Creating Friendly Web Forms For How Humans Really Think

Sep 24, Copenhagen @ Design Matters

Vitaly Friedman

Interface Challenges

01 Web Forms

STATE OF CALIFORNIA
VOTER REGISTRATION FORM

IMPORTANT! SEE INSTRUCTIONS ON REVERSE

ARE YOU A U.S. CITIZEN? ○ Yes ○ No ► *If no, don't fill out this form.*

USE BLACK OR BLUE INK—PLEASE PRINT CLEARLY

DO NOT MAIL

1 ○ Mr. ○ Mrs. ○ Miss ○ Ms.

LAST NAME (Only)

FIRST NAME (Only)

MIDDLE NAME (Only)

2 **ADDRESS** where you live: (Number, Street, Ave., Road, Drive, Including N, S, E, W, **NO PO BOX**)

APT #-SP #

CITY

STATE CA

ZIP CODE

COUNTY

3 **IF NO STREET ADDRESS,** describe where you live: (Cross Streets, Route, Section, Range, N, S, E, W)

4 **MAILING ADDRESS:** (If different from the address where you live, or **PO BOX**)

CITY

STATE

ZIP CODE

FOREIGN COUNTRY

5 **DATE OF BIRTH** Month Day Year

6 **PLACE OF BIRTH** – *(U.S. State or Foreign Country Only)*

7 **CA DRIVER'S LICENSE OR CA ID CARD #**

8 **TELEPHONE**

E-MAIL ADDRESS

INTERNAL DMV USE ONLY

STATE | ZIP CODE | COUNTY | POLITICAL PARTY

11 (FOR OFFICE USE)

13 If someone helps fill out or keeps this form, see special instructions below.

(a) (b)

(c)

(d) (e)

(f) (g)

12 **WARNING:** It is a felony if you sign this statement even though you know it is untrue; you can be fined and jailed for up to four years.

VOTER DECLARATION—Read and Sign Below.

- I am a U.S. Citizen. I will be at least 18 years old on or before the next election. I am not in prison or on parole for a felony conviction.
- I certify under penalty of perjury under the laws of the State of California that all the information on this form is true and correct.

SIGNATURE—You must sign and date in box below.

X _____
Signature

70 DW262117 Today's Date MMDDYY

14 **OPTIONAL SURVEY:** Can you help in the following area(s)?

- ☐ Provide a Polling Place Site
- ☐ Polling Place Worker
- ☐ Bilingual Polling Place Worker - _____ Language

200001

Remember to sign and date in Item 12.

Interface Design Patterns

Forms Are Everywhere

01 — Sign ups and checkouts
02 — Search, filtering
03 — Dashboards, data grids
04 — Newsletters, subscriptions
05 — Configurators, wizards
06 — Online transactions (banking)
07 — Services (public transport, checking in)
08 — Application forms (taxes, public service)
09 — Authentication, password recovery
10 — Surveys, contact forms
11 — Onboarding, offboarding
12 — UI controls (toggles, steppers)
13 — Tables, calendars, date pickers
14 — Editing data and input
15 — Messaging, chat
16 — Permissions requests
17 — Notifications requests
18 — Legal consent (GDPR, CCPA)

BILLING ADDRESS

Please enter your billing information as shown on your credit card statement or your order may be delayed.

SINGLE ADDRESS | APO/FPO ADDRESS

*Required Fields

*COUNTRY	UNITED STATES
*FIRST NAME	
*LAST NAME	
*STREET	
APT/UNIT	
*ZIP CODE	
*CITY	
*STATE	PICK STATE
*PHONE	
*EMAIL	

Ship to my billing address

NEXT STEP

BILLING ADDRESS

Please enter your billing information as shown on your credit card statement or your order may be delayed.

SINGLE ADDRESS | APO/FPO ADDRESS

*Required Fields

*COUNTRY	CANADA
*FIRST NAME	
*LAST NAME	
*STREET	
APT/UNIT	
*POSTAL CODE	
*CITY	
*PROVINCE	SELECT PROVINCE
*PHONE	
*EMAIL	

Ship to my billing address

NEXT STEP

BILLING ADDRESS

Please enter your billing information as shown on your credit card statement or your order may be delayed.

SINGLE ADDRESS | APO/FPO ADDRESS

*Required Fields

*COUNTRY	UNITED KINGDOM
*FIRST NAME	
*LAST NAME	
*STREET	
APT/UNIT	
POSTAL CODE	
*CITY	
*PHONE	
*EMAIL	

Ship to my billing address

NEXT STEP

2. DELIVERY OPTIONS

CPH Advantage

CHANGE LANGUAGE...

About | Customer service | News | Log in

Sign up for your advantages now

STEP 1 OF 3

Fields marked with * are required

E-MAIL ADDRESS: *

REPEAT E-MAIL ADDRESS: *

FIRST NAME(S): *

LAST NAME: *

PASSWORD: *

REPEAT PASSWORD: *

COUNTRY: *

INFORMATION
OM BRUG AF COOKIES

Hjemmesiden bruger cookies

Cookies er nødvendige for at få hjemmesiden til at fungere, men de giver også info om hvordan du bruger vores hjemmeside, så vi kan forbedre den både for dig og for andre. Cookies på denne hjemmeside bruges primært til trafikmåling og optimering af sidens indhold.

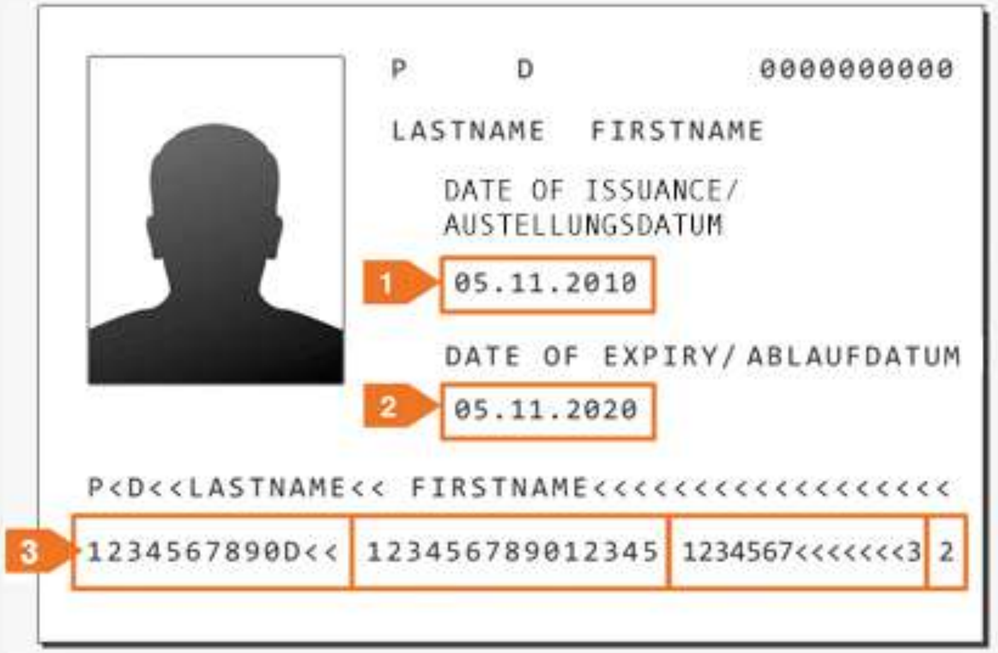
Hvis du klikker videre på siden, accepterer du vores brug af cookies.

Vil du vide mere om vores cookies, og hvordan du sletter dem, klik her.

Ophavsret
Alle rettigheder ifm cookie mærket tilhører FDIH. Siden er medlem af FDIH og kan kontrolleres her.

Other Passport

Enter all characters exactly as they appear on your ID including letters, numbers and '< ' symbols



Issuance Date

1 Day Month Year

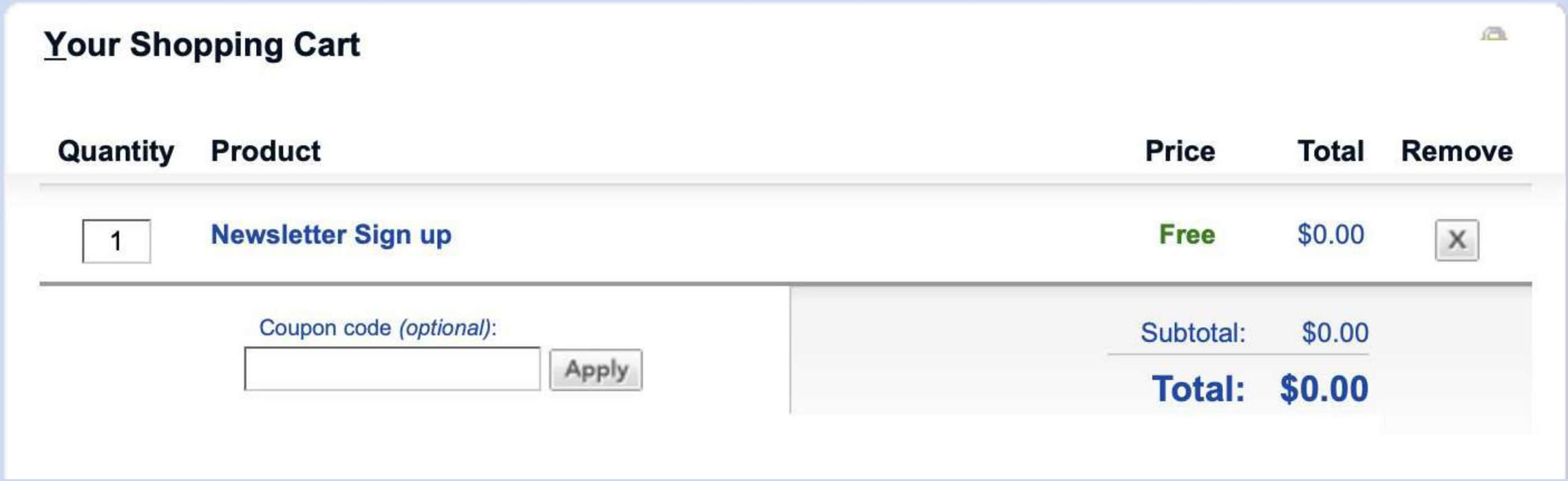
Expiry Date

2 Day Month Year

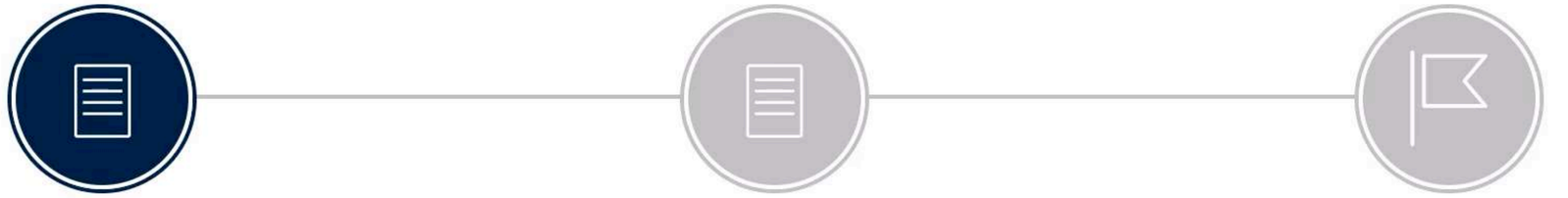
Bottom Row of Machine Readable Zone Date

3 1234567890D<· 123456789012345 1234567<<<<<<· 2

(13 characters) (15 characters) (15 characters) (1 character)



↬ *via* **Tina Roth Eisenberg**, *https://twitter.com/swissmiss/status/1305268698840788992*



Ihre persönlichen Daten für Ihren FörderCheck

Sind Sie verheiratet? Ja Nein

Wann ist Ihr Geburtsdatum? 1 1 1984

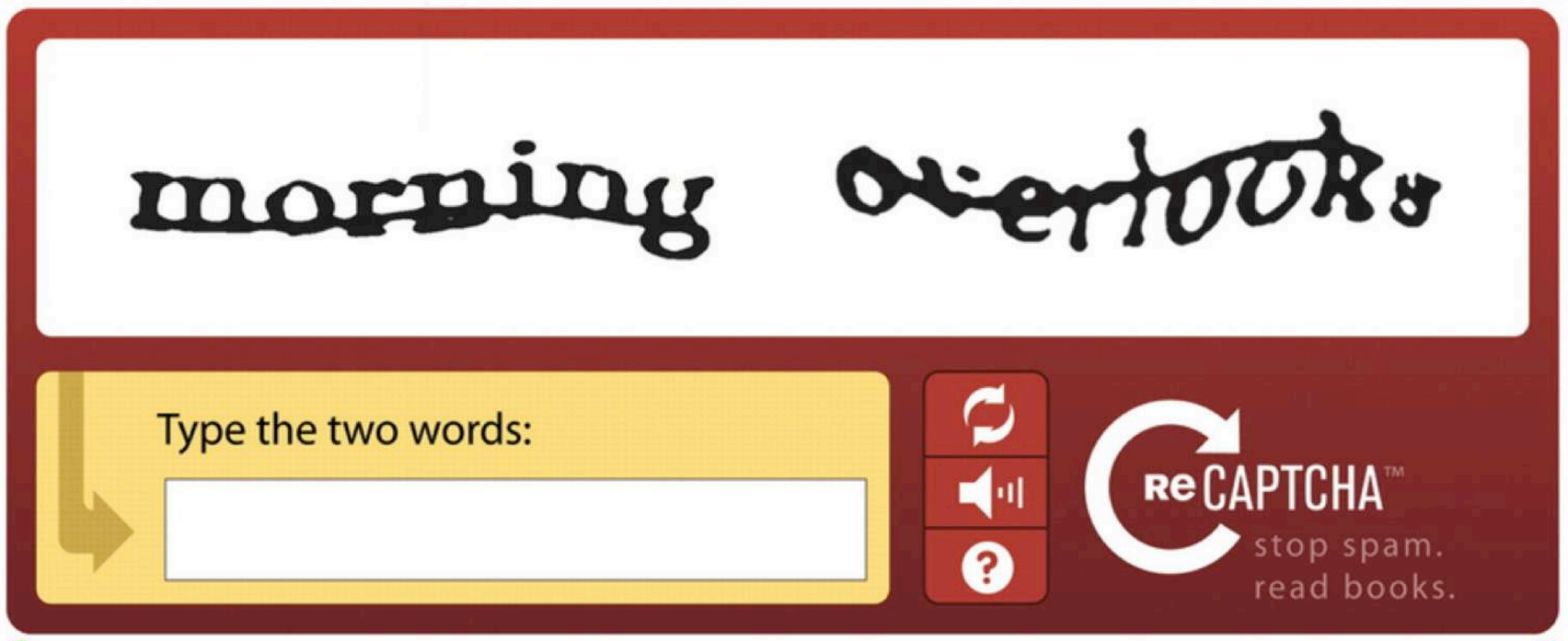
Haben Sie Kinder? 0

Was machen Sie beruflich? Arbeitnehmer Selbstständiger

Ihr jährliches Bruttoeinkommen? 0

Weiter →

→ Zwischenergebnis speichern


morning overlook
Type the two words:
ReCAPTCHA™
stop spam.
read books.

Select all squares with

crosswalks

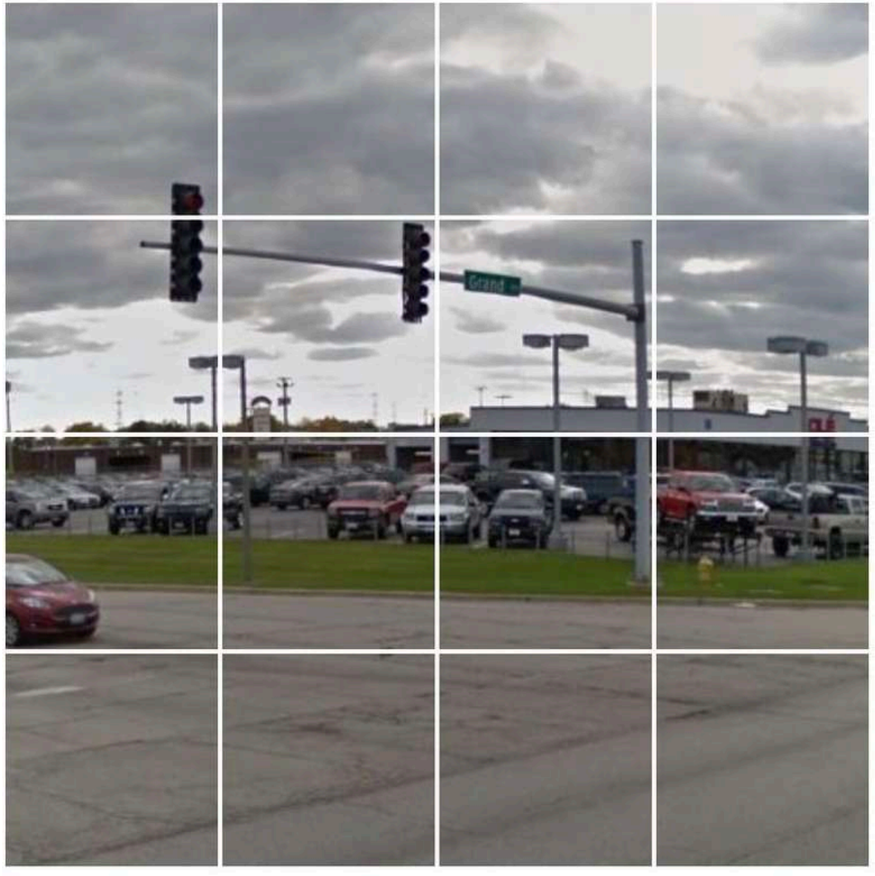
If there are none, click skip

SKIP

Select all squares with

traffic lights

If there are none, click skip



SKIP

Billigflüge – Buchen Sie güns

www.ryanair.com/de

RYANAIR

Fluginformationen | Kontakt | Gebühren | Beförderungsbedingungen | Deutschland (Deutsch)

Suche

FLÜGE | MIET-WAGEN | HOTELS | REISEVER-SICHERUNG | HOSTELS B&BS | PREPAID KARTE | FLUGHAFEN-TRANSFER | REISE PLANER | UNSERE STRECKEN | BUCHUNG BEARBEITEN | TOUREN & AUSFLÜGE

12.99 €

BUCHEN BIS DIENSTAG, REISEN IM JULI, EINFACHER FLUG, ES GELTEN DIE AGB
PREISE EXKLUSIVE OPTIONALER GEBÜHREN KLICKEN SIE HIER

Flüge | Hotel | Hertz

Rückflug | Einfacher Flug | Flexible Termine

Frankfurt-Hahn — 22/06/2012

London Stansted — 26/07/2012

Ryanair's Nutzungsbedingungen gelesen & akzeptiert

Erwachsene 1 | Kinder <16 0 | Säuglinge <2 0

Buchen

Online Check-in

Mietwagen

Hertz

Großer Europa Sale
Bis zu 15% Rabatt

Hotels

Bis zu 80% Rabatt

RYANAIRHOTELS.COM
Fly Cheaper • Sleep Cheaper

EM 2012 TipSpiel

Hostels und B&Bs

Haustausch

Ferienhäuser

London Trains

Gratis Poker

888 Sport

Touren und Ausflüge

Aktuelles

6-14 Aug – Bremen Schließung

ES KÖNNEN VERWALTUNGSGEBÜHREN ANFALLEN; BEI AUFGABE VON GEPÄCK ENSTEHEN GEBÜHREN

Billigflüge | Flugziele | Urlaub in der Sonne | Sonderangebote

Billigflüge — Andere Urlaubsziele »

Bremen	€	Memmingen München West	€
Haugesund	12,99	Alghero	12,99
London Stansted	12,99	Brüssel Charleroi	12,99
Mailand Bergamo	12,99	Budapest T2	12,99

Travel Insurance

	INSURANCE	INSURANCE PLUS
Medical Expenses up to £2,500,000 (excess of £75, double excess for aged 65+)	✔	✔
Personal Belongings up to £1,500 (excess of £75)*	✔	✔
Cancellation for unexpected circumstance up to £3,000 (excess of £15, double excess for aged 65+)*	✔	✔
Ticket Refund in case of Ryanair's failure		✔

VIEW POLICY

Residence

Passenger 1 ✓ Please select a country of residence

United Kingdom
Ireland
Germany
Spain
France
Italy
Sweden

Austria
Belgium
Czech Republic
Denmark
Don't Insure Me
Finland
Hungary
Latvia

Already insure down box.

Ch in Bags

✔ Buy n
✔ Buy u

(excess of £75)*	✓	✓
Cancellation for unexpected circumstance up to £3,000 (excess of £15, double excess for aged 65+)*	✓	✓
Ticket Refund in case of Ryanair's failure		✓

Residence

Passenger 1 ✓ Please select a country of residence

United Kingdom
Ireland
Germany
Spain
France
Italy
Sweden

Austria
Belgium
Czech Republic
Denmark
Don't Insure Me
Finland
Hungary
Latvia

Already insure down box.

Ch n Bags

✓ Buy n
✓ Buy u

User Behavior Patterns

User Frustrations In 2020

- Argh! Tiny scrollable panes.
- Argh! Tiny click targets.
- Argh! Unexpected content shifts.
- Argh! Unexpected page reloads.
- Argh! Country selector dropdown.
- Argh! Generic error messages.
- Argh! Input fully cleared on error.
- Argh! Disabled “Next” buttons.
- Argh! Unsupported “Back” button.
- Argh! Disabled copy-paste.
- Argh! No text input fallback in sliders.
- Argh! Draconian pass requirements.
- Argh! Retyping complex input.
- Argh! Birthday picker, starting 2020.
- Argh! Scrolljacking and parallax.
- Cry ;-(Identifying buses/crosswalks.

GOV.UK

Search

< Back

Prove your identity to continue

- (●) **Sign in with Government Gateway**
  You'll have a user ID if you've signed up to do things like file your Self Assessment tax return online.
- ( ) **Sign in with GOV.UK Verify**
  You'll have an account if you've already proved your identity with either Barclays, Digidentity, Experian, Post Office or SecureIdentity.
- ( ) **Sign in with a digital identity from another European country**
  If you're part of an ID scheme in a participating country, you may be able to use it here.

or

- ( ) **Create an account**
  If you do not already have one of these accounts, we'll help you choose whether to use Government Gateway or GOV.UK Verify.

Continue

Train tickets in Sweden, to Osl

sj.se/en/home.html#/tidtabell/Stockholm%2520Central/Link%25C3%25B6ping%2520C/enkel/avgang/20200415-1200/avgang/2020...

Paused

TRAFFIC INFO | WE OFFER | CUSTOMER SERVICE | CORPORATE | SEARCH | EN | LOG IN

1. Search tickets | 2. Timetable | 3. Added extras | 4. Overview | 5. Pay | 6. Receipt

Our efforts to ensure safer train travel

We have blocked several seats to allow you to sit at a suitable distance from your fellow travellers. We have also lowered the price of our rebookable ticket to make it easier for you to buy a journey.

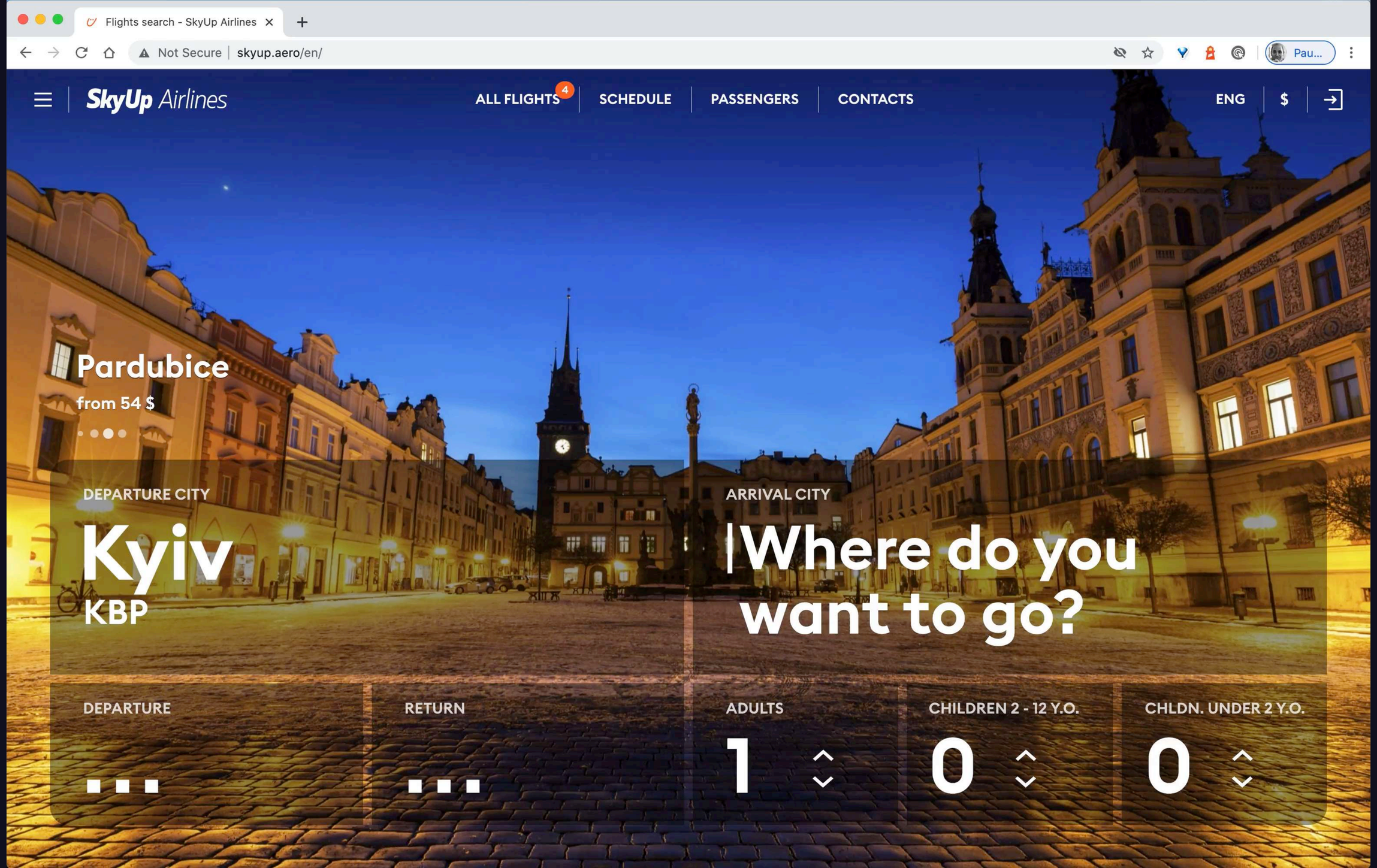
Outward trip

Stockholm Central - Linköping C

Tue 14 Apr | **Wednesday 15 April 2020** | Thu 16 Apr

Previous trains (8) | View journey details | Filter

				2nd class	1st class
11:41 – 14:15	Travel time 2:34 h	1 change	SJ+1	fr. **240 SEK**	Not available
12:52 – 15:48	Travel time 2:56 h	1 change		fr. **305 SEK**	Not available
14:21 – 15:56	Travel time 1:35 h	0 changes	High Speed	fr. **195 SEK**	fr. **345 SEK**
14:54 – 17:48	Travel time 2:54 h	1 change		fr. **305 SEK**	Not available
15:35 – 18:04	Travel time 2:29 h	1 change	SJ+1	fr. **330 SEK**	fr. **480 SEK**

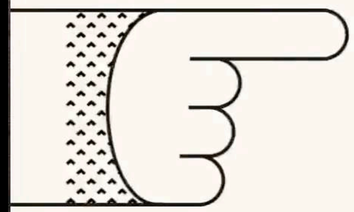

Flights search - SkyUp Airlines
Not Secure | skyup.aero/en/
SkyUp Airlines
ALL FLIGHTS 4
SCHEDULE
PASSENGERS
CONTACTS
ENG
$
Pardubice
from 54 $
DEPARTURE CITY
Kyiv
KBP
ARRIVAL CITY
Where do you want to go?
DEPARTURE
RETURN
ADULTS
1
CHILDREN 2 - 12 Y.O.
0
CHLDN. UNDER 2 Y.O.
0

Ready Set Judy

judy.co

FAMILY PLAN

Over half of American families do not have a plan in case of an emergency. Take the quiz and find out which JUDY products and family plans are right for you.



