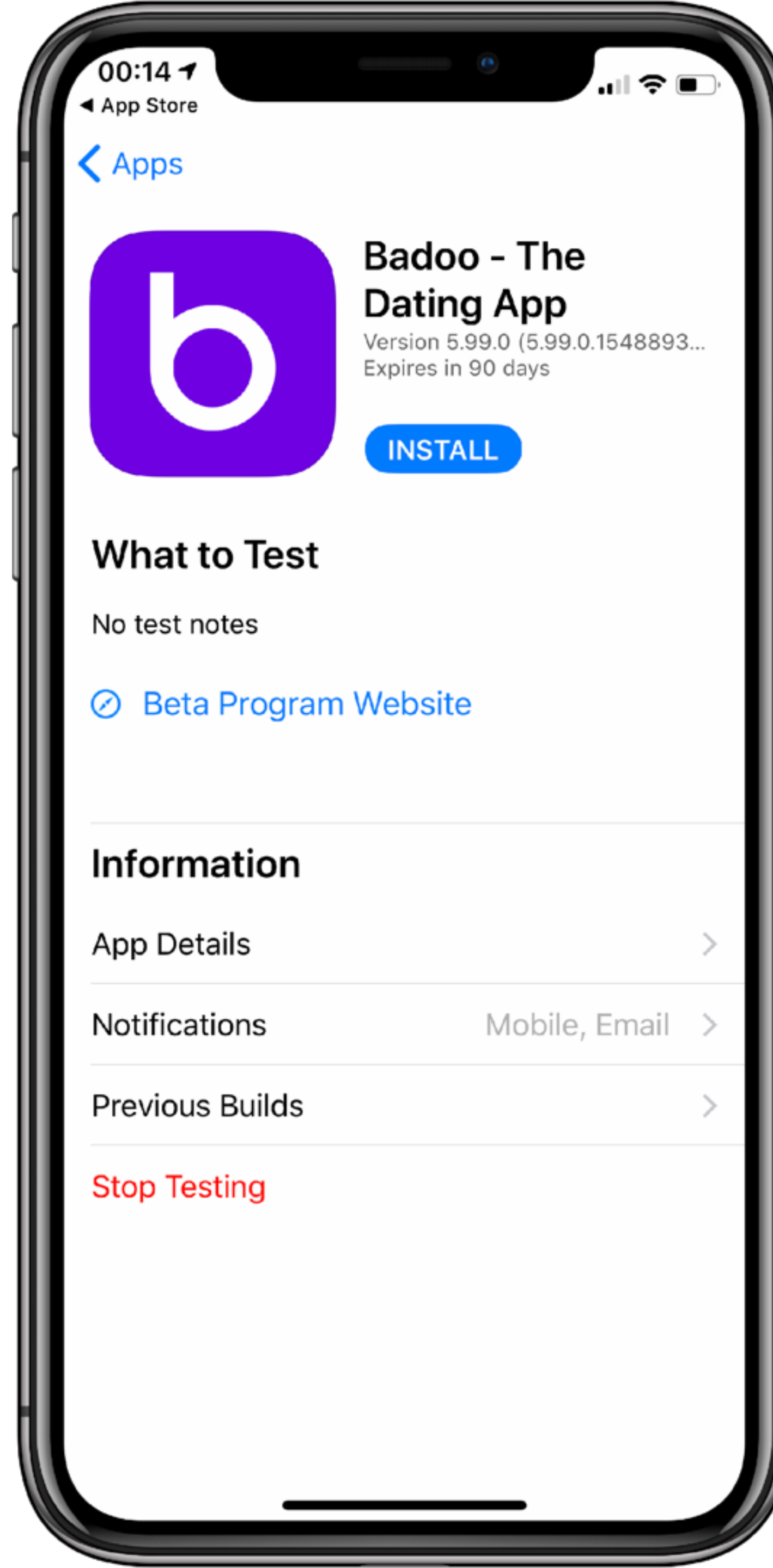


Release testing



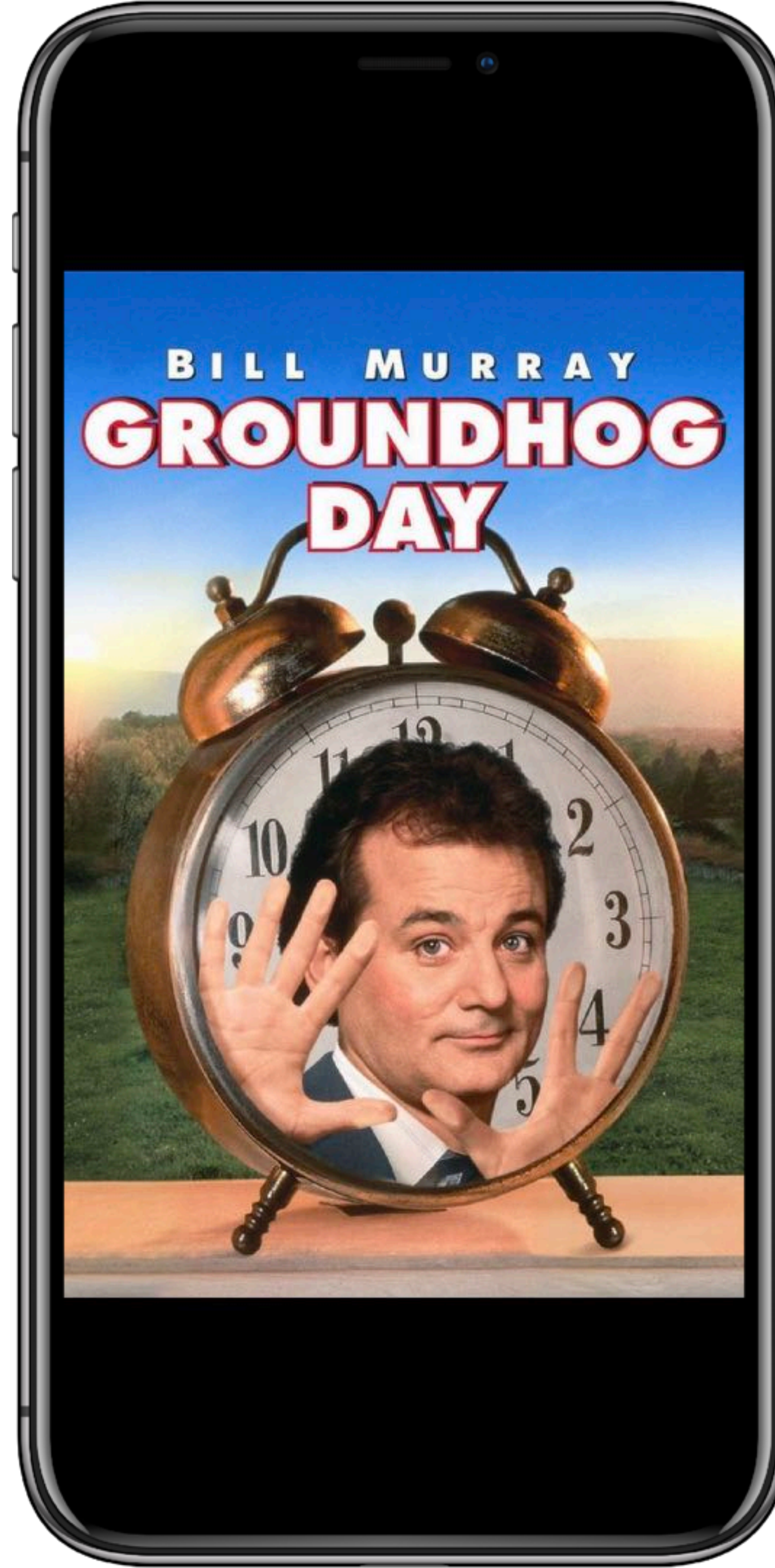
Areas to check:

- Registration & sign in
- Encounters
- Photos & videos
- Push notifications
- Landings
-



Areas to check:

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- Photos & videos
- Push notifications
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-



30 day TestSphere challenge



30 day TestSphere challenge



Experience



Positive



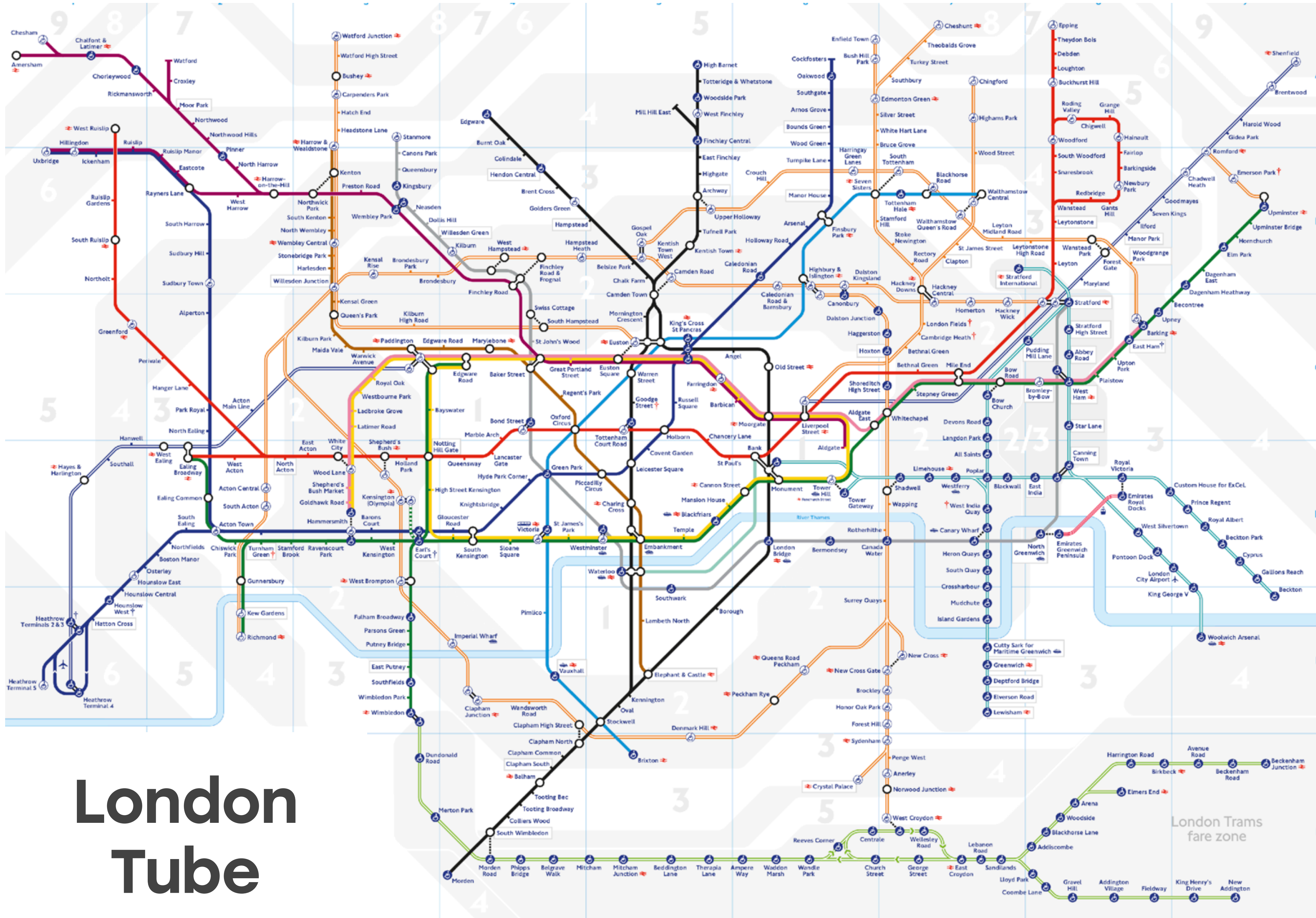
Neutral



Negative

30 day TestSphere challenge





London Tube



positive

CONTROL

Registration & sign in

CHANG
THE MOD

USER DESIRES

GALUMPHING

MILIARITY

THE MOD

WC

IMAGE

C

DUNNING-KRUGER
EFFECT

CHARM

UNIT
TESTING

ING

A/B TESTING

CIES

AUTOMATION

LOG-DIGGING



Registration & sign in

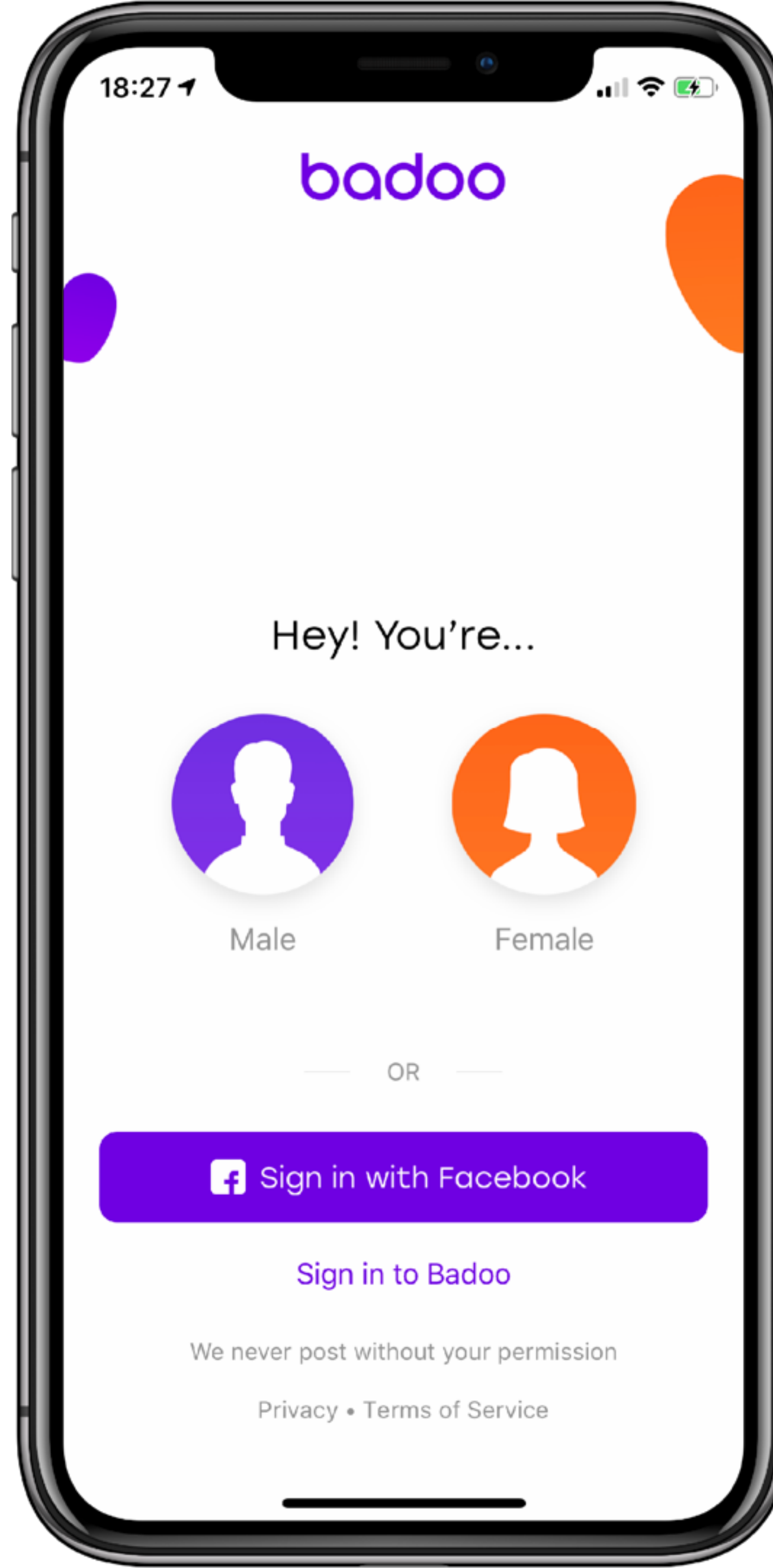
GALUMPHING TECHNIQUES

Product level: Test in an overly elaborate way, adding redundant but seemingly insignificant actions.

GALUMPHING

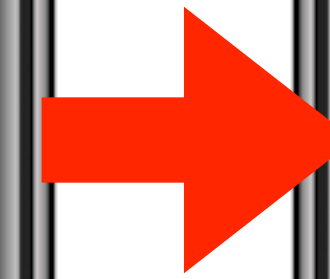
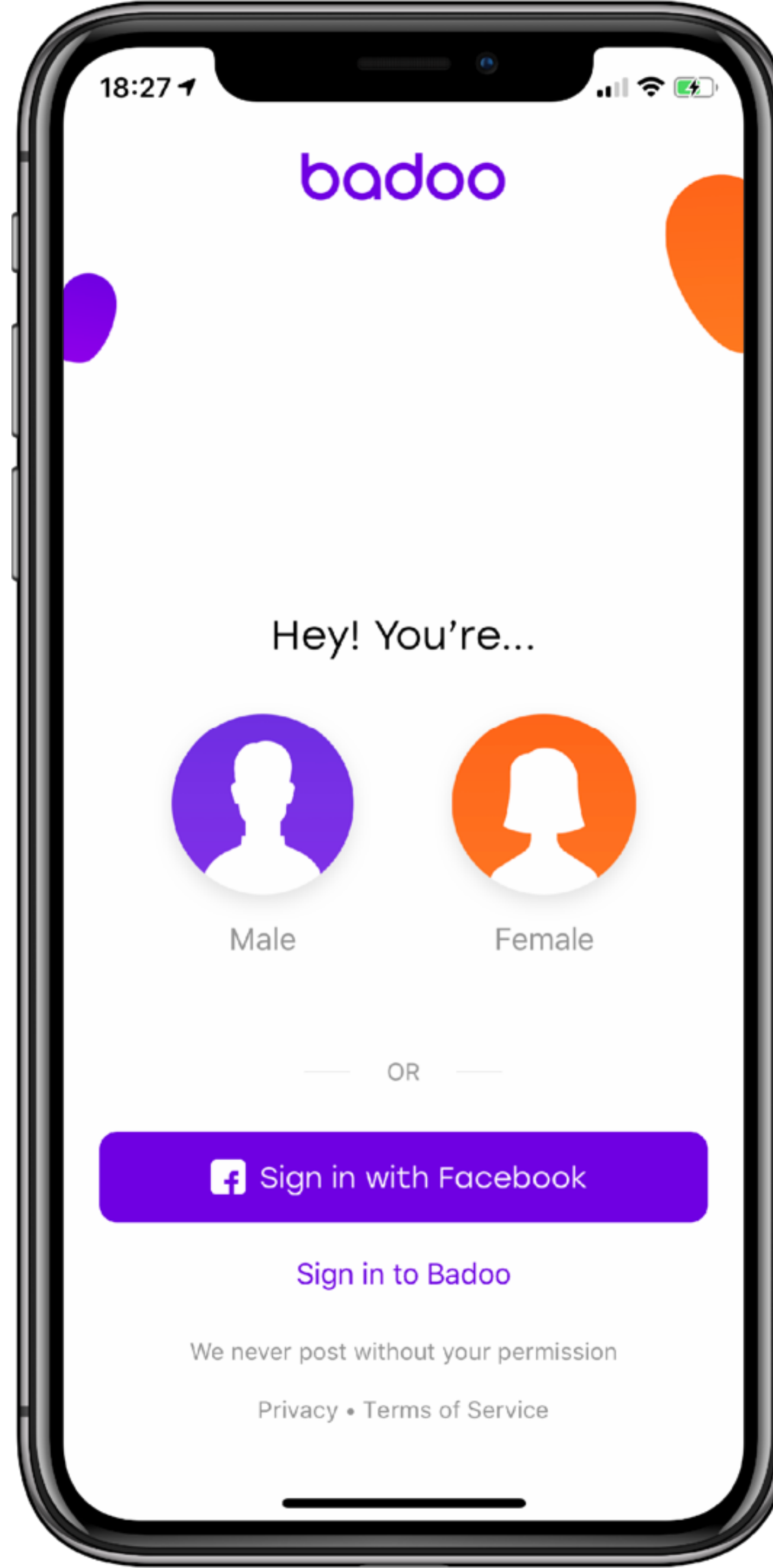
TECHNIQUES

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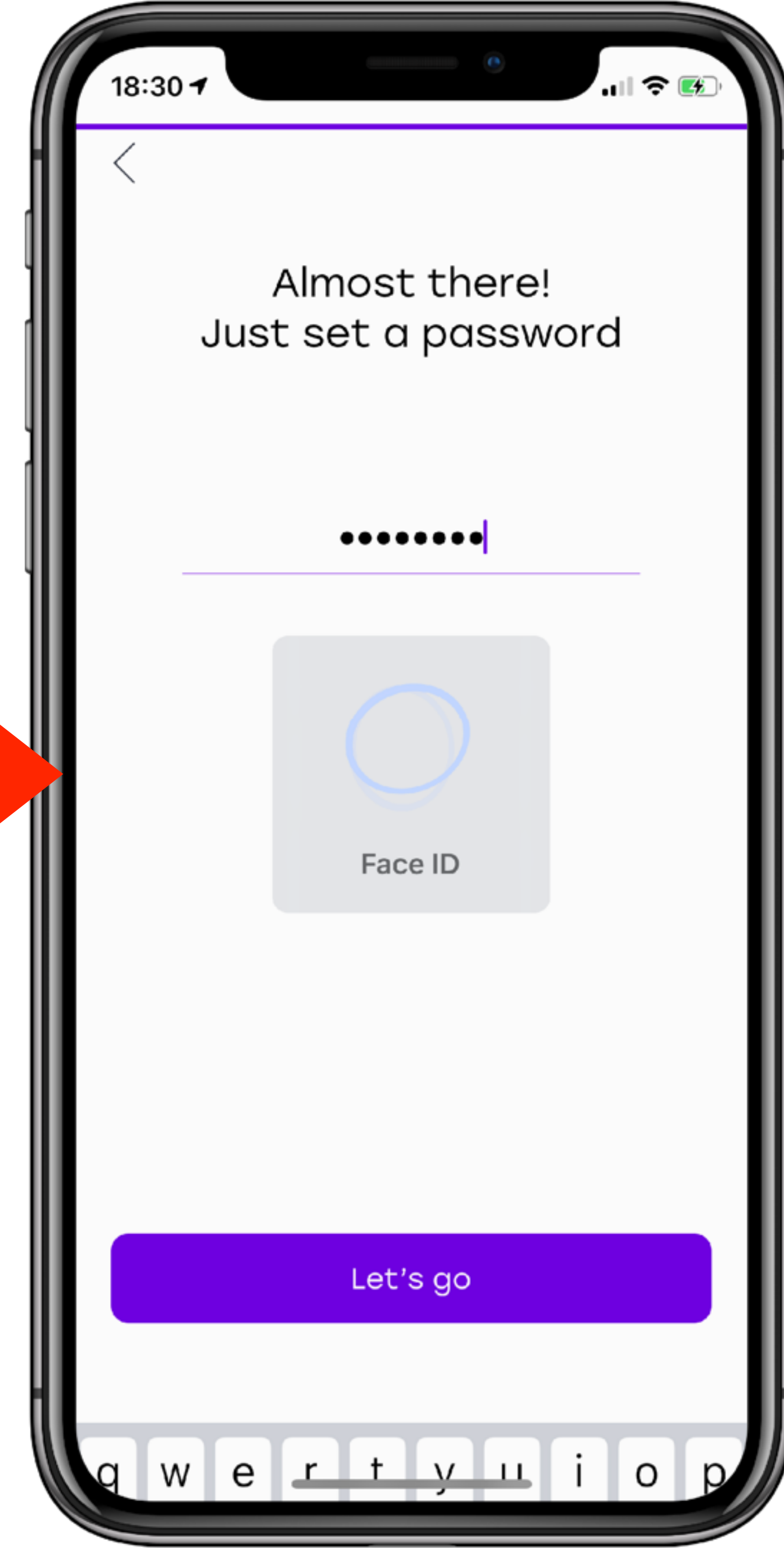