Take the quiz →

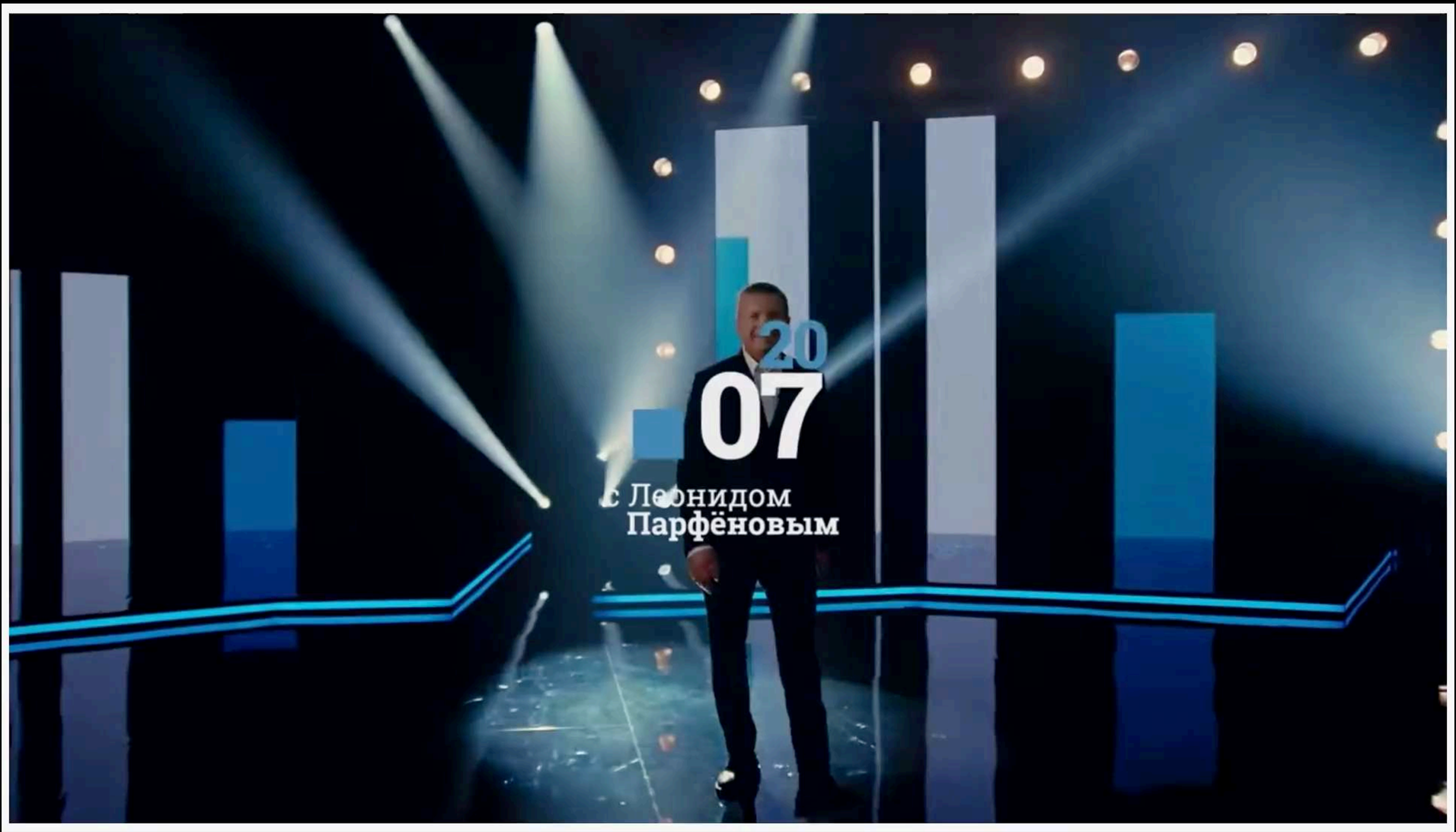
Help

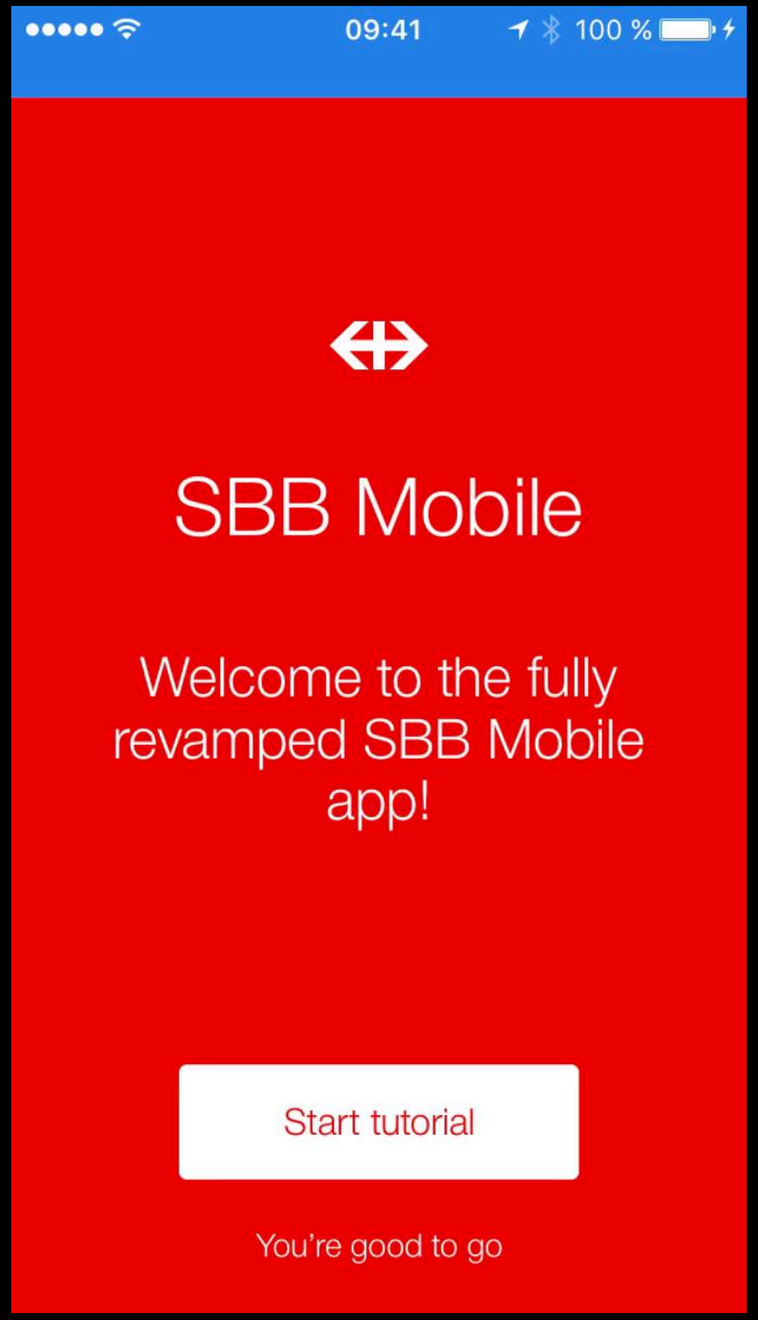
Spotify

FAQ

21:53
Gypsy
Season 1: Ep. 2
Morgan Stop

34:41 / 1:52:06
HD


2007
с Леонидом
Парфёновым


09:41
100 %
SBB Mobile
Welcome to the fully revamped SBB Mobile app!
Start tutorial
You're good to go

Volkshotel Amsterdam Centre

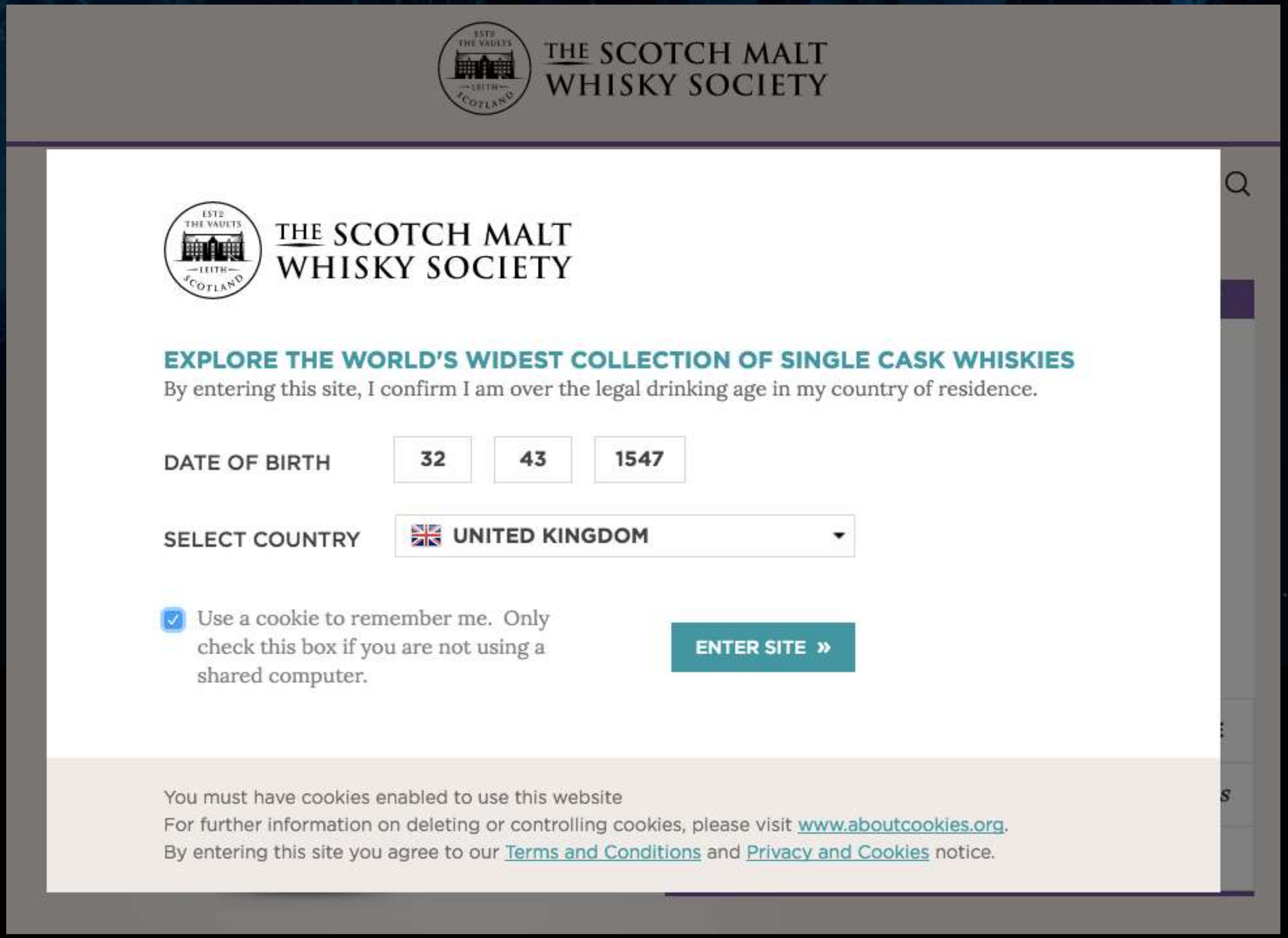
Vitaly

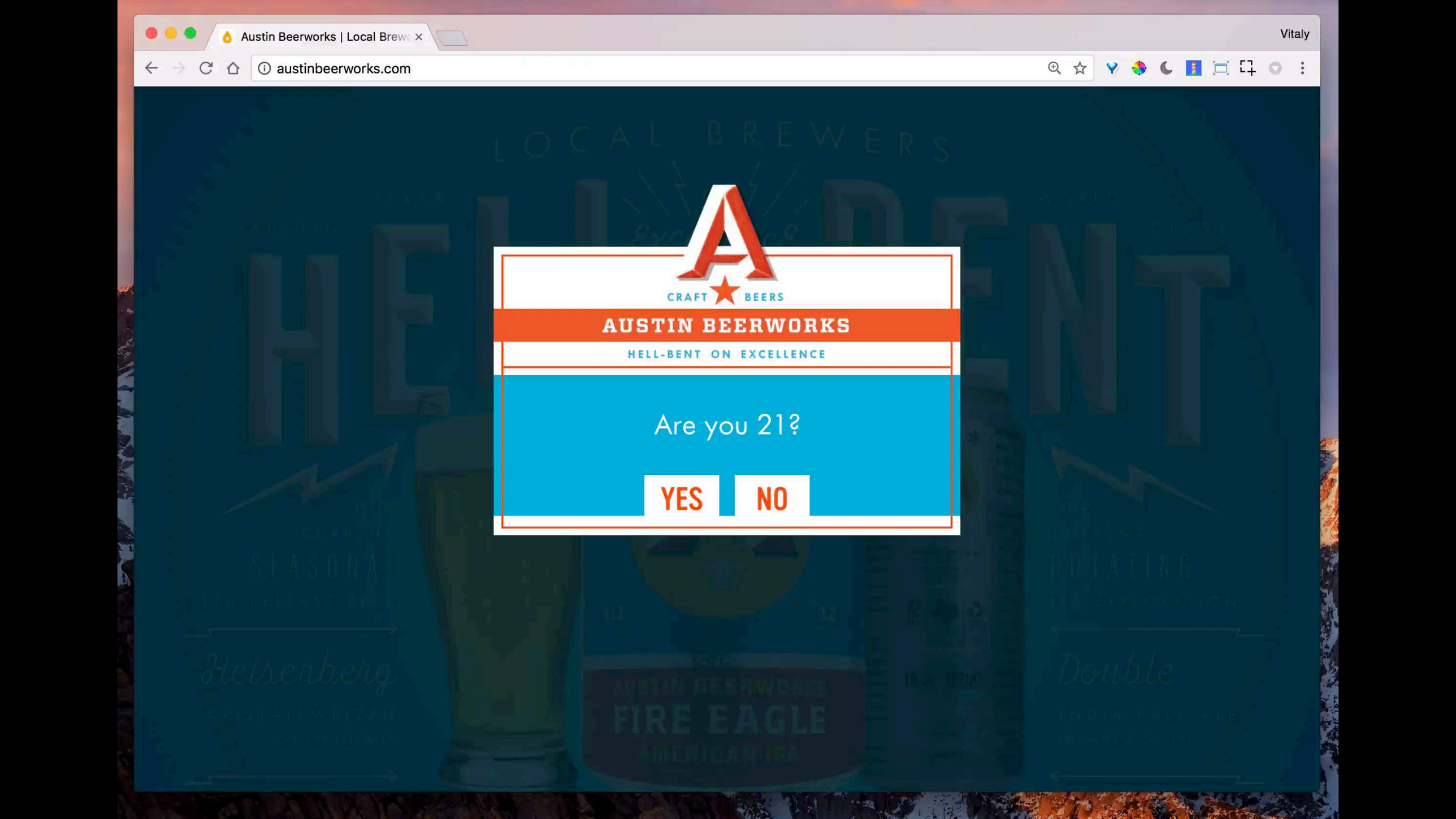
Secure https://www.volkshotel.nl/en/

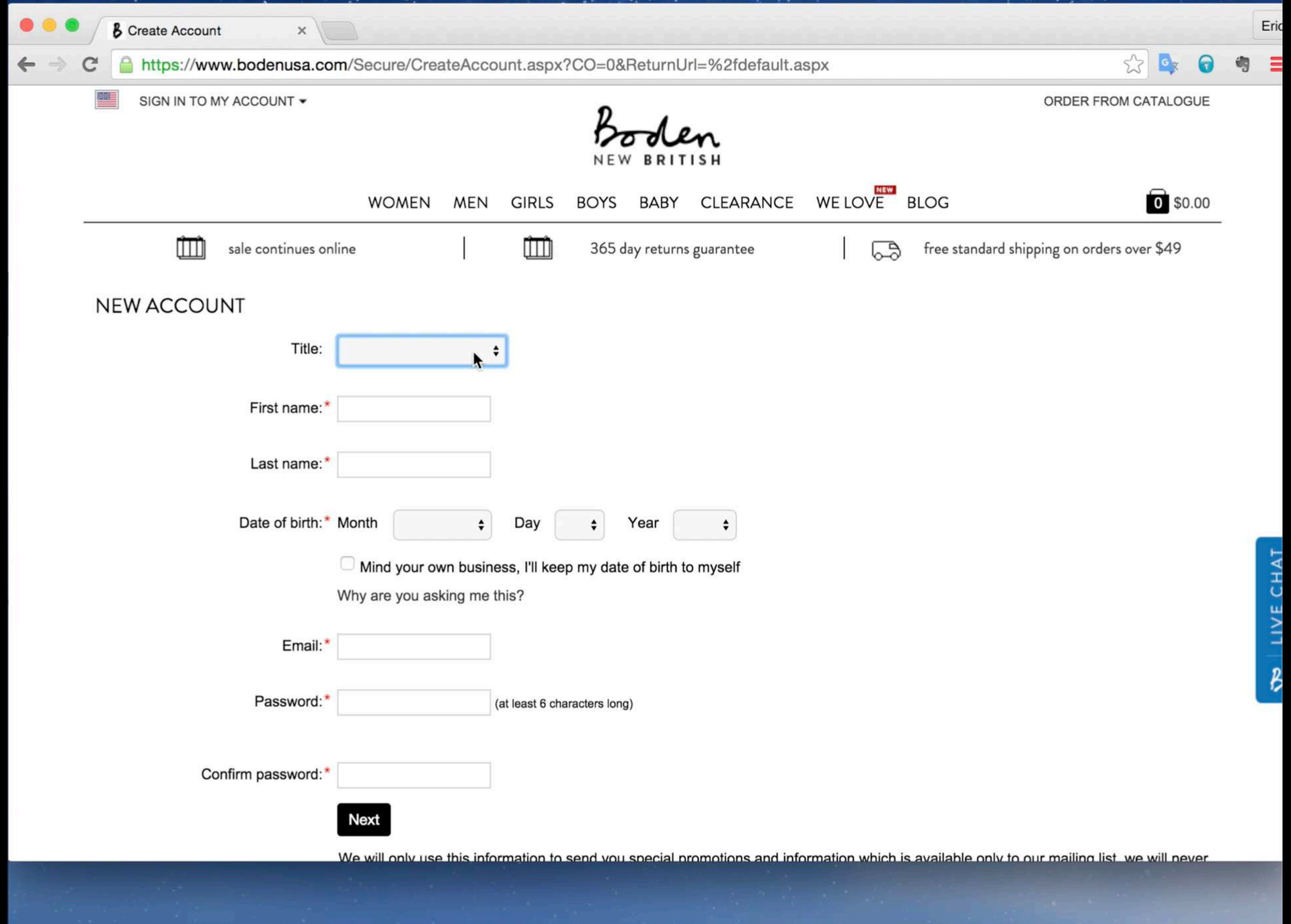
BOOK ROOM

MENU

ROOMS EAT & DRINK BLOG / AGENDA LOCATION


THE SCOTCH MALT WHISKY SOCIETY
THE SCOTCH MALT WHISKY SOCIETY
EXPLORE THE WORLD'S WIDEST COLLECTION OF SINGLE CASK WHISKIES
By entering this site, I confirm I am over the legal drinking age in my country of residence.
DATE OF BIRTH
32
43
1547
SELECT COUNTRY
UNITED KINGDOM
Use a cookie to remember me. Only check this box if you are not using a shared computer.
ENTER SITE »
You must have cookies enabled to use this website
For further information on deleting or controlling cookies, please visit www.aboutcookies.org.
By entering this site you agree to our Terms and Conditions and Privacy and Cookies notice.


Austin Beerworks | Local Brew
Vitaly
austinbeerworks.com
CRAFT BEERS
AUSTIN BEERWORKS
HELL-BENT ON EXCELLENCE
Are you 21?
YES
NO


Create Account
https://www.bodenusa.com/Secure/CreateAccount.aspx?CO=0&ReturnUrl=%2fdefault.aspx
SIGN IN TO MY ACCOUNT
ORDER FROM CATALOGUE
Boden
NEW BRITISH
WOMEN MEN GIRLS BOYS BABY CLEARANCE WE LOVE NEW BLOG
0 $0.00
sale continues online
365 day returns guarantee
free standard shipping on orders over $49
NEW ACCOUNT
Title:
First name:*
Last name:*
Date of birth:* Month Day Year
Mind your own business, I'll keep my date of birth to myself
Why are you asking me this?
Email:*
Password:* (at least 6 characters long)
Confirm password:*
Next
We will only use this information to send you special promotions and information which is available only to our mailing list, we will never
LIVE CHAT

https://www.bodenusa.c t.aspx?CO=0&ReturnUrl=%2fdefault.aspx

SIGN IN TO MY ACCOUNT

Boden
NEW BRITISH

GIRLS BOYS BABY CLEARANCE WE LOVE NEW

sale continues o

365 day returns guarantee

NEW ACCOUNT

Title:

First name:

Last name:

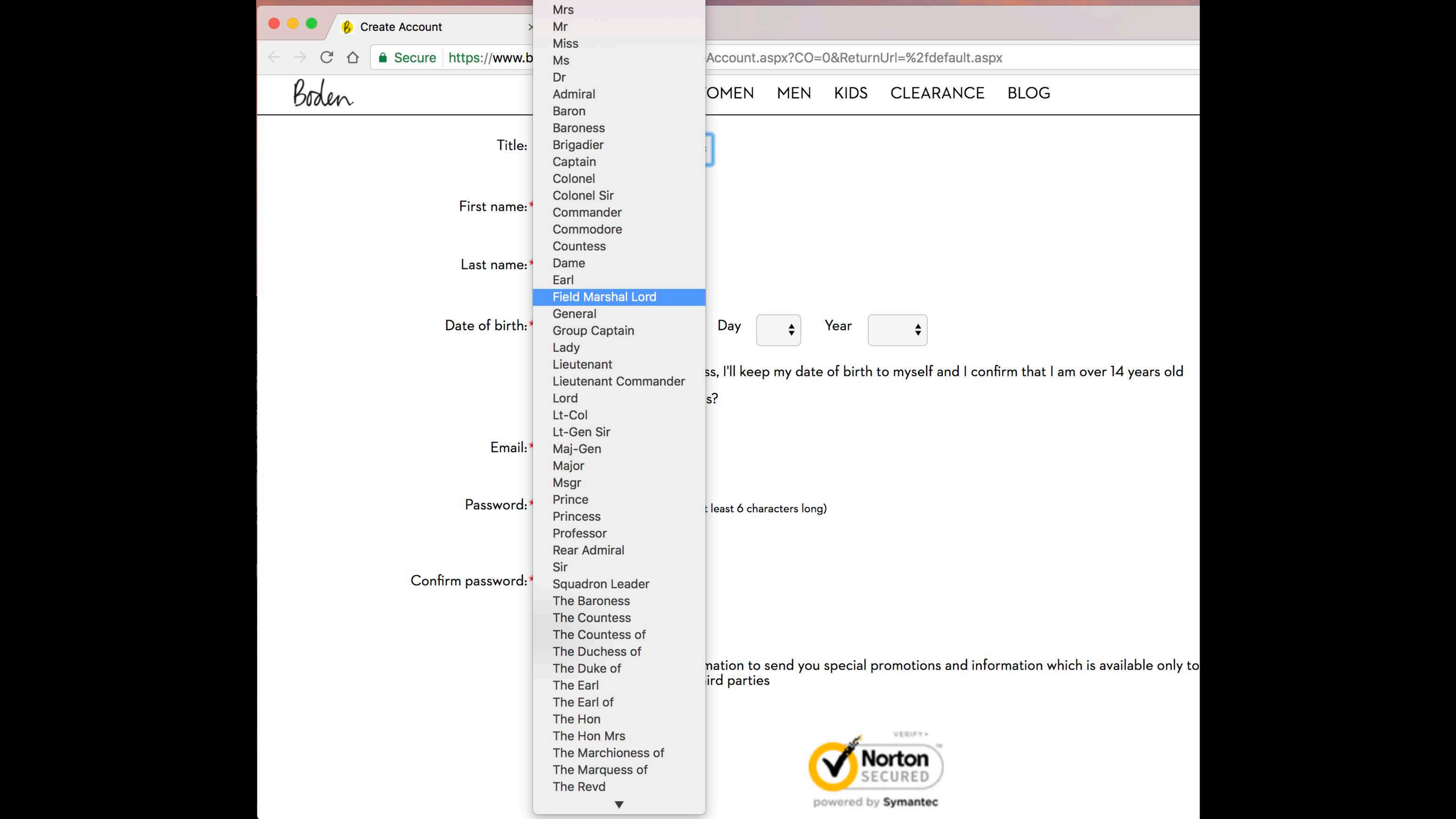
Date of birth: Day Year

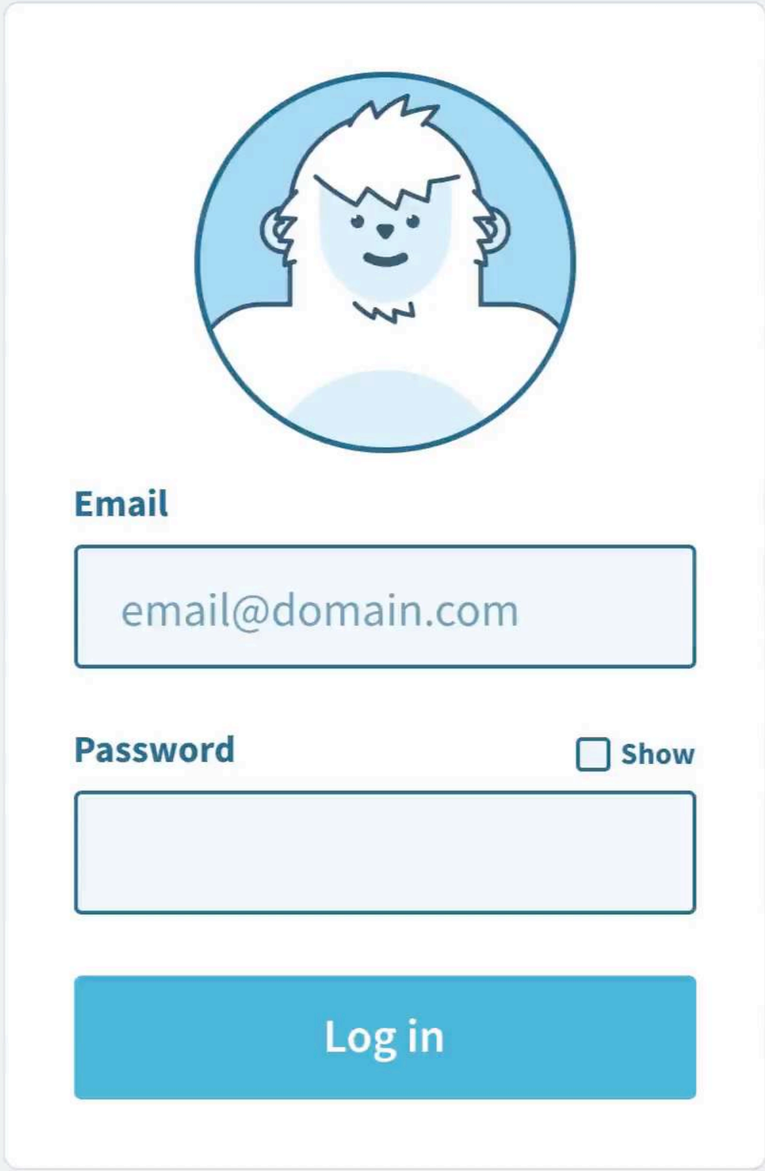
, I'll keep my date of birth to myself

?

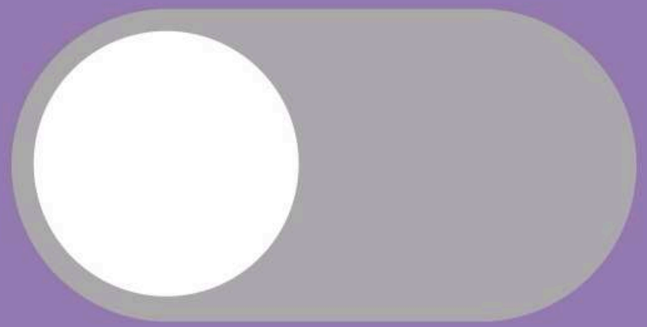
Email:

- Dr
- Admiral
- Baron
- Baroness
- Brigadier
- Captain
- Colonel
- Colonel Sir
- Commander
- Commodore
- Countess
- Dame
- Earl
- Field Marshal Lord
- General
- Group Captain
- Lady
- Lieutenant
- Lieutenant Commander
- Lord
- Lt-Col
- Lt-Gen Sir
- Maj-Gen
- Major
- Msgr
- Prince
- Princess
- Professor
- Rear Admiral
- Sir
- Squadron Leader
- The Baroness
- The Countess
- The Countess of
- The Duchess of


Create Account
Secure https://www.b
Account.aspx?CO=0&ReturnUrl=%2fdefault.aspx
Boden
OMEN MEN KIDS CLEARANCE BLOG
Title:
First name:*
Last name:*
Date of birth:*
Day
Year
ss, I'll keep my date of birth to myself and I confirm that I am over 14 years old
s?
Email:*
Password:*
least 6 characters long)
Confirm password:*
nation to send you special promotions and information which is available only to
ird parties
Mrs
Mr
Miss
Ms
Dr
Admiral
Baron
Baroness
Brigadier
Captain
Colonel
Colonel Sir
Commander
Commodore
Countess
Dame
Earl
Field Marshal Lord
General
Group Captain
Lady
Lieutenant
Lieutenant Commander
Lord
Lt-Col
Lt-Gen Sir
Maj-Gen
Major
Msgr
Prince
Princess
Professor
Rear Admiral
Sir
Squadron Leader
The Baroness
The Countess
The Countess of
The Duchess of
The Duke of
The Earl
The Earl of
The Hon
The Hon Mrs
The Marchioness of
The Marquess of
The Revd
VERIFY
Norton SECURED
powered by Symantec



Animated SVG Avatar, *Darin Senneff, https://codepen.io/kingplatano/pen/yvqwrR*



Interactive Toggle, *Chris Gannon*, *https://gannon.tv/*

User Behavior Patterns

User Delighters In 2020

- Awww! Fast, accessible experience.
- Awww! Large, legible text.
- Awww! Large checkboxes, radios.
- Awww! Input boxes as input boxes.
- Awww! Focus and active states.
- Awww! Simple pass requirements.
- Awww! Predictable tabbing in forms.
- Awww! Helpful error messages.
- Awww! Smart, fast autocomplete.
- Awww! User input persisted on refresh.
- Awww! Drop-down opening on tap/click.
- Awww! Easy undos, edits, cancellations.
- Awww! Predictable “Back” button.
- Awww! Snoozing notifications.
- Awww! Pausing subscriptions.
- Awww! Transparent pricing.

Web Forms

01 Perception

1

How do we perceive web forms and input?

Where will you travel to?

From

Oslo Sentralstasjon [tog] (Oslo)

To

Fetsund [tog] (Fet)

Now | Departure | Arrival

Date

- ✓ Friday 30.06.2017
- Saturday 01.07.2017
- Sunday 02.07.2017
- Monday 03.07.2017
- Tuesday 04.07.2017
- Wednesday 05.07.2017
- Thursday 06.07.2017
- Friday 07.07.2017
- Saturday 08.07.2017
- Sunday 09.07.2017
- Monday 10.07.2017
- Tuesday 11.07.2017
- Wednesday 12.07.2017
- Thursday 13.07.2017
- Friday 14.07.2017
- Saturday 15.07.2017
- Sunday 16.07.2017
- Monday 17.07.2017
- Tuesday 18.07.2017
- Wednesday 19.07.2017
- Thursday 20.07.2017
- Friday 21.07.2017
- Saturday 22.07.2017
- Sunday 23.07.2017
- Monday 24.07.2017
- Tuesday 25.07.2017
- Wednesday 26.07.2017

Time

10 : 00

More options

Find journey

Select a journey

11:34 – 12:22 48 min

R10 › 881 ›

11:54 – 12:24 30 min

L12 › L14

12:54 – 13:24 30 min

L12 › L14

Please provide the passport information for the following passenger:

Vitaly Friedman

As it appears on Passport.

First Name *
Vitaly

Middle Name

Last Name *
Friedman

Gender*

MALE | FEMALE

Date of Birth *

Nationality *

Passport Number *

Interface Design Patterns

Solid, Single Entities

- **Name**

  Full name (first + middle + last)

- **Address**

  Street, Building number, Apt,
  Unit building, Floor, PO Box,
  State/County, Zip/Post code,
  City, Country

- **Credit card**

  Card number, Expiry date
  Security code, Name on card

- **Passport**

  Name, expiry, place of issue, ID

- **Login**

  Email / password *or*
  2-factor: email + phone *or*
  Social sign-in *or* Biometric

- **Time/date input**
- **Phone number**
- **ZIP/postal code**
- **Contextual entities**

2000	90	9	Dec	3	9
	80	8	Oct		8
	70	7	Nov		7
	60	6	Sep	2	6
1900	50	5	Aug		5
	40	4	Jul		4
	30	3	Jun	1	3
	20	2	May		2
1800	10	1	Apr		1
	0	0	Mar	0	0
			Feb		
			Jan		

Search results

Query syntax

1491 results found

ukraine

Search

Publications Videos Photo

Advanced Search

Anna Kuznetsova took part in meeting of Investigative Committee's Coordination Council on Aid to Children in Southeastern Ukraine

February 17, 2017, 16:00

Telephone conversation with Ukraine's President Petro Poroshenko

April 18, 2016, 22:10

Meeting with President of Ukraine Viktor Yanukovych

3

December 17, 2013, 15:35

Web Forms UX

Maximize Typing Speed

01 — Average user types 1 char in an English word in 280ms.

02 — Average user types 1 char in an *obscure* text in 750ms.

03 — Average user needs 400ms to switch keyboard <-> mouse.

04 — Average user needs 1100ms to point a mouse cursor precisely.

05 — Using mouse to move between fields, ready to type: 1900ms.

06 — Using tabs to move between fields, ready to type: 280–740ms.

07 — Even *very* slow typing takes 280–740ms per character.

08 — With an 8-field address form, tabbing is 3× faster (5,9s vs. 15,2s).

09 — Avoid switching keyboard <-> mouse input as far as possible.

10 — With autofill, completion times are reduced by around 30%.

Interface Design Patterns

Input Budgets For Forms

01 — Typing on mobile is *still* slow and inaccurate.

02 — Changing input source (tap/type/scroll) is expensive.

03 — Input flow is rarely linear: a lot of movement back and forth.

04 — With text input, typos/errors are inevitable.

05 — Error messages are often overlooked.

06 — Touch input is always faster/better than text input.

Interface Design Patterns

Input Budgets For Forms

01 — Always prefer (large) buttons, toggles, sliders.

02 — When typing, let users stay on keypad + autocomplete.

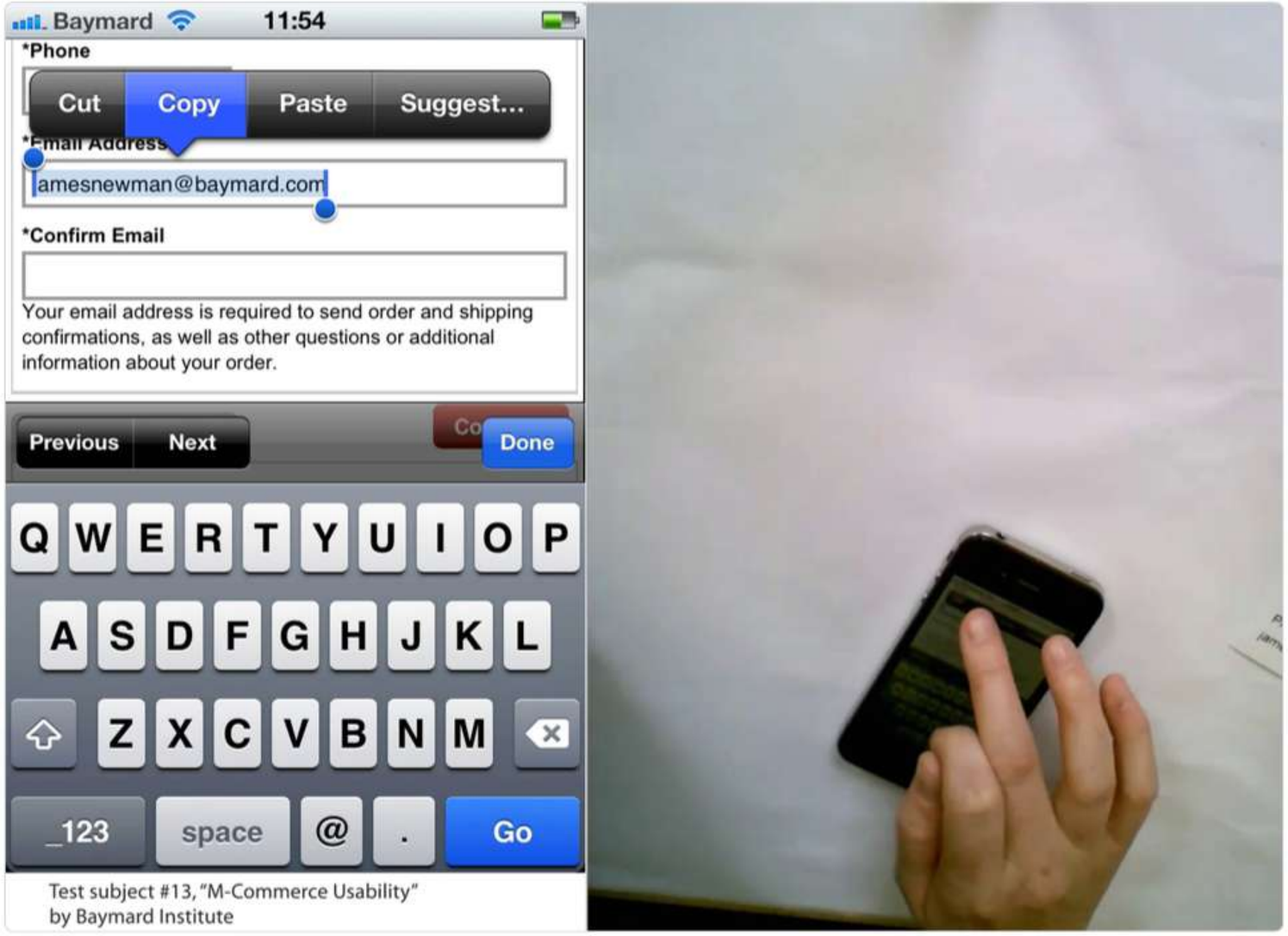
03 — Set a safety net with smart defaults, forgiving input.

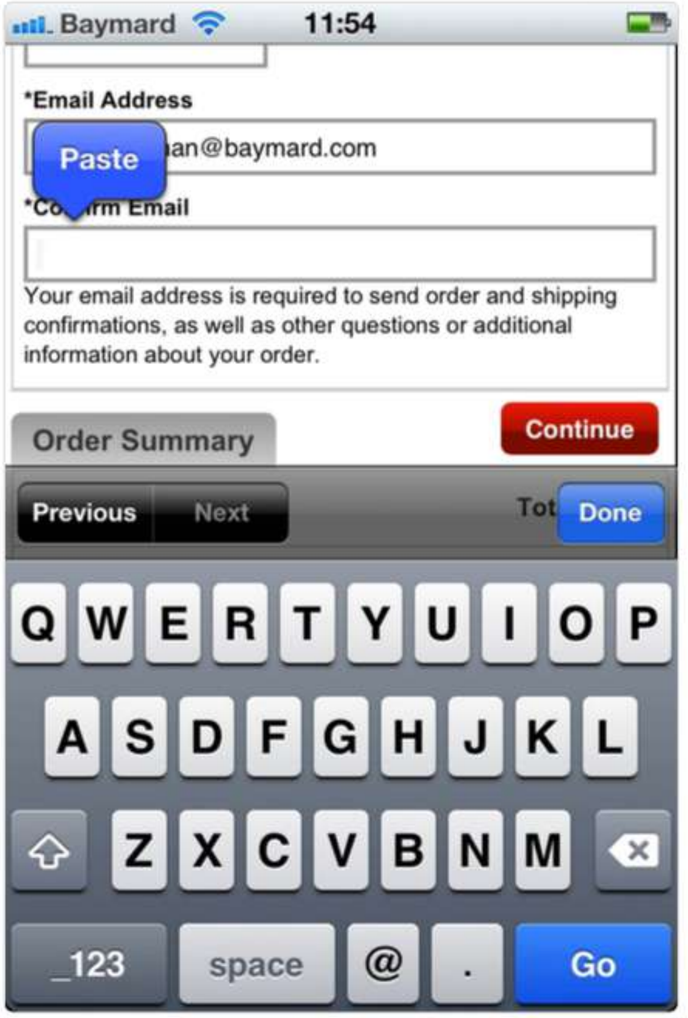
04 — Make use of autofill with the *autocomplete* attribute.

05 — Persist the data upon refresh (storing in localStorage).

06 — Measure completion time with a min # of taps per form.

07 — Measure complexity with a max # of input fields per step.


Baymard
11:54
*Phone
Cut
Copy
Paste
Suggest...
*Email Address
amesnewman@baymard.com
*Confirm Email
Your email address is required to send order and shipping confirmations, as well as other questions or additional information about your order.
Previous
Next
Done
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
@
.
Go
Test subject #13, "M-Commerce Usability"
by Baymard Institute


Baymard
11:54
*Email Address
Paste
*Confirm Email
Your email address is required to send order and shipping confirmations, as well as other questions or additional information about your order.
Order Summary
Continue
Previous
Next
Done
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
@
.
Go

Interface Design Patterns

Right Timing For Input

01 — When’s the right time for any given action?

02 — When’s the right time to verify email?

03 — When’s the right time to ask for a password?

04 — When’s the right time to ask for location permission?

05 — When’s the right time to ask for push notifications?

06 — When’s the right time to move users into the funnel?

07 — What’s the minimum needed to get started?

Web Forms

02 Input Types

2

How do we pick the right input types?

Банки-участники Системы бы

sbp.nspk.ru/participants/

Pau...

сбп
система быстрых платежей

Частным лицам | Бизнесу | Банкам | Банки-участники | Вопросы-ответы | СМИ о нас

Банки-участники системы быстрых платежей

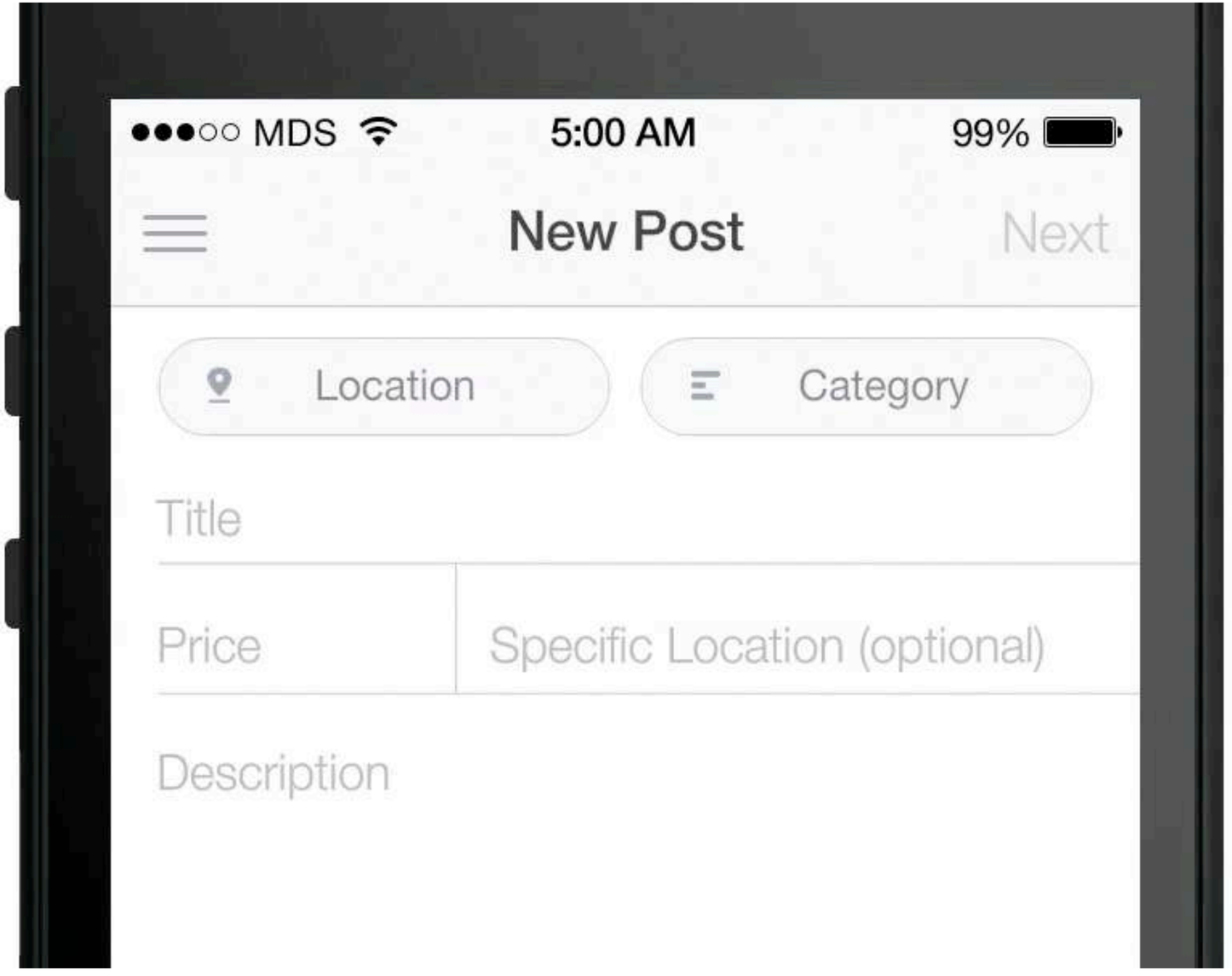
Все | Переводы по номеру | Оплата по QR

АБ РОССИЯ
✔ Переводы

Абсолют Банк
✔ Переводы

Text Boxes are Text Boxes

- Obvious if look like a text box, with good padding + bordered.
- Width gives a clue as to the length of the input it requires.
- Need a clear label association, a predictable tab order, focus and active styles to be accessible.
- Large boxes are easy to fill in, edit and review (18px+).
- The choice of labels and placeholders needs care.
- Need care for keyboard choice, autofocus, autofill, autocorrect, capitalization.


●●●○○ MDS
5:00 AM
99%
New Post
Next
Location
Category
Title
Price
Specific Location (optional)
Description

Labels and Placeholders

- Top-aligned labels perform best: avoid localization issues.
- Perfectly accessible by default; lettercase is often friendlier.
- Avoid left-aligned labels: issues on small viewports, zooming, dense wrapping.
- Single-column layout generally performs best.
- Labels set expectations, placeholders help fulfill them.
- Make sure to add hints for sensitive input (e.g. password, phone number, gender).

Adam Silver on

Floating Labels Need Care

> *Floating labels act as placeholders*, and as such don’t leave space for any extra hints. By design, they are often hard to read, usually can’t be lengthy, can be mistaken for a real pre-filled value and can be cropped on mobile.

“Form Design Patterns”, published by Smashing Magazine

Adam Silver on

Placeholder issues

> *Placeholders disappear* when the user types, users often mistake a placeholder for a value, skipping the field and causing errors later. Some screen readers don’t announce them, and long hint text may get cut off.

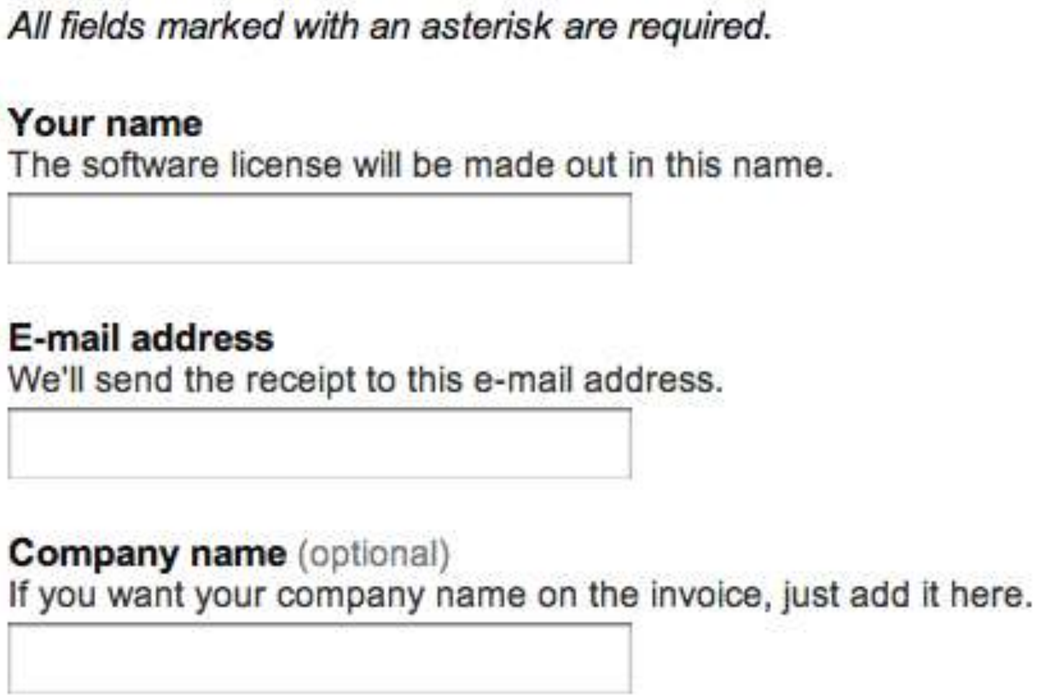
“Form Design Patterns”, published by Smashing Magazine

All fields marked with an asterisk are required.

* **Your name**
The software license will be made out in this name.

* **E-mail address**
We'll send the receipt to this e-mail address.

Company name (optional)
If you want your company name on the invoice, just add it here.



Required/Optional Input Fields

It's a safe bet to highlight *both* required and optional input fields. If not, both completion time and failure rate increase. Red asterisk and "(Optional)" labels work.

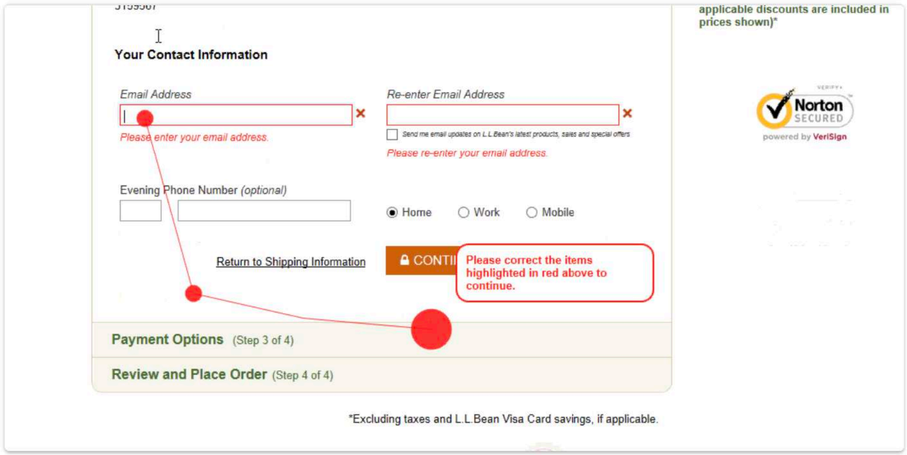
Adam Silver on

Marking Optional and Required

> We mark something in the interface to indicate that it's *different*. Most fields are *required*, so we need to mark only *optional* fields then. For clarity we could mark **both** optional and required (Baymard Institute).

"Form Design Patterns", published by Smashing Magazine

E-Commerce Checkouts Need to Mark Both Required and Optional Fields Explicitly (Only 24% Do So)



Marking both required *and* optional fields in the checkout is a controversial area of form usability.

When we first benchmarked this issue in 2012 only **9%** of sites explicitly marked both fields, in 2016 things had improved a little with 14% of sites marking both. Our 2019 benchmark shows only little

GOV.UK

Search

< Back

Prove your identity to continue

- (●) **Sign in with Government Gateway**
  You'll have a user ID if you've signed up to do things like file your Self Assessment tax return online.
- ( ) **Sign in with GOV.UK Verify**
  You'll have an account if you've already proved your identity with either Barclays, Digidentity, Experian, Post Office or SecureIdentity.
- ( ) **Sign in with a digital identity from another European country**
  If you're part of an ID scheme in a participating country, you may be able to use it here.

or

- ( ) **Create an account**
  If you do not already have one of these accounts, we'll help you choose whether to use Government Gateway or GOV.UK Verify.