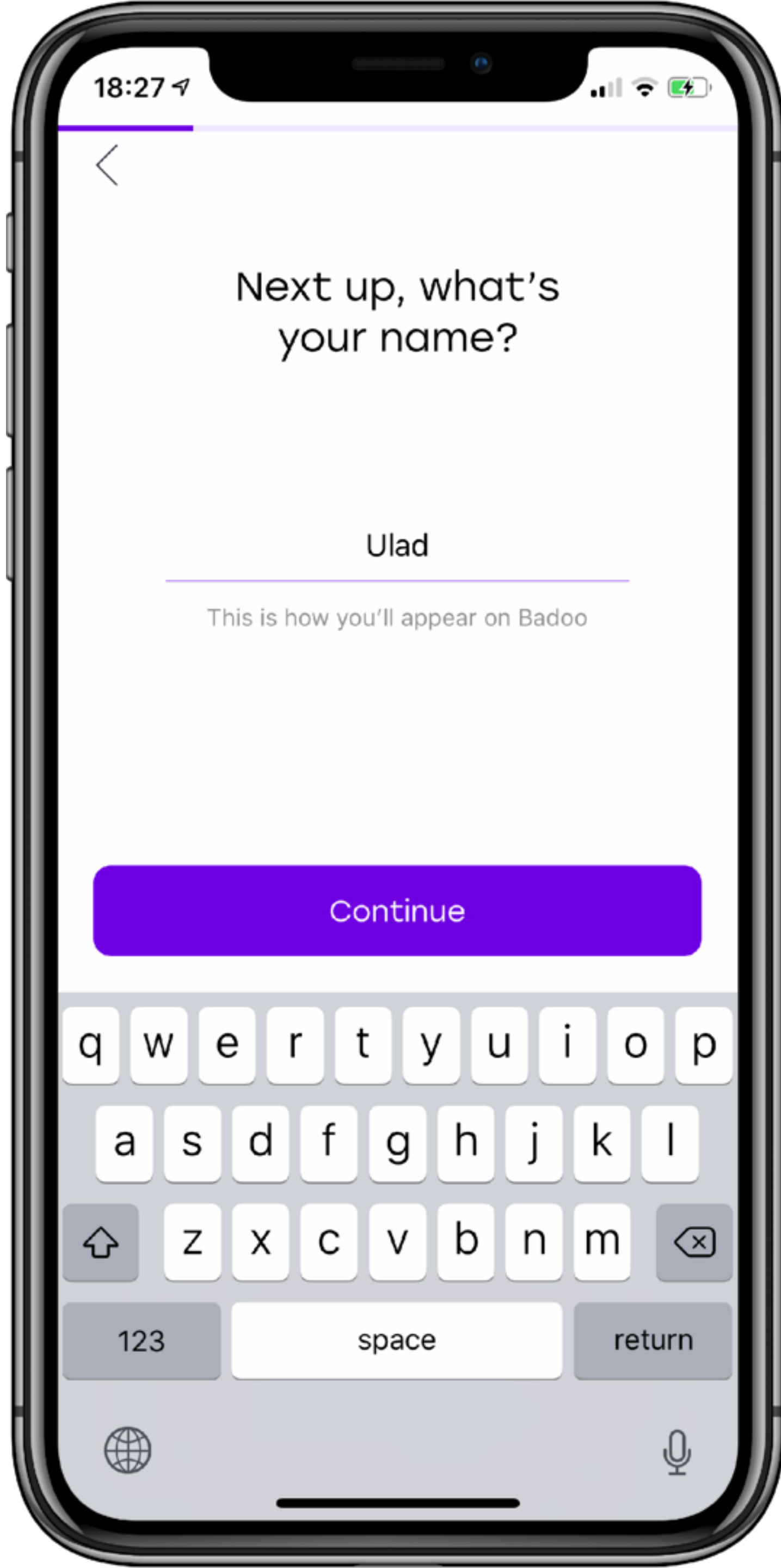
GALUMPHING TECHNIQUES

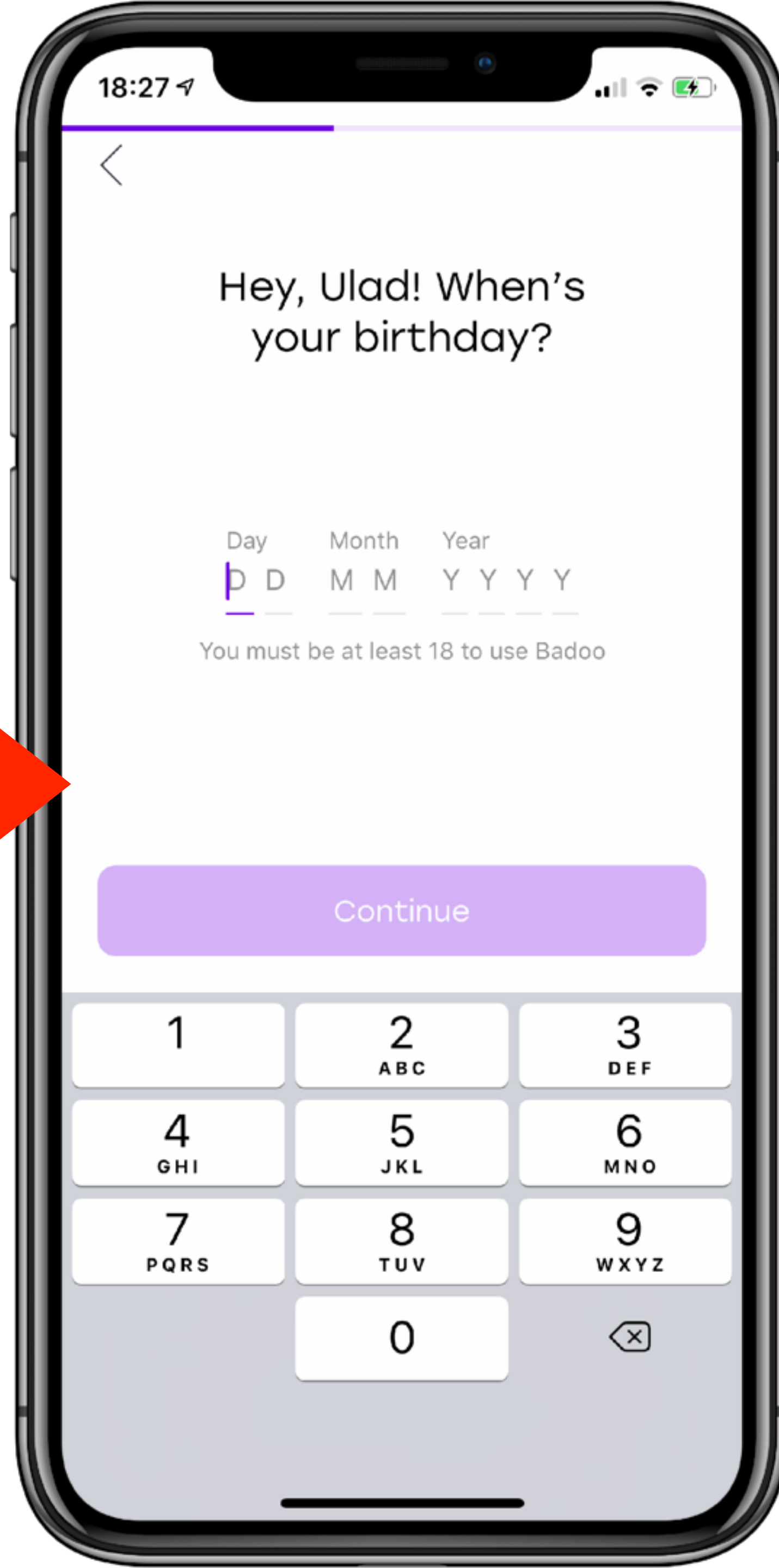
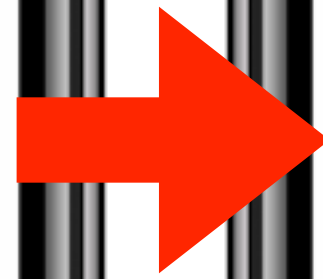
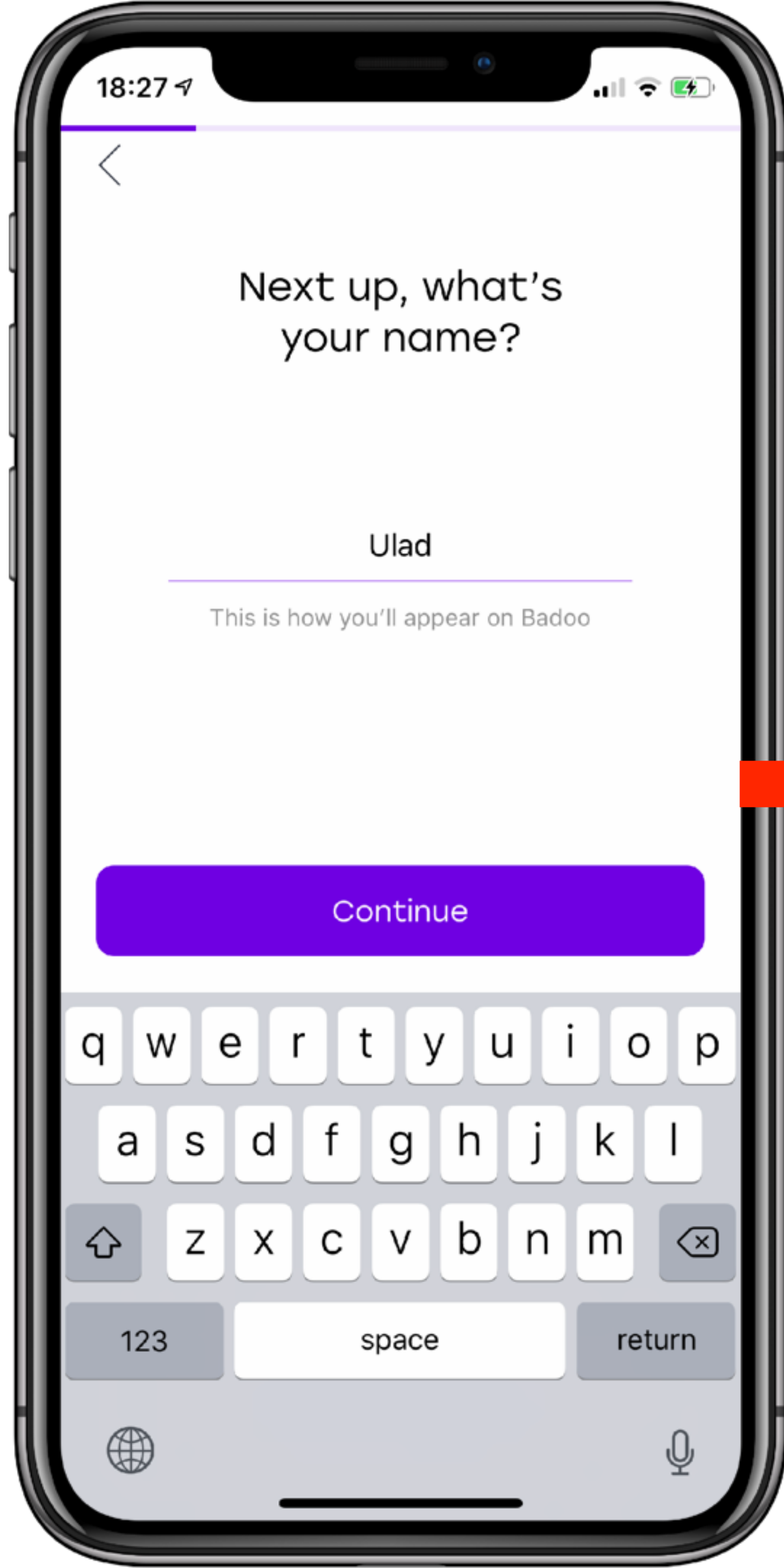
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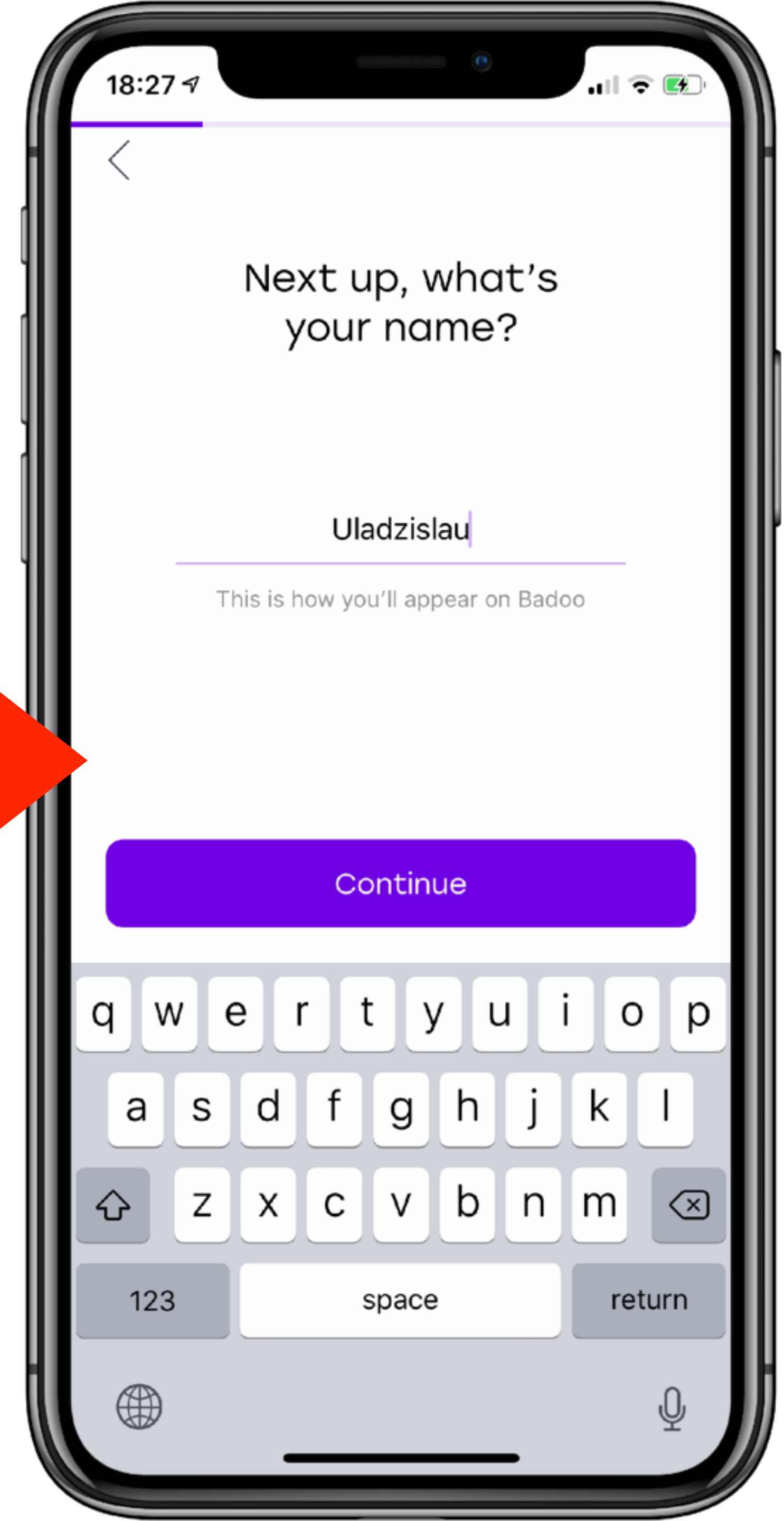
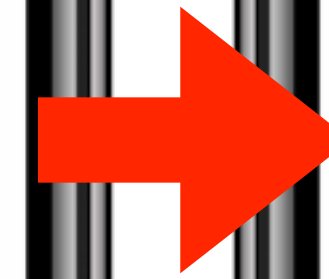
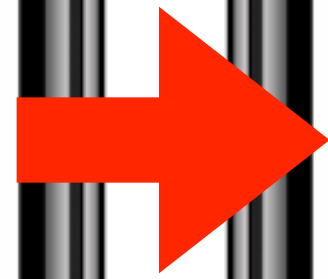
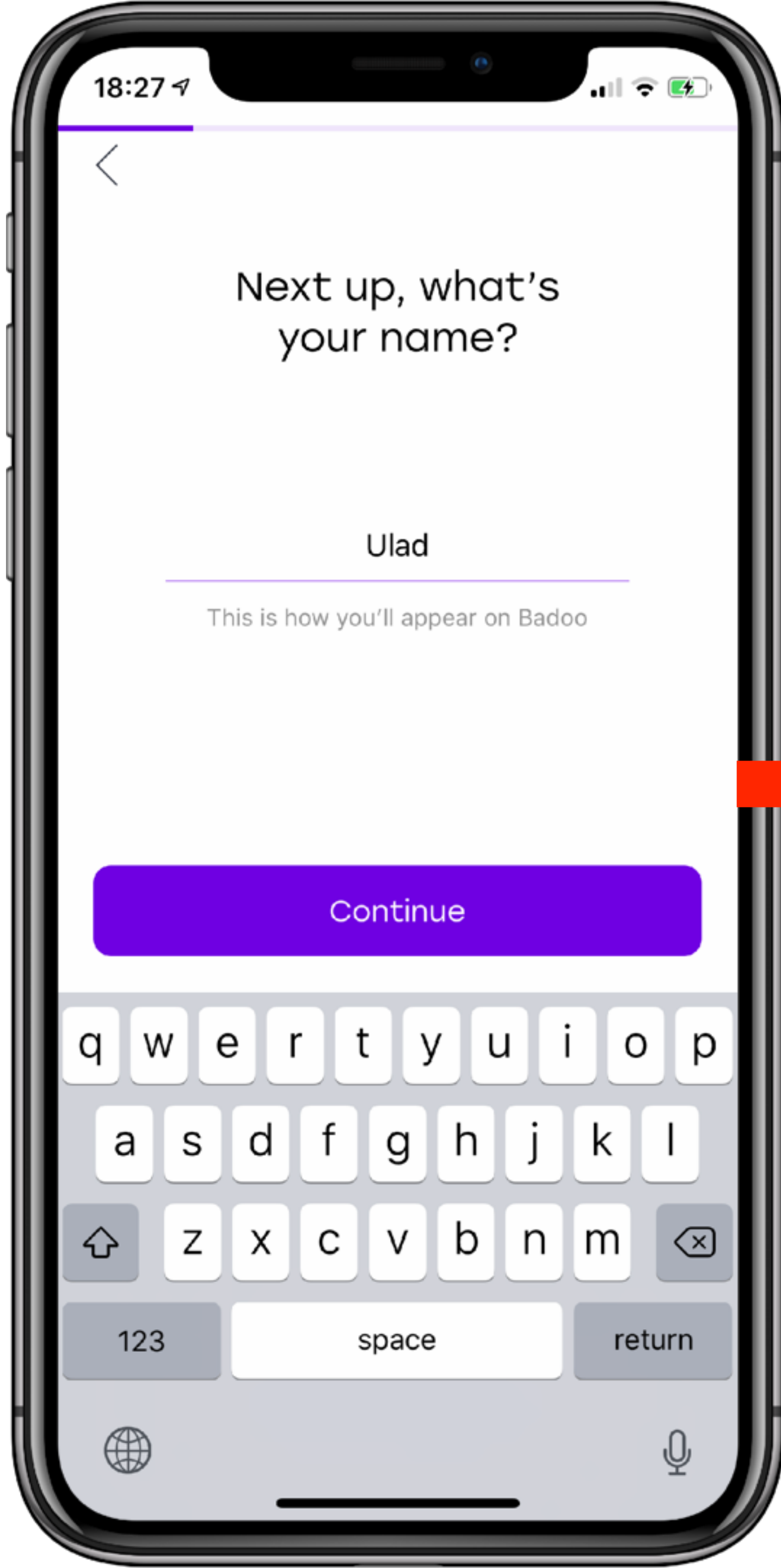


23









18:27



Next up, what's
your name?

Uladzislau

This is how you'll appear on Badoo

Continue

q w e r t y u i o p

a s d f g h j k l

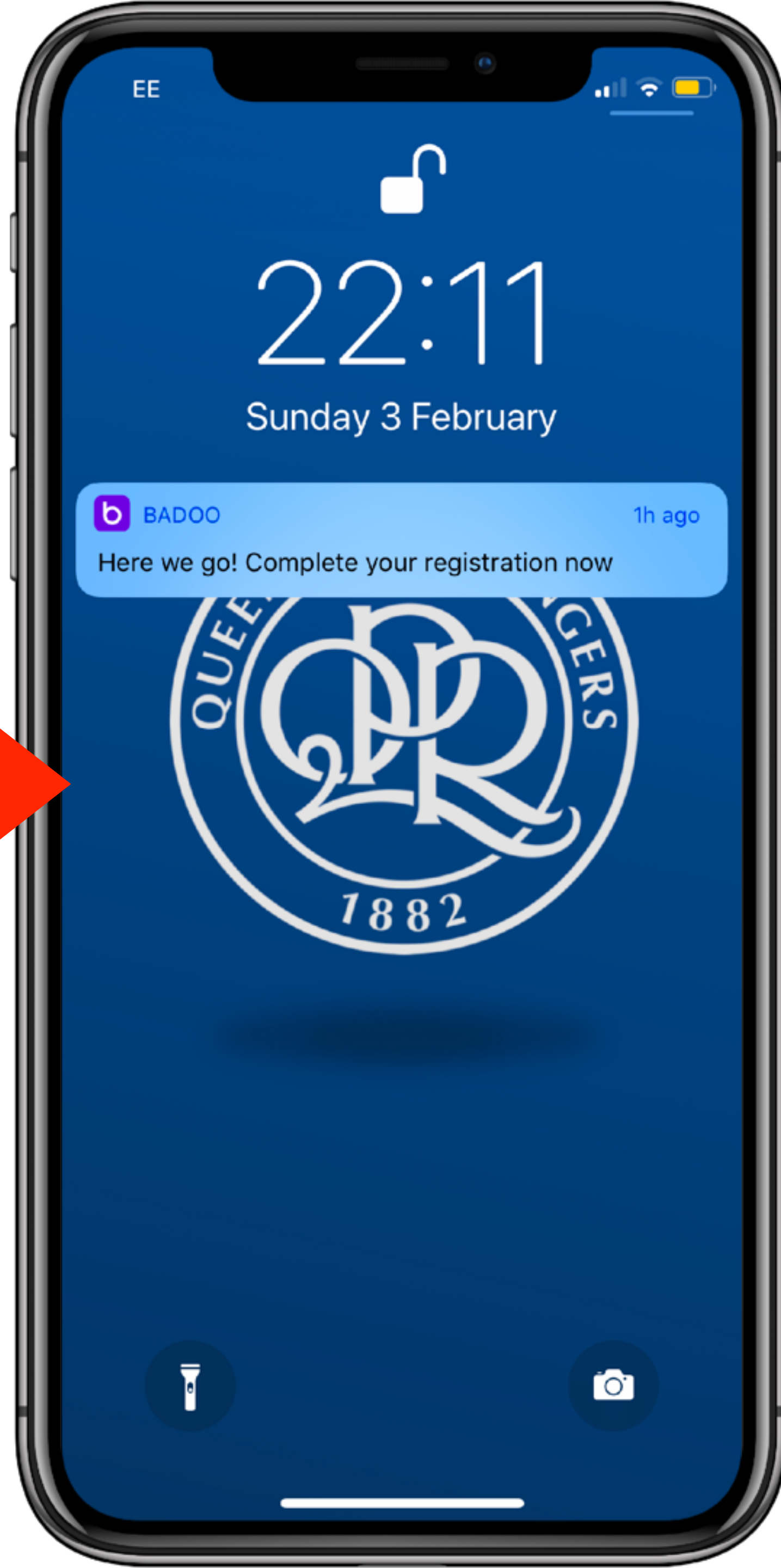
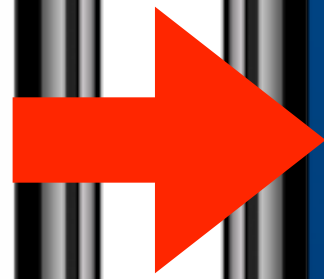
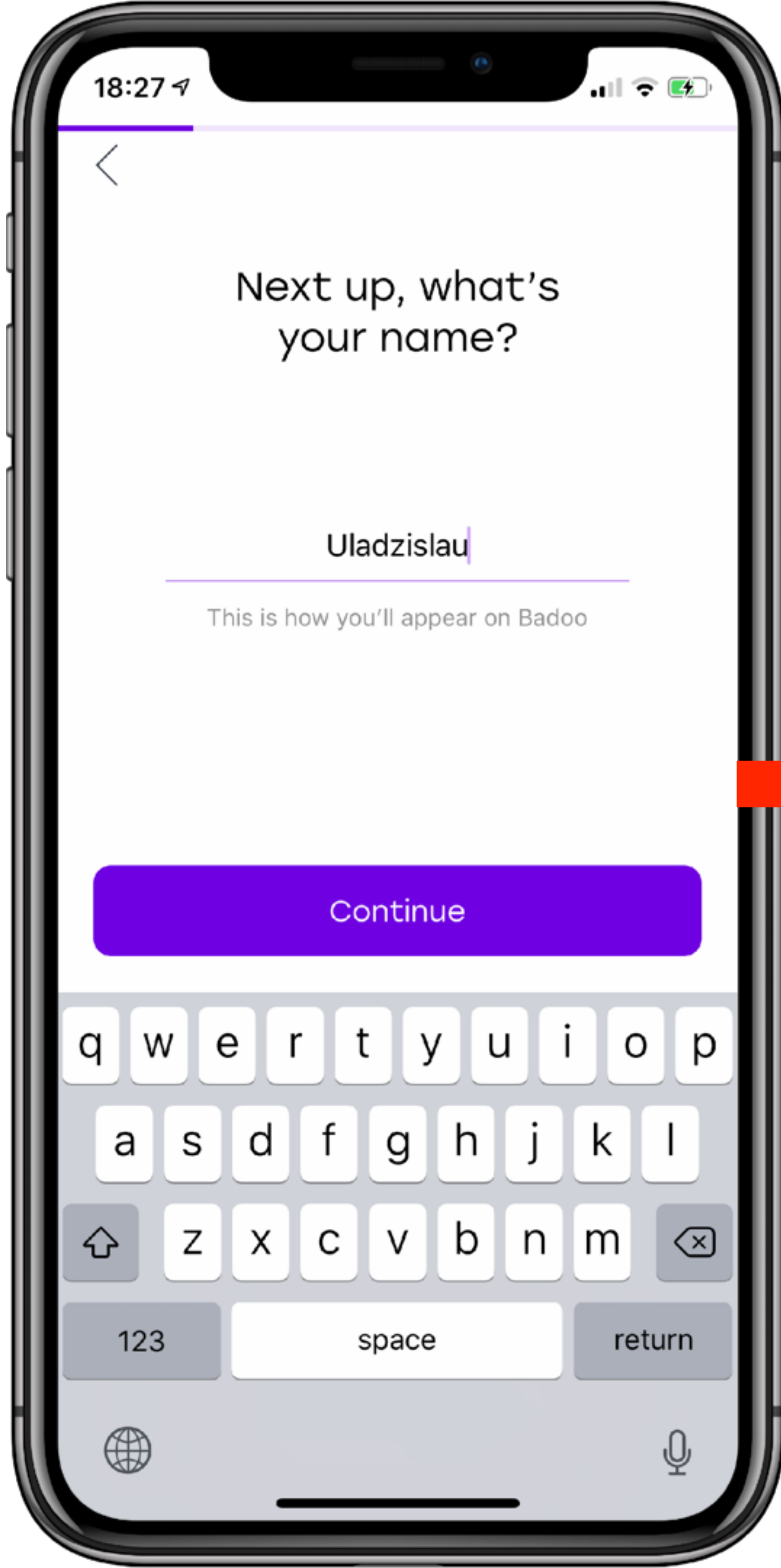
⬆ z x c v b n m ⬇

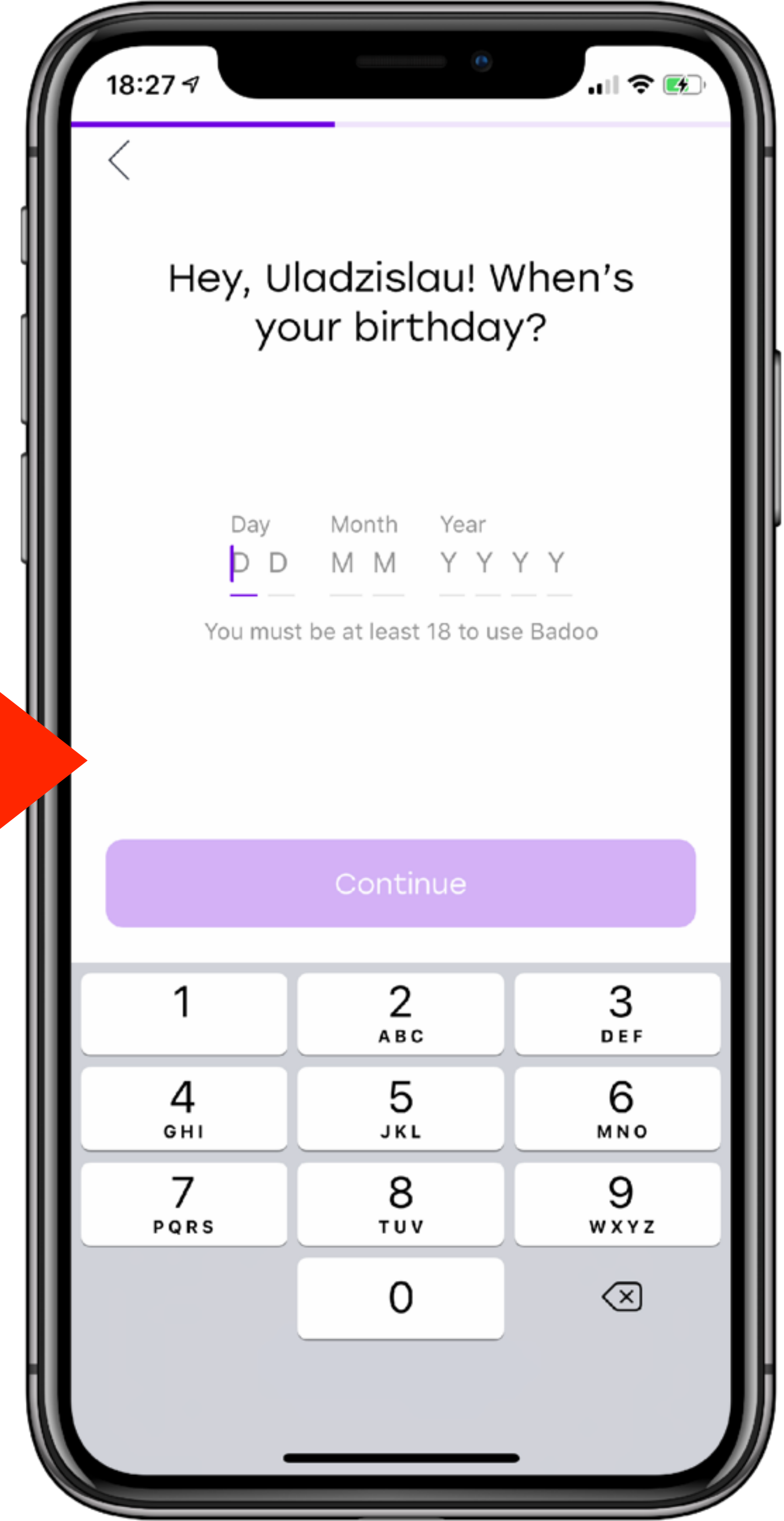
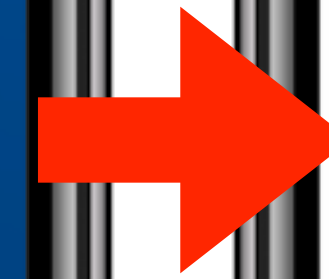
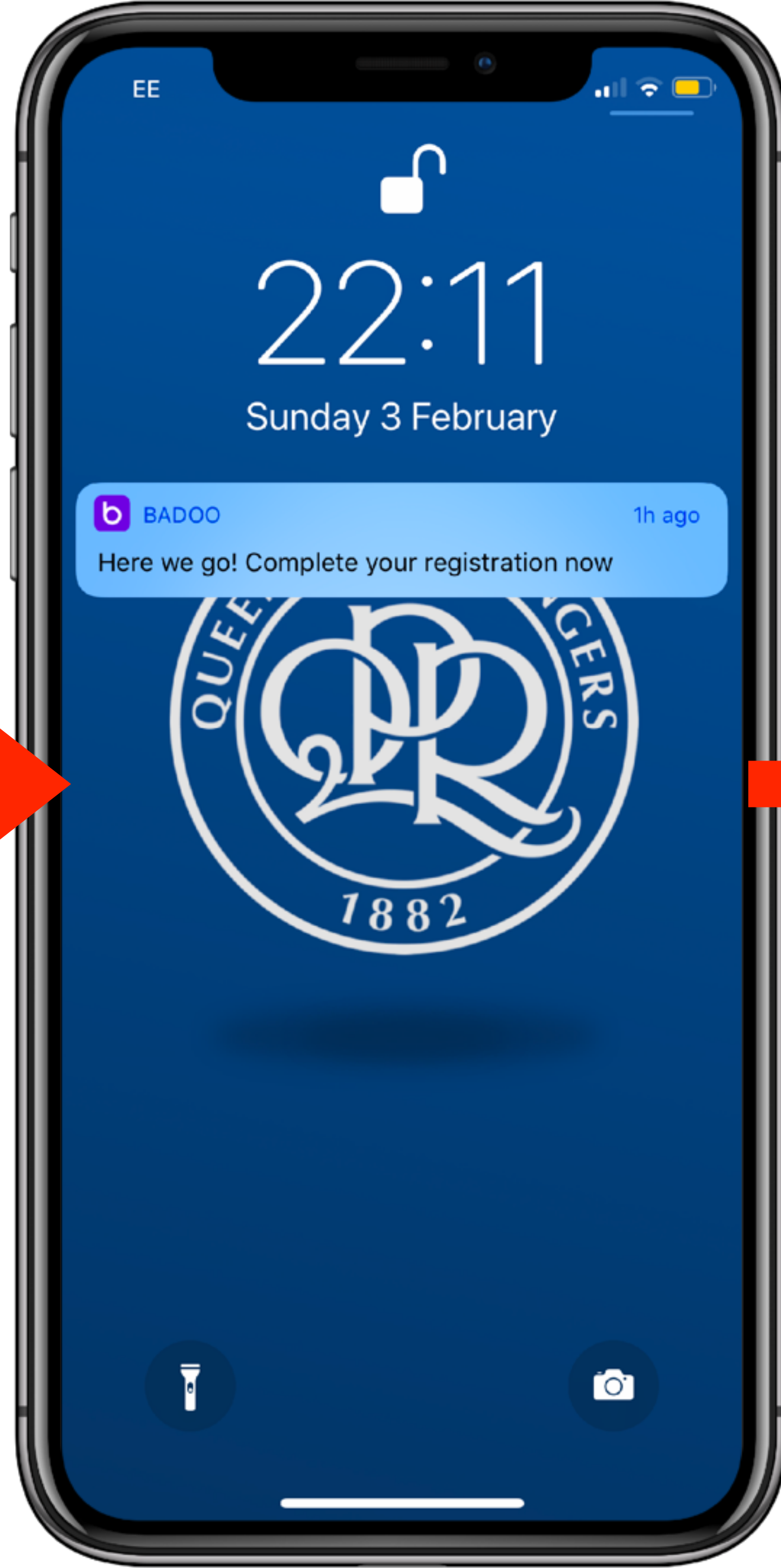
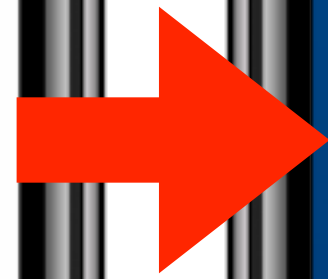
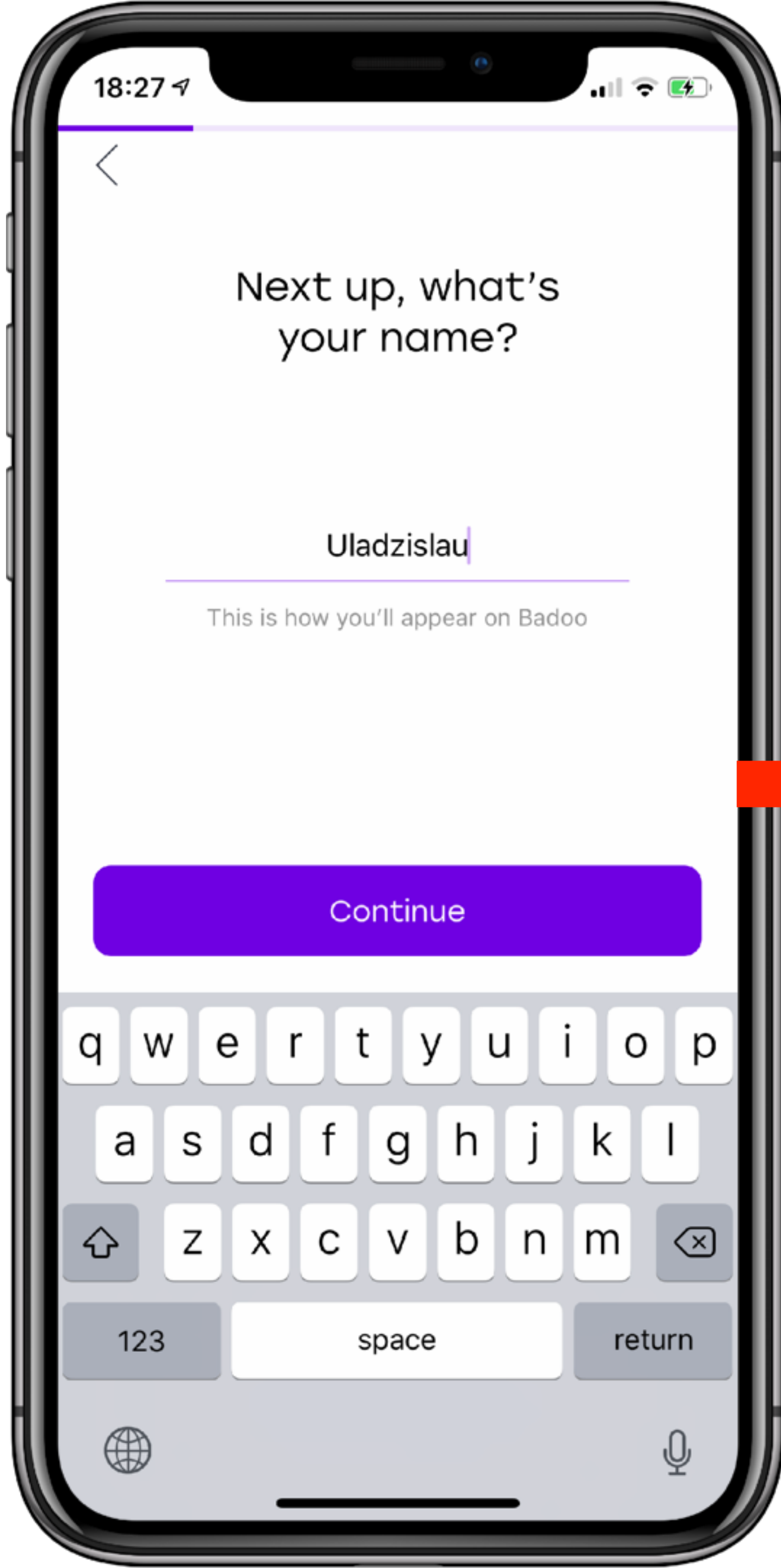
123