Continue

Radio Buttons Are Round

- Exposed, making options easy to compare, scan and select.
- Fit well only for mutually exclusive options.
- Restrictive, so usually need an “Other” option as fallback.
- Conventionally round, and often tapped on mobile.
- Can be laid out in a table for a quick comparison.
- Less suitable when there are many options.

Blue Apron

1. Choose your menu

2-SERVING | 4-SERVING

Signature for 4

Recipes for families or get-togethers, with a variety of options that change weekly, including meat, fish, Beyond Meat™ and health-conscious offerings.

2. Recipes per week

2 recipes
$8.99 per serving
FREE shipping

$71.92
weekly total

Donation - Starlight

support.starlight.org.uk/donate

Paused

STARLIGHT

Back to our homepage

Your donation will help Starlight support seriously ill children in the UK

What is your main reason for donating today?

- Select -

Please tell us more about your gift (optional)

What inspired you to donate?

How often would you like to donate?

One-off

Monthly

Jobs for Designers

Designer News reaches hundreds of thousands of the world's top designers each month.

Post a Job
$249 for 30 days

September

○ Remote Friendly

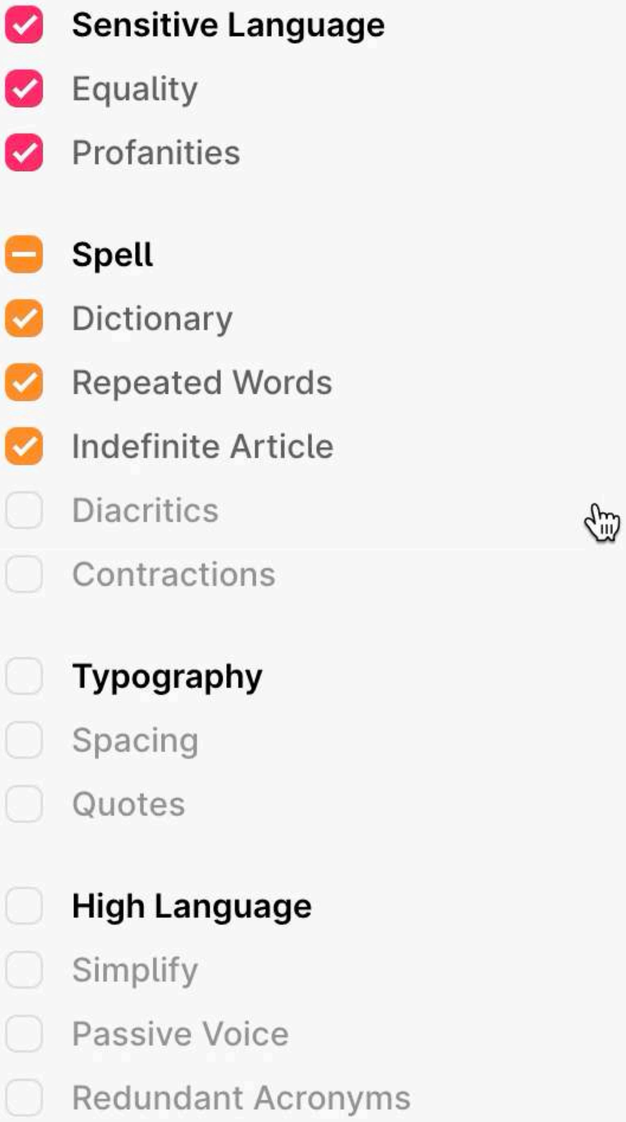
Archon Systems Inc. is looking for a **Web and Graphics Designer**
Toronto, Canada • Sep 18

Alation is looking for a **Product Designer**
Redwood City, CA • Sep 18

Twitch is looking for a **UI/UX Designer**
San Francisco, CA • Sep 17

Checkboxes Are Squared

- Exposed, making options easy to compare, scan and select.
- Conventionally square, and often tapped on mobile.
- Fit well for mutually non-exclusive options.
- Great as quick filters, tags, toggling between states.
- Track incompatibility of options to avoid empty results.
- Annoying when checked by default or small in size.



Filtering Options, *Philipp Kühn*, *https://twitter.com/_philippkuehn/status/1255089435953242113*

Where will you travel to?

From

Oslo Sentralstasjon [tog] (Oslo)

To

Fetsund [tog] (Fet)

Now | Departure | Arrival

Date

- ✓ Friday 30.06.2017
- Saturday 01.07.2017
- Sunday 02.07.2017
- Monday 03.07.2017
- Tuesday 04.07.2017
- Wednesday 05.07.2017
- Thursday 06.07.2017
- Friday 07.07.2017
- Saturday 08.07.2017
- Sunday 09.07.2017
- Monday 10.07.2017
- Tuesday 11.07.2017
- Wednesday 12.07.2017
- Thursday 13.07.2017
- Friday 14.07.2017
- Saturday 15.07.2017
- Sunday 16.07.2017
- Monday 17.07.2017
- Tuesday 18.07.2017
- Wednesday 19.07.2017
- Thursday 20.07.2017
- Friday 21.07.2017
- Saturday 22.07.2017
- Sunday 23.07.2017
- Monday 24.07.2017
- Tuesday 25.07.2017
- Wednesday 26.07.2017

Time

10 : 00

More options

Find journey

Select a journey

11:34 – 12:22 48 min

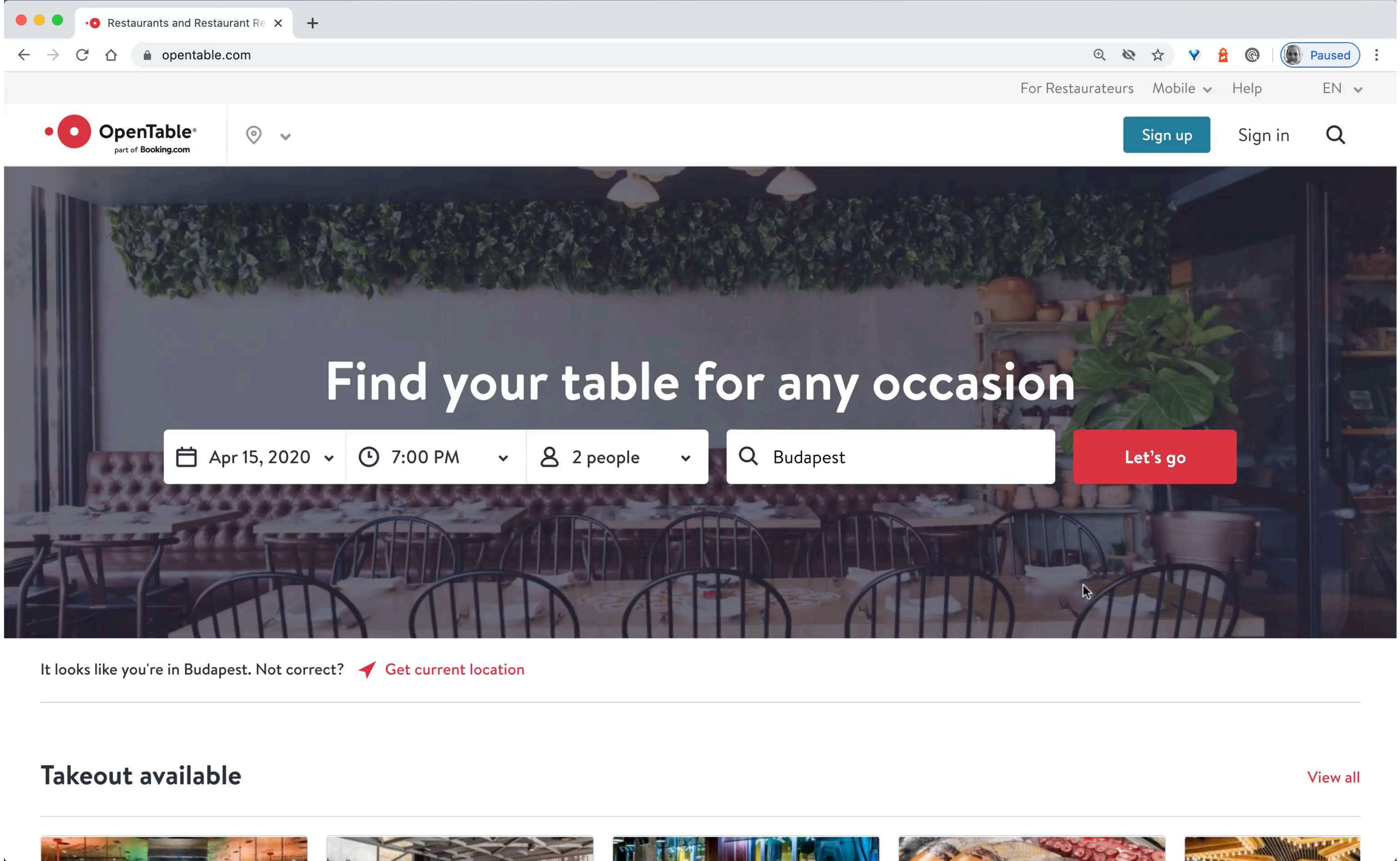
R10 › 881 ›

11:54 – 12:24 30 min

L12 › L14 !

12:54 – 13:24 30 min

L12 › L14 !

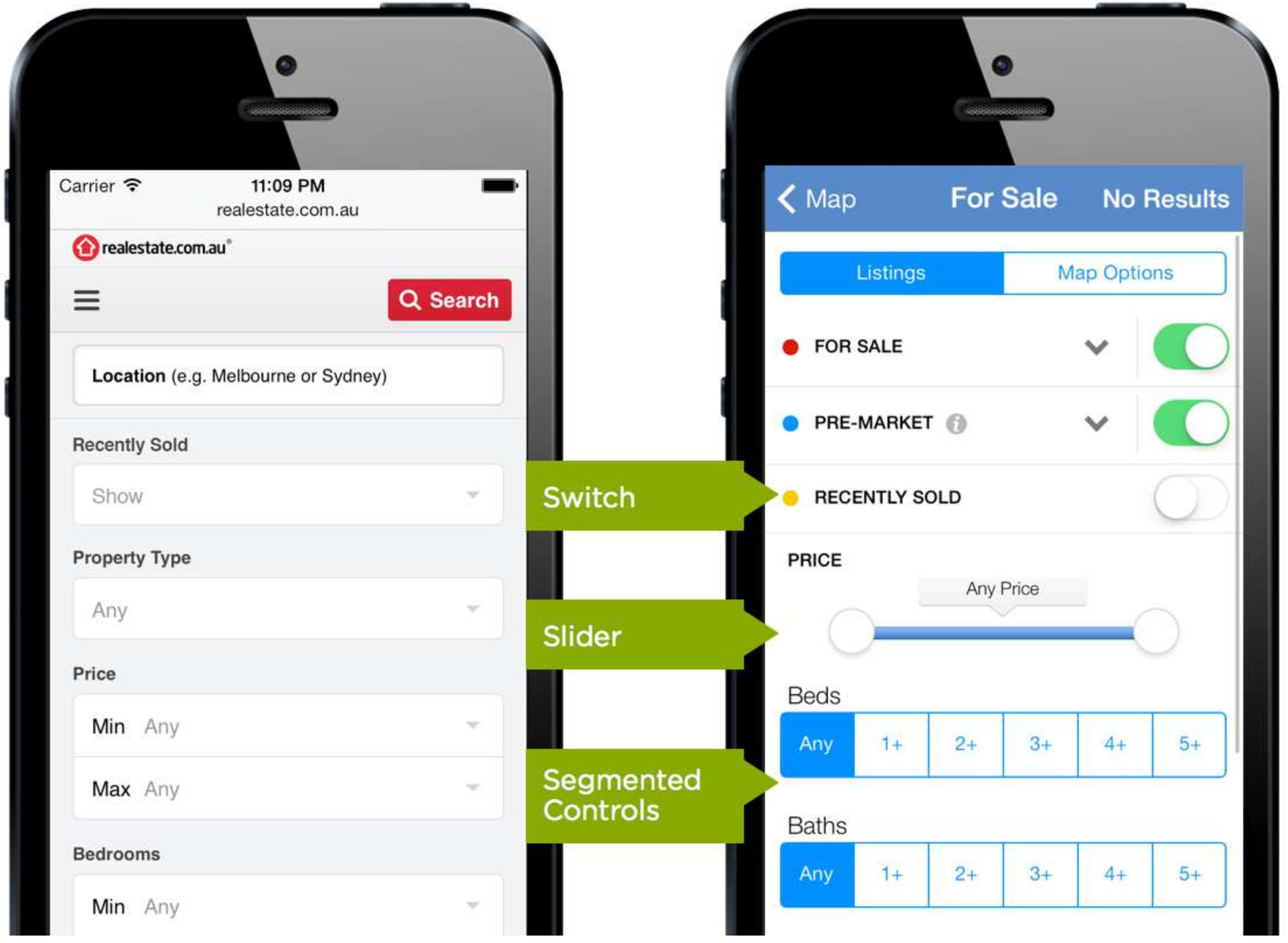

Restaurants and Restaurant Re
opentable.com
Paused
For Restaurateurs
Mobile
Help
EN
OpenTable
part of Booking.com
Sign up
Sign in
Find your table for any occasion
Apr 15, 2020
7:00 PM
2 people
Budapest
Let's go
It looks like you're in Budapest. Not correct?
Get current location
Takeout available
View all

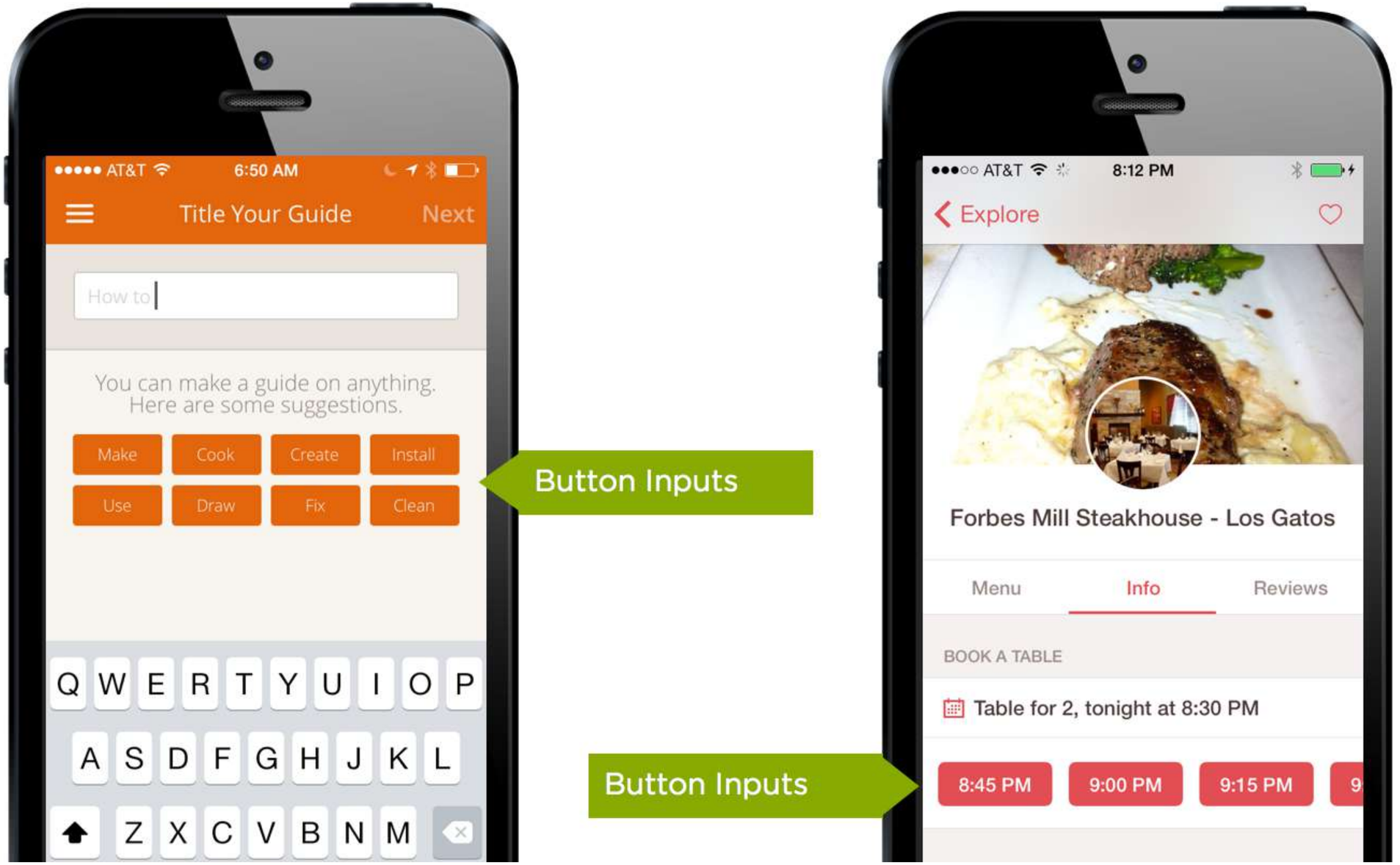
Luke Wroblewski on

<select>-Dropdowns

> *Avoid <select>-dropdowns* as far as possible. They are *painfully slow* and often require way more effort than necessary. Tap the control, then scroll (usually more than once), find and select your target, and finally move on.

“Dropdowns Should be the UI of Last Resort”, https://www.lukew.com/ff/entry.asp?1950

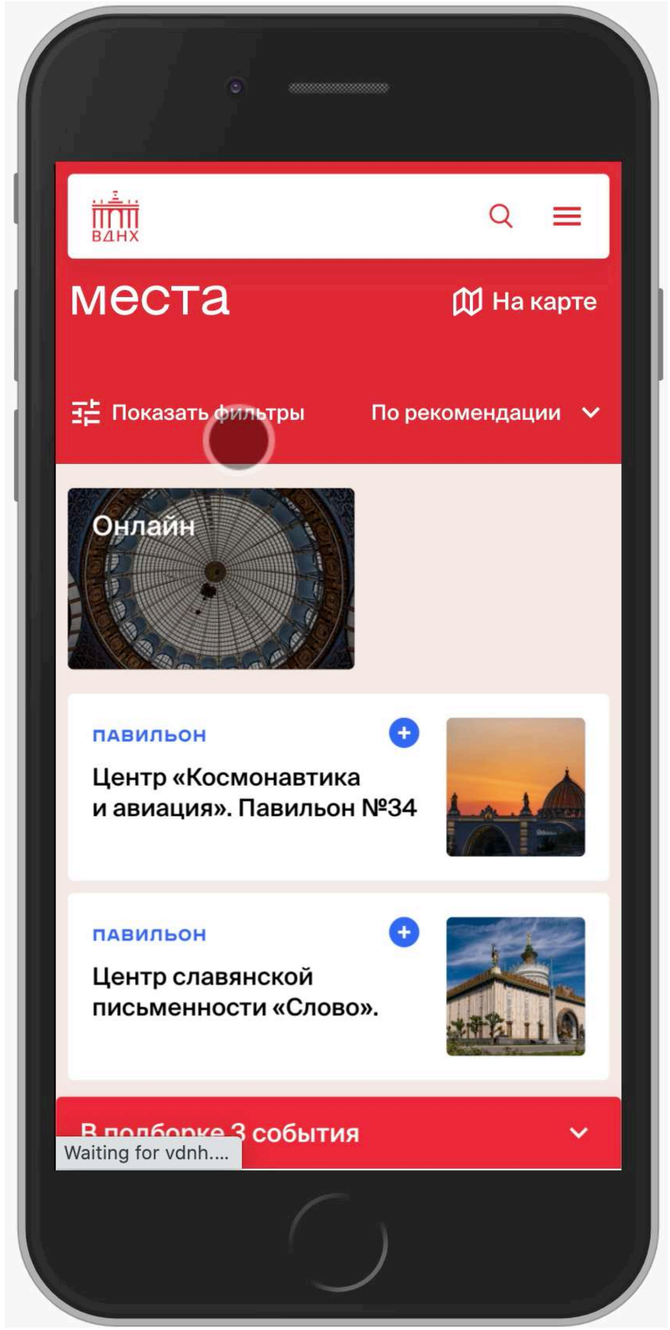

Carrier
11:09 PM
realestate.com.au
realestate.com.au
Search
Location (e.g. Melbourne or Sydney)
Recently Sold
Show
Property Type
Any
Price
Min Any
Max Any
Bedrooms
Min Any
Switch
Slider
Segmented Controls
Map
For Sale
No Results
Listings
Map Options
FOR SALE
PRE-MARKET
RECENTLY SOLD
PRICE
Any Price
Beds
Any
1+
2+
3+
4+
5+
Baths
Any
1+
2+
3+
4+
5+

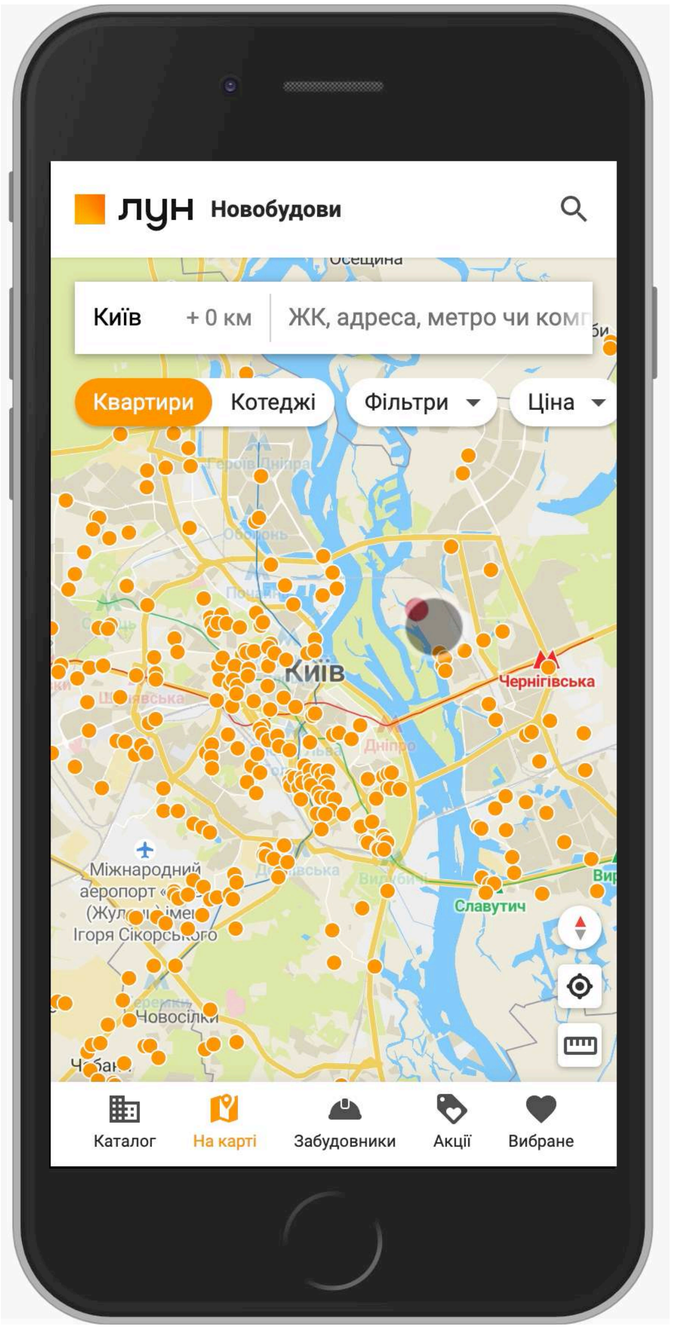

●●●●● AT&T
6:50 AM
Title Your Guide
Next
How to
You can make a guide on anything.
Here are some suggestions.
Make
Cook
Create
Install
Use
Draw
Fix
Clean
Button Inputs
Button Inputs
●●●○○ AT&T
8:12 PM
Explore
Forbes Mill Steakhouse - Los Gatos
Menu
Info
Reviews
BOOK A TABLE
Table for 2, tonight at 8:30 PM
8:45 PM
9:00 PM
9:15 PM

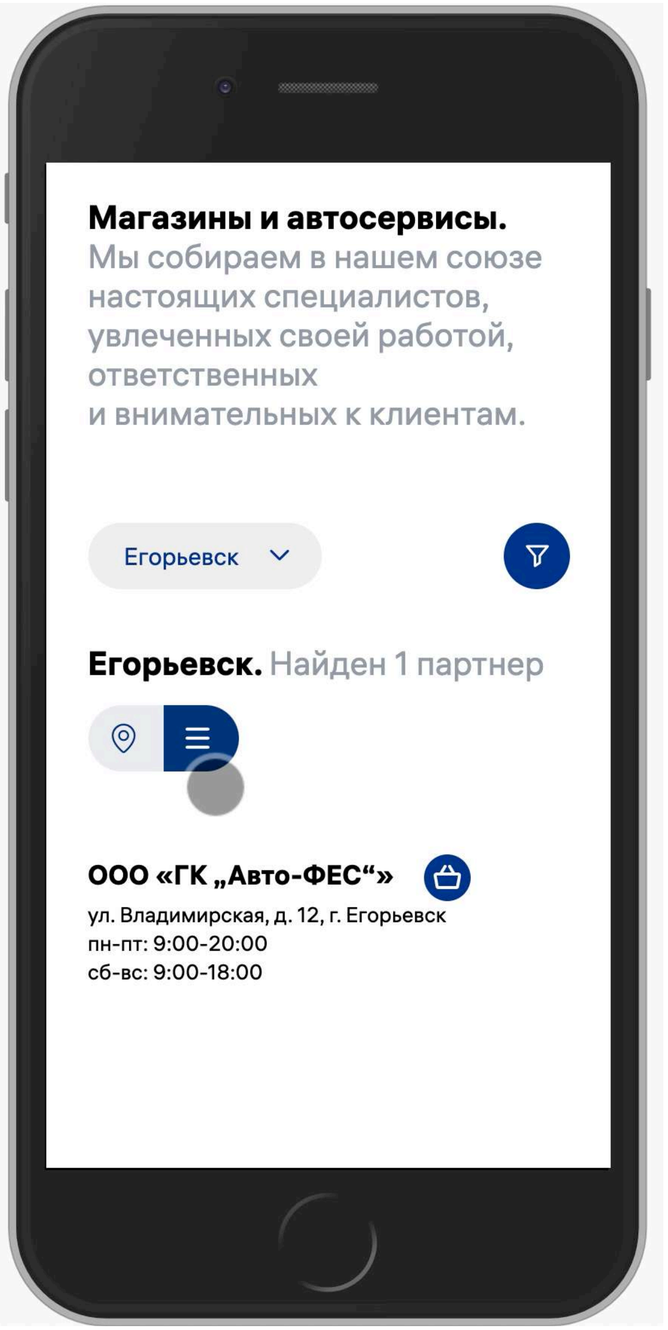
Avoid <select>-Dropdowns

- ➕ Prevent locale/formatting differences and errors.
- ➖ Slow input, causing unneeded extra clicks.
- ➖ Users try to type into them to jump instead of scrolling.
- ➖ Users often confuse them with autocorrect.
- ➖ Users confuse focused options with selected ones.
- ➖ Pinching and zooming scrollable options is tiring.

- 🔀 Consider using steppers or datalist with autocomplete.


ВДНХ
места
На карте
Показать фильтры
По рекомендации
Онлайн
ПАВИЛЬОН
Центр «Космонавтика и авиация». Павильон №34
ПАВИЛЬОН
Центр славянской письменности «Слово».
В подборке 3 события
Waiting for vdnh....

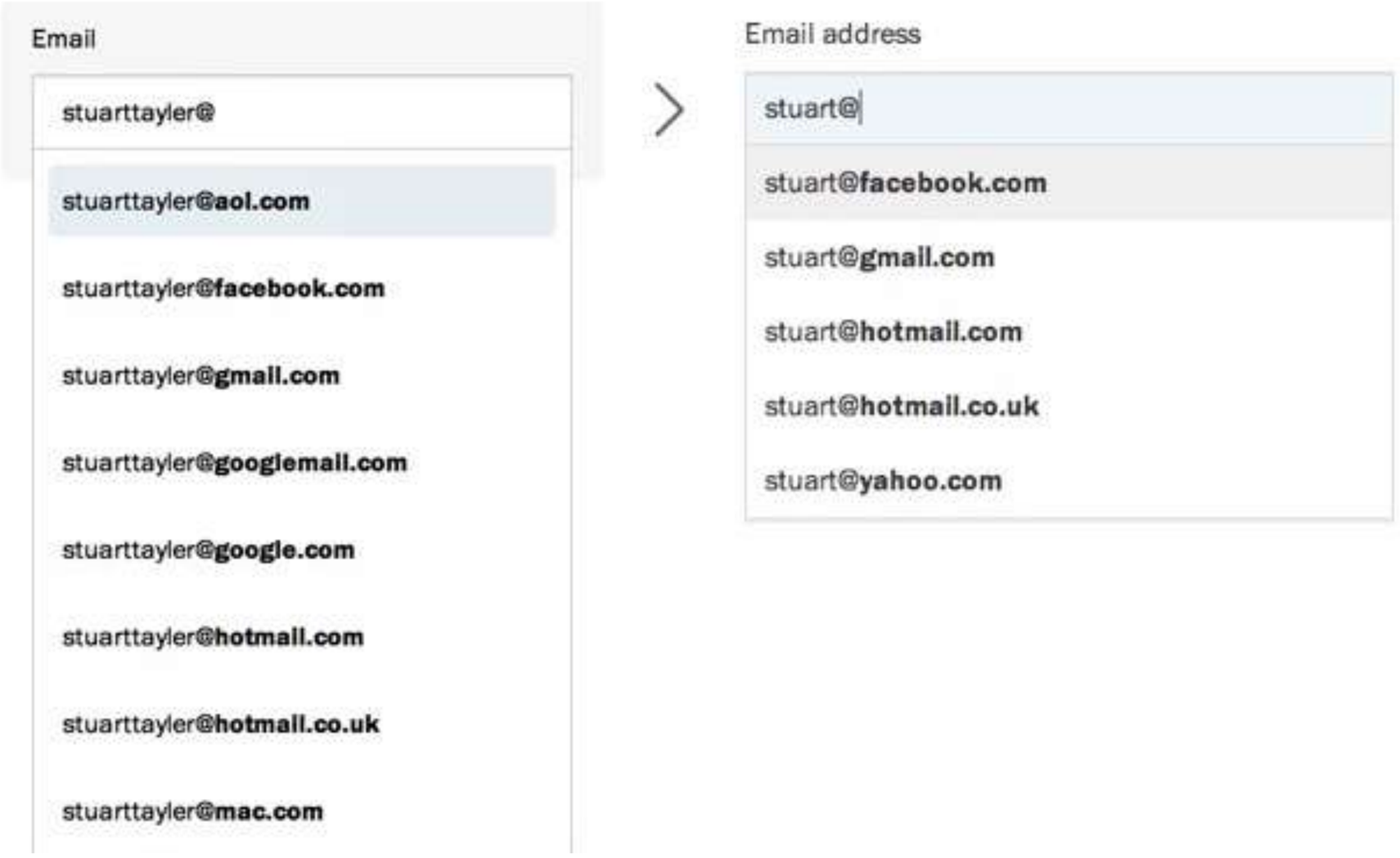

ЛУН Новобудови
Київ
+ 0 км
ЖК, адреса, метро чи ком
Квартири
Котеджі
Фільтри
Ціна
Київ
Чернігівська
Славутич
Каталог
На карті
Забудовники
Акції
Вибране


Магазины и автосервисы.
Мы собираем в нашем союзе настоящих специалистов, увлеченных своей работой, ответственных и внимательных к клиентам.
Егорьевск
Егорьевск. Найден 1 партнер
ООО «ГК „Авто-ФЕС“»
ул. Владимирская, д. 12, г. Егорьевск
пн-пт: 9:00-20:00
сб-вс: 9:00-18:00

Prefer Steppers and Buttons

- Steppers are great for quick, predictable, granular changes.
- Great for quick filtering, especially with results count.
- Don’t trigger on-screen key-board, save space on mobile.
- Steppers are great for a small number of options (<10).
- Can be used for quantities, time jumps, nav, sliders.
- Steppers are too annoying when exploring many options.

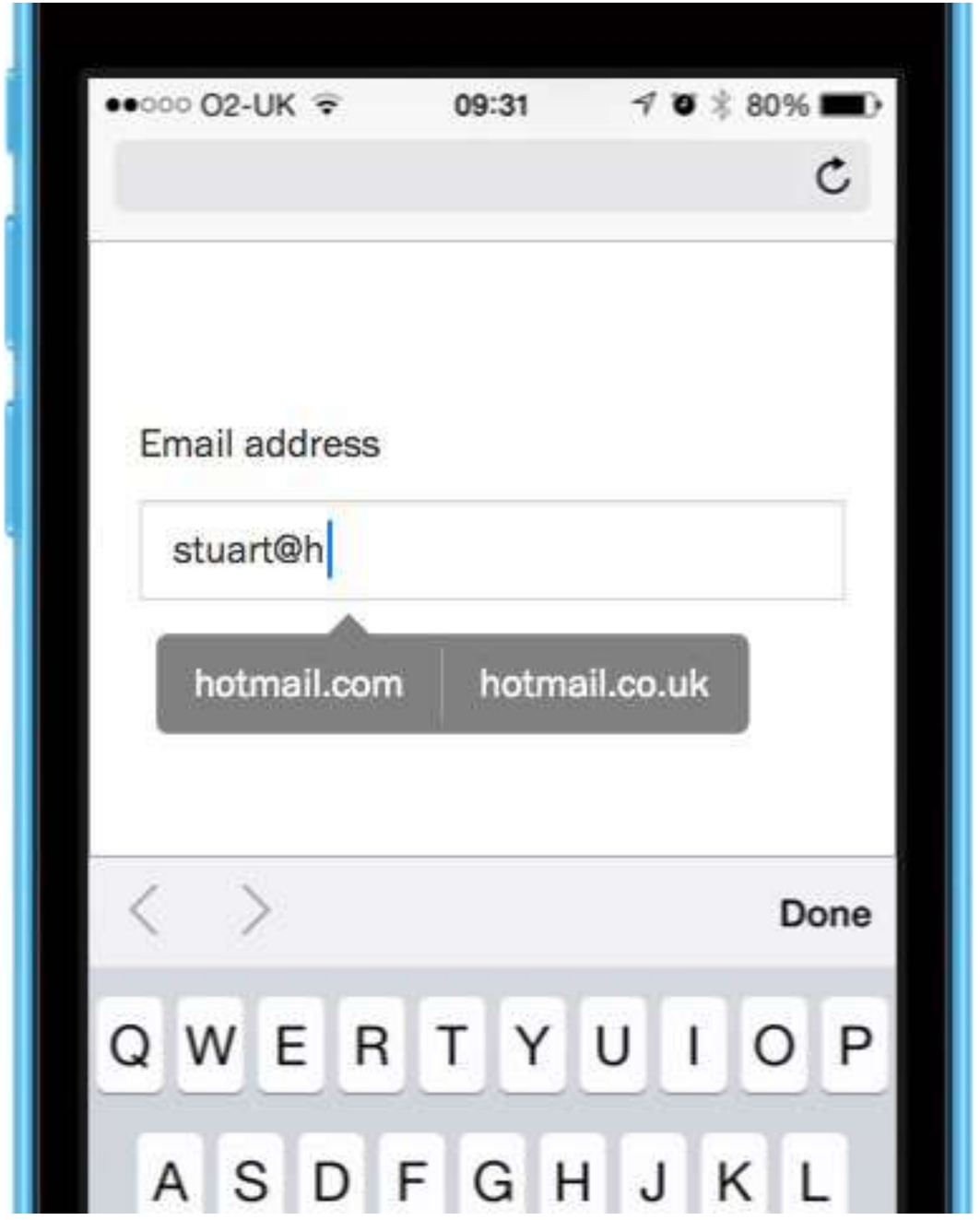
ZEIT ONLINE
Coronavirus in Deutschland
Wie sich das Coronavirus in Ihrer Region ausbreitet
ZEIT ONLINE hat alle bestätigten Corona-Infektionen in Deutschland gesammelt. Recherchieren Sie hier die ständig aktualisierte Lage in allen 401 Stadt- und Landkreisen.
Finden Sie Ihre Region:
Landkreis oder kreisfreie Stadt eingeben
Deutschland
41.255 bestätigte Fälle
5,0 je 10.000 Einwohner
1.508 genesen*
224 gestorben
Stand: 25. März 2020


Email
stuarttayler@
stuarttayler@aol.com
stuarttayler@facebook.com
stuarttayler@gmail.com
stuarttayler@googlemail.com
stuarttayler@google.com
stuarttayler@hotmail.com
stuarttayler@hotmail.co.uk
stuarttayler@mac.com
Email address
stuart@
stuart@facebook.com
stuart@gmail.com
stuart@hotmail.com
stuart@hotmail.co.uk
stuart@yahoo.com

Email address

stuart@gna

stuart@**gmail.com**


O2-UK
09:31
80%
Email address
stuart@h
hotmail.com
hotmail.co.uk
Done
Q W E R T Y U I O P
A S D F G H J K L

Email address

Prefer Datalists & Autocomplete

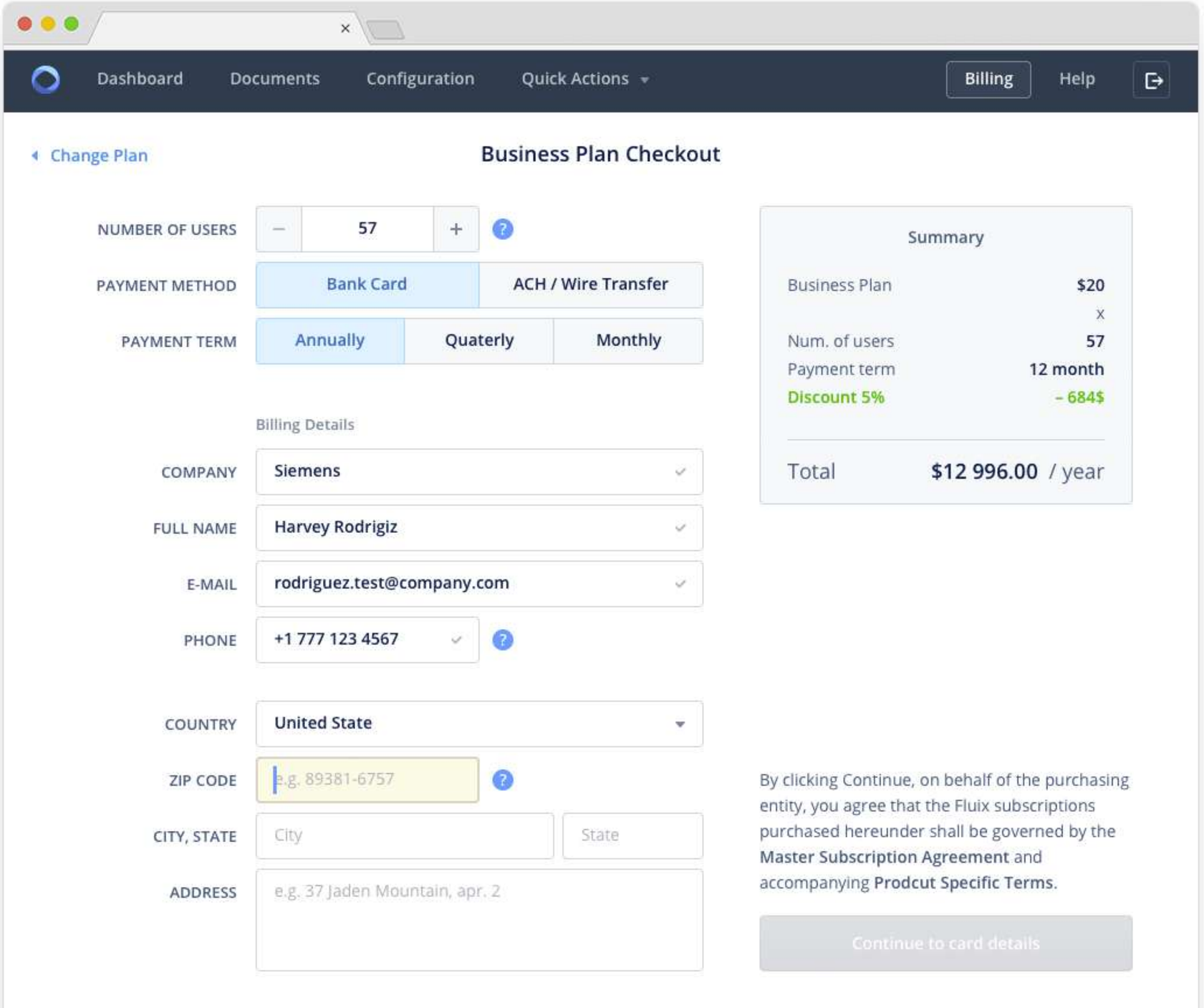
- Marry flexibility of a text box with assurance of a select-box.
- Great for quick filtering, especially with results count.
- Frequent hits could be surfaced/featured at the top.
- No need to scroll to find the right option.
- Could be used to display direct results and categories.
- Have to be smart enough to forgive minor typos and errors. Accessibility requirements.

Web Forms

03 Input Boundaries

3

How do we define input boundaries?


Dashboard
Documents
Configuration
Quick Actions
Billing
Help
Change Plan
Business Plan Checkout
NUMBER OF USERS
57
PAYMENT METHOD
Bank Card
ACH / Wire Transfer
PAYMENT TERM
Annually
Quaterly
Monthly
Billing Details
COMPANY
Siemens
FULL NAME
Harvey Rodrigiz
E-MAIL
rodriguez.test@company.com
PHONE
+1 777 123 4567
COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2
Summary
Business Plan
$20
x
Num. of users
57
Payment term
12 month
Discount 5%
– 684$
Total
$12 996.00 / year
By clicking Continue, on behalf of the purchasing entity, you agree that the Fluix subscriptions purchased hereunder shall be governed by the Master Subscription Agreement and accompanying Prodcut Specific Terms.
Continue to card details

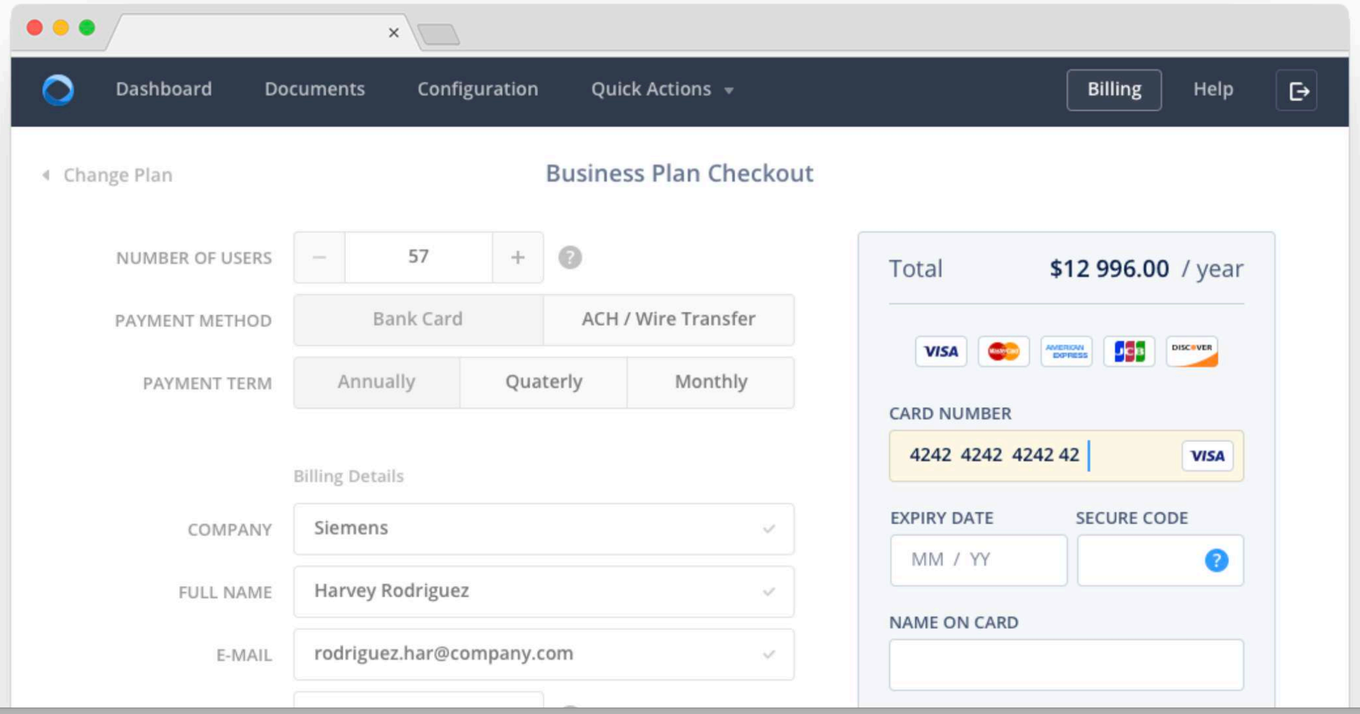
Checkout Issues

01 — Complex input
02 — Non-forgiving input
03 — Confusing layout
04 — Account creation
05 — Poor performance
06 — Poor support for auto-fill
07 — Poor validation
08 — Poor error messages
09 — Poor data editing
10 — Slow typing on mobile
11 — Data loss on errors/refresh
12 — Aggressive validators
13 — Sudden, unannounced changes
14 — Disappearing labels
15 — Poor IP geo-targeting
16 — Poor autocomplete
17 — Poor tabbing flow
18 — Poor support of “Back” button
19 — Unnecessary requirements
20 — Privacy concerns
21 — Lack of auto-formatting
22 — Lack of auto-updating
23 — Lack of localization
24 — Lack of focus styling

Checkout Form: Behind The Scene. Part 2.

Streamlining the Checkout Experience. 4/4

DKO Follow
Mar 27, 2017 · 11 min read



COMPANY DB Checkout

FULL NAME Harvey Rodrigiz

E-MAIL harvey.test@company.com

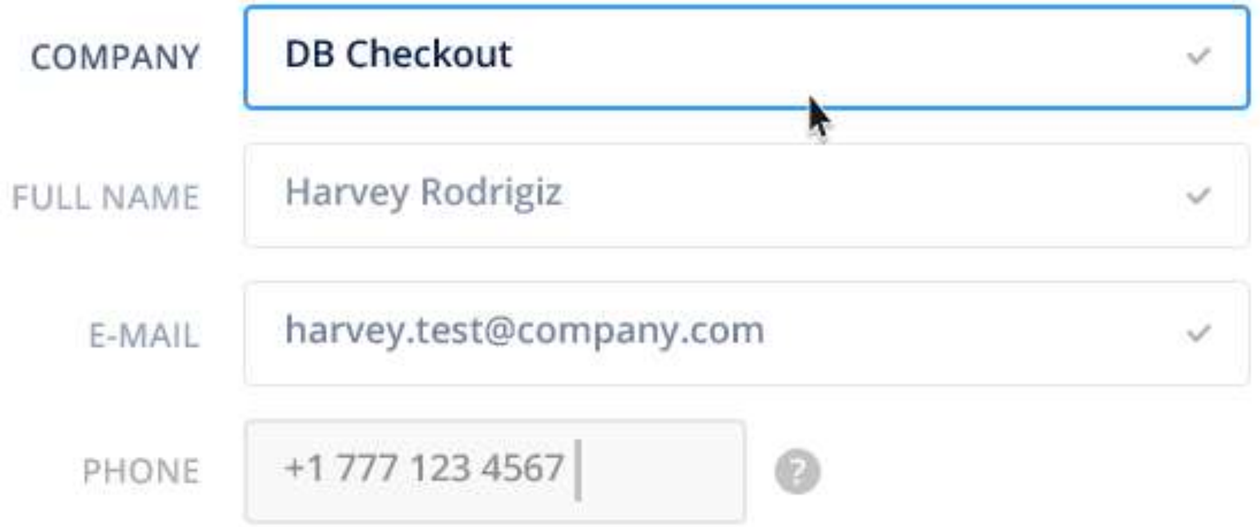
PHONE +1 777 123 4567

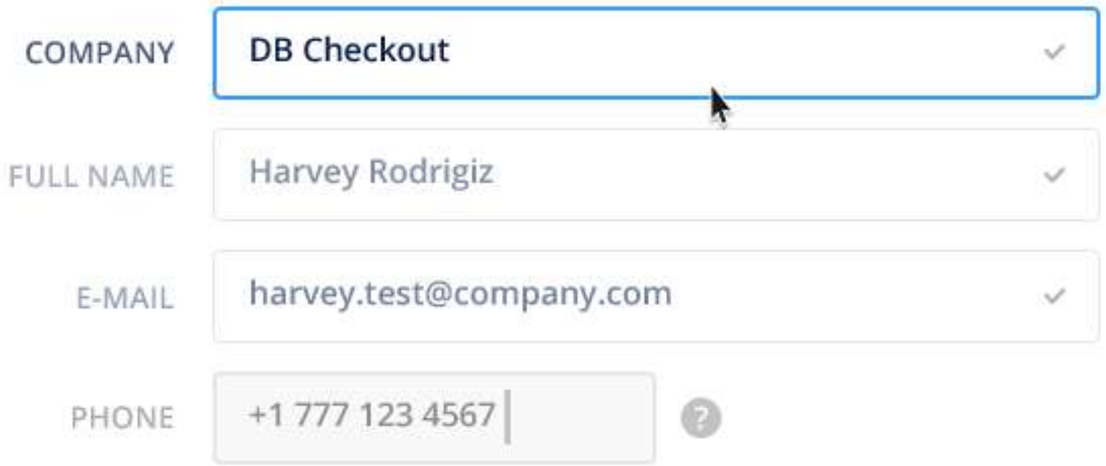
COUNTRY United State

ZIP CODE e.g. 89381-6757

CITY, STATE City State

ADDRESS e.g. 37 Jaden Mountain, apr. 2


COMPANY
DB Checkout
FULL NAME
Harvey Rodrigiz
E-MAIL
harvey.test@company.com
PHONE
+1 777 123 4567



Company Name

01 — Mandatory

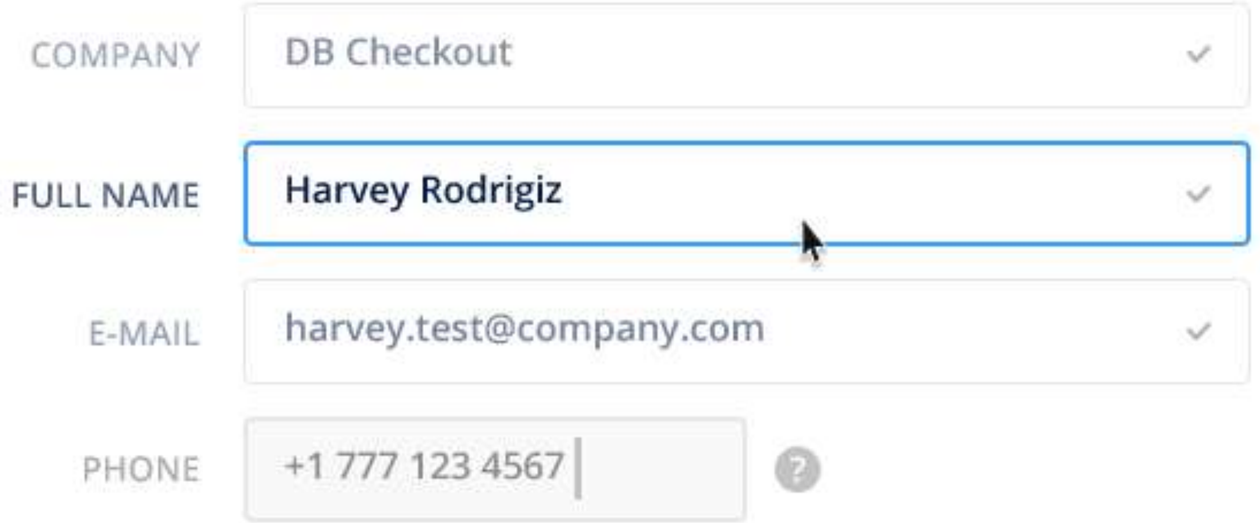
02 — Pre-fill if applicable

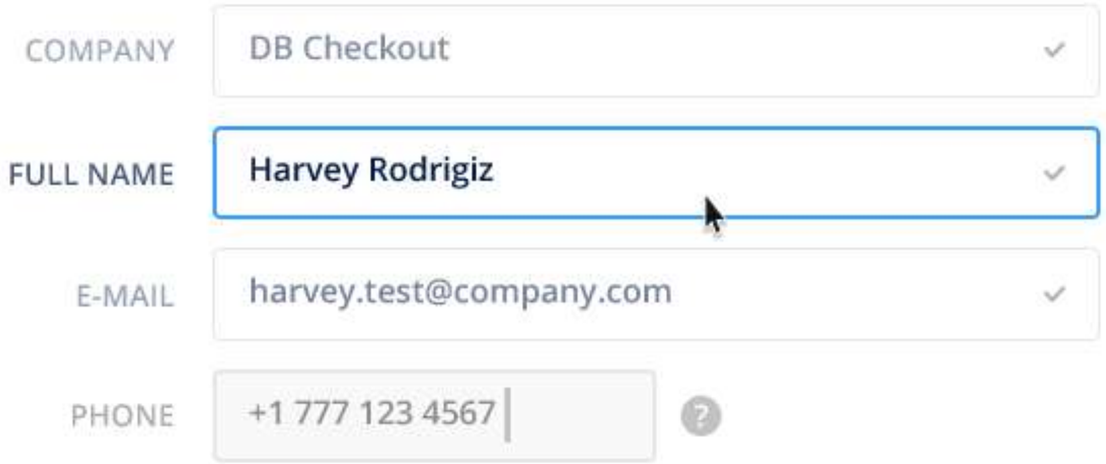
03 — Any characters allowed

04 — Adaptive placeholders

05 — Min length: 2 characters

06 — Max length: 60 characters


COMPANY
DB Checkout
FULL NAME
Harvey Rodrigiz
E-MAIL
harvey.test@company.com
PHONE
+1 777 123 4567