space

return







Registration & sign in



18:27 4

<

Hey, Ulad! When's your birthday?

Day Month Year
D M M Y Y Y Y

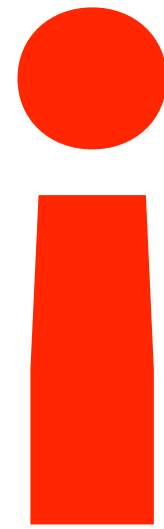
You must be at least 18 to use Badoo

Continue

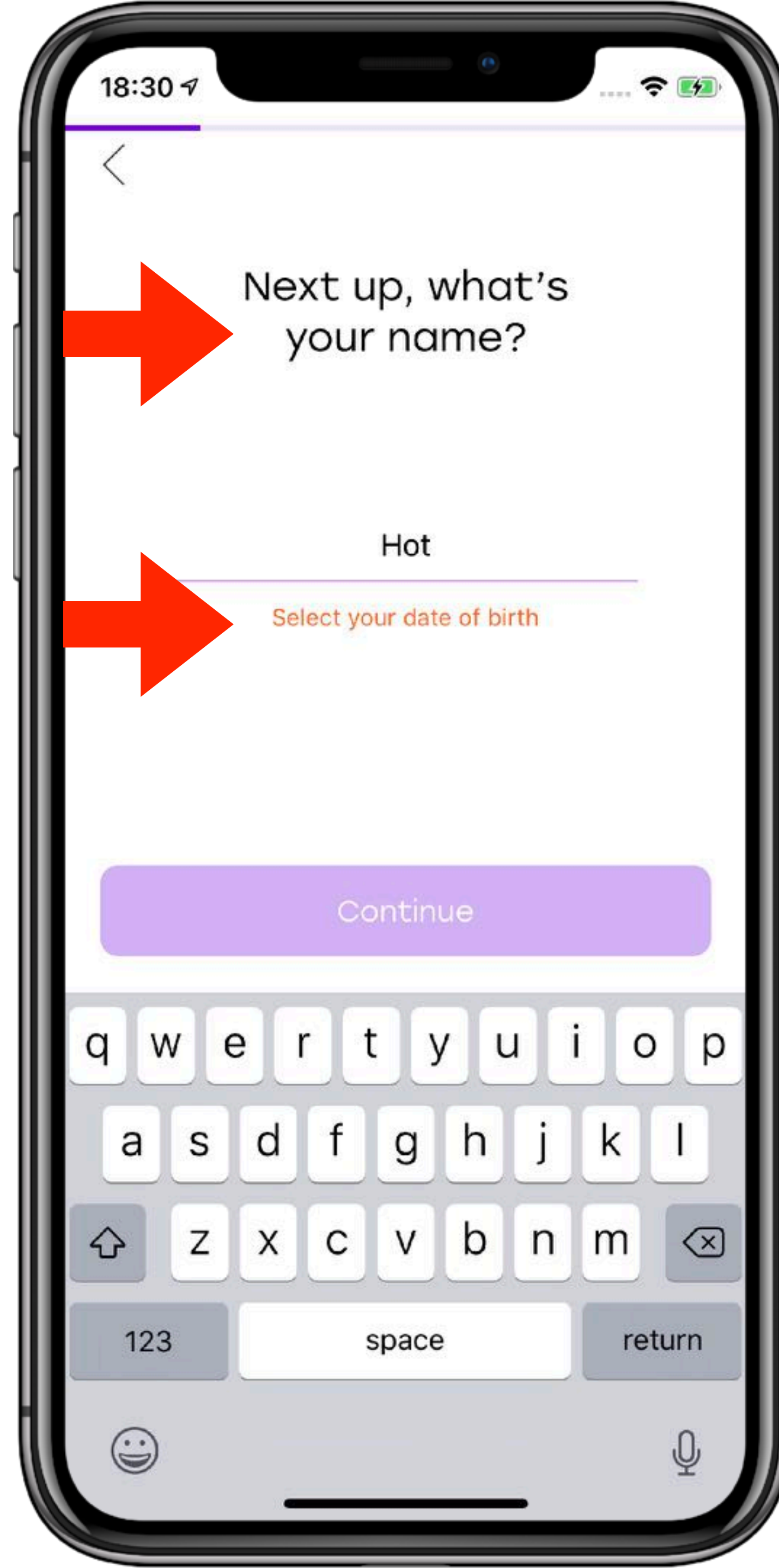
1 2 ABC 3 DEF
4 GHI 5 JKL 6 MNO
7 PQRS 8 TUV 9 WXYZ
0 ✕



Registration & sign in

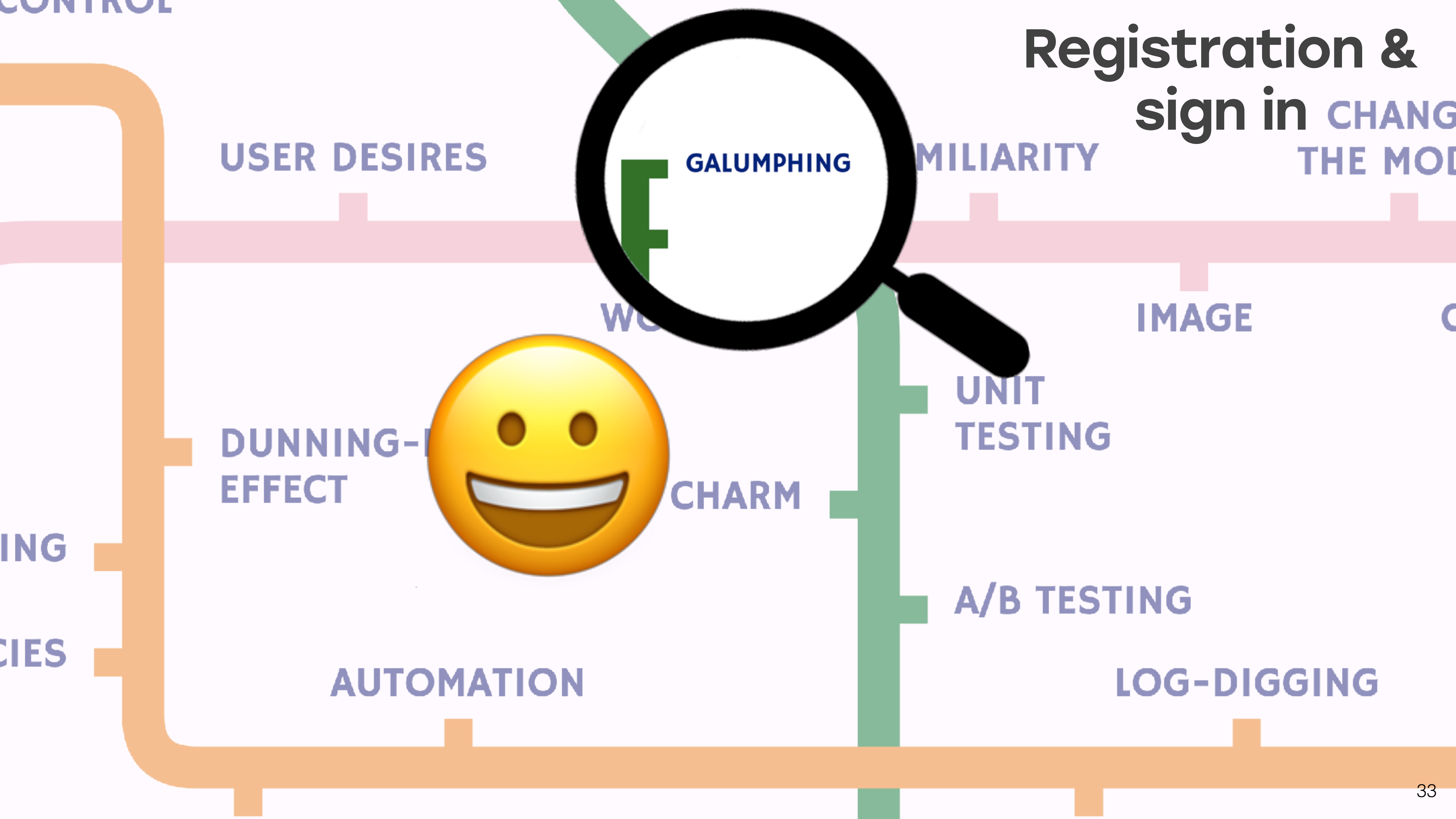


Bug example: incorrect validation

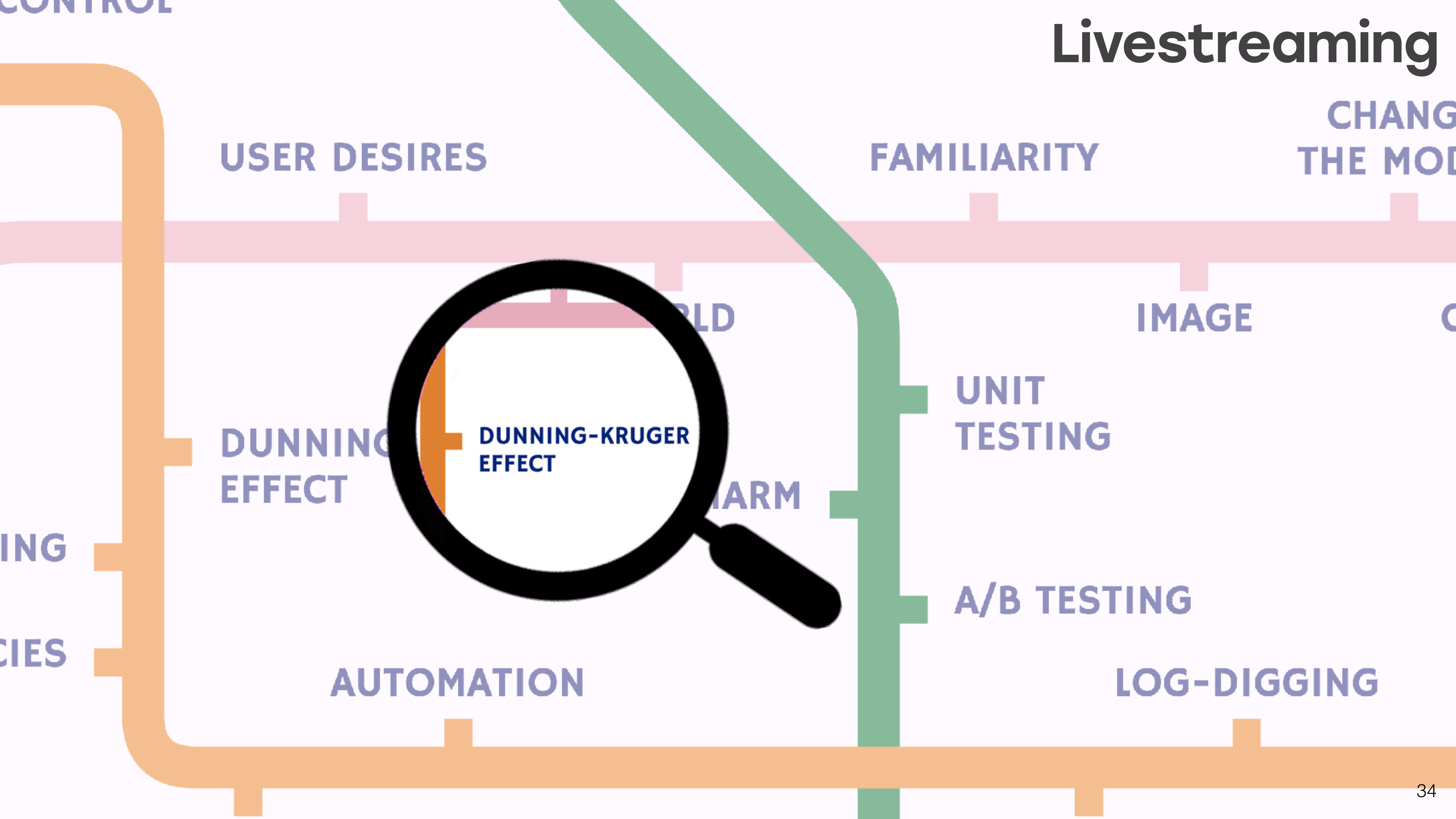


Registration & sign in

CHANG THE MOD



Livestreaming

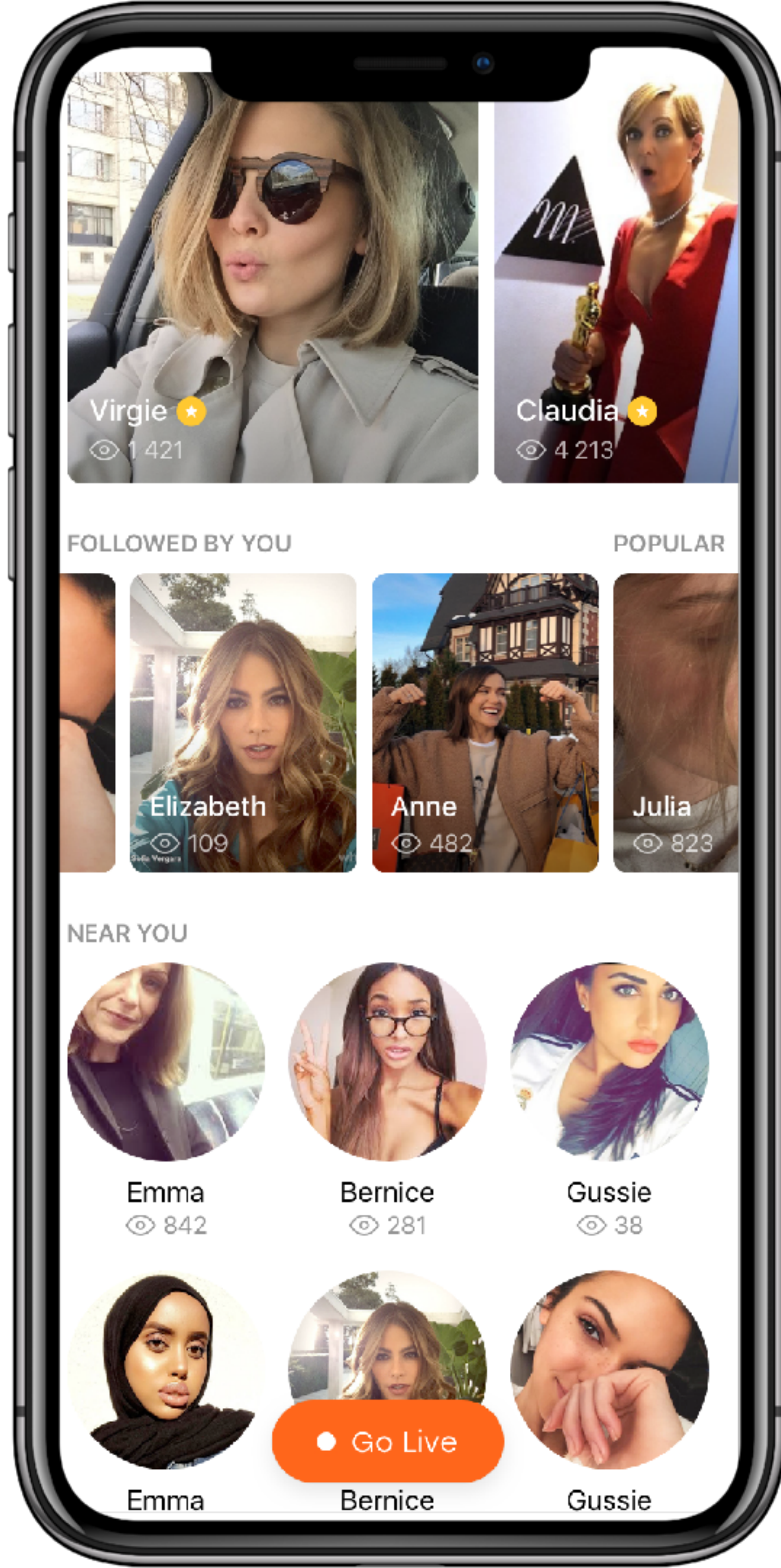


DUNNING- KRUGER EFFECT

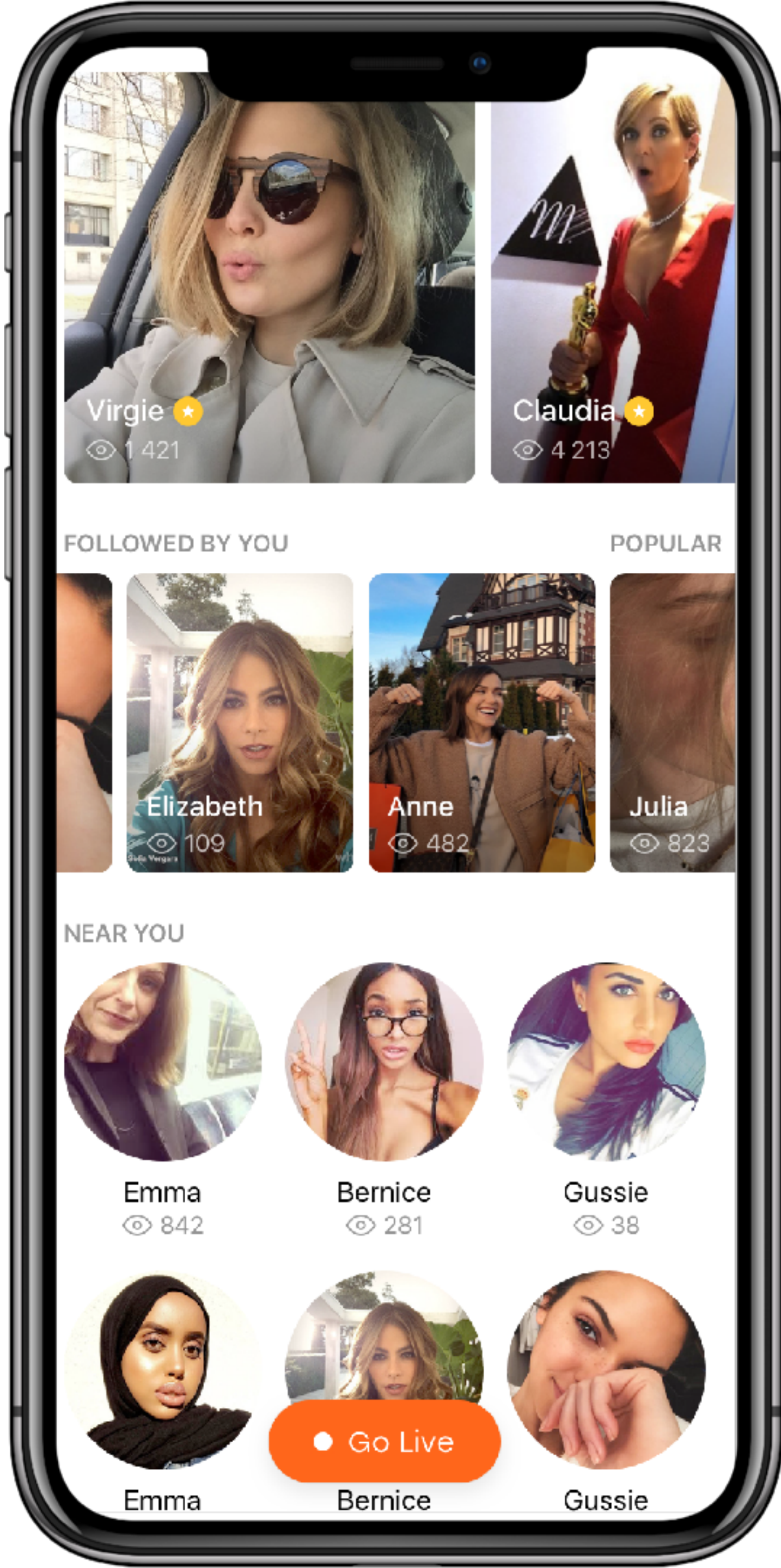
PATTERNS

Bias: Being unable to assess your own skill, thereby thinking it's much greater than it actually is.

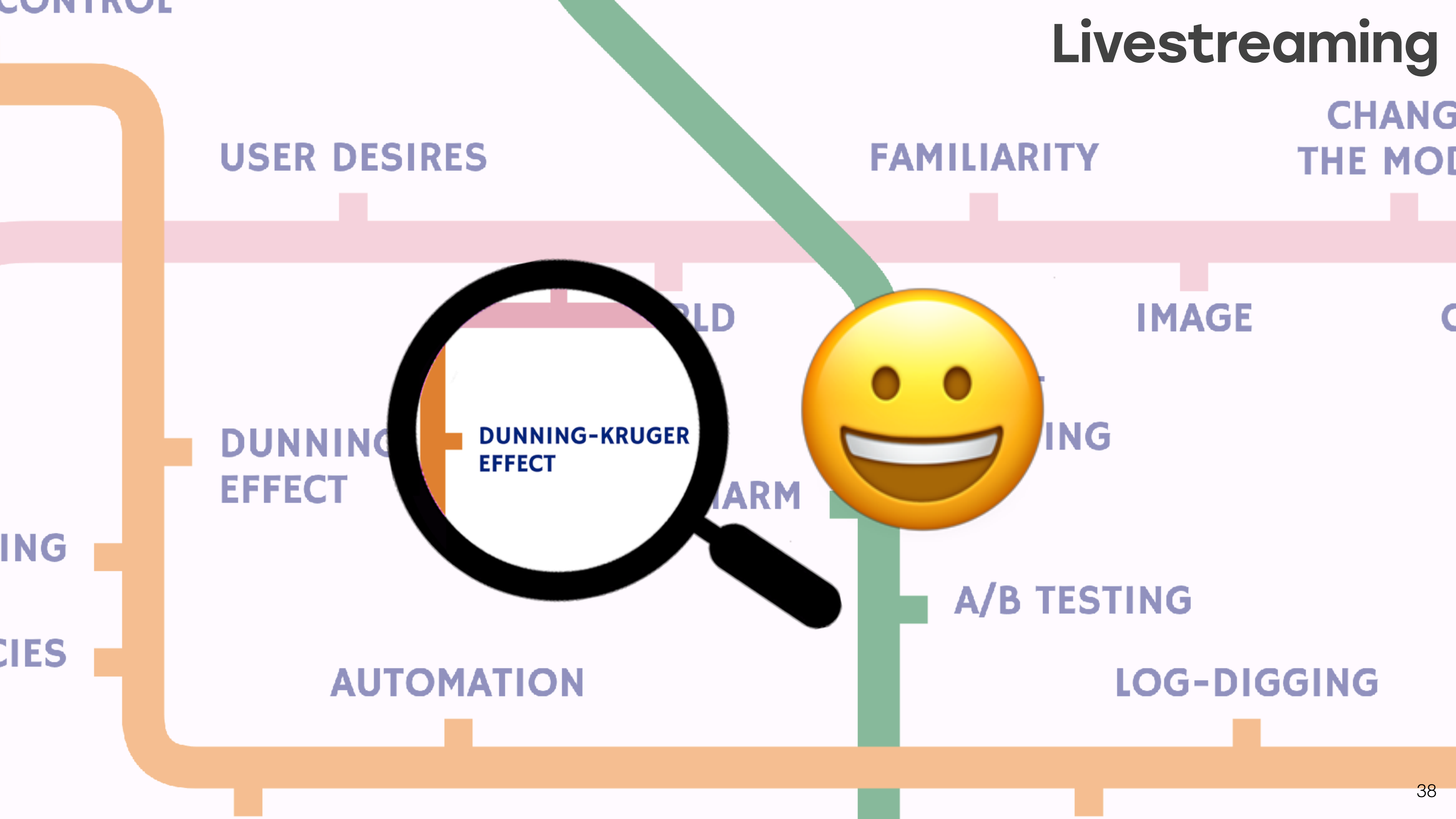
Livestreaming



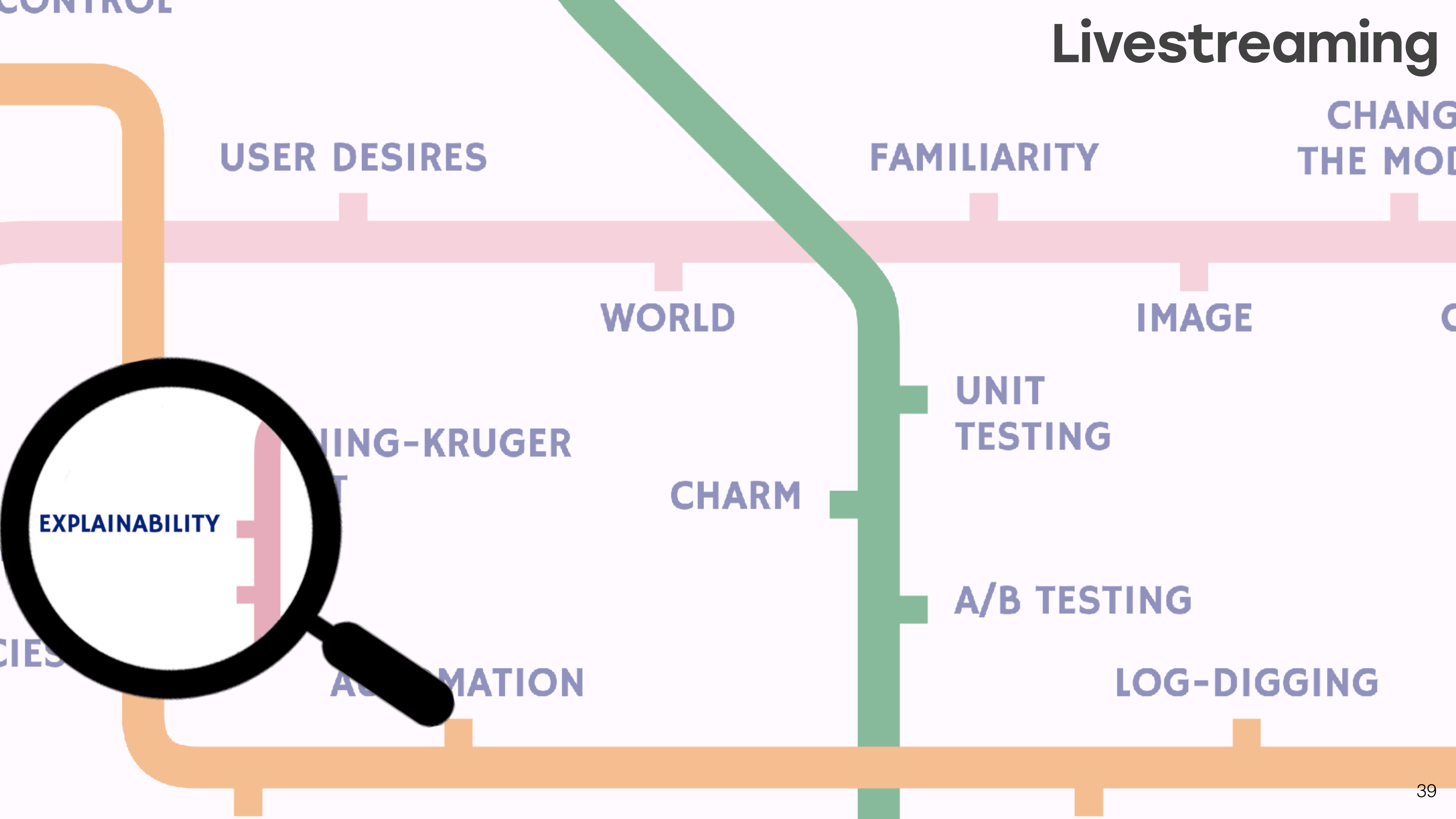
Livestreaming



Livestreaming



Livestreaming

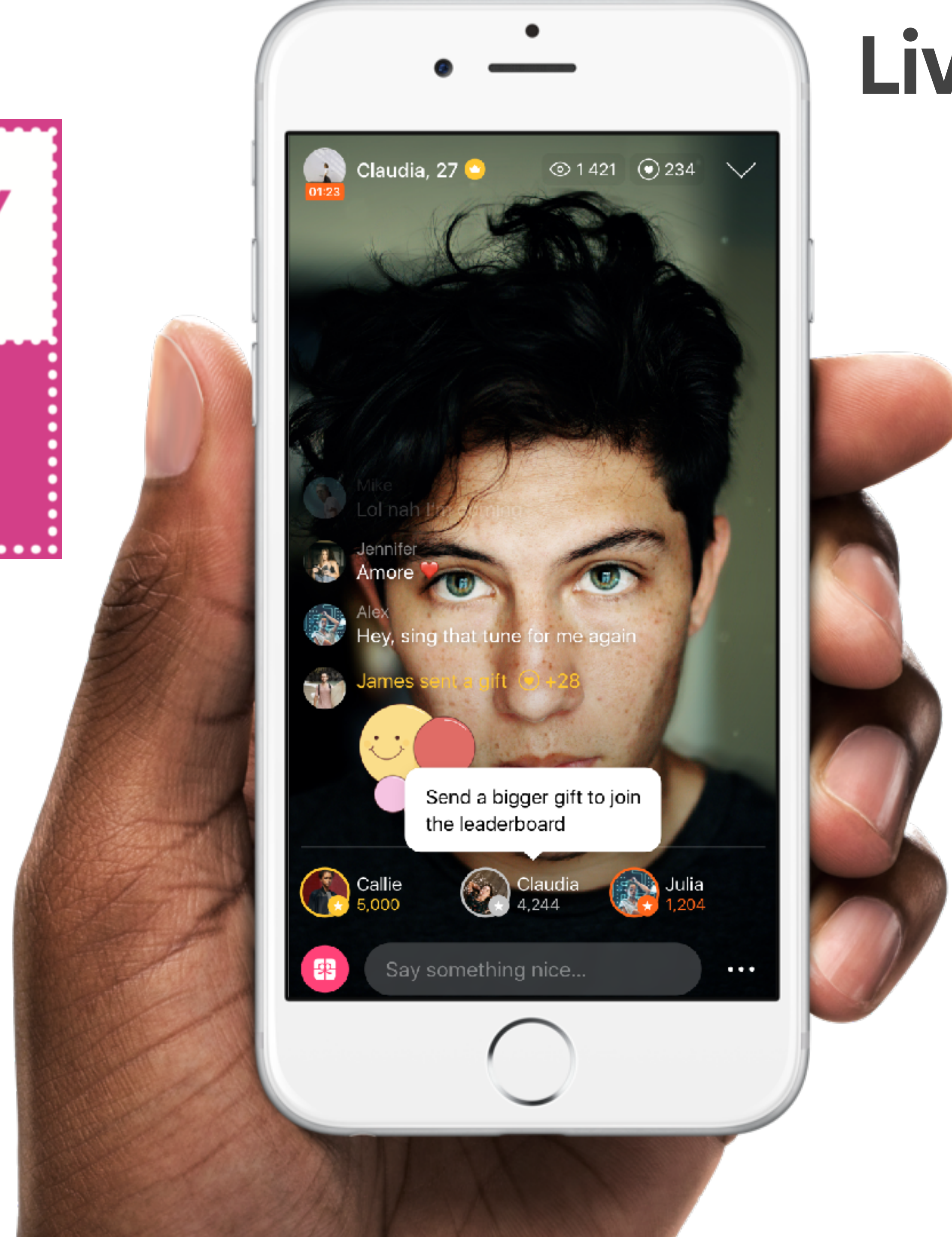


EXPLAINABILITY HEURISTICS

Consistency Heuristic: A product that is hard to explain might be too hard for a user to understand.

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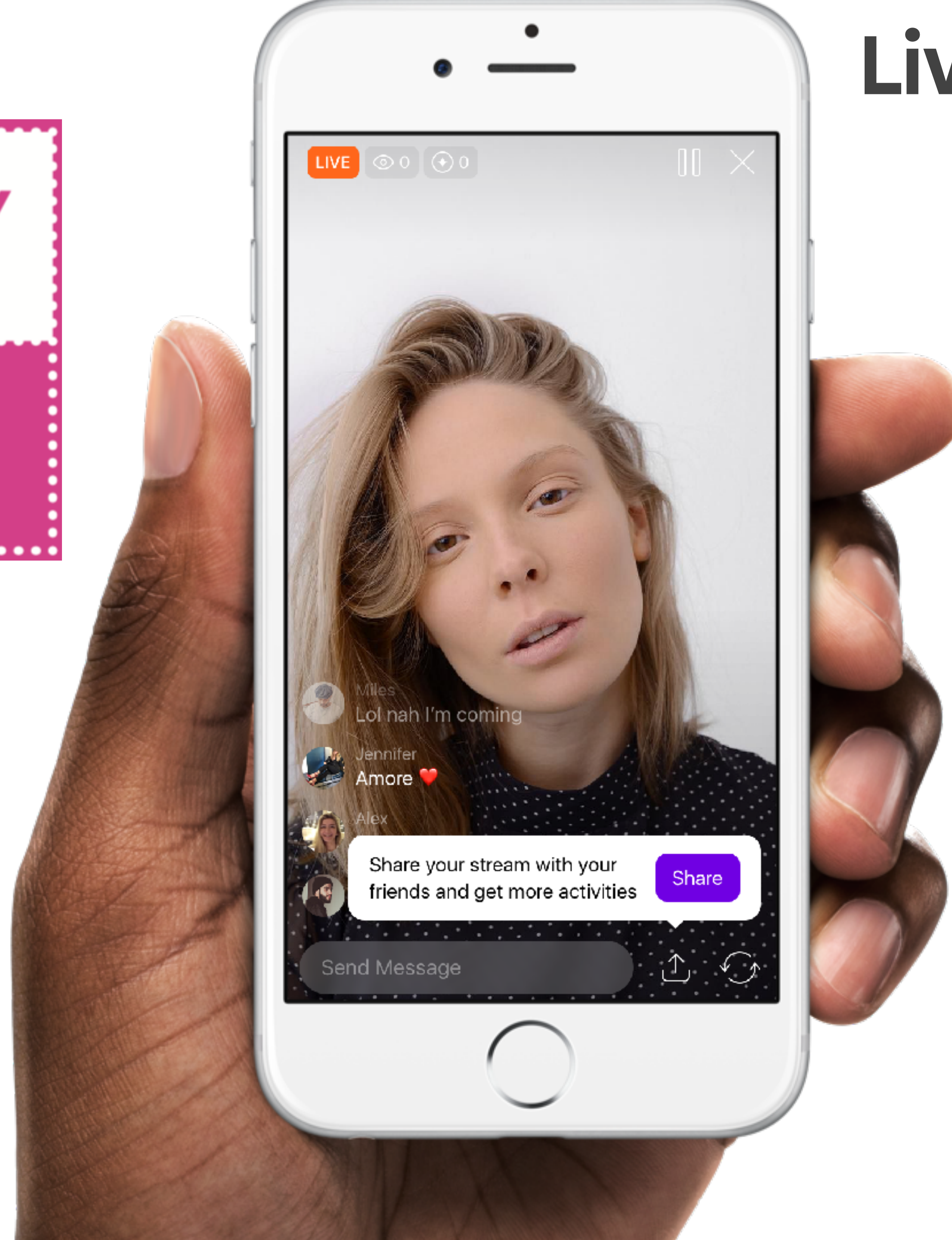
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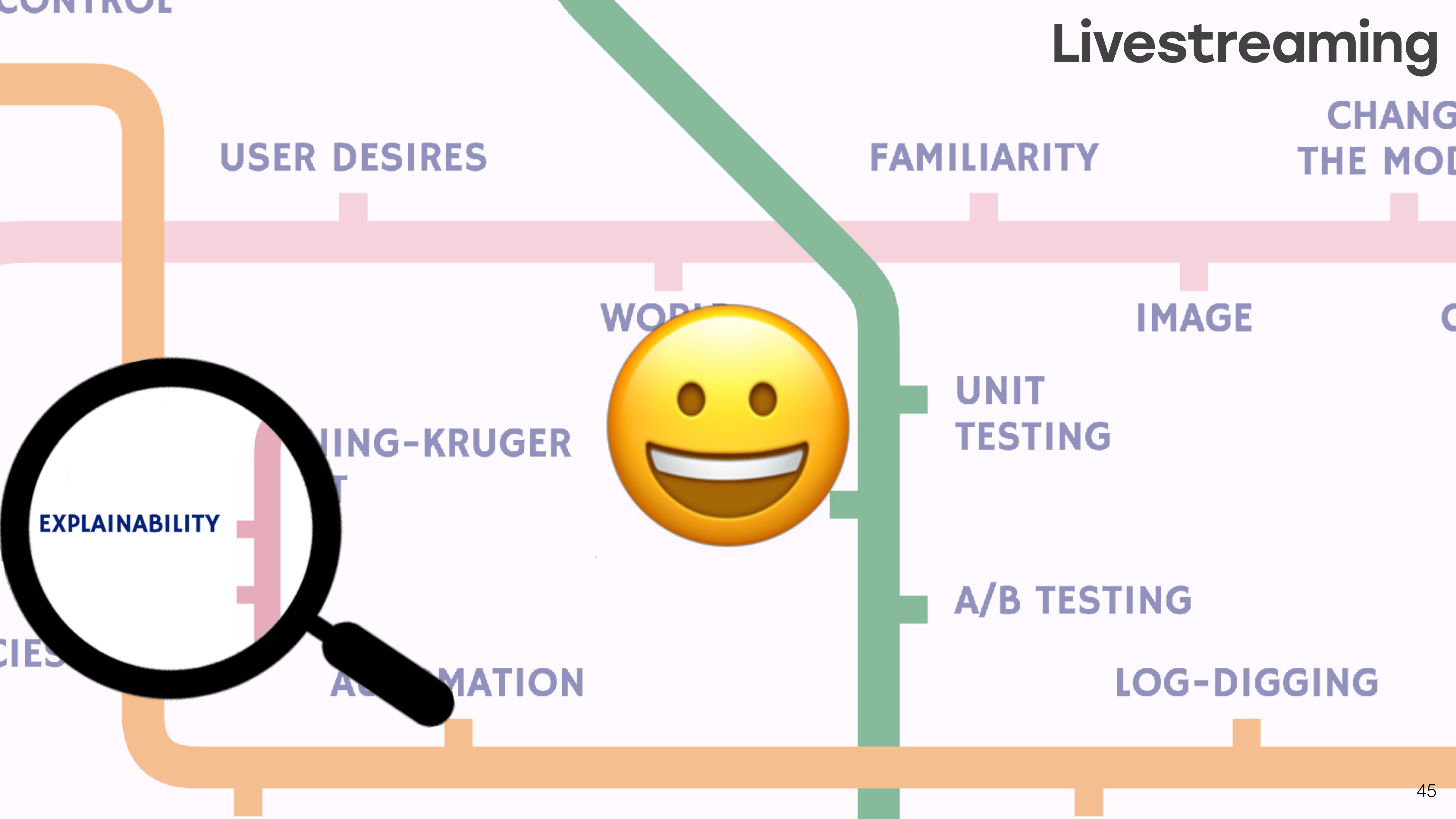


Bug example:

Missing tooltips in recorded streams



Livestreaming



CONTROL

Push notifications

USER DESIRES

FAMILIARITY

CHANGING THE MOD

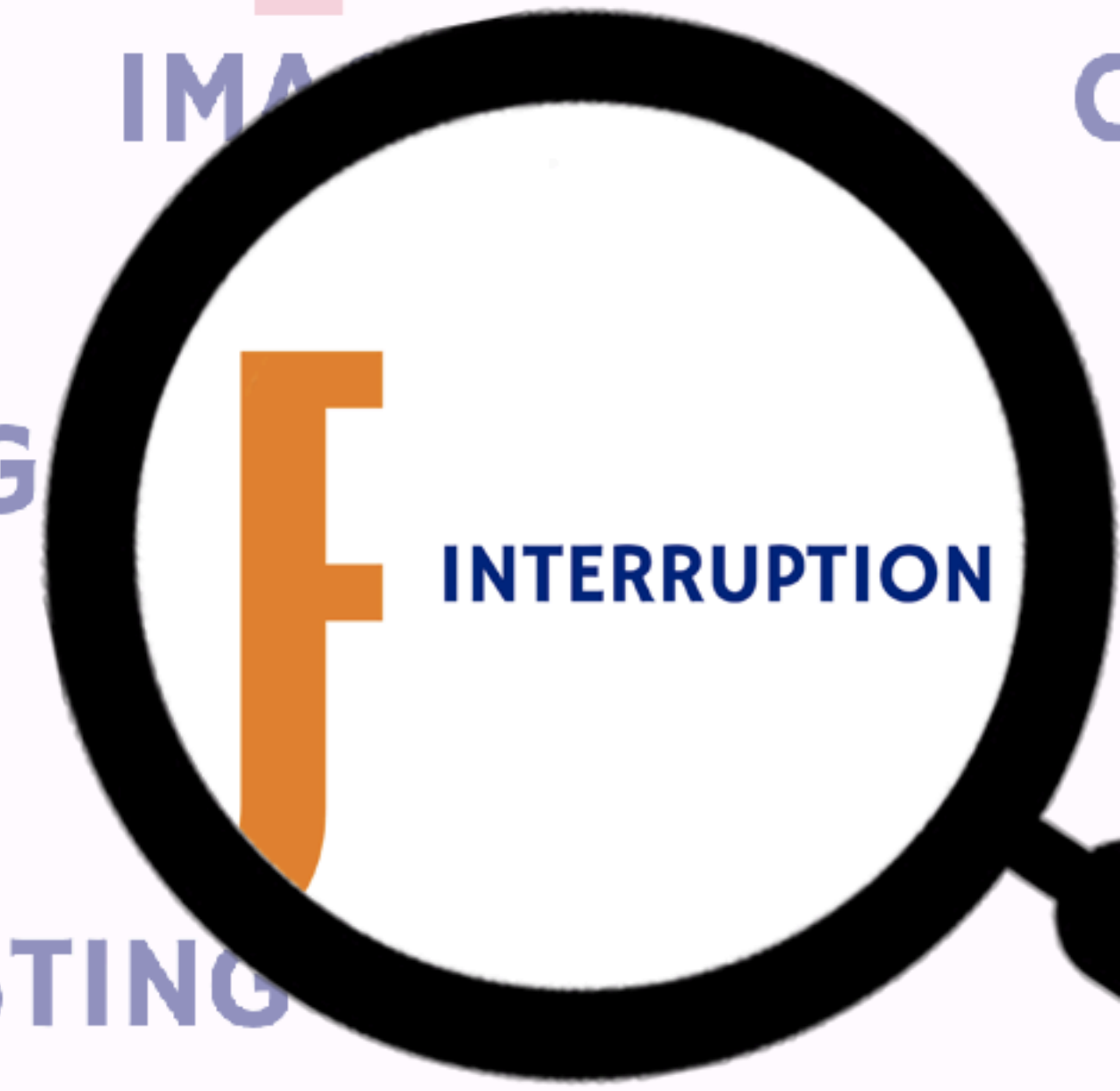
WORLD

IMA

DUNNING-KRUGER EFFECT

CHARM

UNIT TESTING



A/B TESTING

AUTOMATION

LOG-DIGGING

ING

CIES

Push notifications

INTERRUPTION PATTERNS

Approach: Stop, replay, pause and begin again. Can your application handle exceptional flows?

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Push notifications

INTERRUPTION PATTERNS

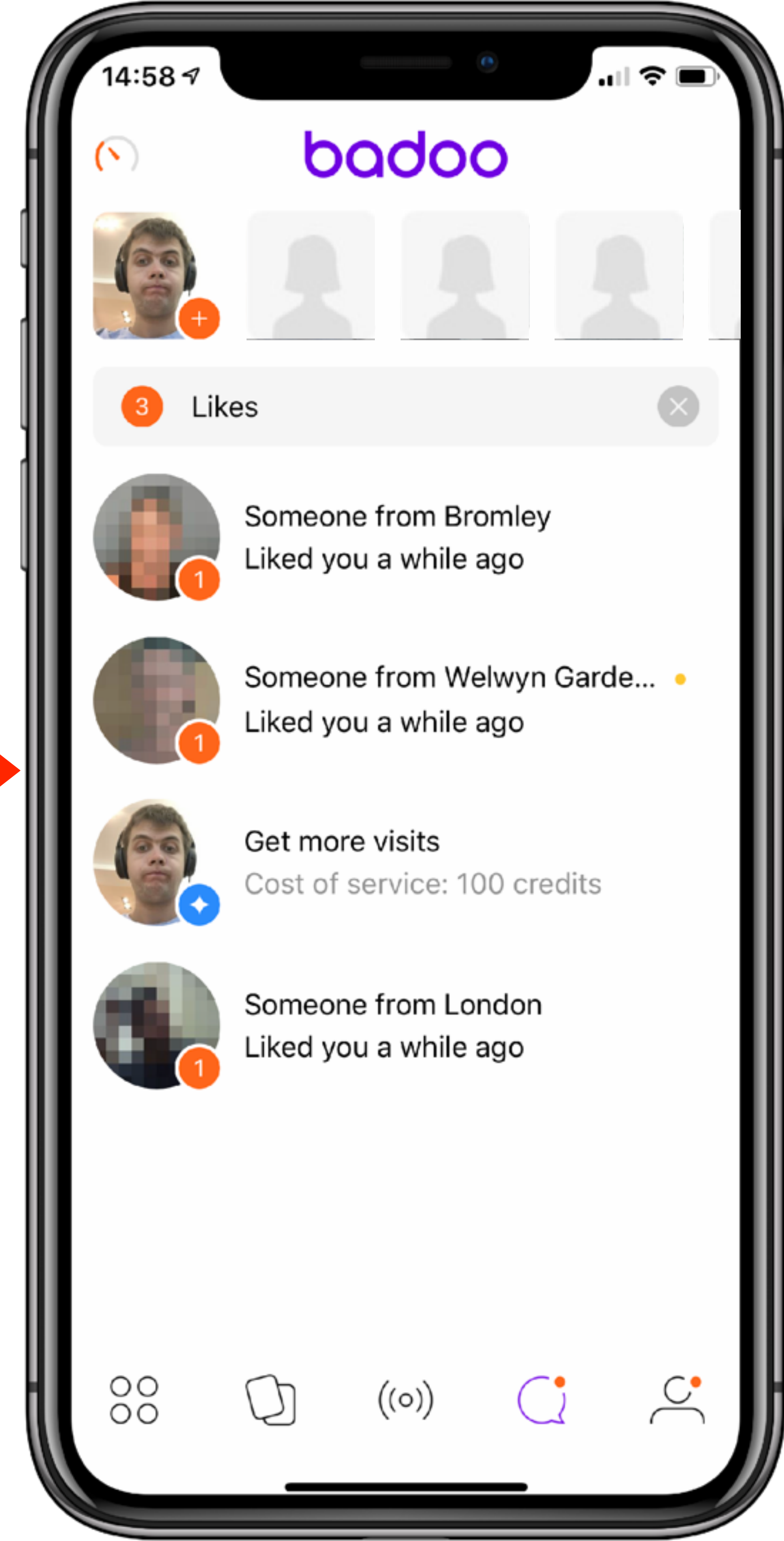
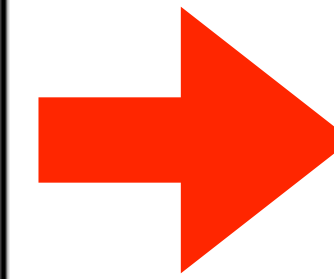
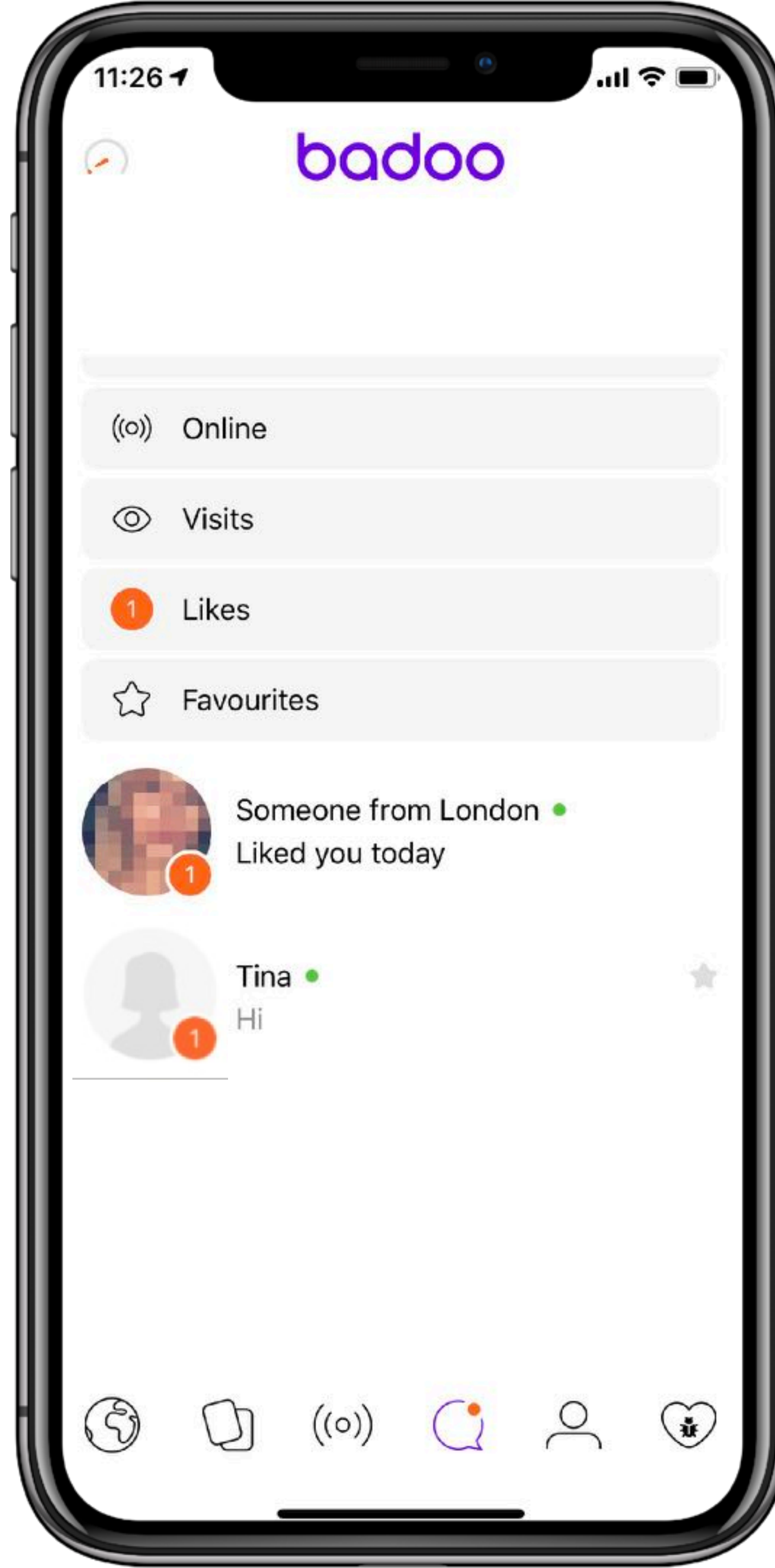
Approach: Stop, replay, pause and begin again. Can your application handle exceptional flows?