Full Name

01 — Mandatory

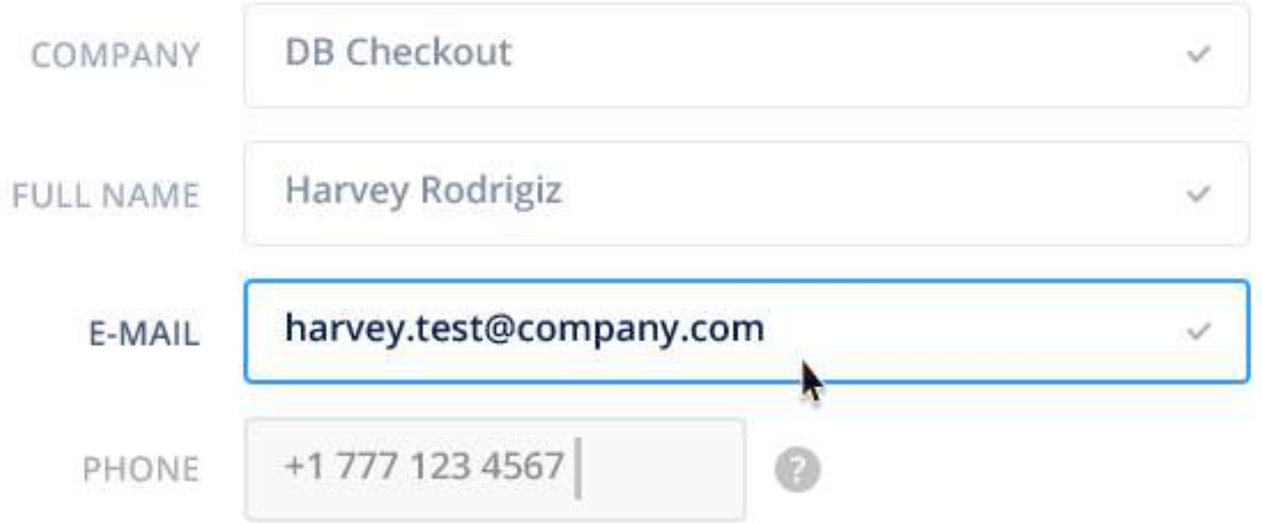
02 — Pre-fill if applicable

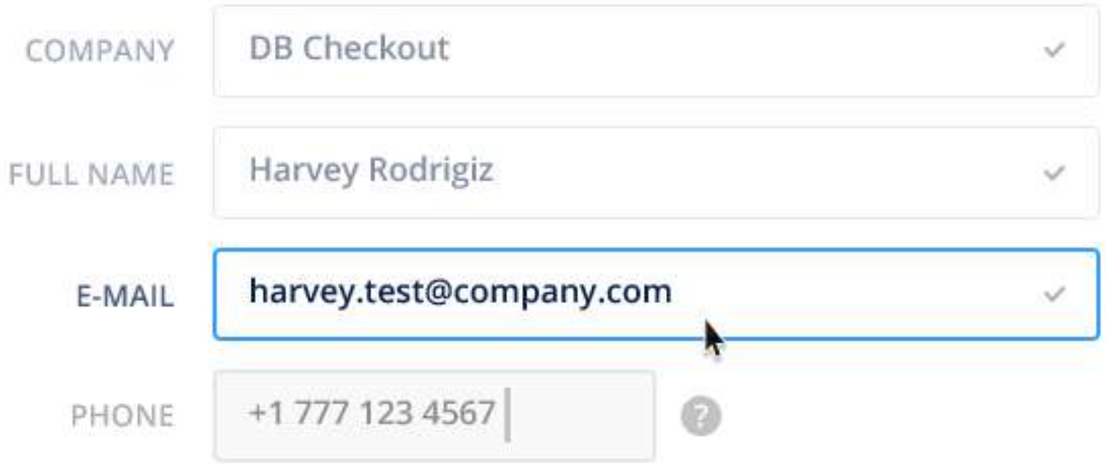
03 — Solid, single entity

04 — Alphabetic + space, hyphen, dot

05 — Min length: 3 characters

06 — Max length: 70 characters


COMPANY
DB Checkout
FULL NAME
Harvey Rodrigiz
E-MAIL
harvey.test@company.com
PHONE
+1 777 123 4567



Email

01 — Mandatory

02 — Pre-fill if applicable

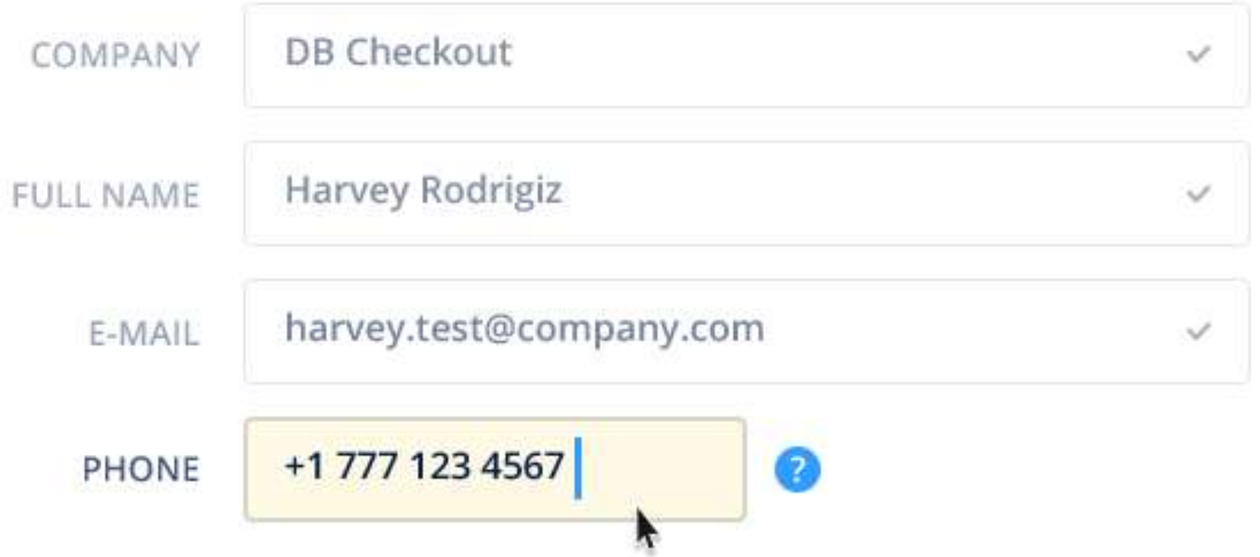
03 — Solid, single entity

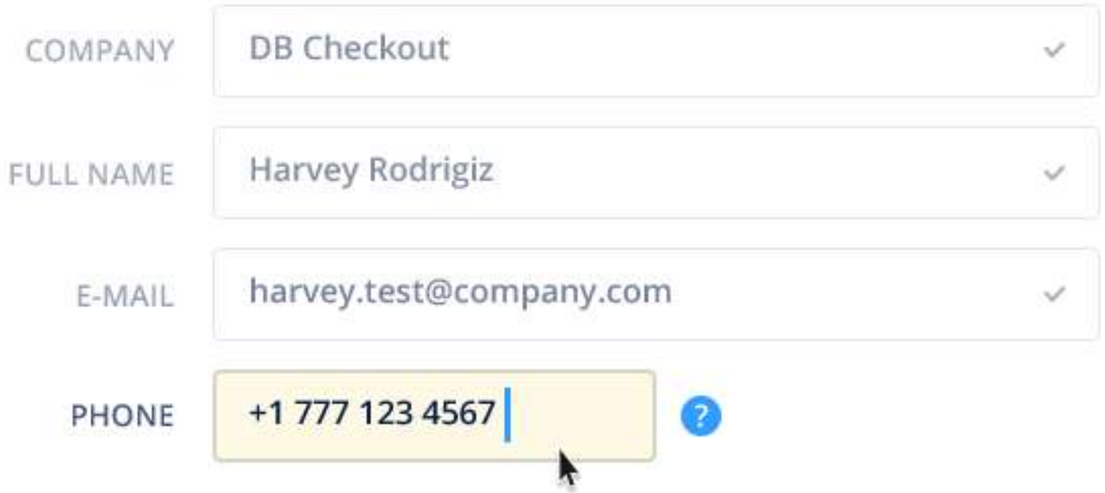
04 — Alphabetic, numbers, punctuation

05 — Min length: 5 characters

06 — Max length: 255 characters

07 — Validation needed


COMPANY
DB Checkout
FULL NAME
Harvey Rodrigiz
E-MAIL
harvey.test@company.com
PHONE
+1 777 123 4567



Phone Number

01 — Mandatory (in our case)

02 — Pre-fill if applicable

03 — Auto-formatting / masking needed

04 — Alphabetic, numbers, punctuation

05 — Accessible tooltip or hint

06 — Min length: country-dependent

07 — Max length: country-dependent

08 — Validation needed

COMPANY DB Checkout

FULL NAME Harvey Rodrigiz

E-MAIL harvey.test@company.com

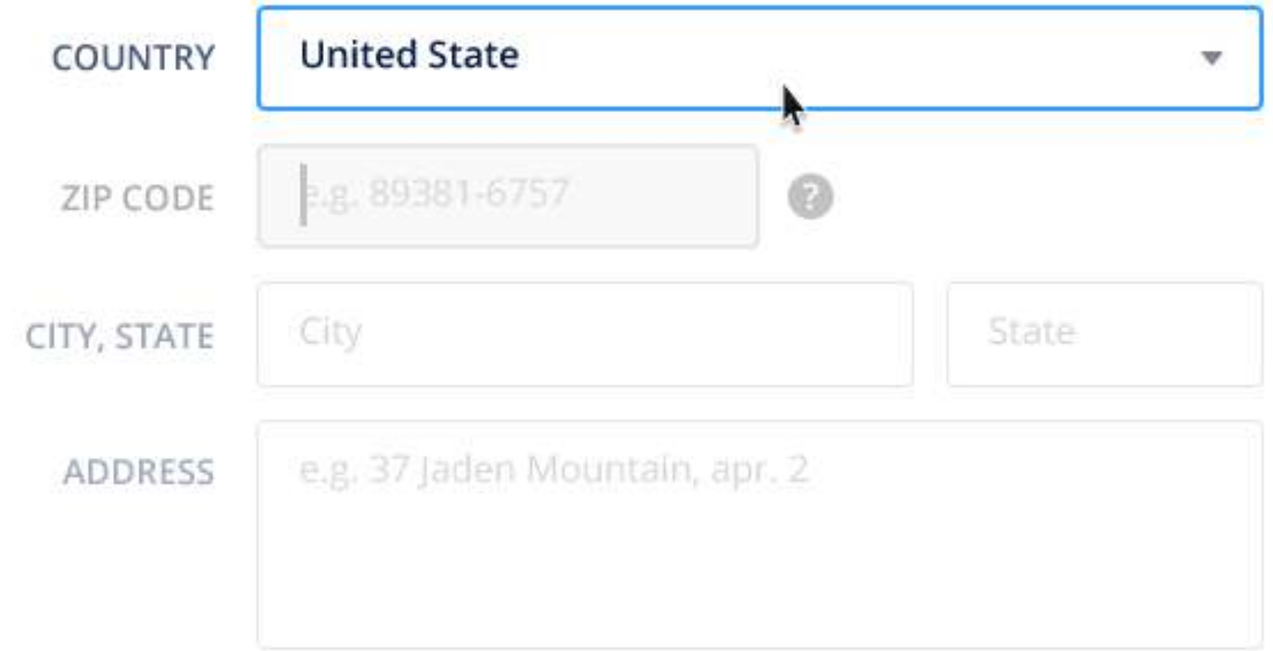
PHONE +1 777 123 4567

COUNTRY United State

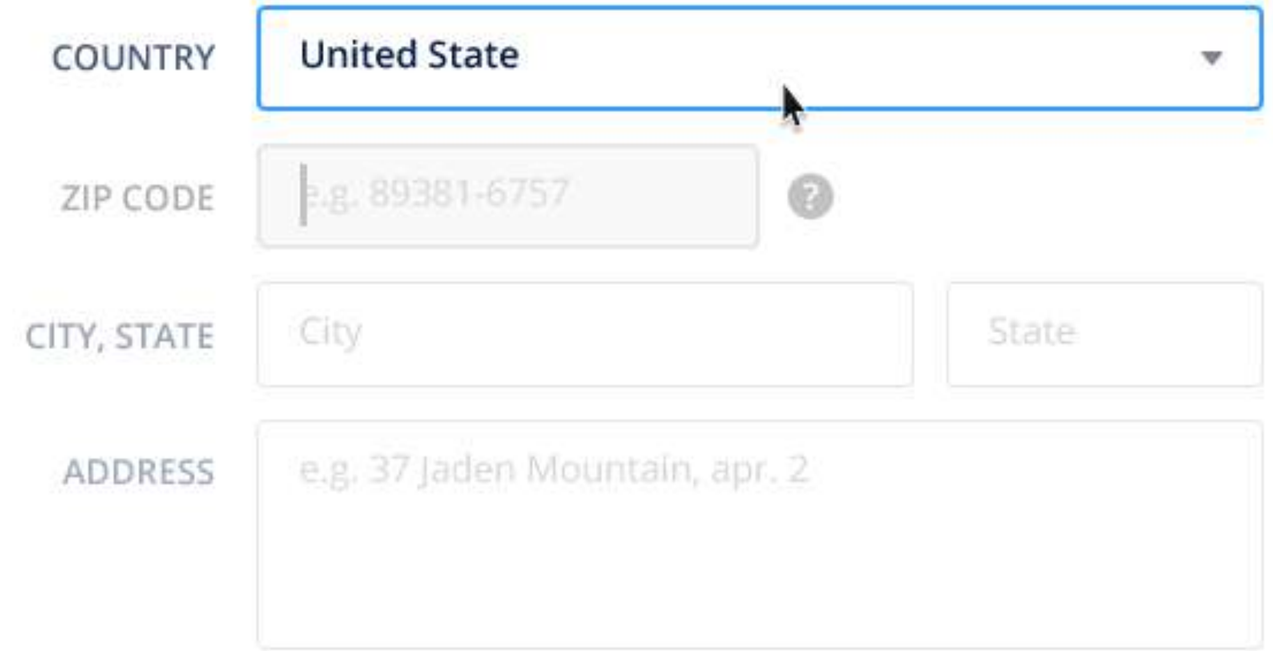
ZIP CODE e.g. 89381-6757

CITY, STATE City State

ADDRESS e.g. 37 Jaden Mountain, apr. 2


COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2

Äthiopien
Australien
Bahamas
Bahrain
Bangladesch
Barbados
Belgien
Belize
Benin
Bermuda
Bhutan
Bolivien
Bonaire, Saint Eustatius und Saba
Bosnien und Herzegowina
Botswana
Bouvetinsel
Brasilien
Britisches Territorium im Indischen Ozean
Brunei Darussalam
Bulgarien
Burkina Faso
Burundi
Chile
China
Cook-Inseln
Costa Rica
Curaçao
Dänemark
✓ Deutschland
Dominica
Dominikanische Republik
Dschibuti
Ecuador
El Salvador
Elfenbeinküste
Eritrea
Estland
Falkland-Inseln (Malwinen)
Färöer-Inseln
Fidschi
Finnland
Frankreich
Französisch-Guayana
Französisch-Polynesien
Französische Südgebiete
Gabun
Gambia


COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2

COUNTRY
United
ZIP CODE
United Arab Emirates
United Kingdom
CITY, STATE
United States
ADDRESS
e.g. 37 Jaden Mountain, apr. 2

COUNTRY
start typing
ZIP CODE
CITY, STATE
ADDRESS
FREQUENTLY USED
United Kingdom
United States of America
Germany
Netherlands
ALPHABETICAL LIST
Afghanistan
Aland Islands

Country Selector

01 — Mandatory

02 — Pre-fill if applicable

03 — Autocomplete

04 — Auto-correction

05 — Manual input/selection

06 — “Frequently used” countries

07 — “Alphabetical list” of countries

08 — Fixed height of 7.5 cells

Country Selector

09 — Detection by IP (depends)

10 — Manual input/selection

11 — Input: alphabetical + spaces

12 — Show dropdown on focus

13 — Accepting abbreviations

14 — Validation needed

15 — Upon selection, move to ZIP

16 — Country change impacts UI

Localization Based on Country

01 — Adjust the currency
02 — Adjust wording on labels
03 — Adjust spelling on buttons
04 — Adjust formatting on dates, times
05 — Adjust input masks
06 — Adjust text hints
07 — Zip code <> Postal code
08 — City, State <> City, County
09 — Placeholder for company name
10 — Placeholder for email
11 — Placeholder for phone
12 — Placeholder for Zip/Postal
13 — Placeholder for City/State
14 — Mask for Zip/Postal
15 — Mask for phone number
16 — Input fields width (zip code)
17 — VAT calculation and taxes
18 — Legal requirements (GDPR/CCPA)

Redesigning the Country Selector

Turning standard drop-downs into advanced auto-complete fields

During our large-scale checkout ux study we found several usability issues when using a drop-down for your country selector: a lack of overview, unclear sorting, scrolling issues, inconsistent UIs, a lack of context on mobile devices, and finally, they break the user's tab-flow.

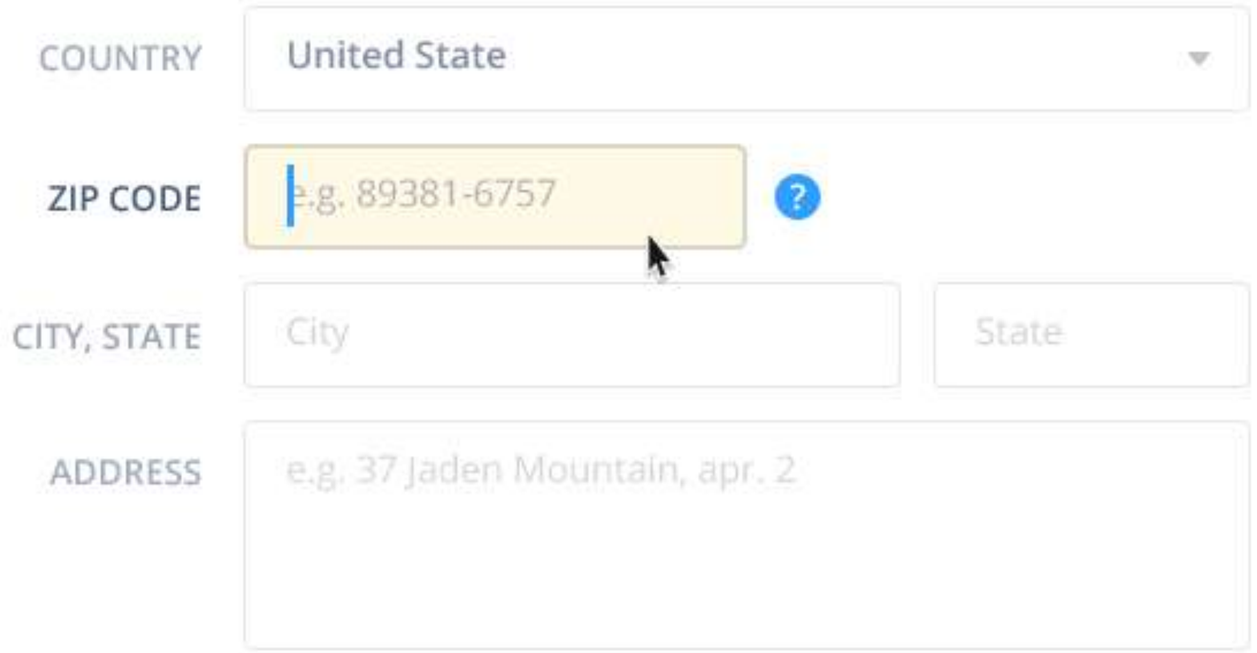
So we took it upon ourselves to redesign the country selector.

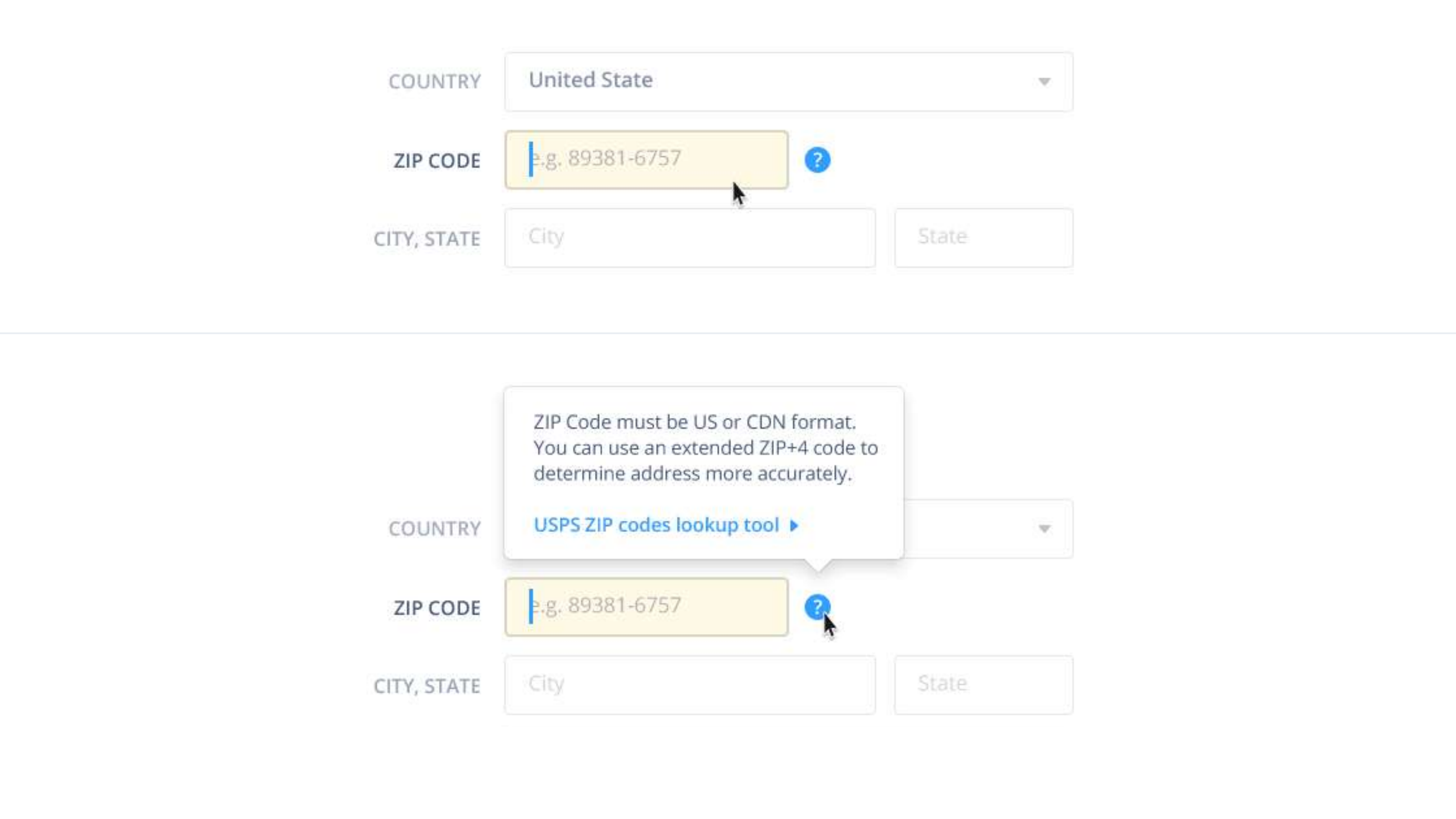
Type your country DEMO

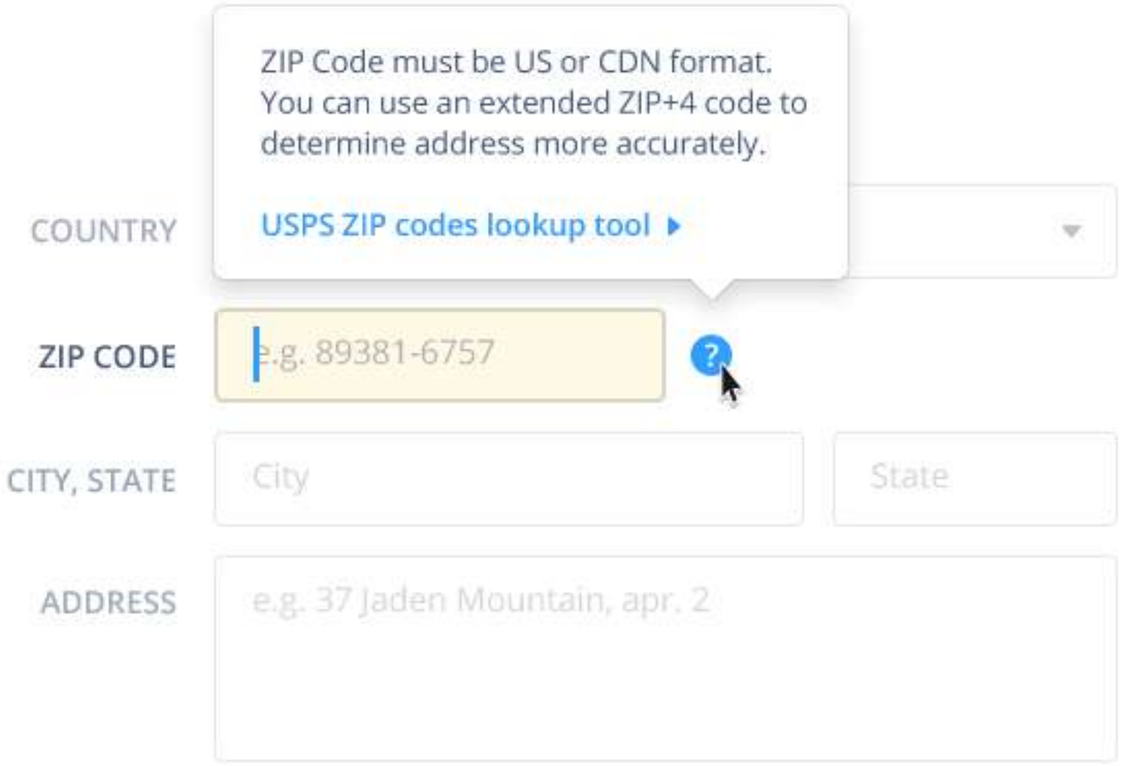
Using principles of progressive enhancement we turn a standard drop-down into an advanced auto-complete field. This means the drop-down remains accessible, while providing a much better experience in modern browsers - handling typos, multiple spelling sequences, synonyms and prioritization.

You can read the more about the design process and usability aspects in our article on Smashing Magazine: Redesigning the Country Selector.

To be notified about future improvements, follow the project on GitHub.


COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2


COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ZIP Code must be US or CDN format.
You can use an extended ZIP+4 code to
determine address more accurately.
USPS ZIP codes lookup tool
COUNTRY
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State



ZIP / Postcode

01 — Mandatory

02 — Pre-fill if applicable

03 — Varies much due to country

04 — Varies in naming, length, chars

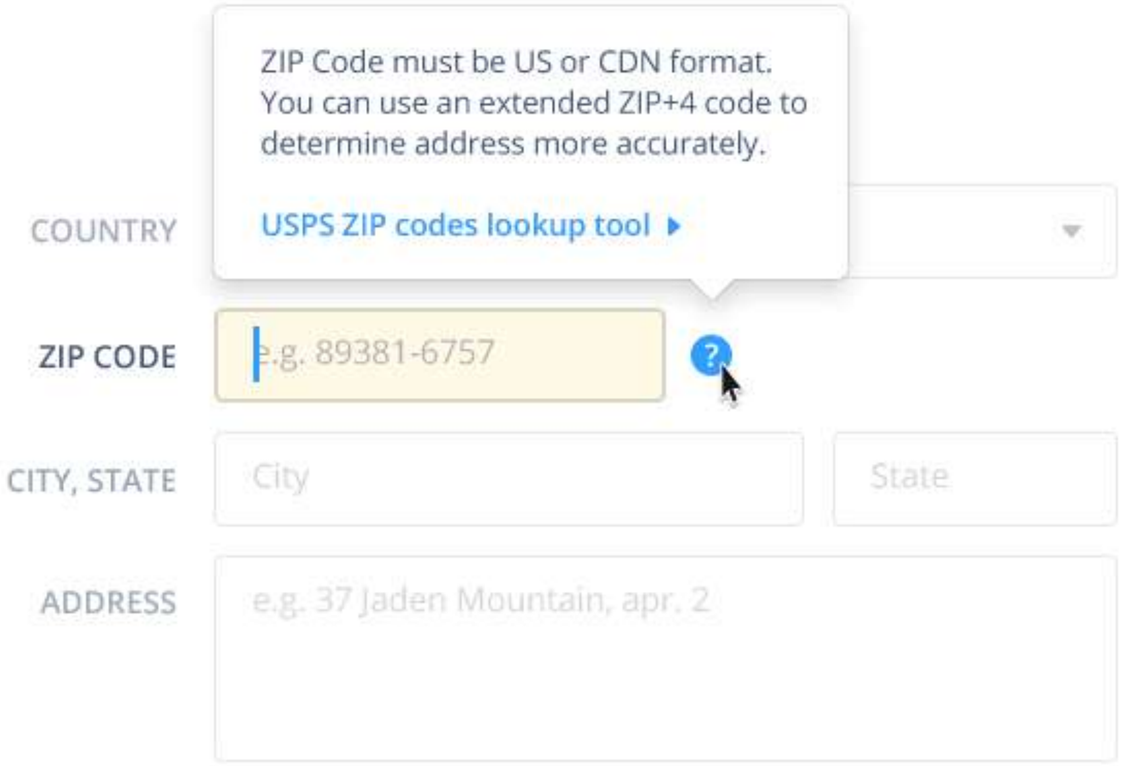
05 — Varies in masking, min/max

06 — Between 4 and 11 chars

07 — Outward/inward code format

08 — Manual input + validation

09 — Formatting applied after input



ZIP / Postcode

With a given ZIP or postal code, *sometimes* we can detect the city, state, and in some cases (mostly US), even the *full address*. It might be a good idea to ask for a ZIP code *early* and autocomplete.

2 Enter your information:

Full Name

Brad Frost

E-mail

brad@bradfrostweb.com

Address

123 Main St

ZIP

15201

NEXT STEP ›

COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2

City

01 — Mandatory

02 — Pre-fill if applicable

03 — Pre-fill based on Zip if possible

04 — Alphanumeric

05 — Min length: 2 chars

06 — Max length: 24 chars

07 — Placeholder: %Capital% / None

08 — Pre-fill state based on the city

graze | your details

graze.com/uk/registration/your-details

Paused

graze

login

tell us about you...

your order summary

You've chosen to receive a variety box as your first box – change box type >

You'll get **your first box half price (£2.24)** and your other boxes will cost £4.49 each.

graze is a regular service but **you can change or stop your orders at any time.** You'll pay per box so you're never tied into ongoing deliveries.

have a promotion or gift code?
enter it here >

1 of 3 - your details

Please tell us your name, email address and choose a password...

title (optional) None

first name

last name

email address

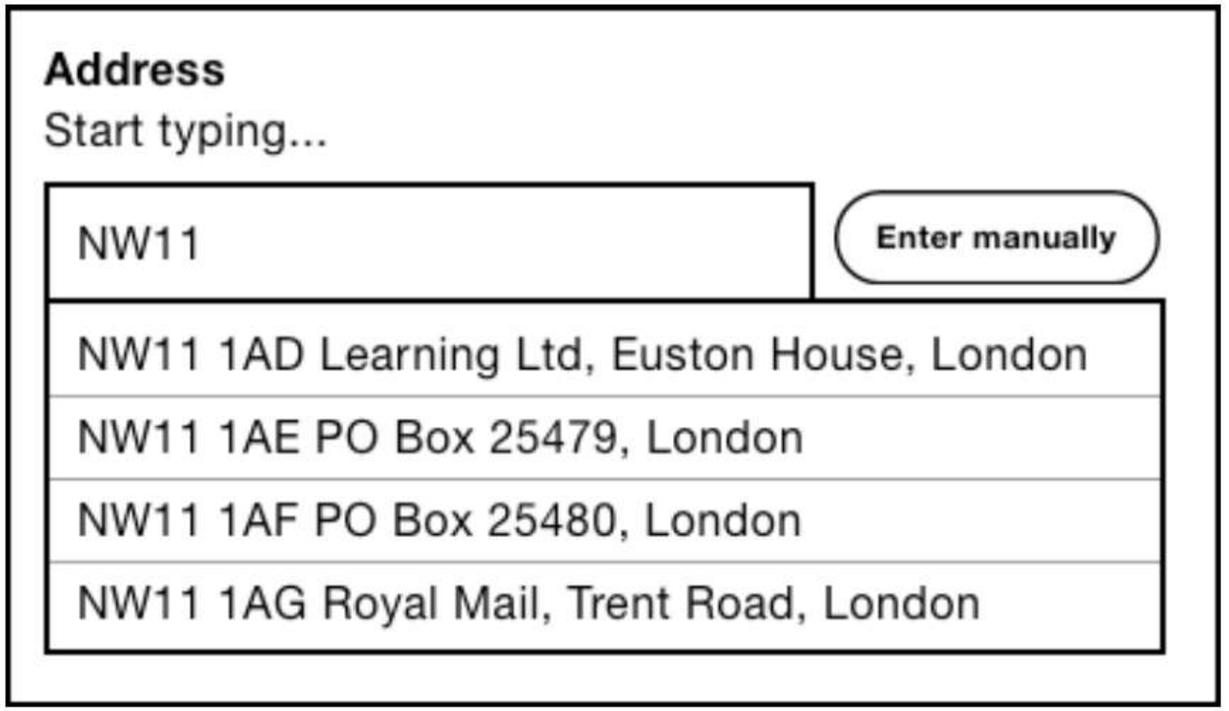
example@address.com

password

do you have any allergies?

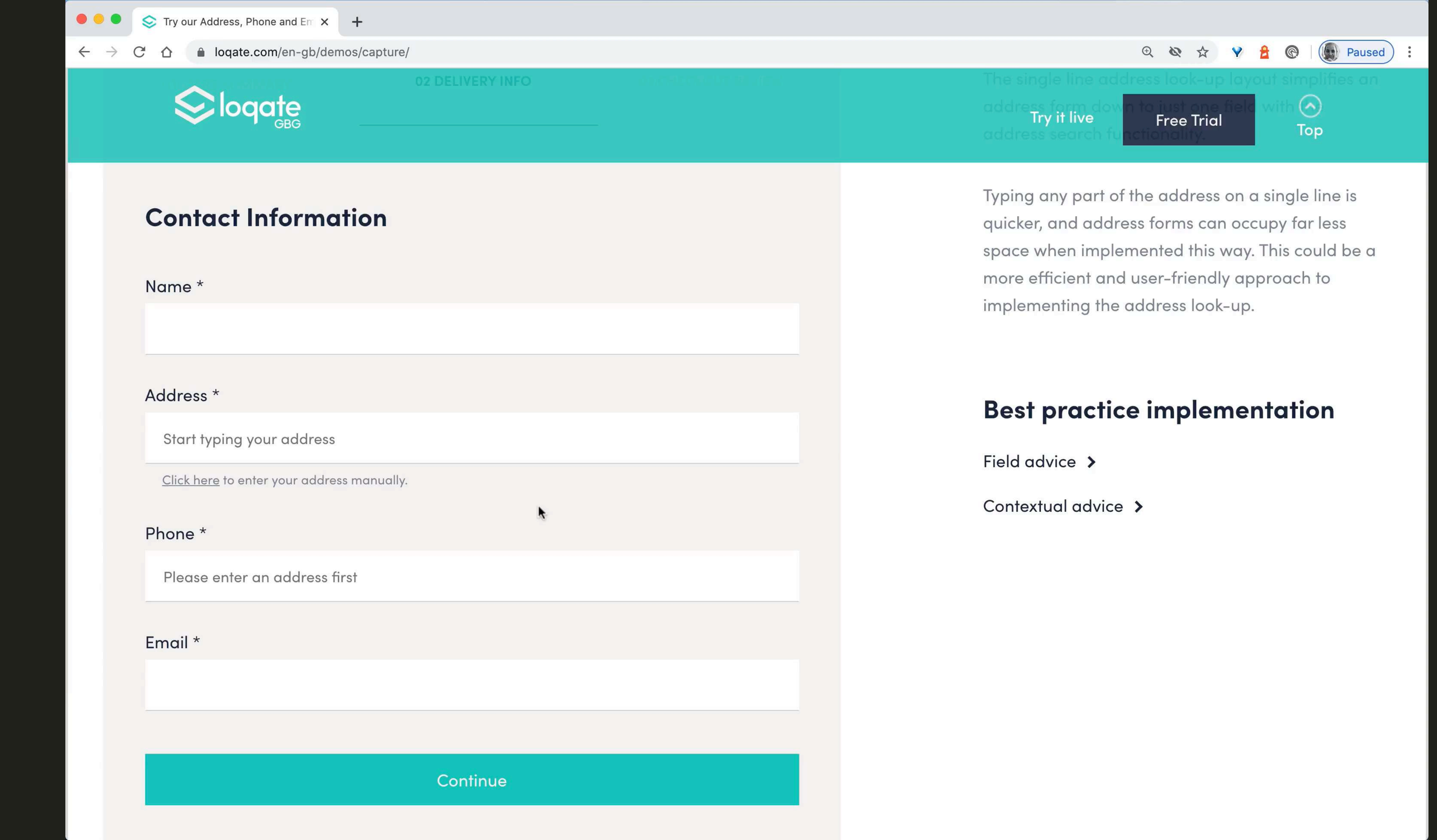
- (•) **No**
- ( ) **Yes**

continue >


Address
Start typing...
NW11
Enter manually
NW11 1AD Learning Ltd, Euston House, London
NW11 1AE PO Box 25479, London
NW11 1AF PO Box 25480, London
NW11 1AG Royal Mail, Trent Road, London

Address Lookup

Combining all address input into an *autocomplete* widget. As a fallback, we need to provide an option to enter full address *manually* as well.


Try our Address, Phone and En
loqate.com/en-gb/demos/capture/
Paused
loqate GBG
02 DELIVERY INFO
Try it live
Free Trial
Top
Contact Information
Name *
Address *
Start typing your address
Click here to enter your address manually.
Phone *
Please enter an address first
Email *
Continue
The single line address look-up layout simplifies an address form down to just one field with address search functionality.
Typing any part of the address on a single line is quicker, and address forms can occupy far less space when implemented this way. This could be a more efficient and user-friendly approach to implementing the address look-up.
Best practice implementation
Field advice
Contextual advice

Web Forms

04 The Right Layout

4

How do we lay out input elements?

Design

Structuring forms

Give feedback about this page

From: Design community
Last updated: over 1 year ago

Page contents:

– Design your forms for the format they'll appear in
– Know why you're asking every question
– Design for the most common scenarios first
– Start with one thing per page
– Structure your form to help users
– Further reading
– Related guides

This guide explains how to structure online forms.

Design your forms for the format they'll appear in

Paper forms and digital forms have different strengths and weaknesses. Design for both formats with the same amount of care and attention.

The movement from paper to digital is an opportunity to transform how your service is delivered - don't just put your paper forms online.

Page contents:

– Design your forms for the format they'll appear in
– Know why you're asking every question
– Design for the most common scenarios first
– **Start with one thing per page**
– Structure your form to help users
– Further reading
– Related guides

Start with one thing per page

Start by splitting the form across multiple pages with each page containing just one thing, for example:

- one piece of information you're telling a user
- one decision they have to make
- one question they have to answer

User research will tell you when you can merge pages together. For example, if you're designing an internal service for government users who need to repeat and switch between tasks quickly.

Starting with one thing on a page helps people to:

- understand what you're asking them to do
- focus on the specific question and its answer
- find their way through an unfamiliar process
- use the service on a mobile device
- recover easily from form errors

It also helps you to:

- save a user's answers automatically as they go
- capture analytics about each question
- handle branching questions and loops

Try the Register to vote service on GOV.UK to see an example of this

Tim Paul on

One-Thing-Per-Page

> We could either display *one question per page,* or all questions on a single page or use an accordion pattern: a single page, but previous questions are collapsed.

“One thing per page”, Gov.uk

Tim Paul on

One-Thing-Per-Page

> *One question per page* works best. Users find them easier to use, they work well on mobile devices and they're better at handling things like errors, branches, loops and saving progress.

"One thing per page", Gov.uk

Interface Design Patterns

One-Thing-Per-Page Flow

01 — Display *only one* complex entity at a time.

02 — Errors are caught and shown early and often.

03 — Adds a sense of progression and increases momentum.

04 — Reduces the need to scroll up and down a lot.

05 — Ideally, show at most 6-7 input fields per page.

Register to vote

You can use this service to:

- get on the electoral register so you can vote in elections or referendums
- update your name, address or nationality by registering again with your new details
- get on or off the open register

It usually takes about 5 minutes.

> This service is also available in Welsh (Cymraeg).

Who can register

Related content

The electoral register and the 'open register'

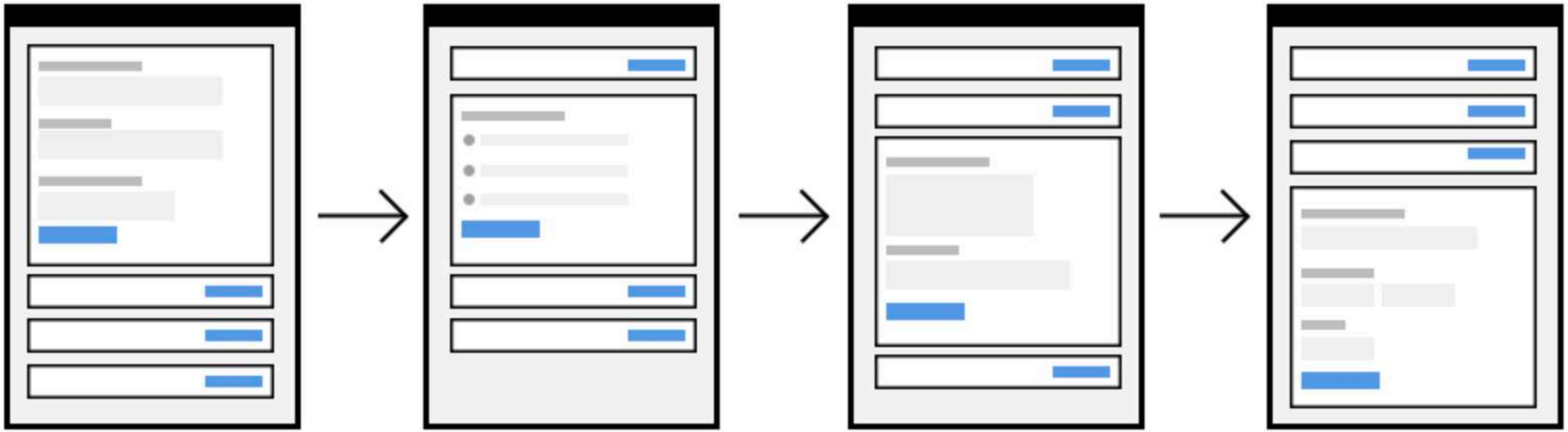
How to vote

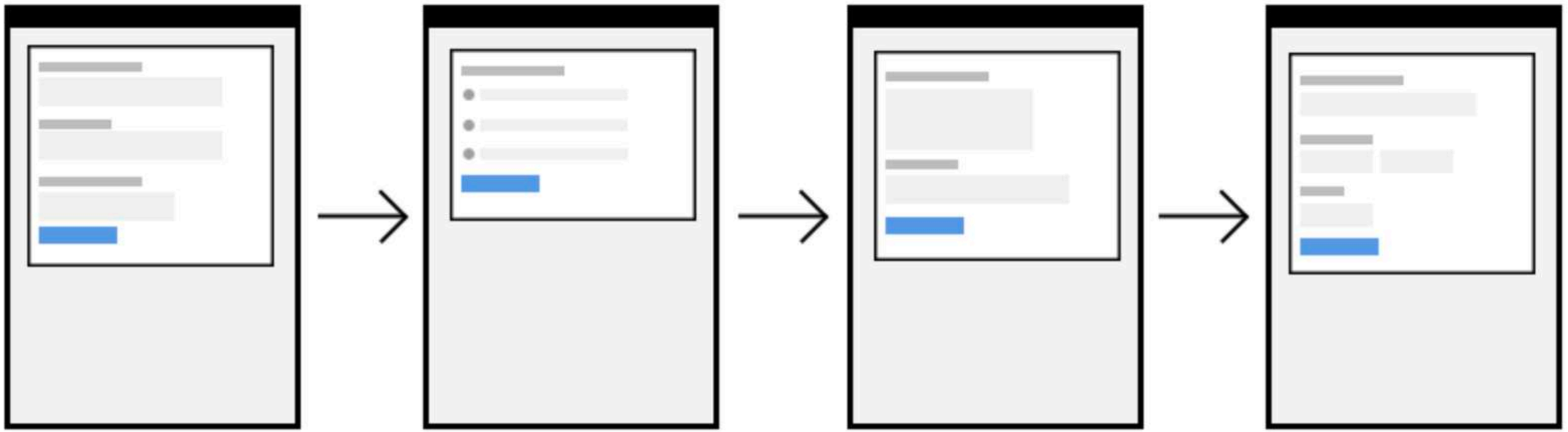
Contact your local Electoral Registration Office

Voting if you move or live abroad

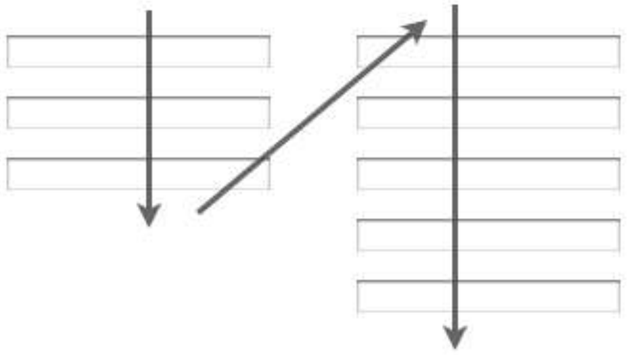
Types of election, referendums, and who can vote

Apply for a postal vote

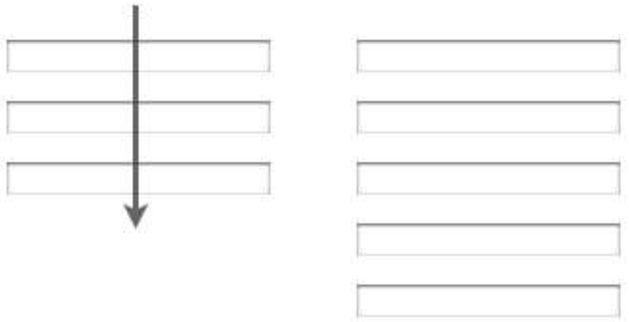




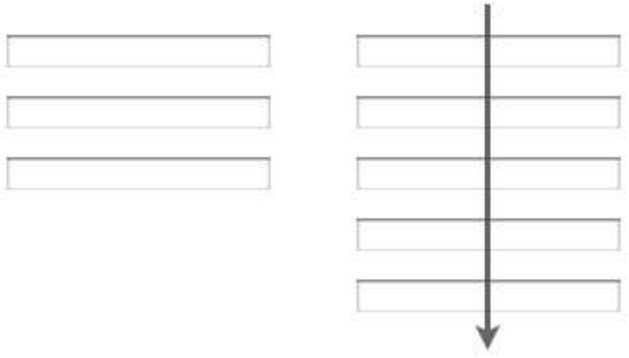
1.



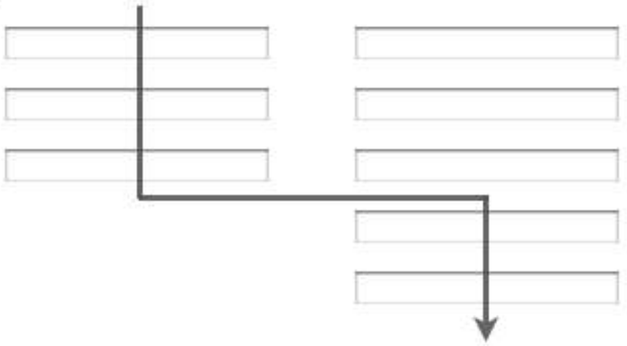
2.



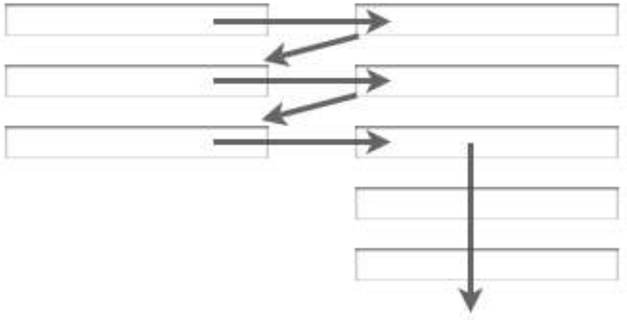
3.

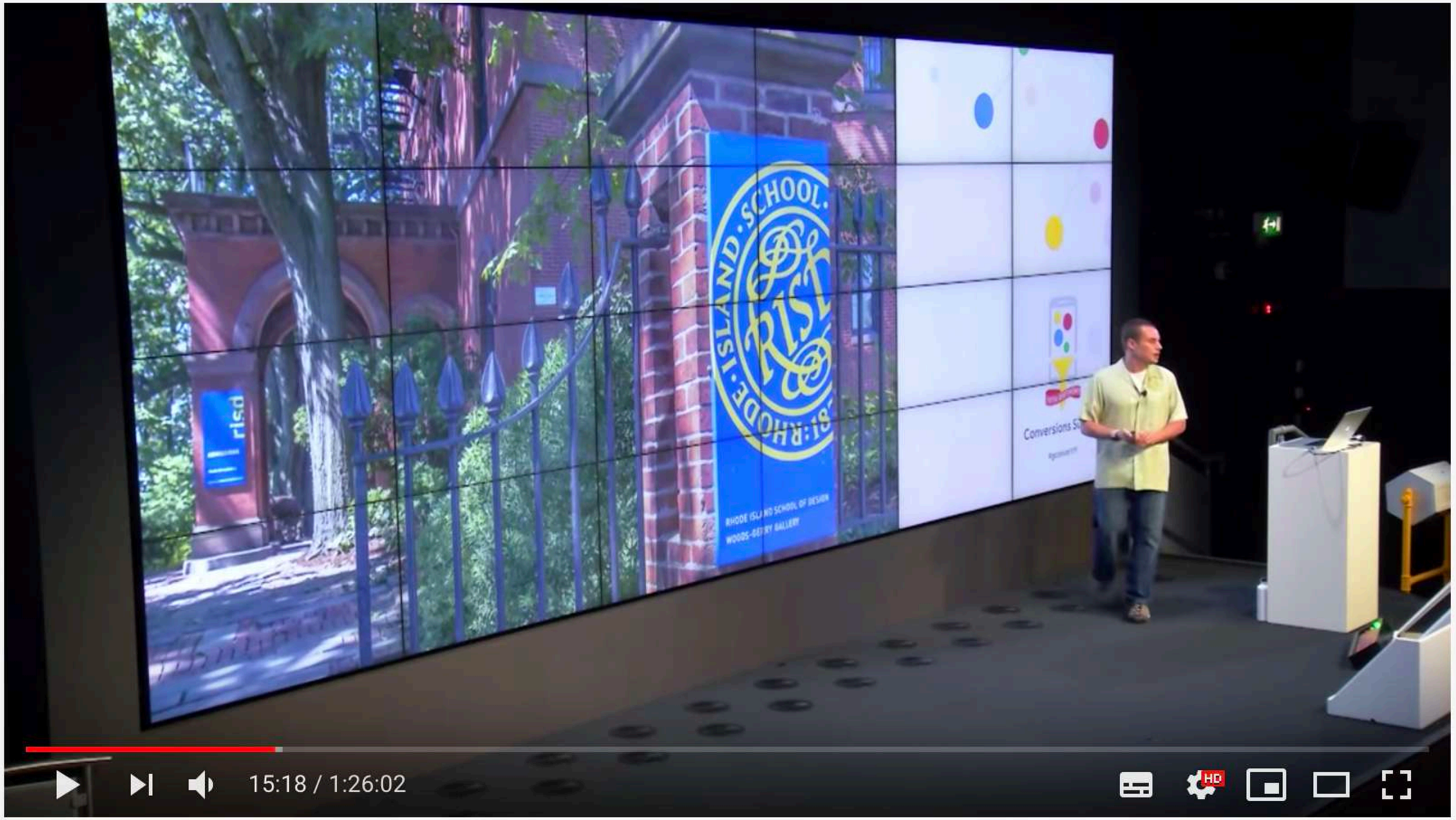


4.



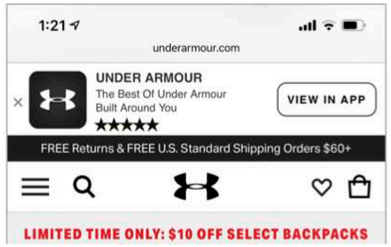
5.