Interruptions:

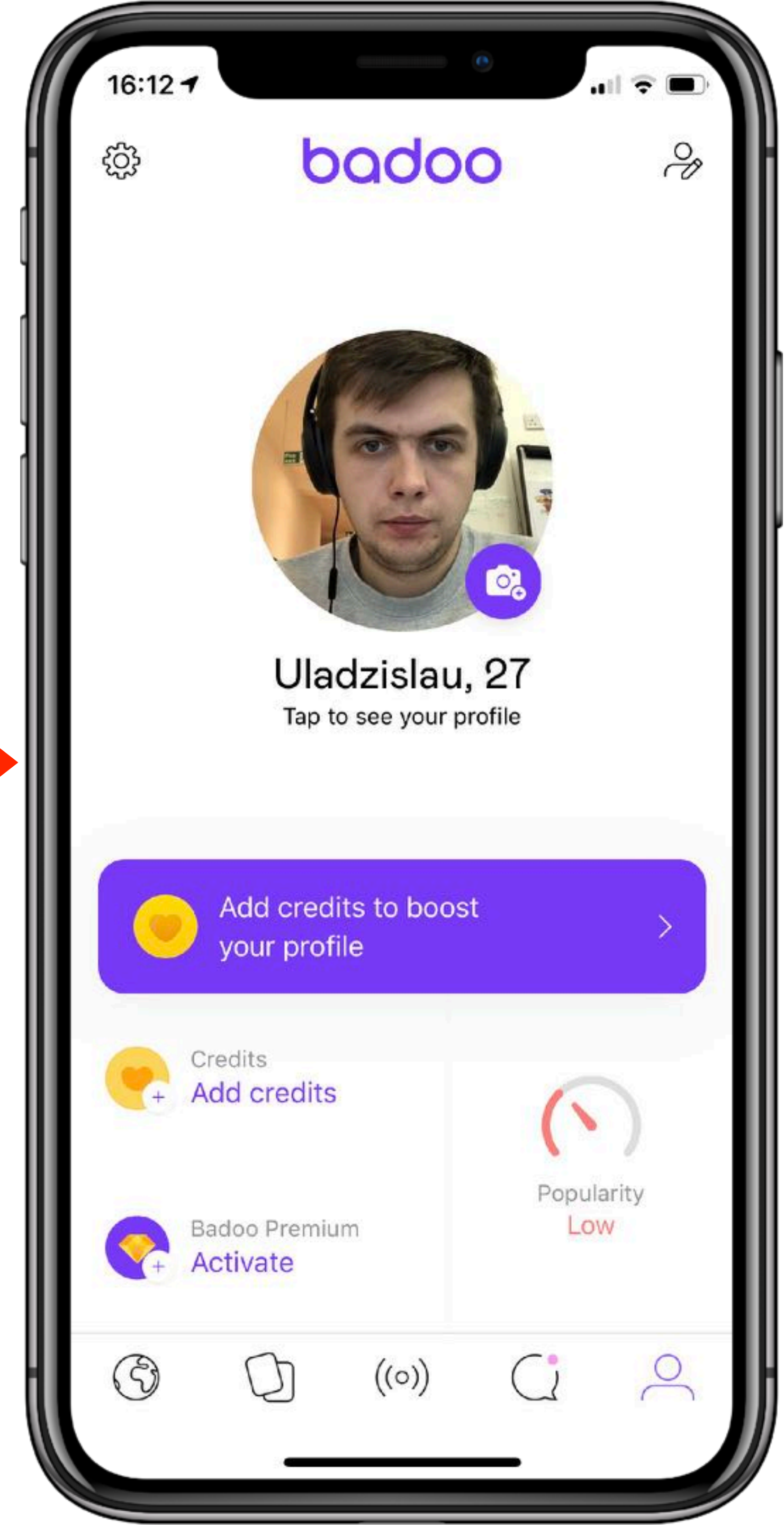
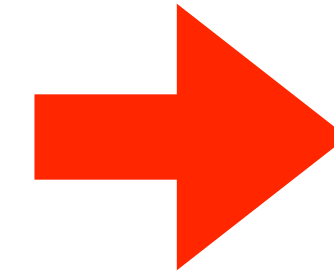
- Old notifications
- Incoming calls
- Opening the app over a modal screen
- Minimising and reopening

**Bug
example:**

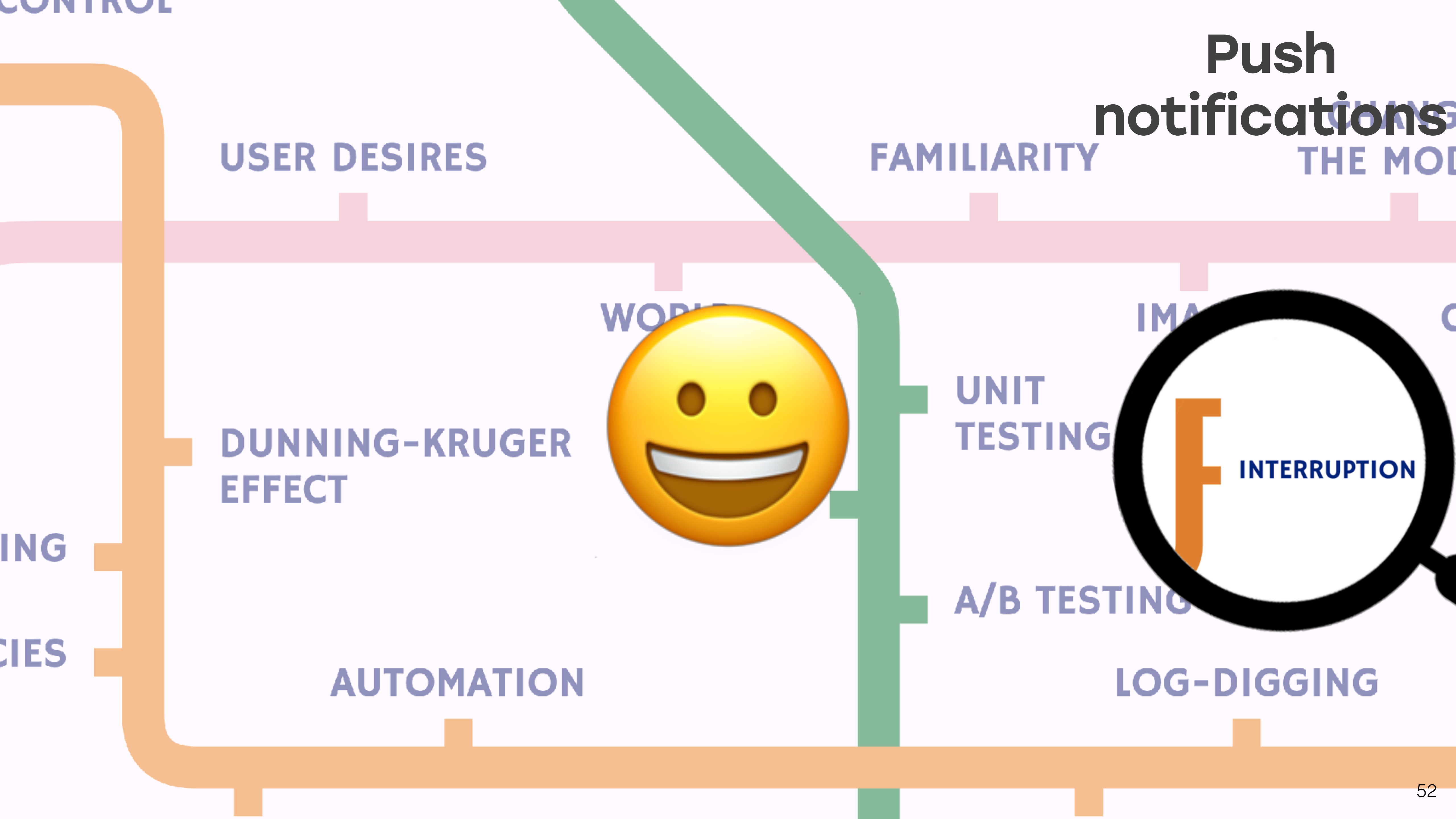
**incorrect
screen
layout**



**Bug
example:
incorrect
screen
opened**

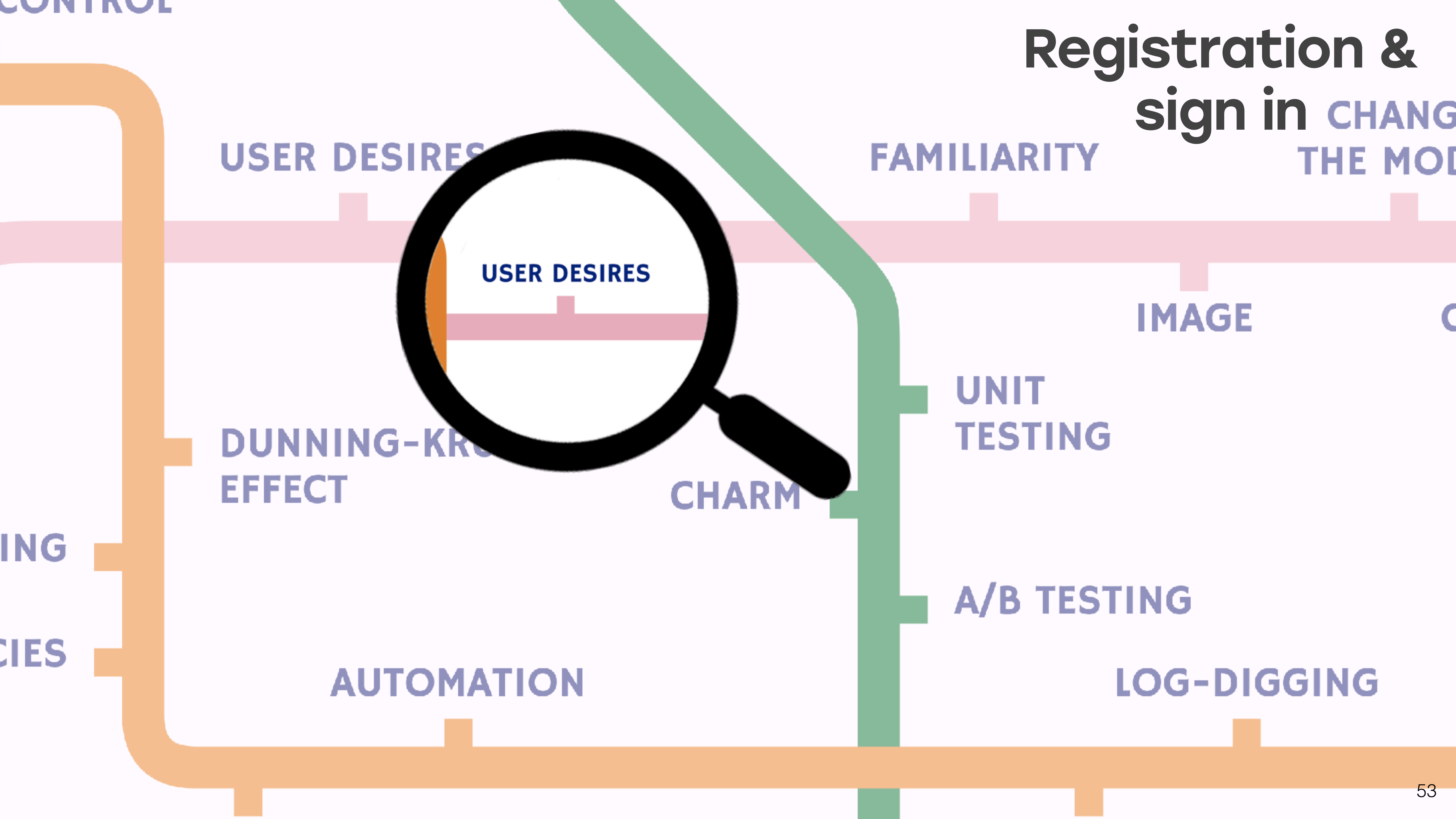


Push notifications



Registration & sign in

CHANG THE MOD



Registration & sign in

USER DESIRES HEURISTICS

Consistency Heuristic: What are the user's desires and does the product live up to them?

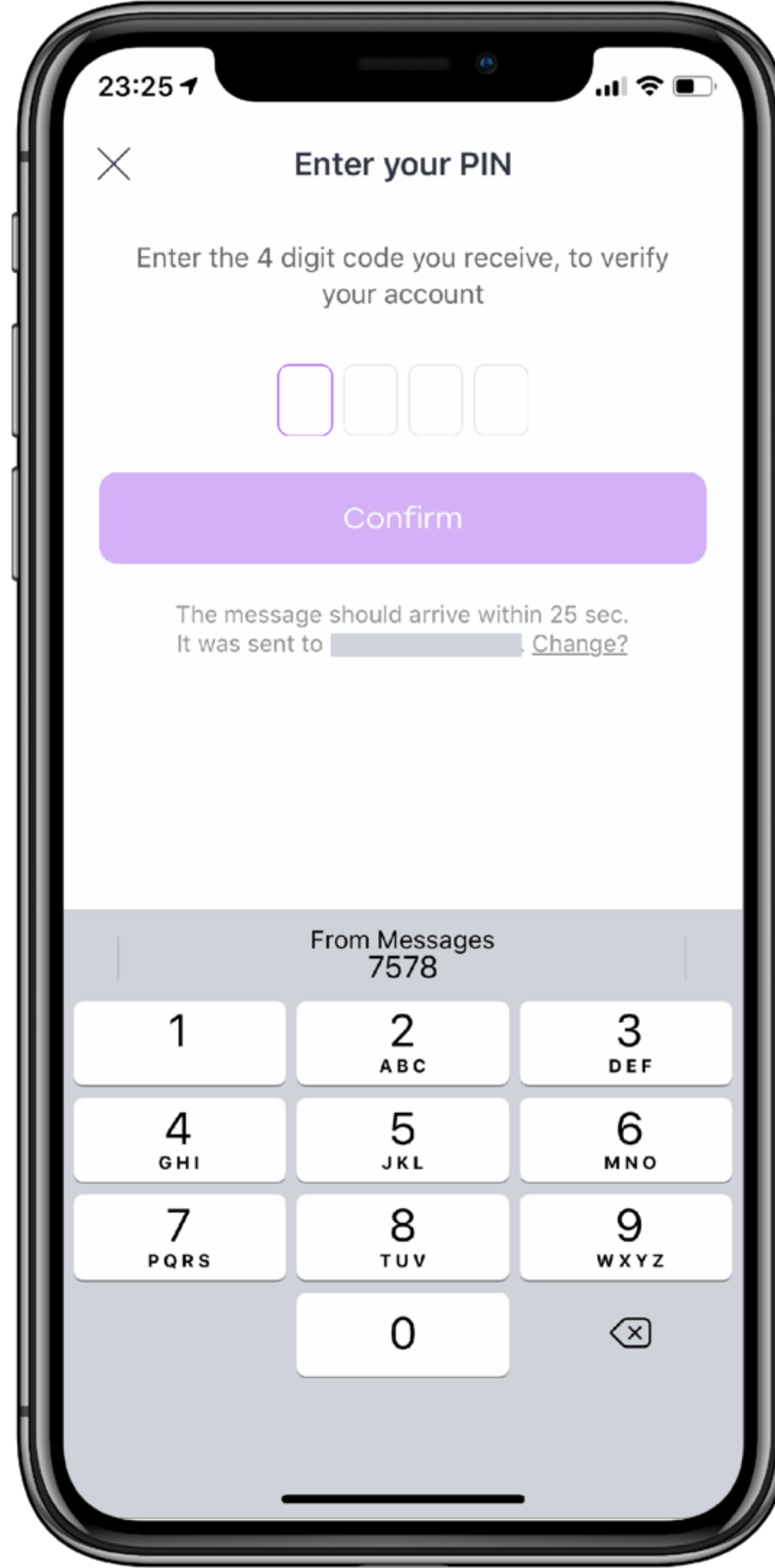
Registration & sign in

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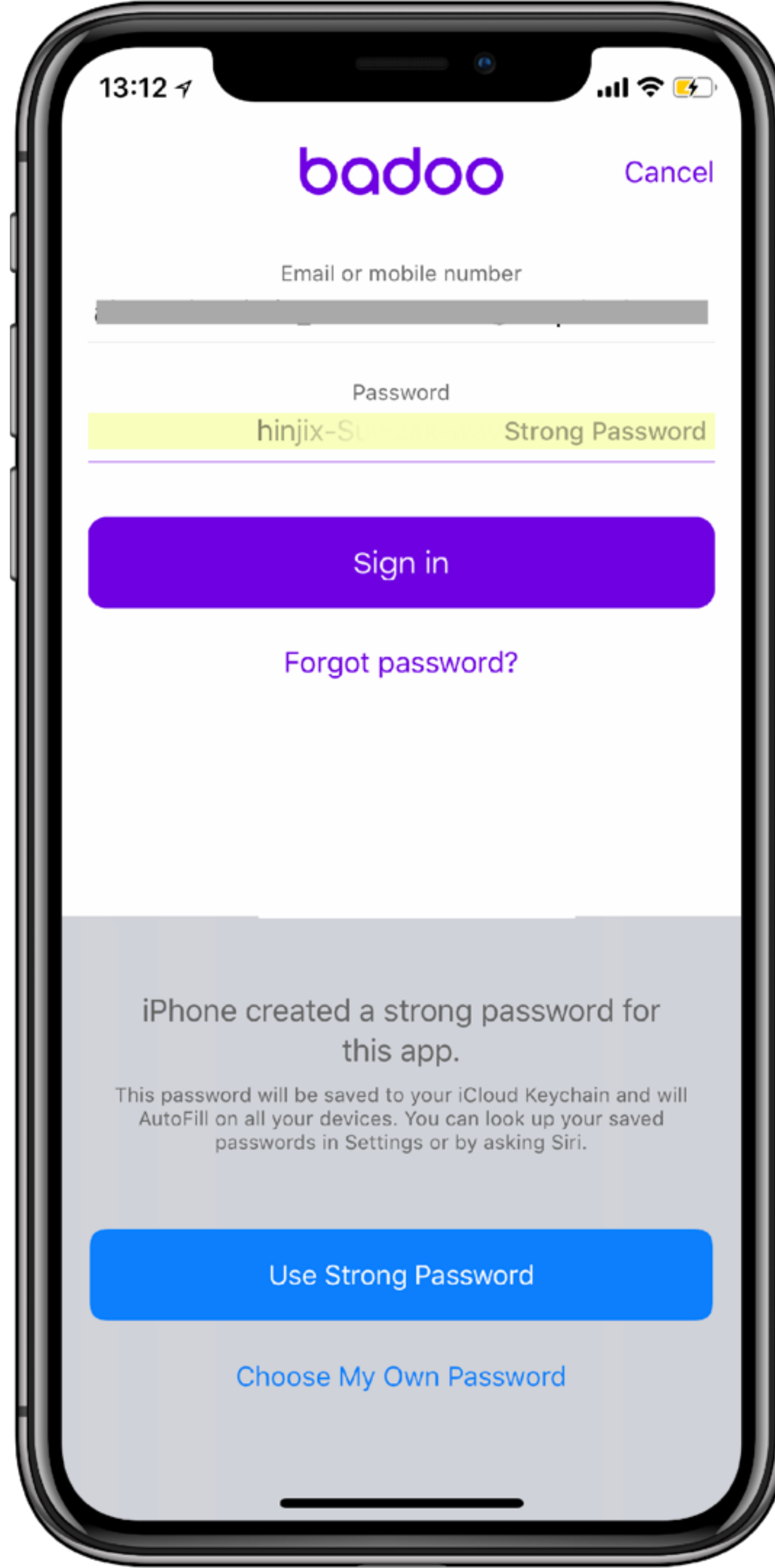


Registration & sign in



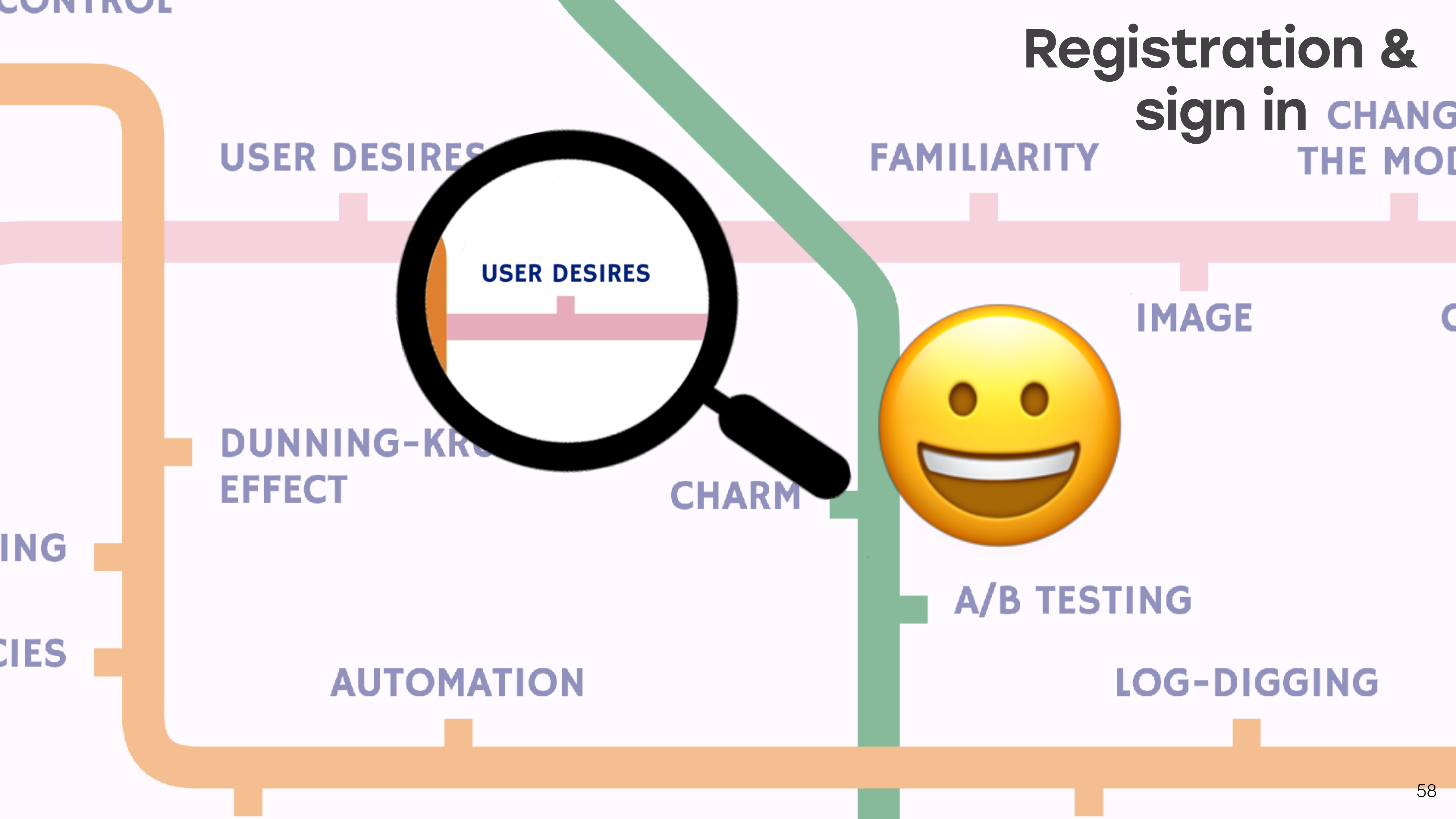
**Bug
example:**

**password
suggestion
on login**

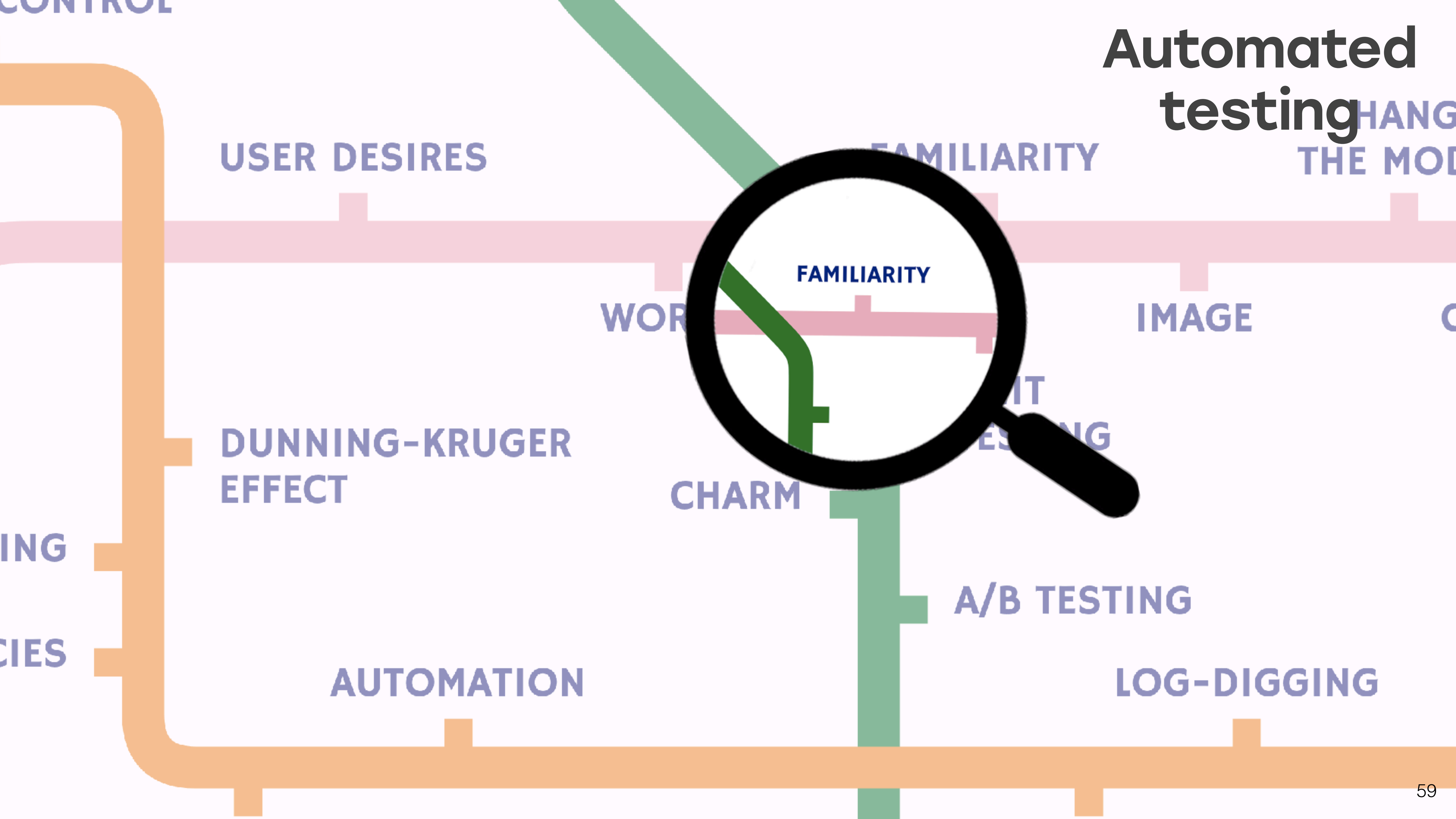


Registration & sign in

CHANG THE MOD



Automated testing



Automated testing

FAMILIARITY HEURISTICS

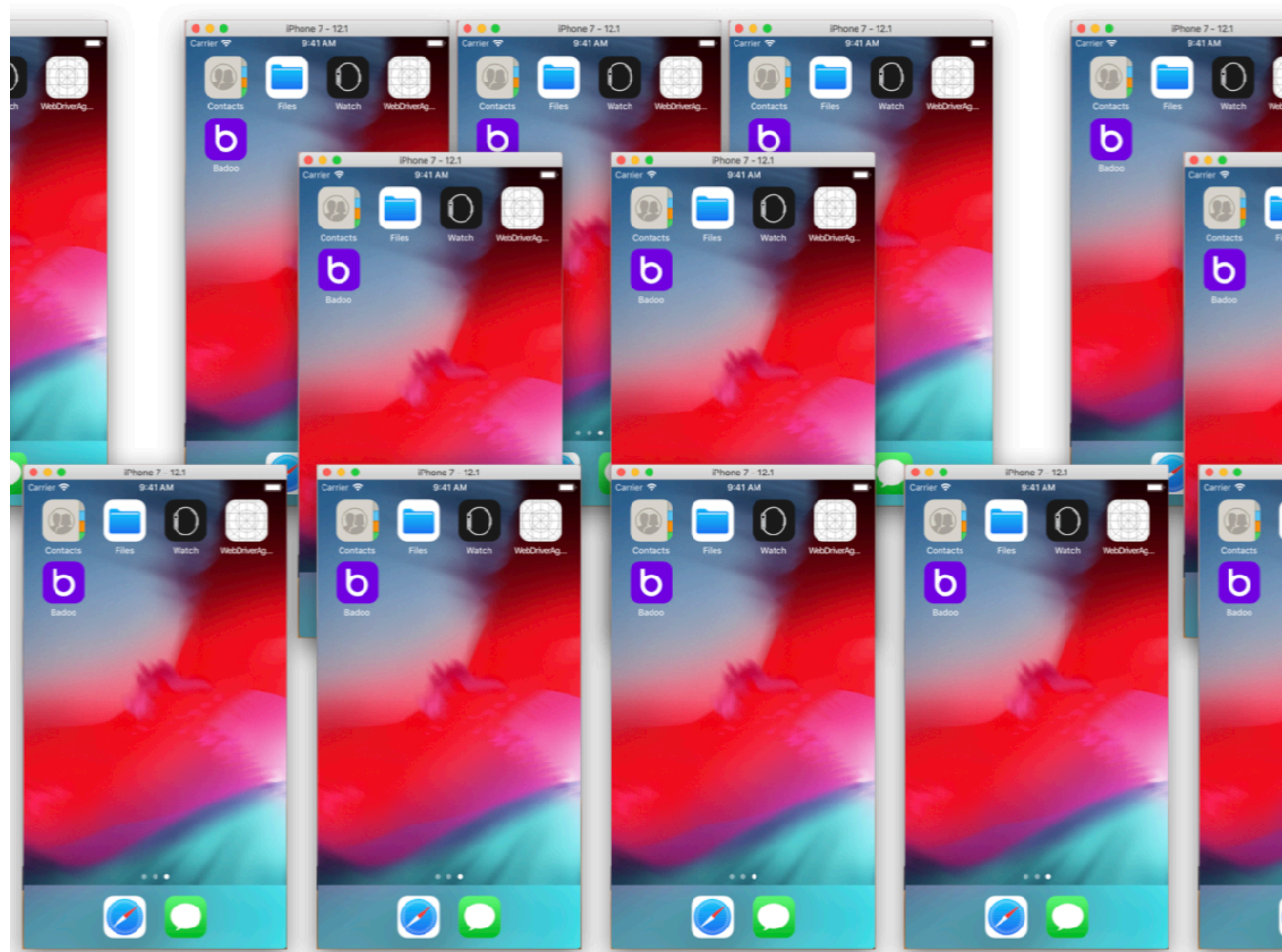
Consistency Heuristic: Given your experience, which problems, that you are familiar with, would you expect in the current product?

FAMILIARITY HEURISTICS

Consistency Heuristic: Given your experience, which problems, that you are familiar with, would you expect in the current product?

Tests:

- Ruby
- Calabash
- WebDriverAgent
- iOS Device Server



FAMILIARITY HEURISTICS

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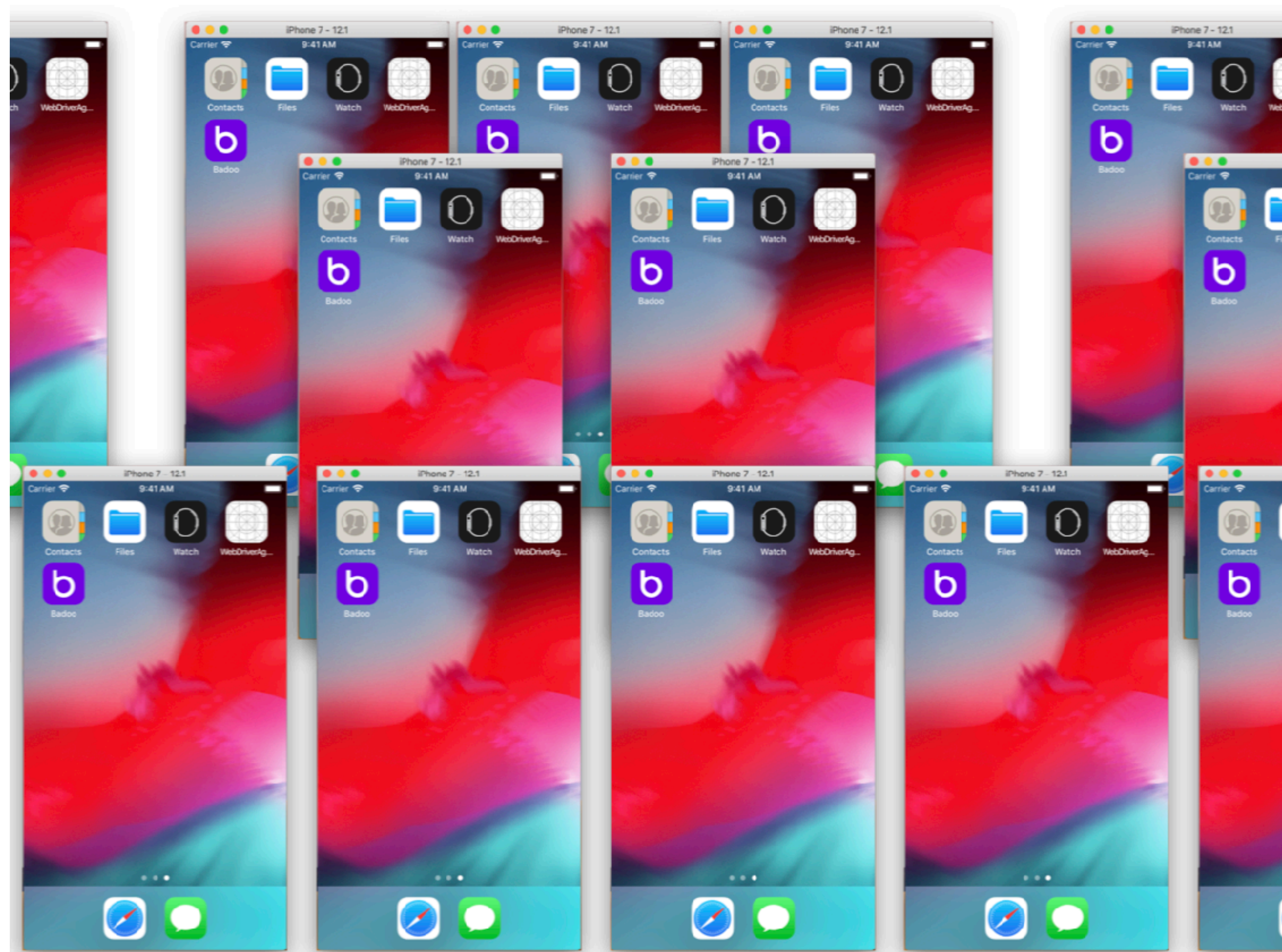
Tests:

~1400 on simulators

~90 on real devices

~90 for livestreaming

~170 payment-related



Automated testing

Test runs in TeamCity

The screenshot displays the TeamCity web interface. At the top, there's a navigation bar with 'Projects', 'Changes', 'Agents', 'Build Queue' (with a '6' badge), and user information 'Uladzislau Ramanenka' with an 'Administration' link and a search bar. Below this, the breadcrumb 'iOS / Functional Tests' is visible, along with an 'Edit Project Settings' button. The main section is for the 'Badoo' project, showing a dropdown for '<Default branch>'. A horizontal menu contains 'Overview', 'Change Log', 'Statistics', 'Current Problems', 'Investigations', 'Muted Problems', 'Build Chains', and 'Flaky Tests'. A 'Hide successful configurations' toggle is present. The test runs are listed in a table-like format:

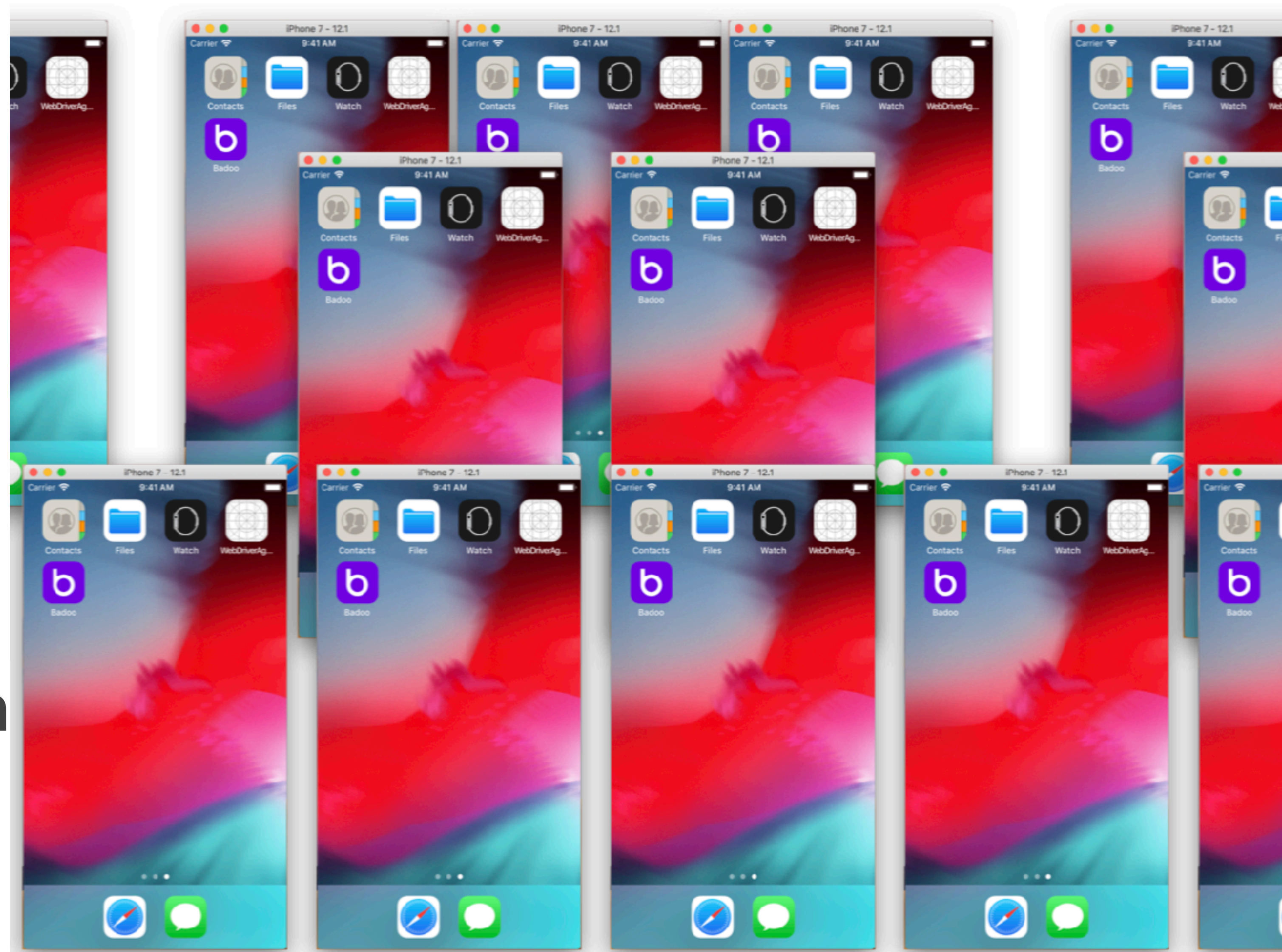
Configuration	Build Number	Status	Changes	Time	Actions
Functional Tests - iOS 11	#73	Tests failed: 2 (2 new), passed: 396, muted: 2; Step 13/15	Pending (100+)	17 days ago (18m:49s)	Run ...
Functional Tests - iOS 12	#15711	Tests failed: 1 (1 new), passed: 1231, ignored: 231; Step 13/15	Changes (100+)	11 hours ago (30m:52s)	Run ...
RealDevices					
Functional Tests - Real Devices - iOS 11	#2085	Execution timeout (new)	Pending (100+)	16 days ago (2h:01m)	Run ...
Functional Tests - Real Devices - iOS 12	#331	Tests passed: 4, muted: 1	Changes (100+)	12 days ago (10m:57s)	Run ...

FAMILIARITY HEURISTICS

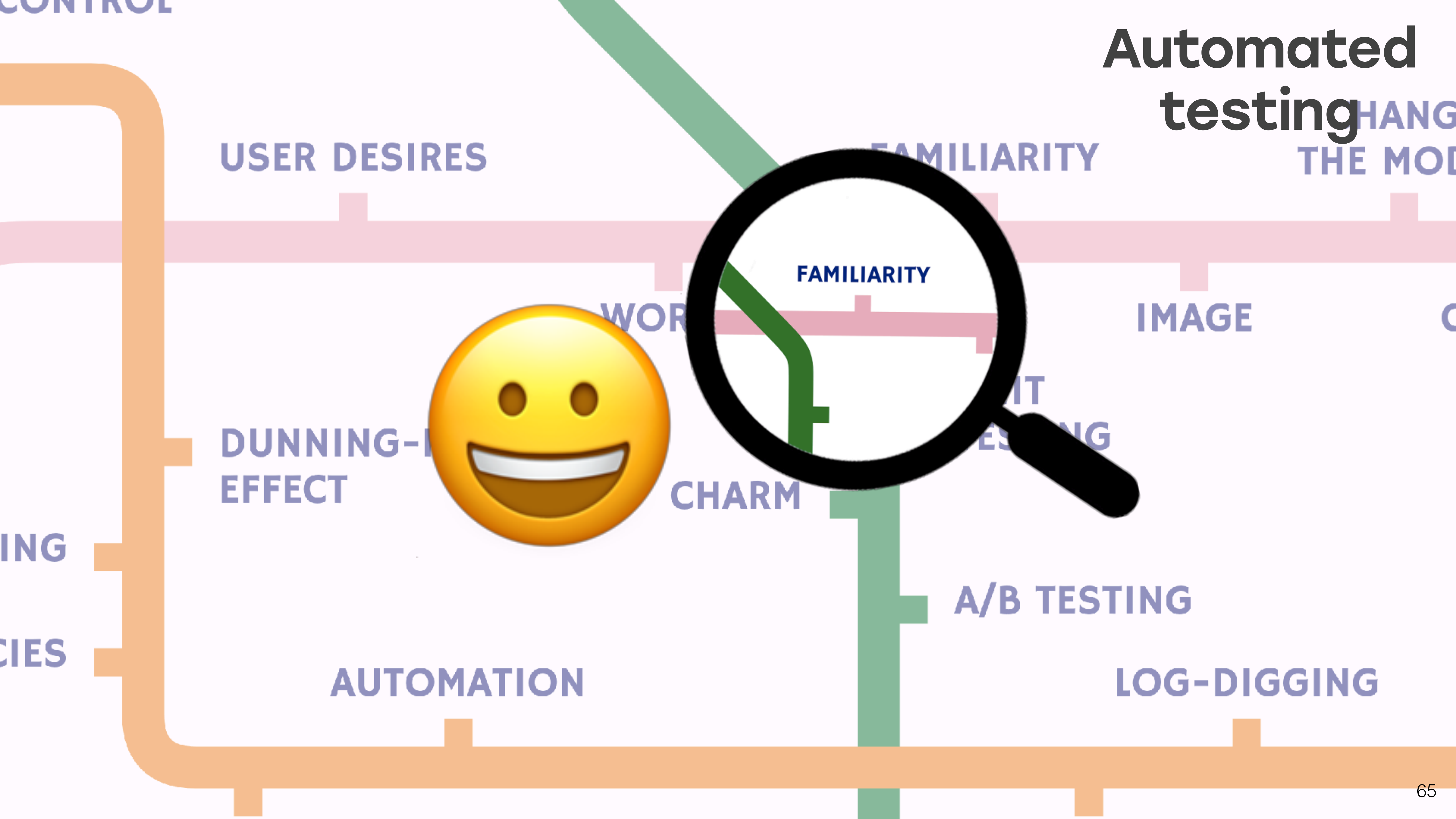
Consistency Heuristic: Given your experience, which problems, that you are familiar with, would you expect in the current product?

Why did the test fail?

- **Functional bug**
- **Flaky implementation**
- **Infrastructure issue**
- **Unsupported change**



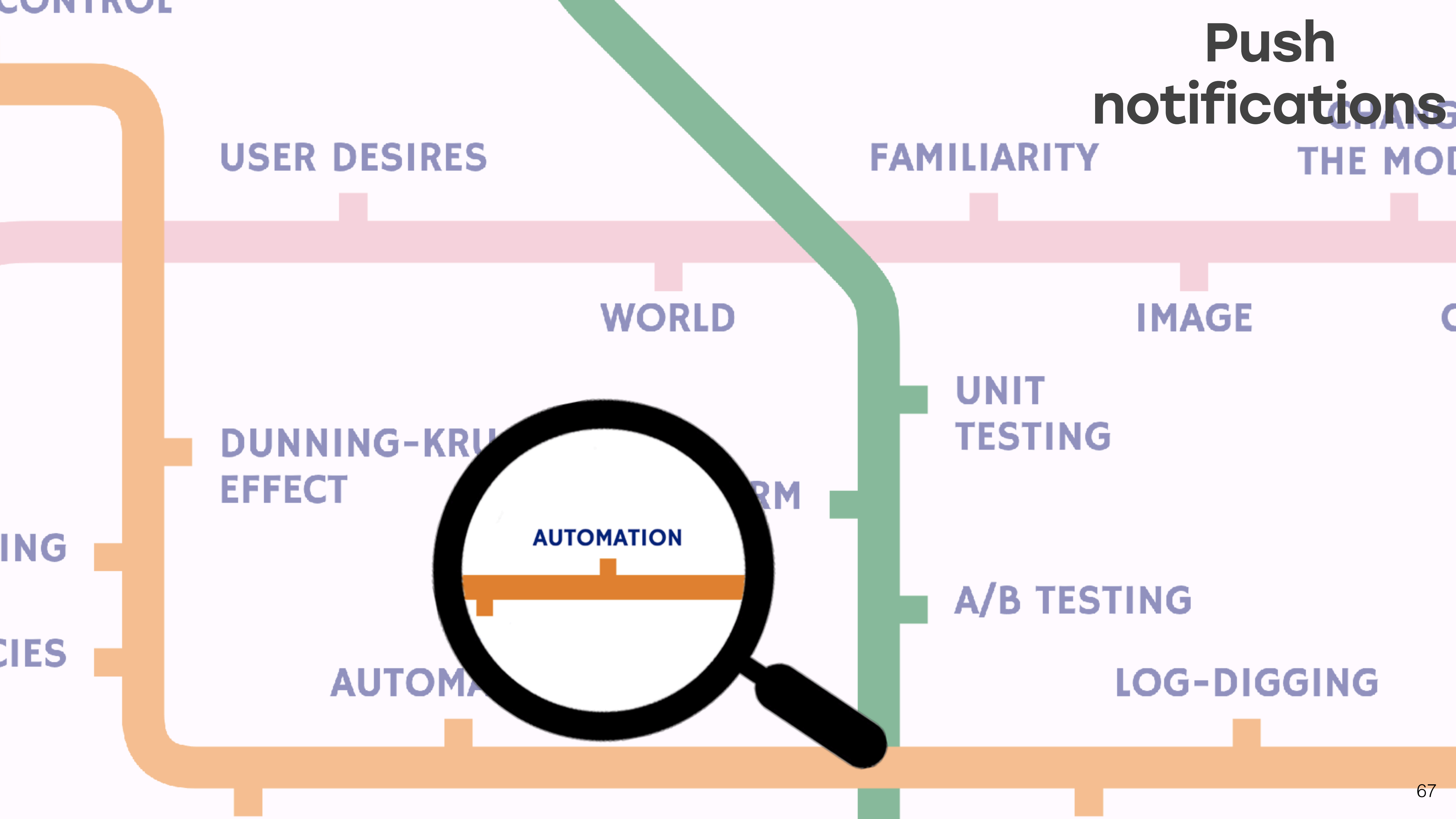
Automated testing





neutral

Push notifications



Push notifications

AUTOMATION PATTERNS

Approach: Robots. They may not have a heart or brain, but they can do quick and awesome computations.

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Push notifications

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What to check:

- **automated suite run results**
- **re-test failed scenarios**
- **double check muted scenarios**

Push notifications

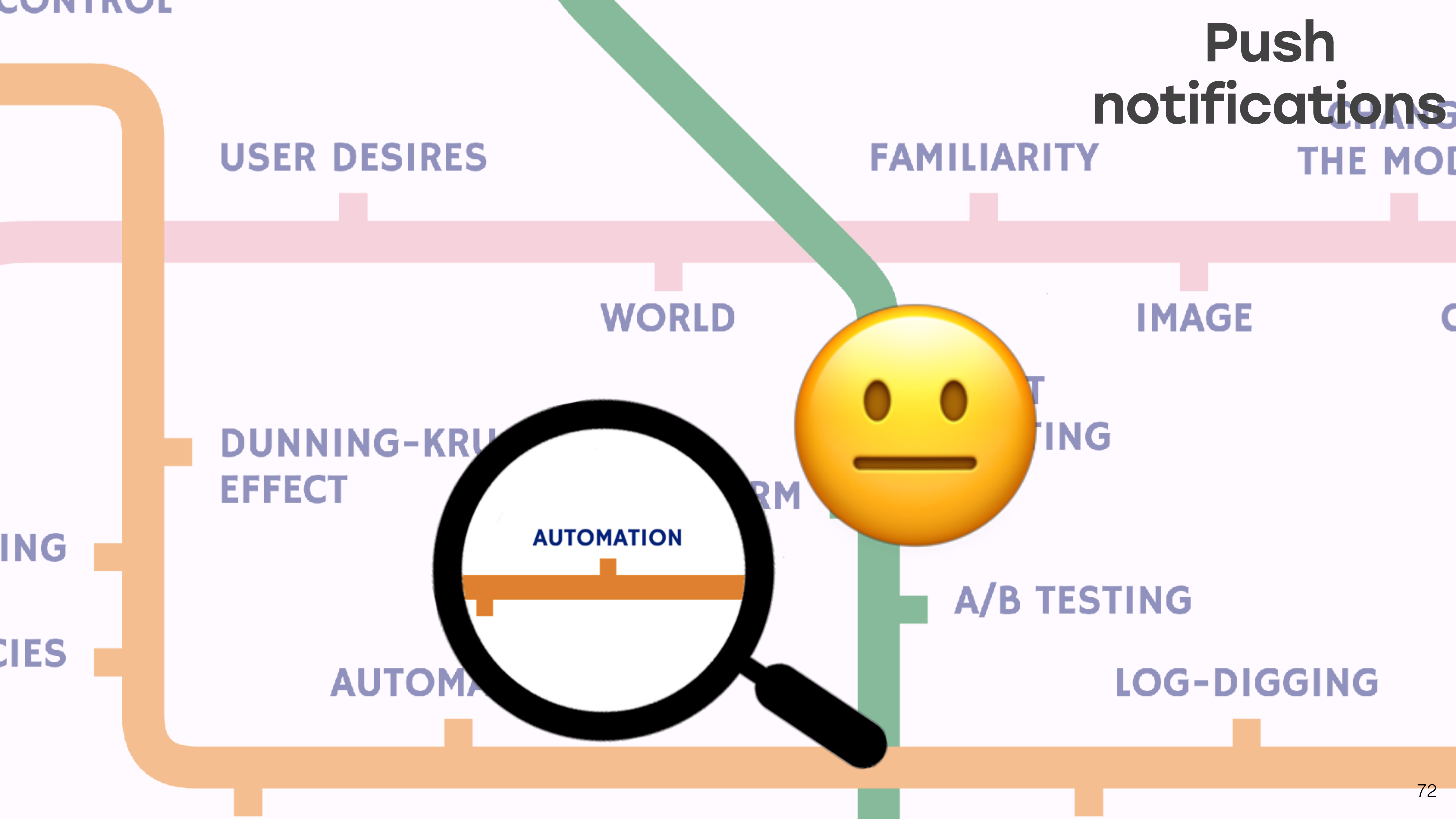
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What to check:

- **automated suite run results**
- **re-test failed scenarios**
- **double check muted scenarios**
- **find the most popular pushes**
- **ensure they are covered with tests**
- **create TODOs if they aren't**

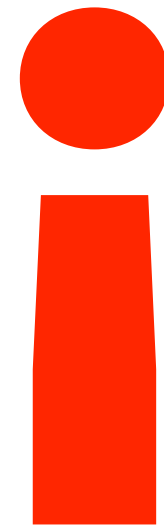
Push notifications



Push notifications

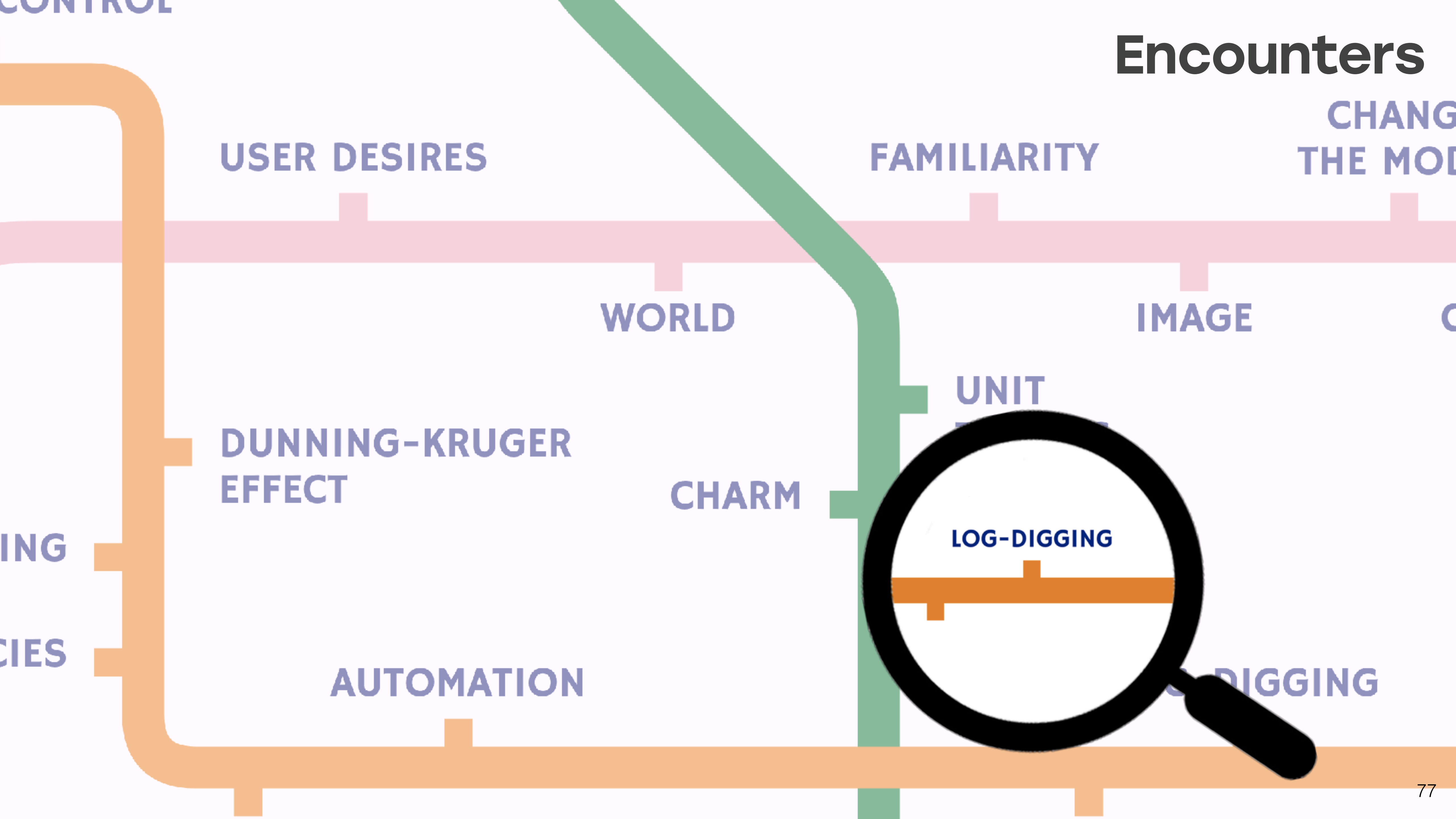








Encounters

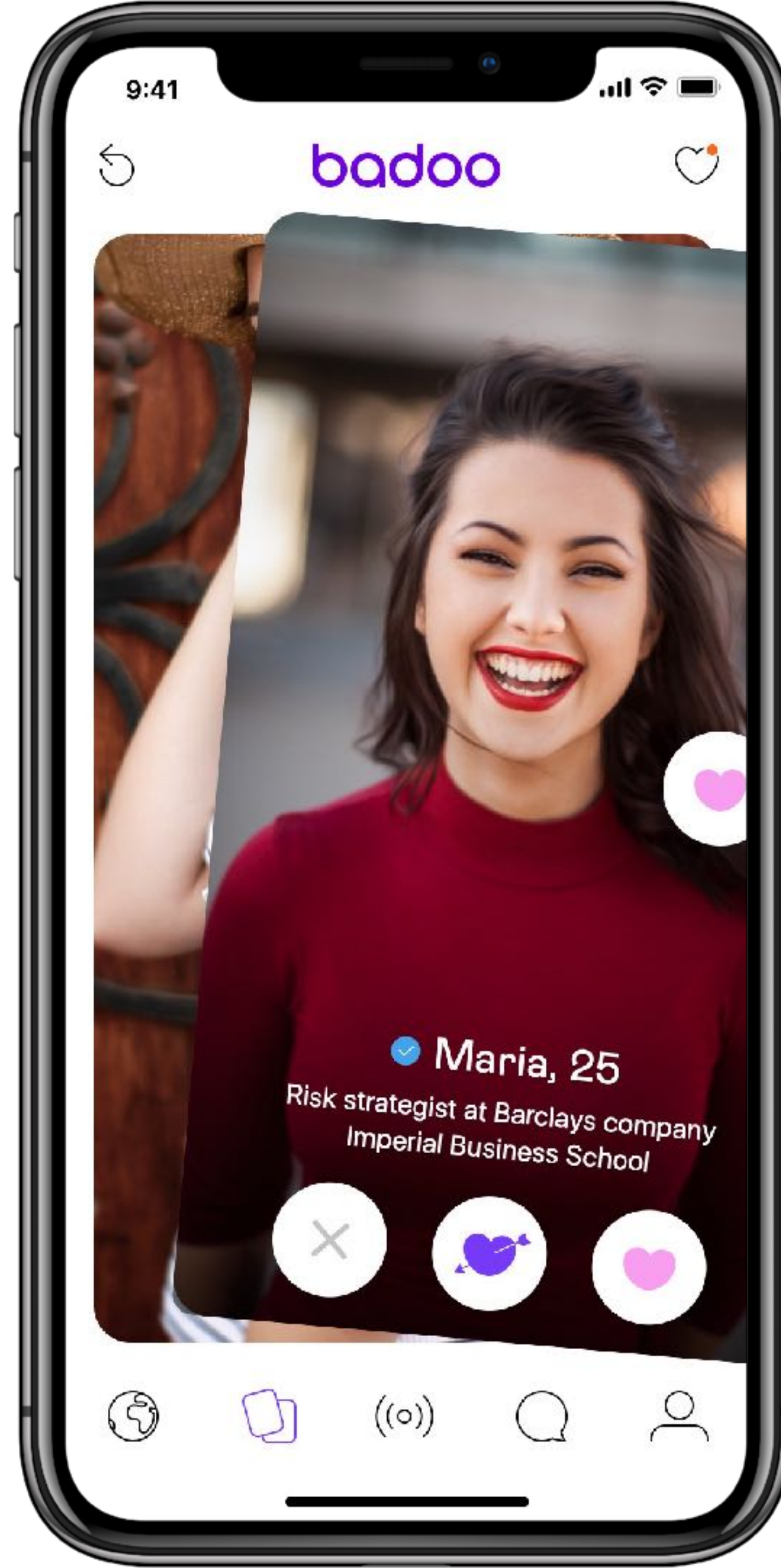


LOG-DIGGING PATTERNS

- **Approach:** Like treasure maps, logs hold locations to most valuable treasures.
- You'll be looking for abnormalities. Weird values, error messages or peaks.

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Crash logs in HockeyApp



App Center is the future of HockeyApp **Badoo** iOS | Beta [About](#) [Transition](#) [Open App Center](#)

← App Overview Versions **1** **Crashes 1** Events Feedback **0** Users **1** Timeline

[Upload Crash](#) [Manage Crashes](#) 10 25 50

[All](#) [Unresolved](#) [Resolved](#) [Ignored](#) *Found 2 crash groups on 1 pages.*

<input type="checkbox"/>	Status	Count	Users	Description	Last Crash	Version	
<input type="checkbox"/>	open	1	1	- SIGKILL - The application did not terminate cleanly but no crash occurred.	27 Jan 2019, 18:00	1 version	
<input type="checkbox"/>	open	1	0	Sample crash 1 <small>line 1</small> SIGSEGV	11 Mar 2016, 17:57	1.1	
<input type="checkbox"/>	open	1	0	Sample crash 2 SIGTRAP	03 Dec 2018, 12:01	2 versions	
<input type="checkbox"/>	open	1	0	New crash SIGABRT - Sample 3	19 Oct 2017, 17:36	2 versions	
<input type="checkbox"/>	open	1	0	Old Crash <small>line 0</small> SIGTRAP	27 Nov 2018, 15:36	5 versions	
<input type="checkbox"/>	open	1	0	Sample crash 4 SIGSEGV	29 Jul 2016, 00:57	2 versions	

Application logs in Console

WARNING
AY 7:36

Console (1,152 messages)

Now Activities Clear Reload Info Share

PROCESS Badoo

All Messages Errors and Faults Device id

Devices	Type	Time	Process	Message
Uladzislau		01:32:26.313818	Badoo	{ "msg": "CLLocationManager", "event": "activity", "_cmd": "onDidBecomeActive:", "self": "0x280980b30", "notification": <private> }
iPhone7OS 12		01:32:26.314390	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
Lae choppe SE		01:32:26.314556	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
		01:32:26.316550	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
		01:32:26.316721	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
		01:32:26.316870	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
		01:32:26.317661	Badoo	{ "msg": "CLInternalGetAuthorizationStatus", "event": "activity" }
		01:32:26.317907	Badoo	[com.badoo.Badoo] Getting notification settings (async)
		01:32:26.413463	Badoo	[com.badoo.Badoo] Got notification settings [hasResult: 1 hasCompletionHandler: 1]
		01:32:26.413539	Badoo	[com.badoo.Badoo] Got notification settings [hasResult: 1 hasCompletionHandler: 1]
		01:32:26.420646	Badoo	Task <C0EEDFF7-0F4A-4374-83D0-4DEC2ADE4663>.<8> resuming, QOS(0x11)
		01:32:26.420744	Badoo	Task <C36CB1FC-3265-4960-9378-4646F1393D23>.<9> resuming, QOS(0x11)
		01:32:26.421701	Badoo	Task <C0EEDFF7-0F4A-4374-83D0-4DEC2ADE4663>.<8> {strength 0, tls 4, ct 0, sub 0, sig 1, ciphers 0, bundle 0, builtin 0}
		01:32:26.421797	Badoo	Task <C0EEDFF7-0F4A-4374-83D0-4DEC2ADE4663>.<8> now using Connection 7
		01:32:26.421842	Badoo	Task <C0EEDFF7-0F4A-4374-83D0-4DEC2ADE4663>.<8> sent request. body N

Badoo (UserNotifications)
Subsystem: com.apple.UserNotifications Category: Connections [Details](#)

[com.badoo.Badoo] Getting notification settings (async)

Bug example:

duplicated client-server requests

```
11:13:36.70596]: SERVER_GET_NEXT_PROMO_BLOCKS: { ... }
```

```
11:13:36.70596]: SERVER_GET_NEXT_PROMO_BLOCKS: { ... }
```

```
11:13:36.096018]: SERVER_GET_PLACES_SECTIONS: { ... }
```

```
11:13:36.096018]: SERVER_GET_PLACES_SECTIONS: { ... }
```

```
11:13:35.96791]: SERVER_GET_USER_Self: { ... }
```

```
11:13:35.96791]: SERVER_GET_USER_Self: { ... }
```

```
11:13:35.91657]: SERVER_GET_CHAT_MESSAGES: { ... }
```

```
11:13:35.91657]: SERVER_GET_CHAT_MESSAGES: { ... }
```

```
11:13:35.838485]: SERVER_GET_USER_LIST_MessagesAll: { ... }
```

```
11:13:35.838485]: SERVER_GET_USER_LIST_MessagesAll: { ... }
```

```
11:13:35.650418]: SERVER_GET_APP_SETTINGS: { ... }
```

```
11:13:35.650418]: SERVER_GET_APP_SETTINGS: { ... }
```

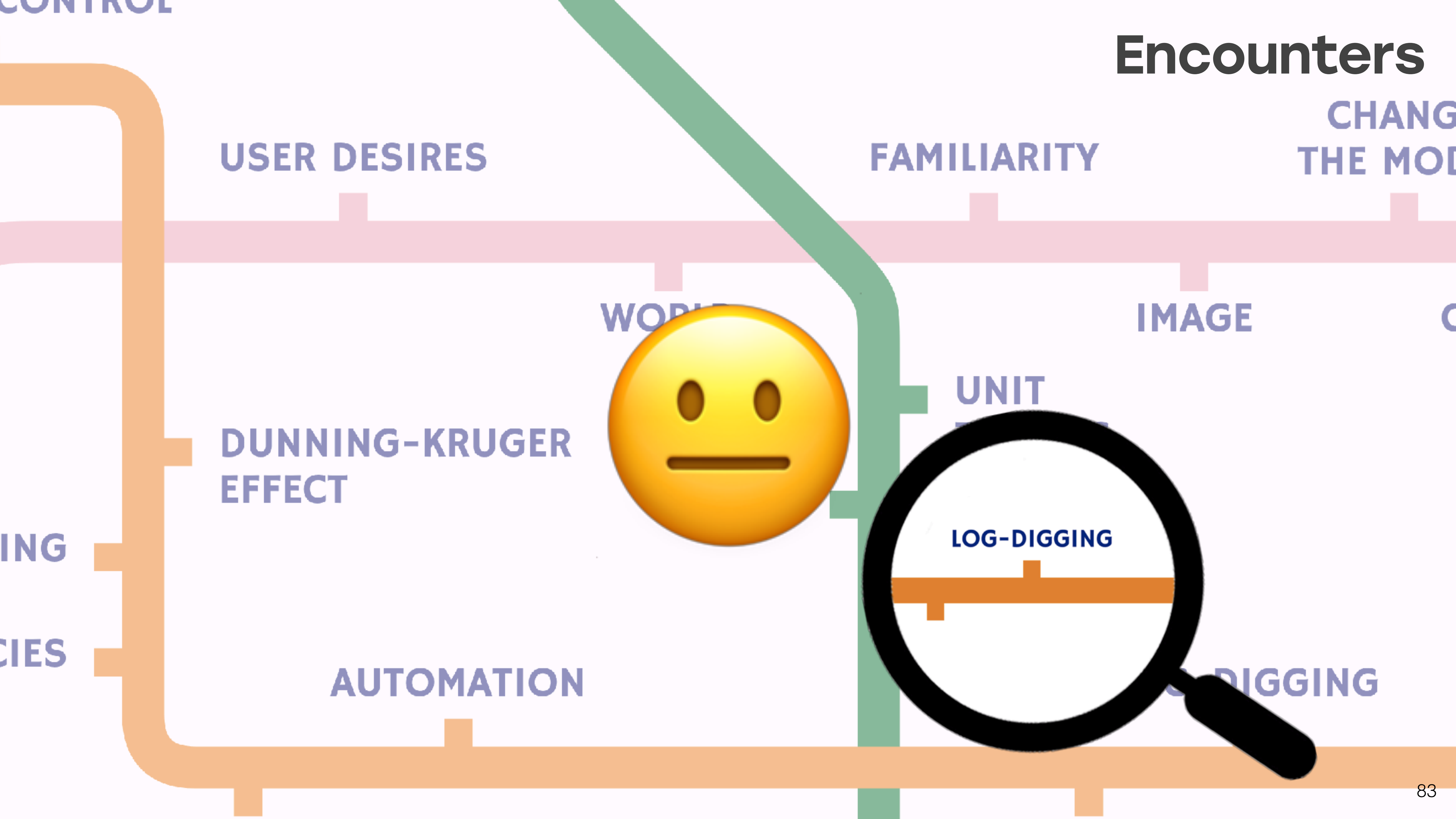
```
11:13:35.589587]: SERVER_REQUEST_PERSON_NOTICE: { ... }
```

```
11:13:35.589587]: SERVER_REQUEST_PERSON_NOTICE: { ... }
```

```
11:13:34.43949]: SERVER_LOGIN_BY_EXTERNAL_PROVIDER: { ... }
```

```
11:13:34.43949]: SERVER_LOGIN_BY_EXTERNAL_PROVIDER: { ... }
```

Encounters





negative

CONTROL

Chat

USER DESIRES

FAMILIARITY

CHANG
THE MOD

WORLD

IMAGE

DUNNING-KRUGER
EFFECT

UNIT
TESTING

CHARM

ING



SUPERFICIAL

CIES

AUTOMATION

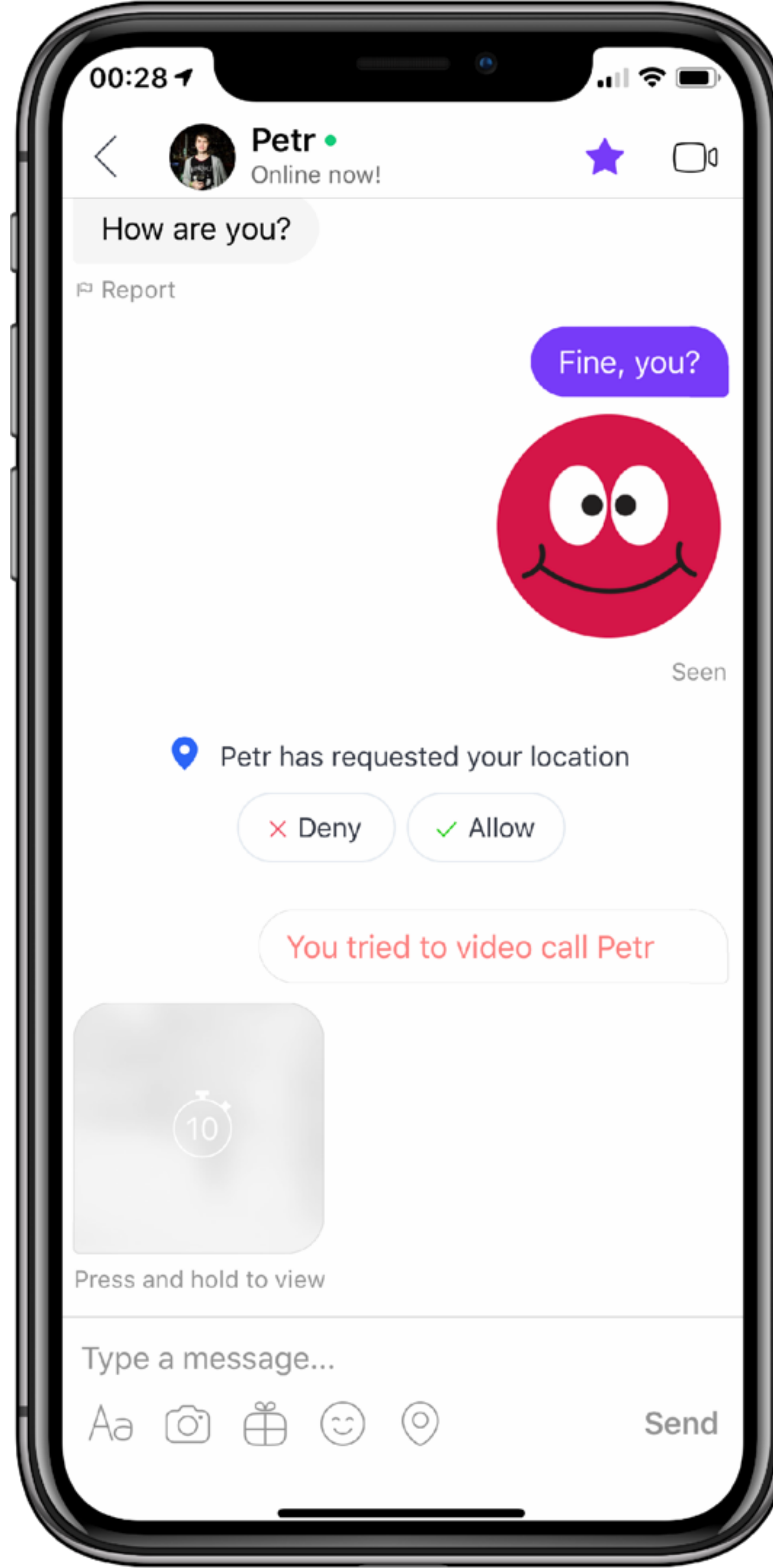
ING

SUPERFICIAL PATTERNS

Approach: Don't care whether it works or has a purpose? Does it at least look dashing?

SUPERFICIAL PATTERNS

Approach: Don't care whether it works or has a purpose? Does it at least look dashing?

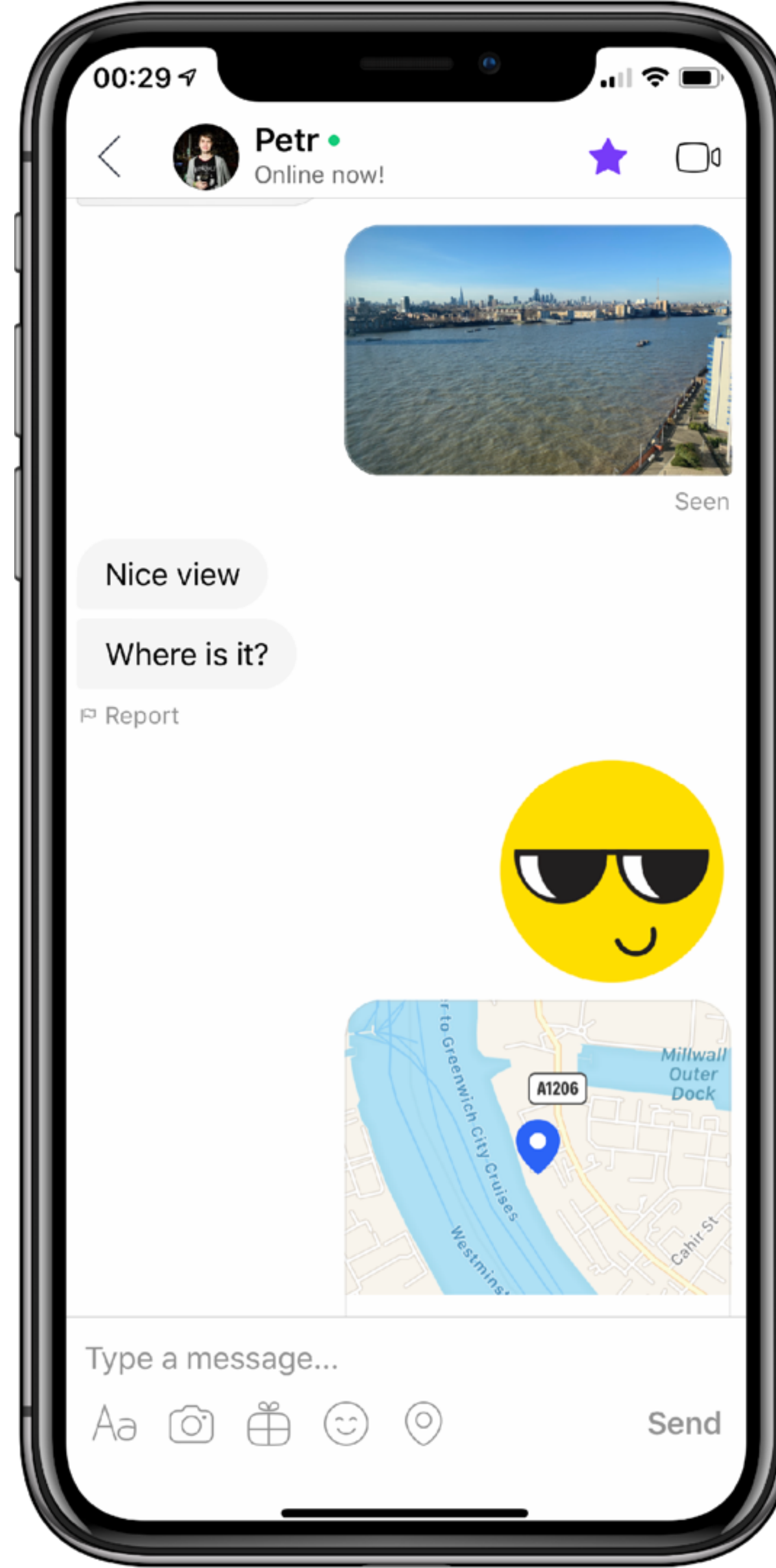


SUPERFICIAL PATTERNS

Approach: Don't care whether it works or has a purpose? Does it at least look dashing?

Chat elements:

- general layout
- borders & delimiters
- buttons
- message bubbles
- hints, errors



Liveshots

badoo Home Flow Explorer Request Flow Send Feedback Logout

Select a flow

iOS Badoo iPhone X (@3x) 5.40.0 English (UK)

Pick this flow

Home / Chat Blockers / Various Chat Blockers

Various blocker screens on starting chat with someone

Home / Chat Blockers / Various Chat Blockers


Various blocker screens on starting chat with someone

Select a flow

iOS Badoo iPhone X (@3x) 5.91.0 English (UK)

Pick this flow

< ☆




Julie, 56

You've maxed your chats
You can chat in 23h 59m or start 20 more chats now

Get 20 chats

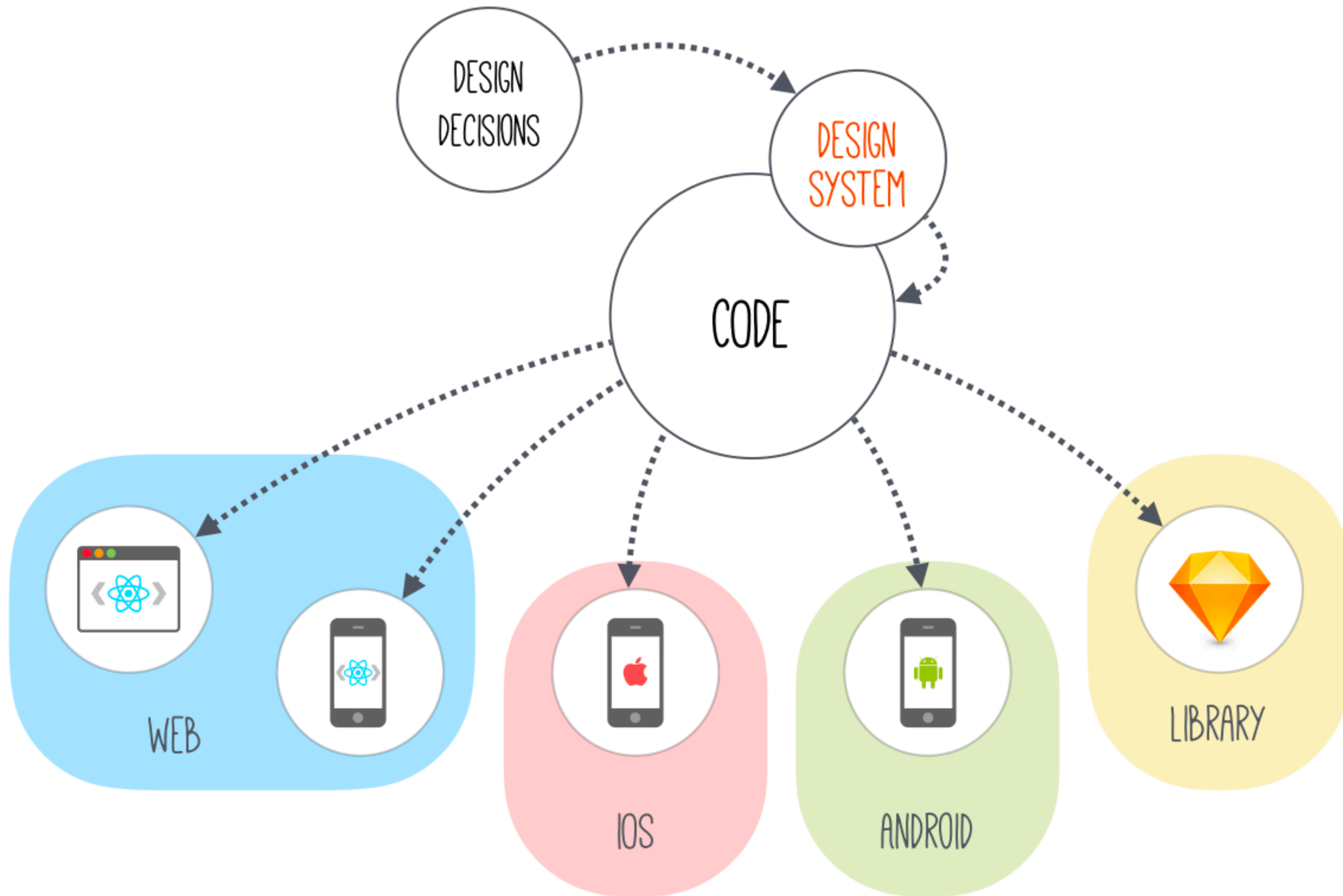
< ☆



Julie • >

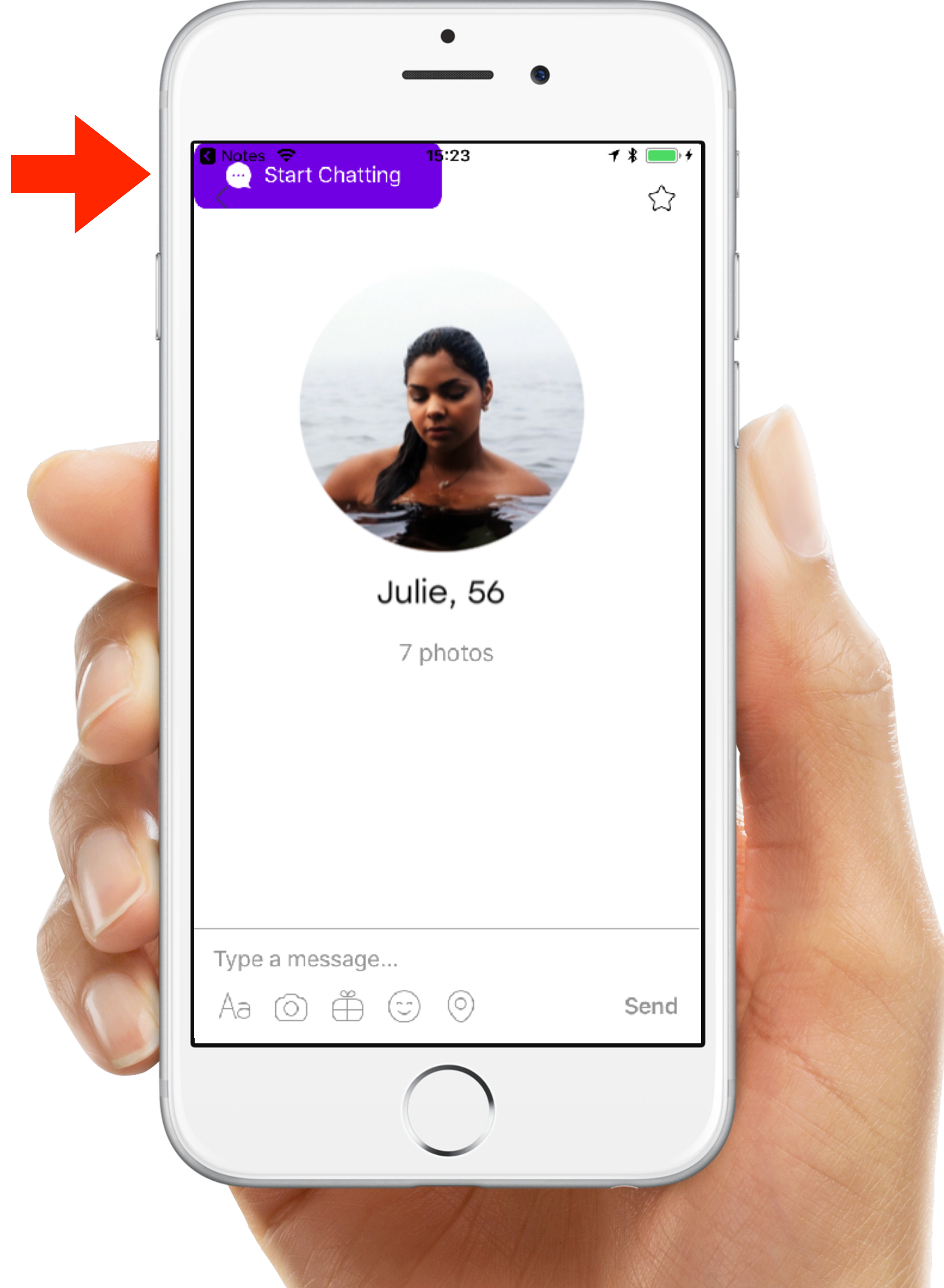
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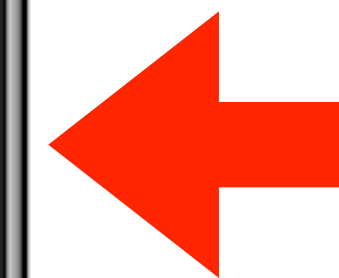
**Bug
example:**

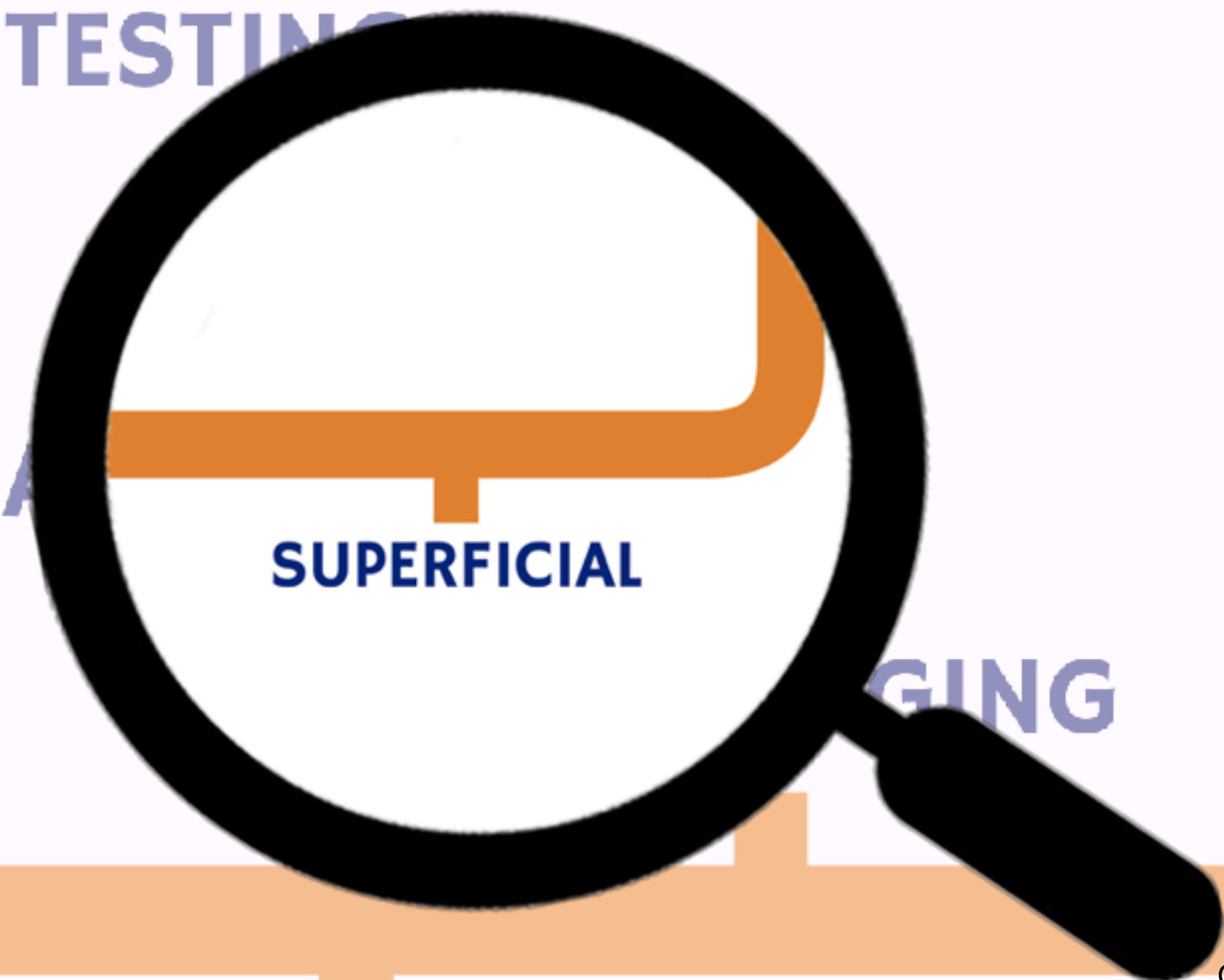
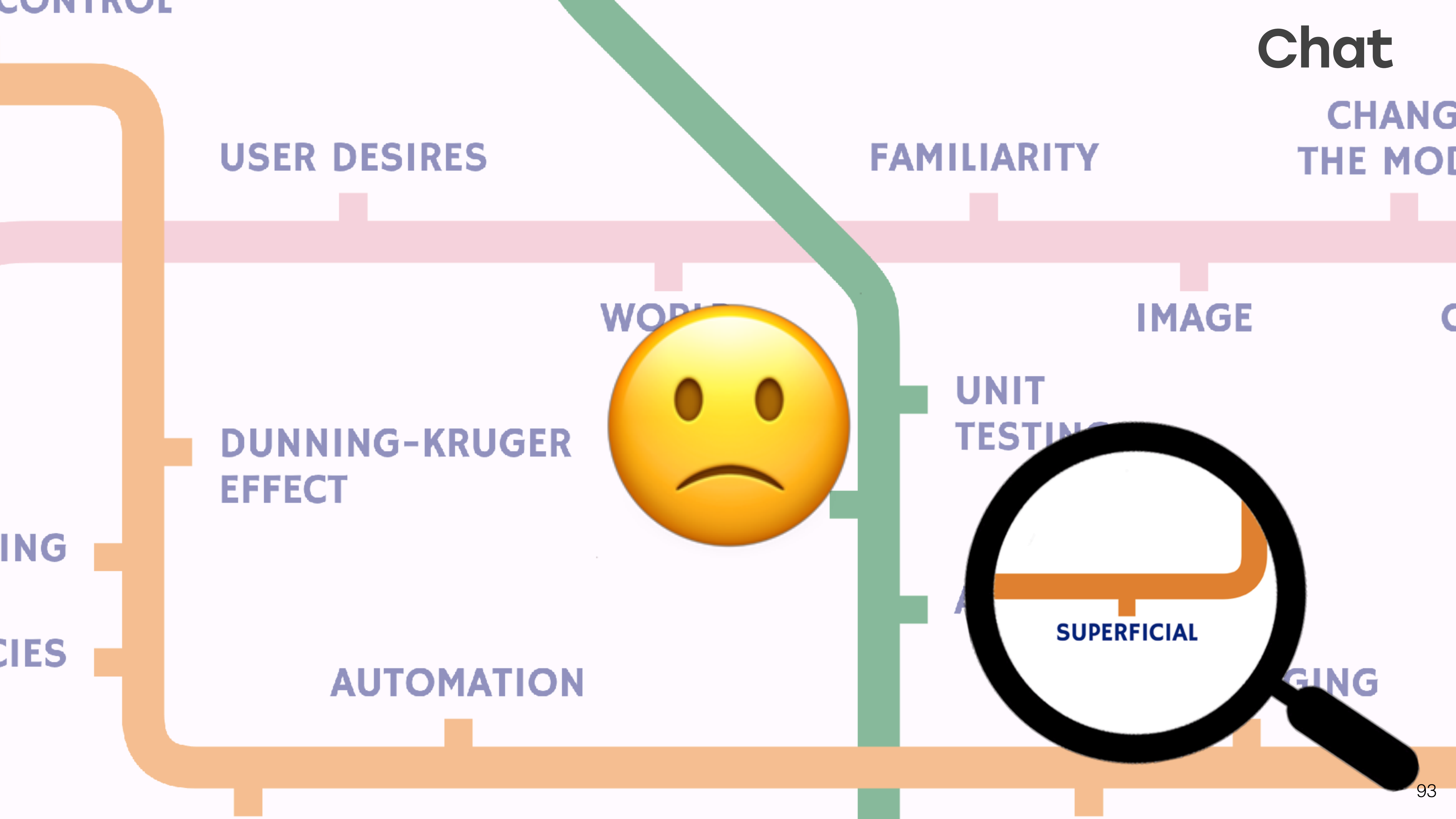
**button
placement**



**Bug
example:**

not sent photo





CONTROL

ING
CIES

USER DESIRES

FAMILIARITY

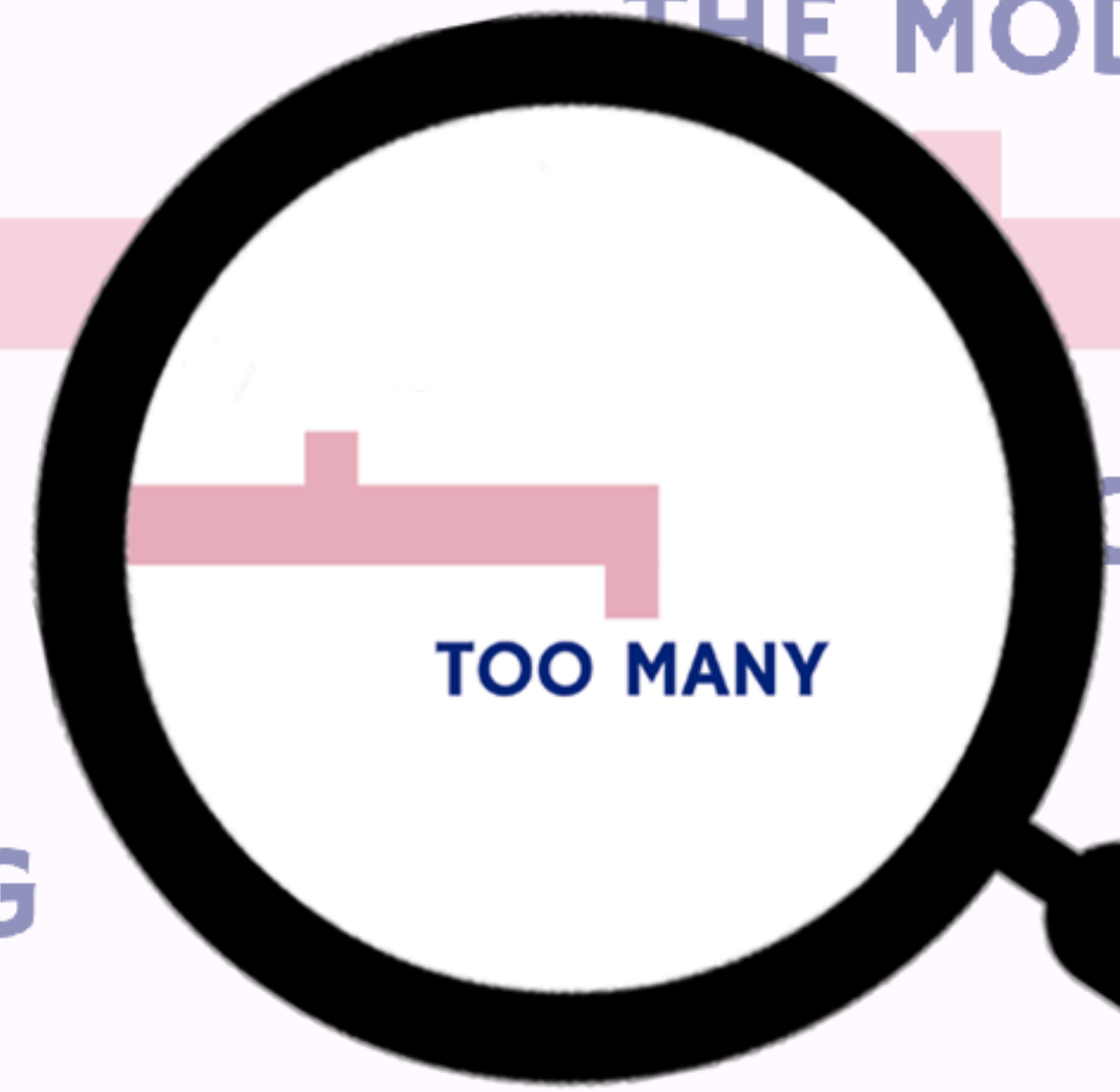
Photos
& videos

WORLD

DUNNING-KRUGER
EFFECT

CHARM

UNIT
TESTING



A/B TESTING

AUTOMATION

LOG-DIGGING

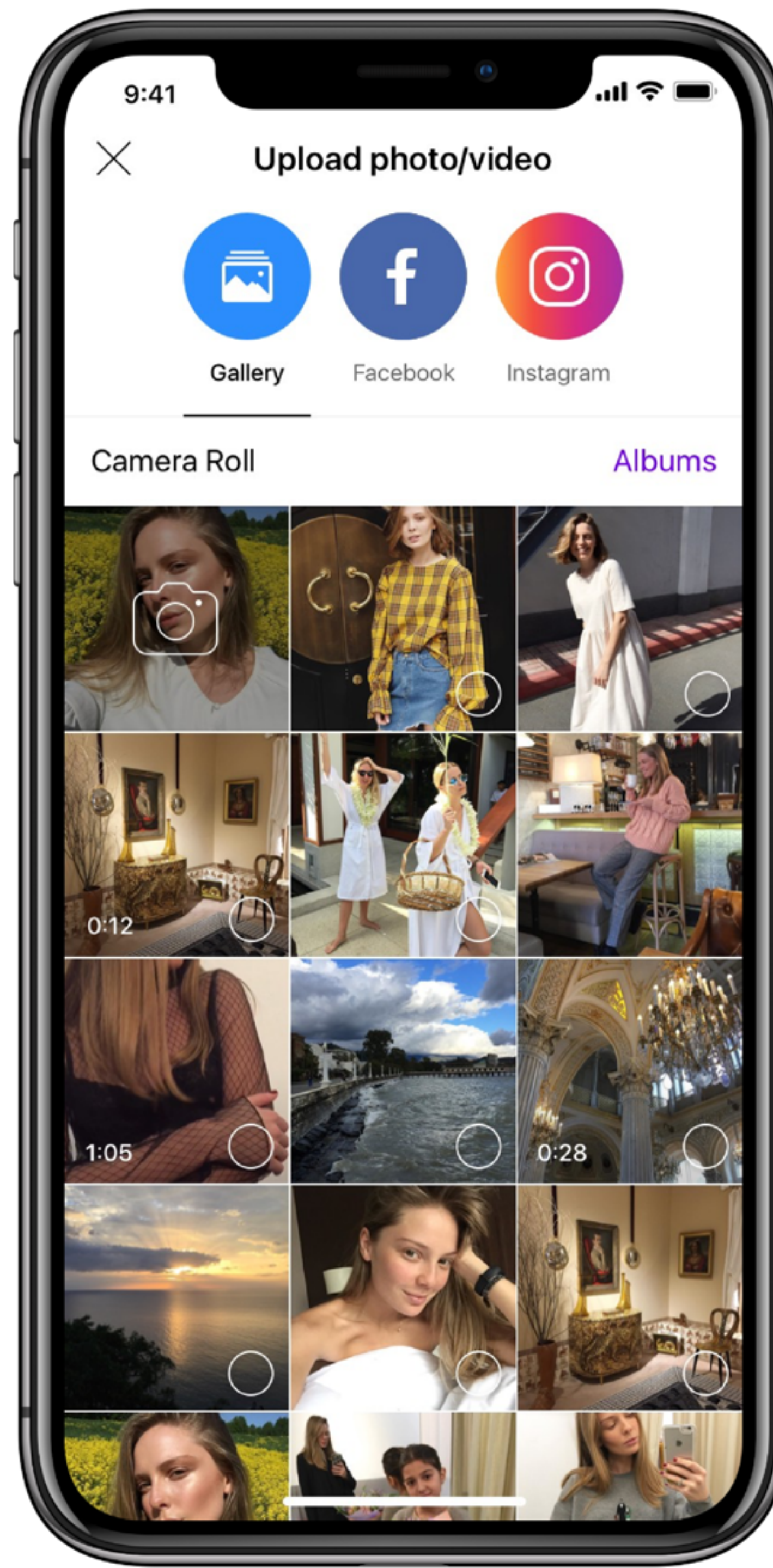
Photos & videos

TOO MANY HEURISTICS

Exploratory Heuristic: Everything has a theoretical breaking point, so let's find out where exactly that happens.

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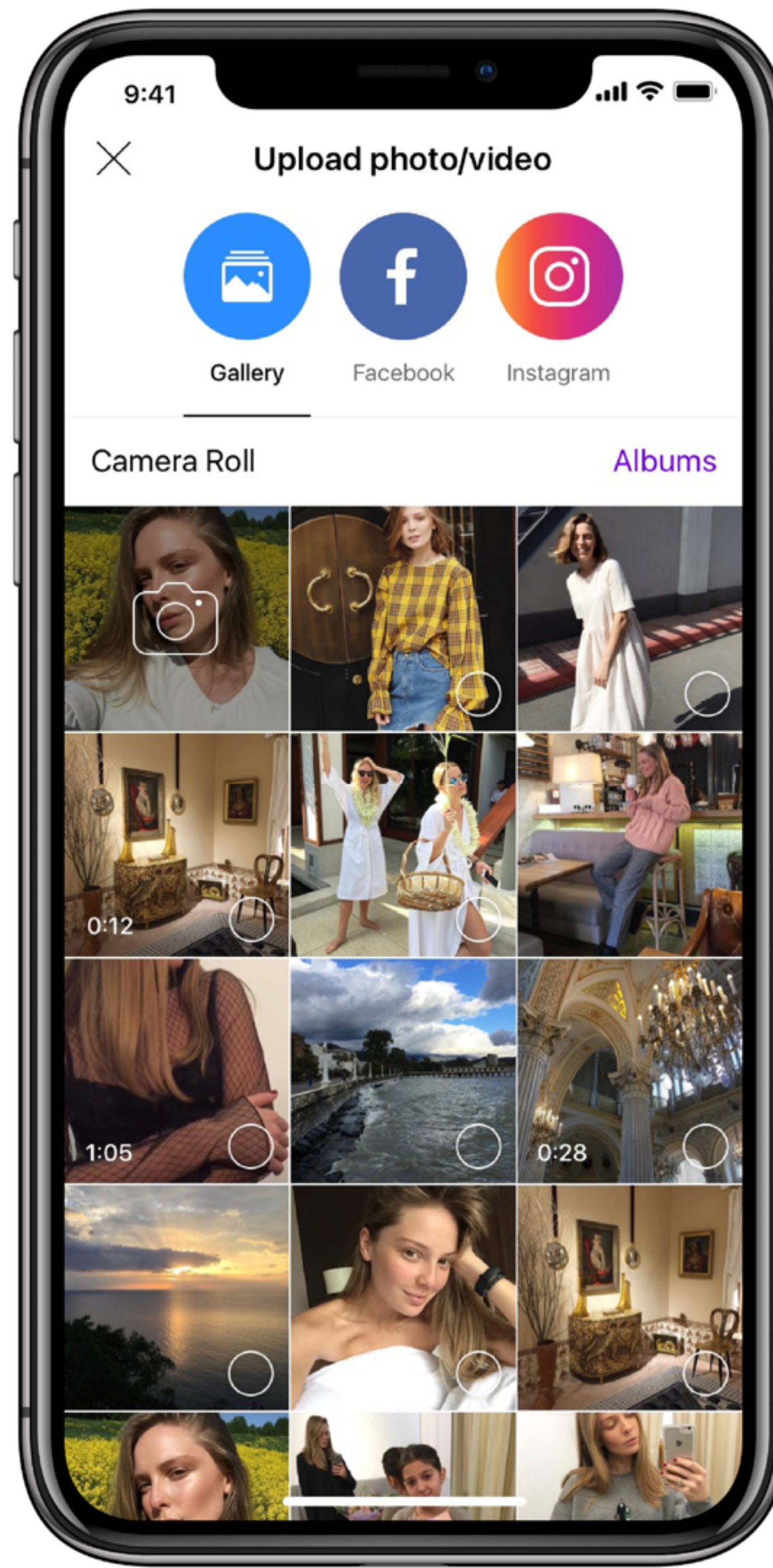
Photos & videos

TOO MANY HEURISTICS

Exploratory Heuristic: Everything has a theoretical breaking point, so let's find out where exactly that happens.

What to check:

- No photos
- A few photos
- From gallery & camera
- Retry taking a photo
- Large photos / videos



Photos & videos

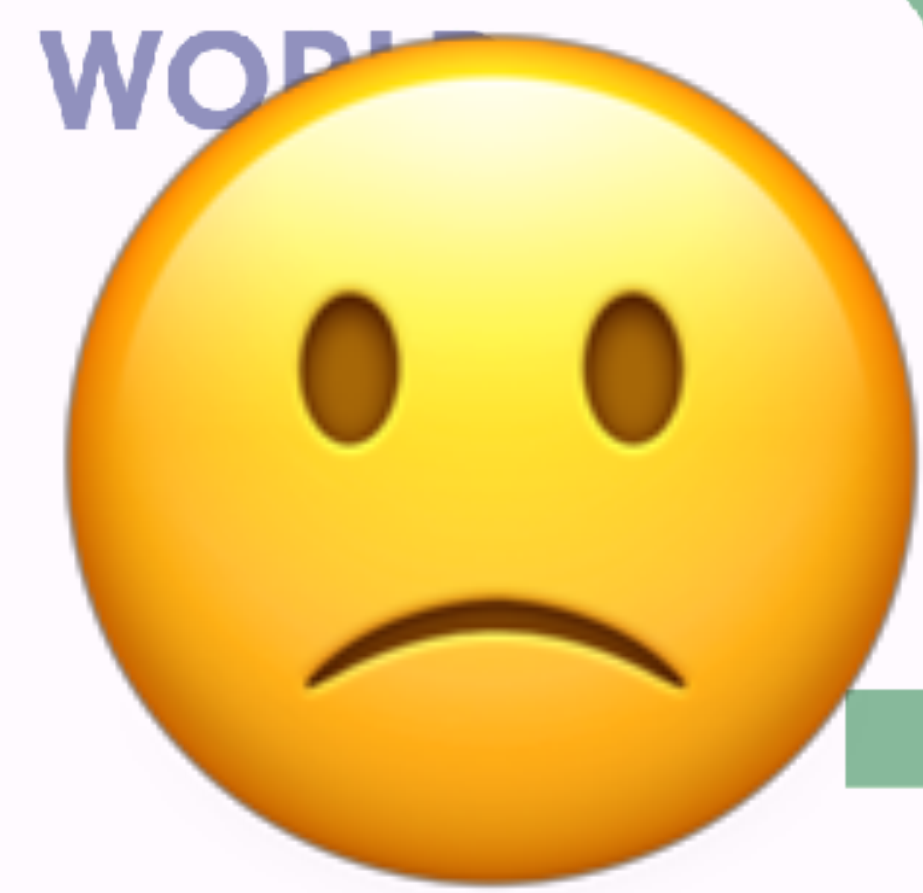
CONTROL

USER DESIRES

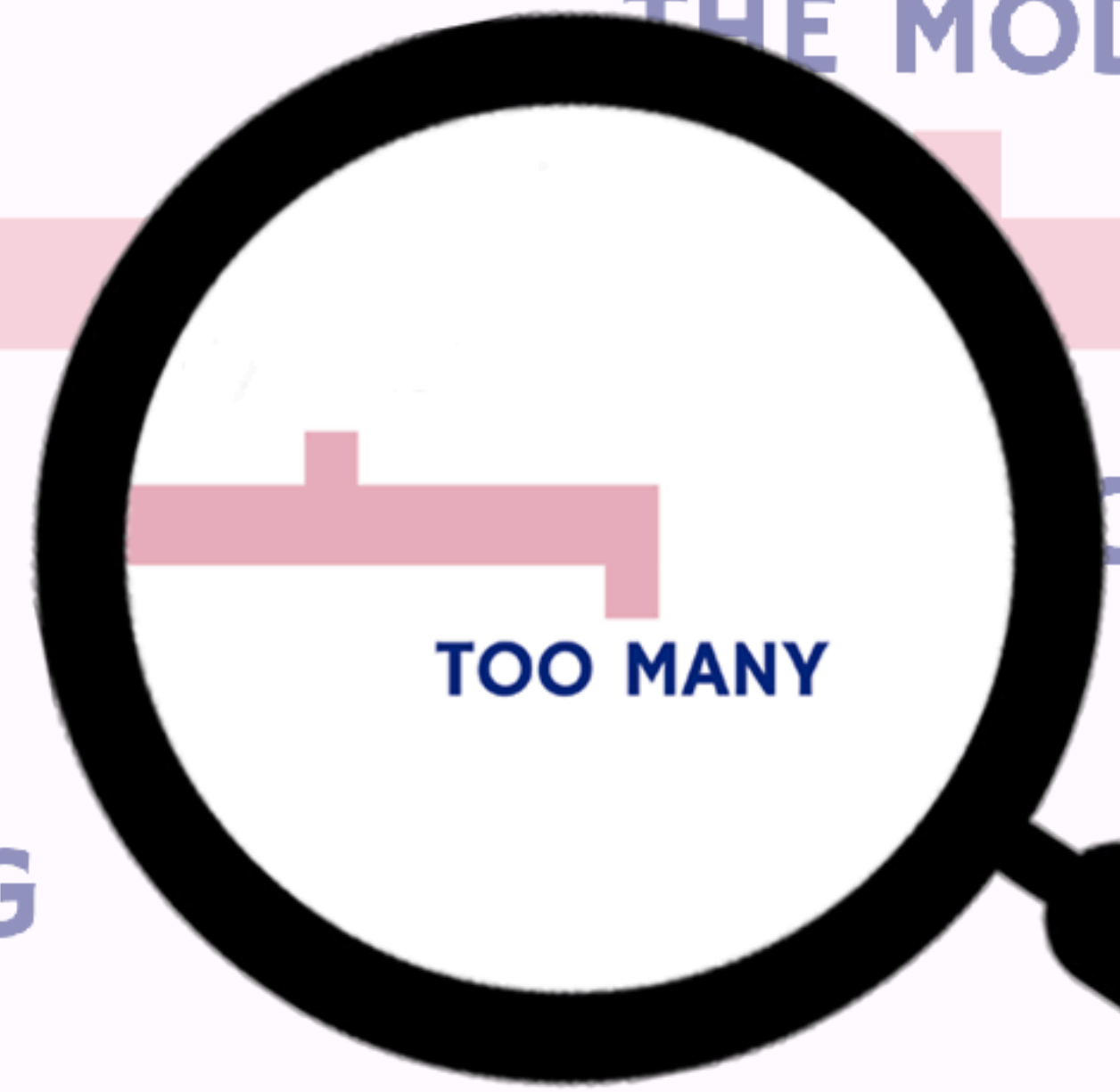
FAMILIARITY

Photos & videos

CHANGING THE MOD



WORK



TOO MANY

UNIT TESTING

A/B TESTING

DUNNING-KRUGER EFFECT

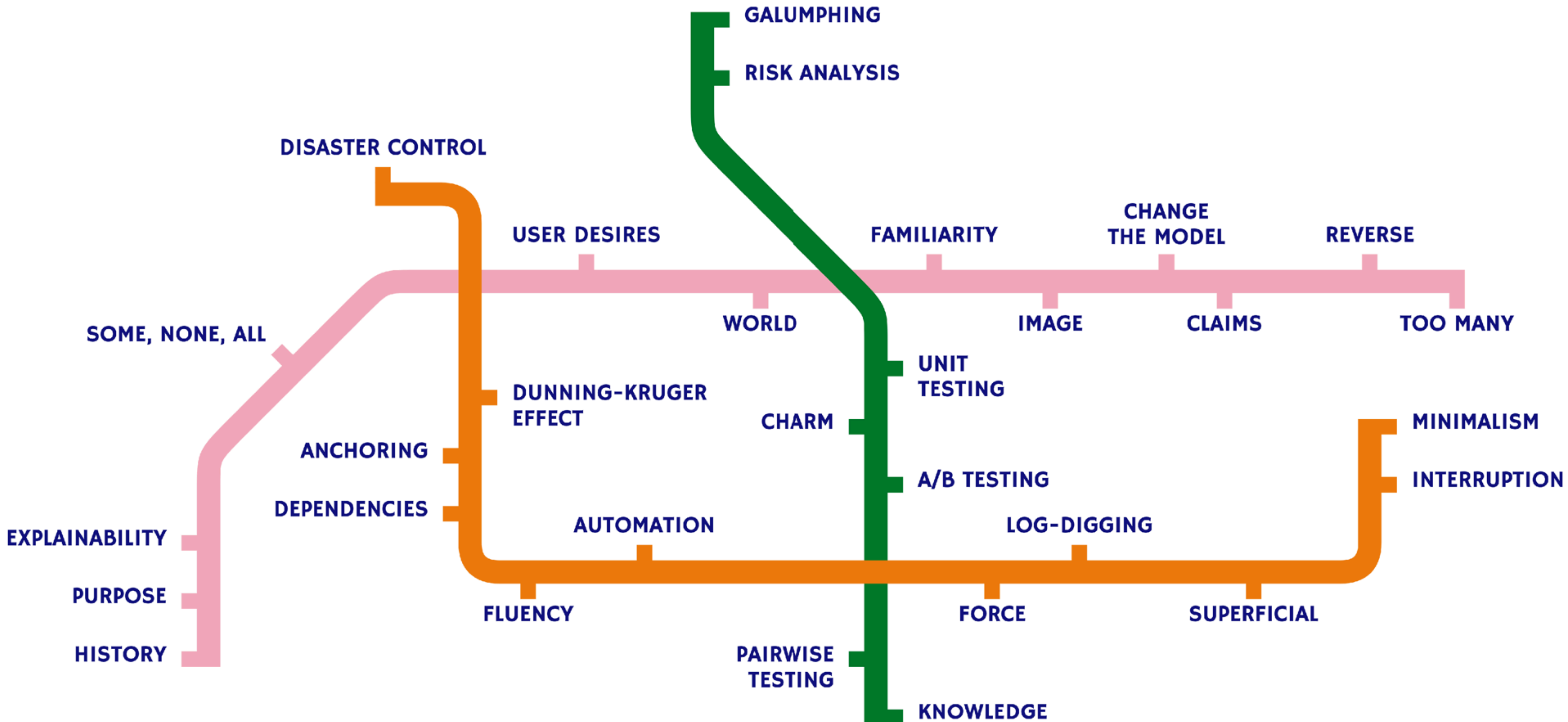
AUTOMATION

LOG-DIGGING

ING

CIES

My journey map



Conclusion:

I tried a brand new approach to generating test ideas

Conclusion:

I tried a brand new approach to generating test ideas
I gained some useful insights

Conclusion:

- I tried a brand new approach to generating test ideas**
- I gained some useful insights**
- I learned not to follow instructions blindly**

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CHEERS!

btw, we
are hiring

- [Badoo Tech Blog](#)
- [Badoo Design System](#)
- [How we tested iOS 12 beta](#)
- [How we improved delivery speed](#)

- [TestSphere at MoT](#)



LOVE,

badoo_tech

xx