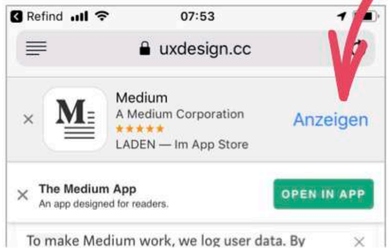


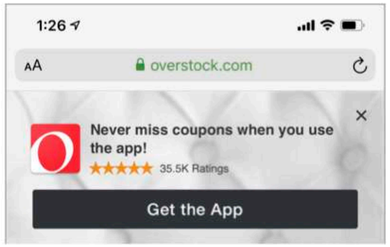


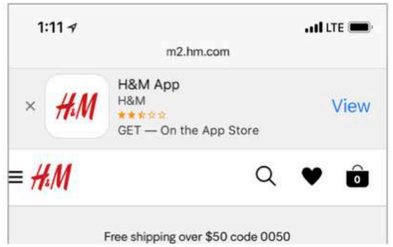
Mind The Gap, *Luke Wroblewski*, *https://youtu.be/mAiNdU1go1A*

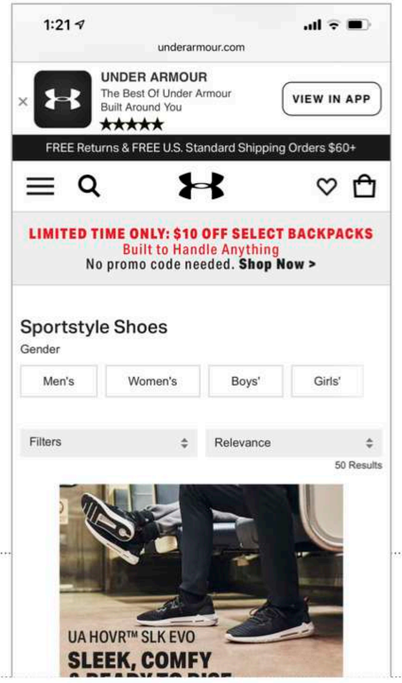
app install banners

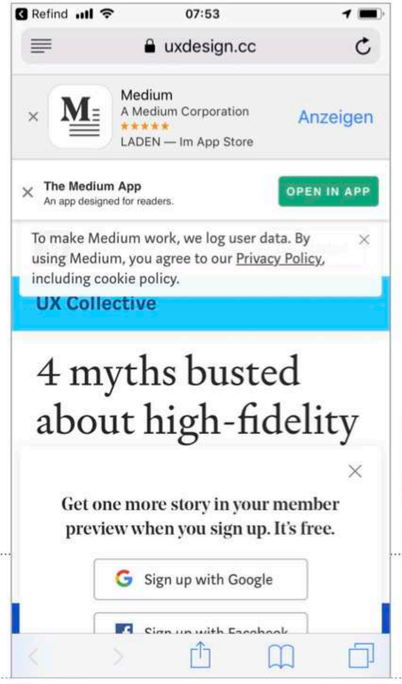


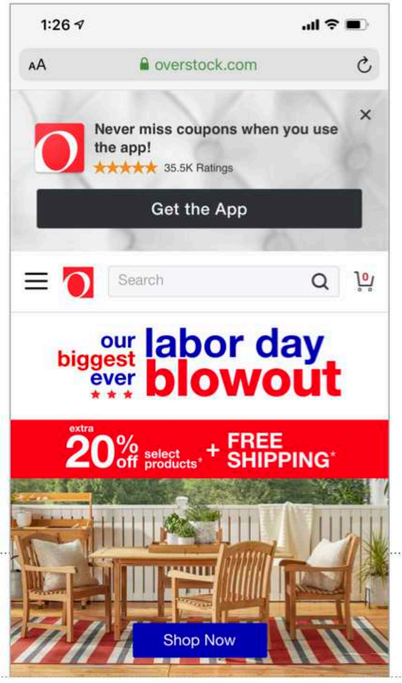


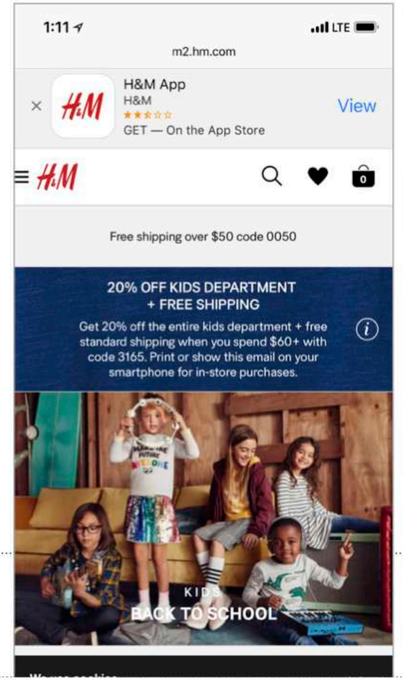






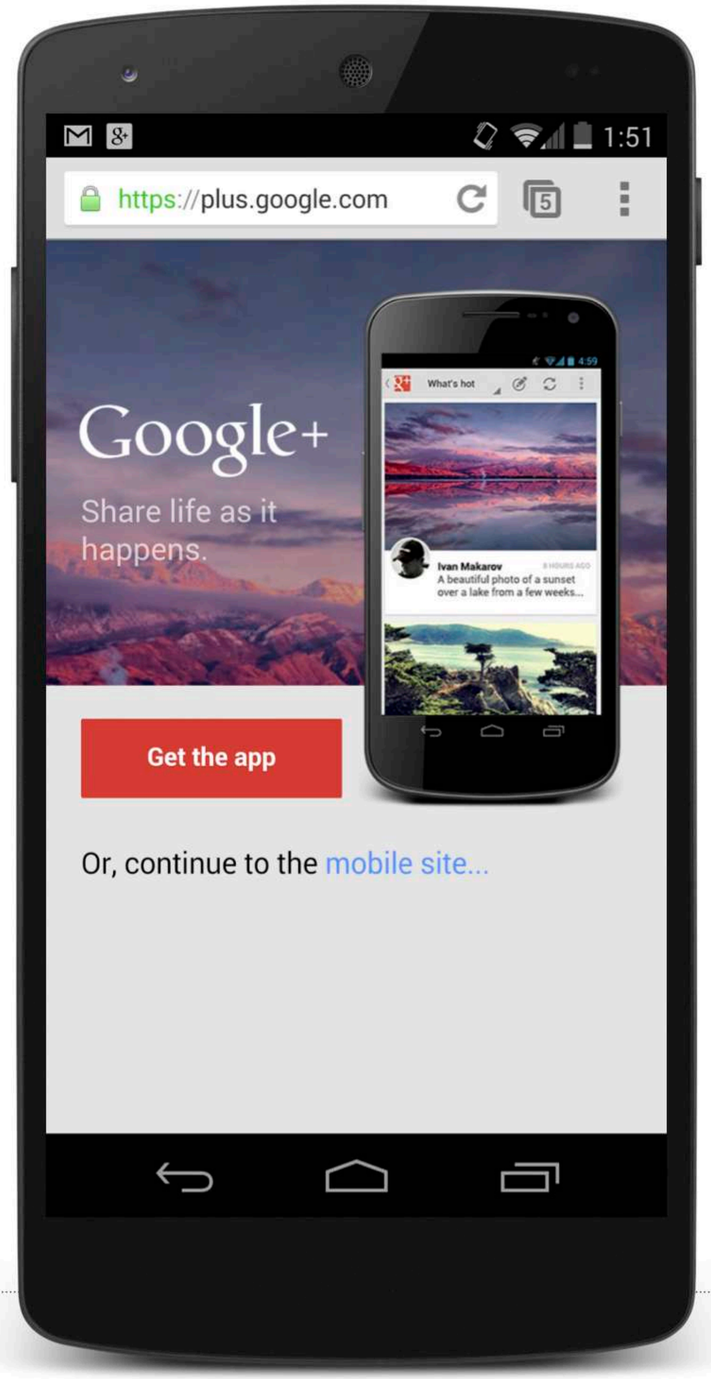






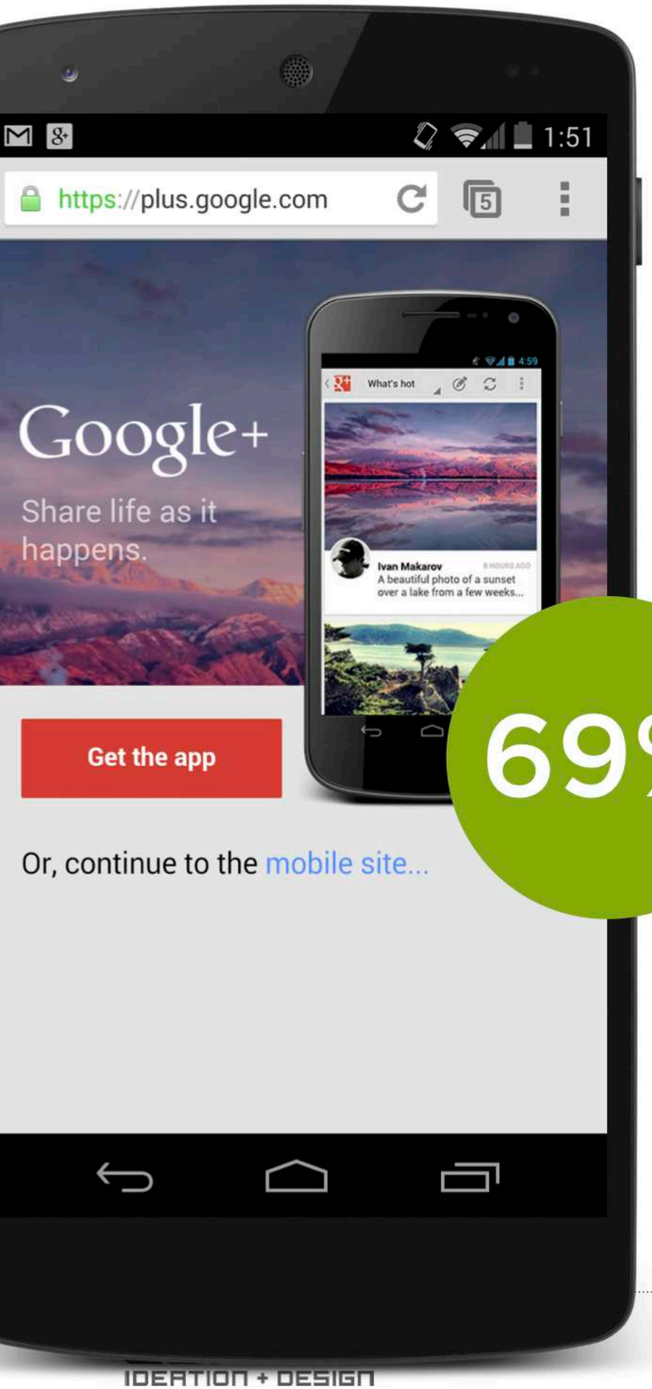
OF VISITS PRESSED
GET APP BUTTON

9%



Some percentage of these users already have the app installed or may never follow through with the app store download.

Source: https://bit.ly/21Ao7Ct



69%

VISITS ABANDONING AT APP INTERSTITIAL

WITHOUT APP INTERSTITIAL

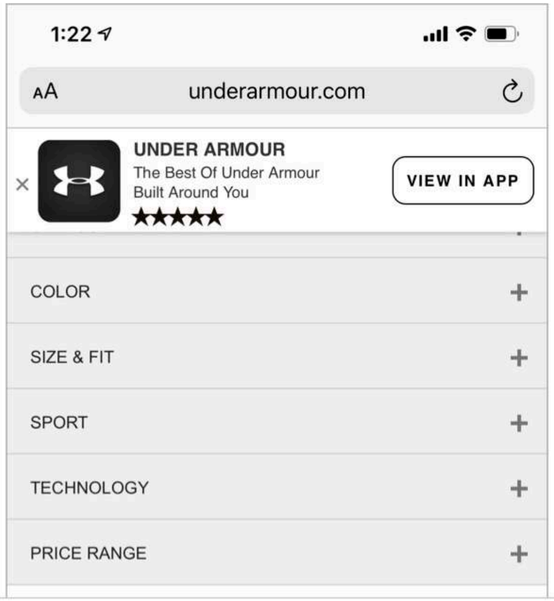
+17%

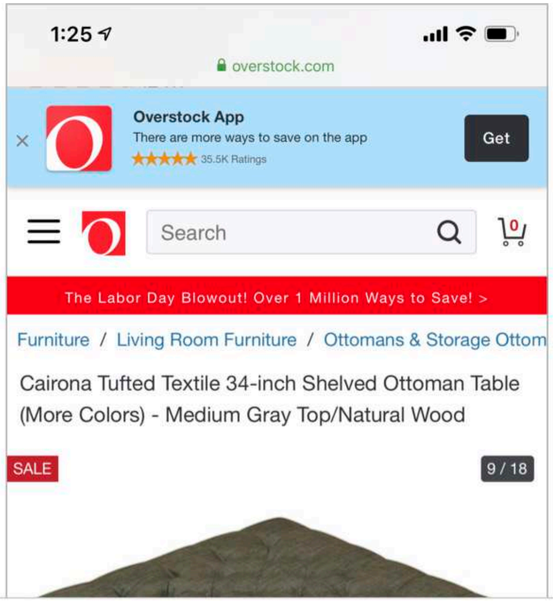
1-DAY ACTIVE USERS ON MOBILE WEB

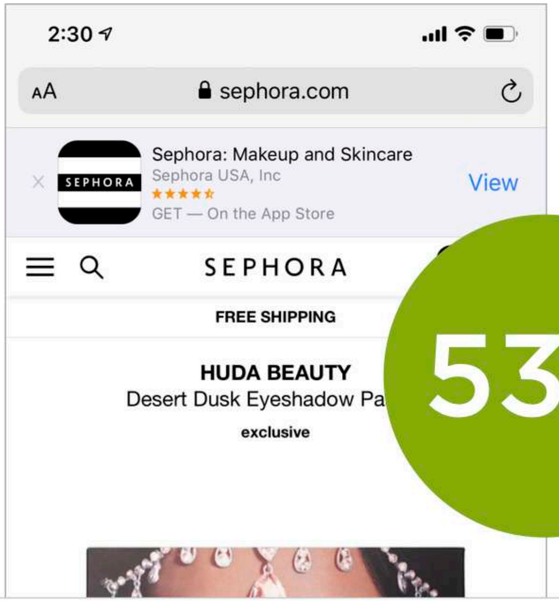
-2%

NATIVE APP INSTALLS

Source: https://bit.ly/21Ao7Ct



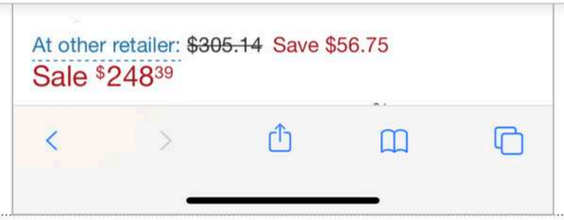


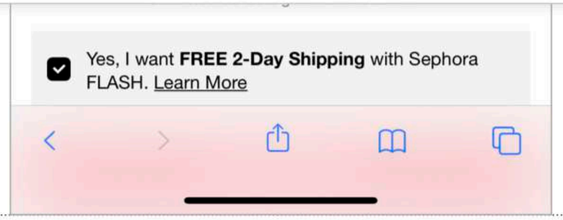


53%

OF E-COMMERCE SITES TESTED

“Install App” banners were the direct & sole cause of several abandonments…





LUKEW IDEATION + DESIGN

Source: https://baymard.com/blog/deemphasize-install-app-ads

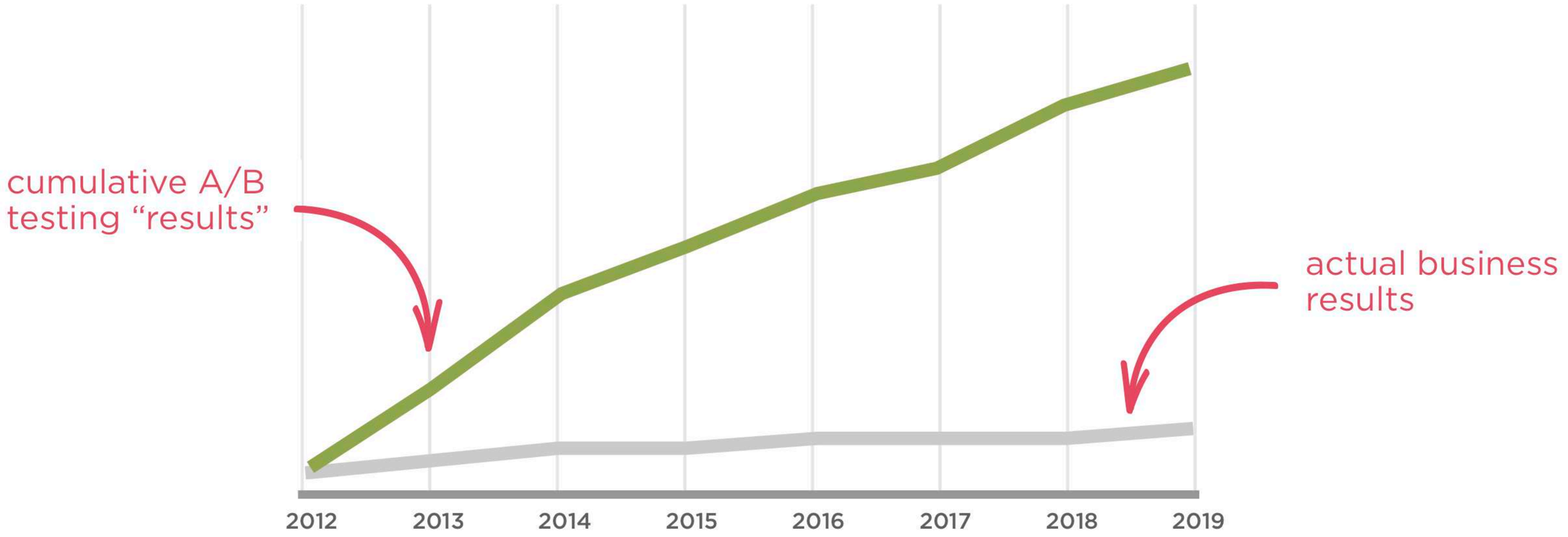
VS

+9%

MORE CLICKS ON ORANGE BUTTON

Source: https://bit.ly/2lzh5FD

Impact of A/B Testing Results



Healthy Business Metrics Mix

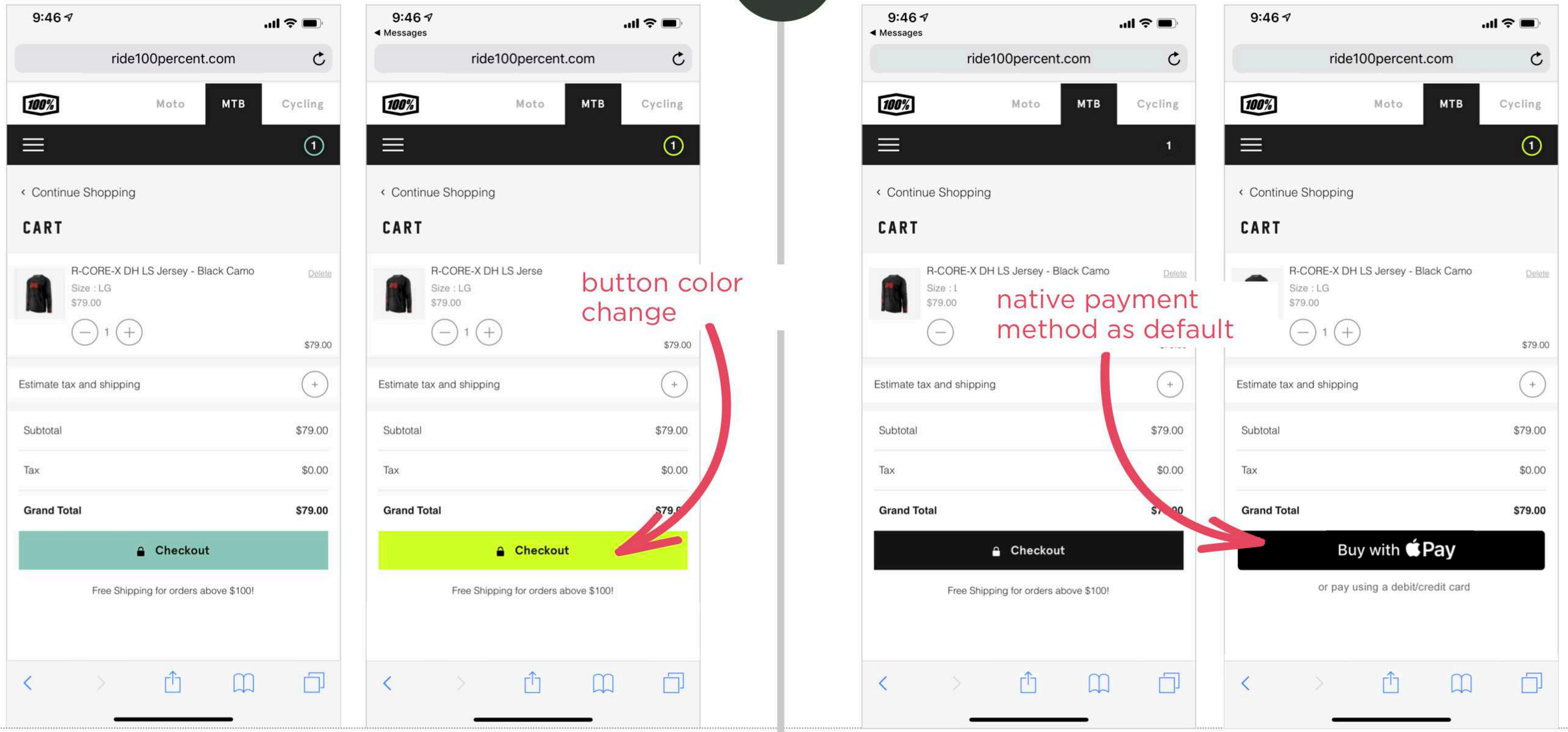
Increase!	Conversion rate.
Reduce!	Time to repeat purchase.
Improve!	Progressive privacy rate.
Reduce!	Time to first share.
Reduce!	Time to first purchase.
Reduce!	Time to first upgrade.
Improve!	Custom perf metrics.
Increase!	Life-time value.

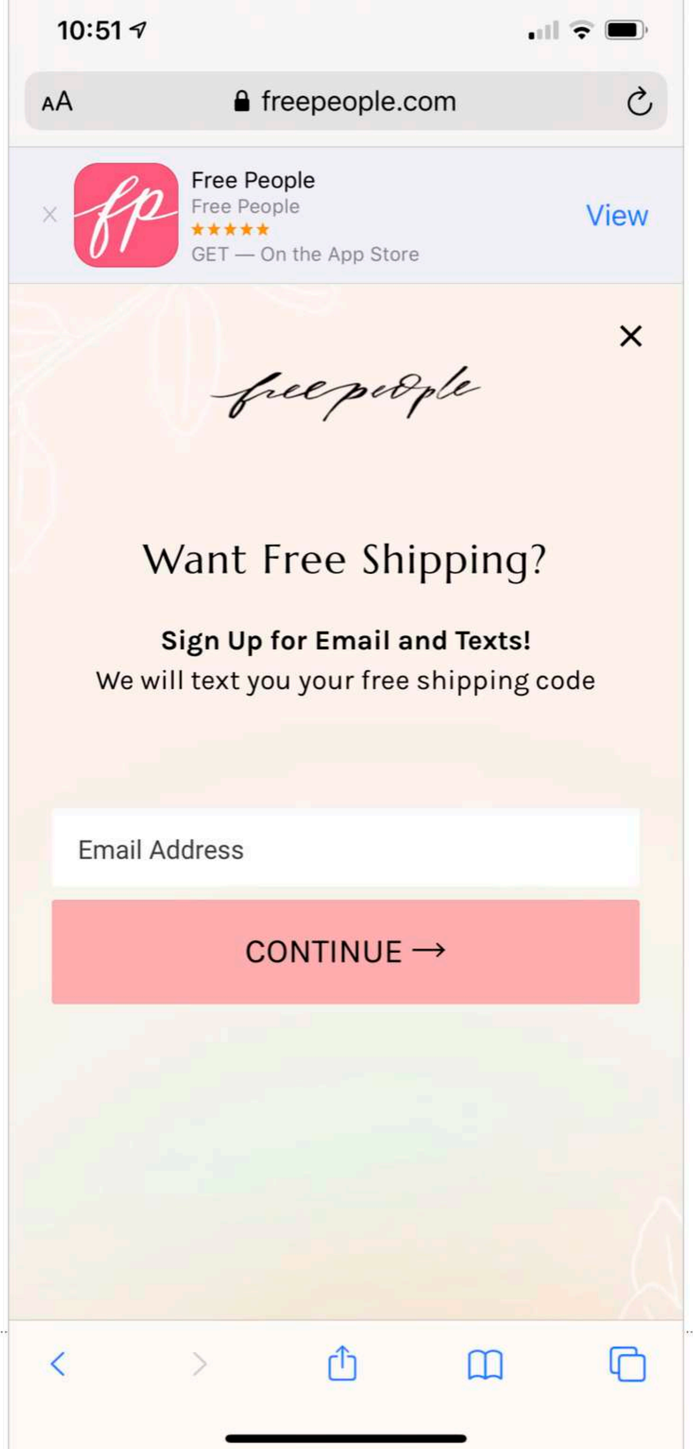
Measure!	Sales and marketing costs.
Reduce!	Customer support inquiries.
Reduce!	Confusing encounters per visit.
Reduce!	Negative encounters per visit.
Reduce!	Total cost and ratio of returns.
Reduce!	Ratio of negative reviews.
Reduce!	“Marked as spam” signal.
Increase!	“Turn-around” score.

LOW CONTRAST TEST

VS

HIGH CONTRAST TEST





app install banner

newsletter promo

app install banner

promotional banner

icon-based navigation

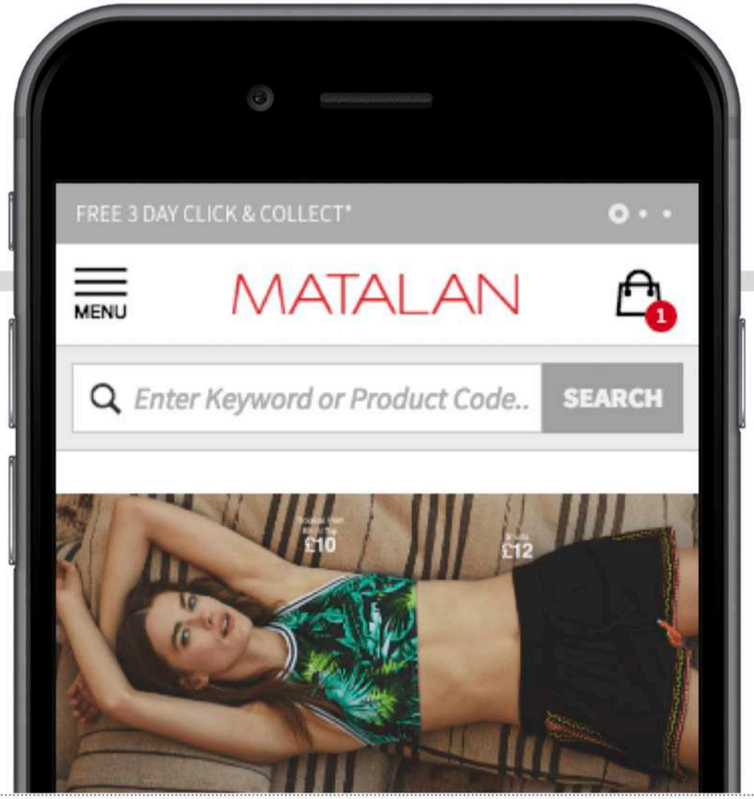
feature

icon-based navigation

feature

category links

VS



+32%

INCREASE IN SEARCHES ON MOBILE

LUKEW IDEATION + DESIGN

Source: https://bit.ly/2lEgbY9

icon-based navigation

search bar

feature

category links

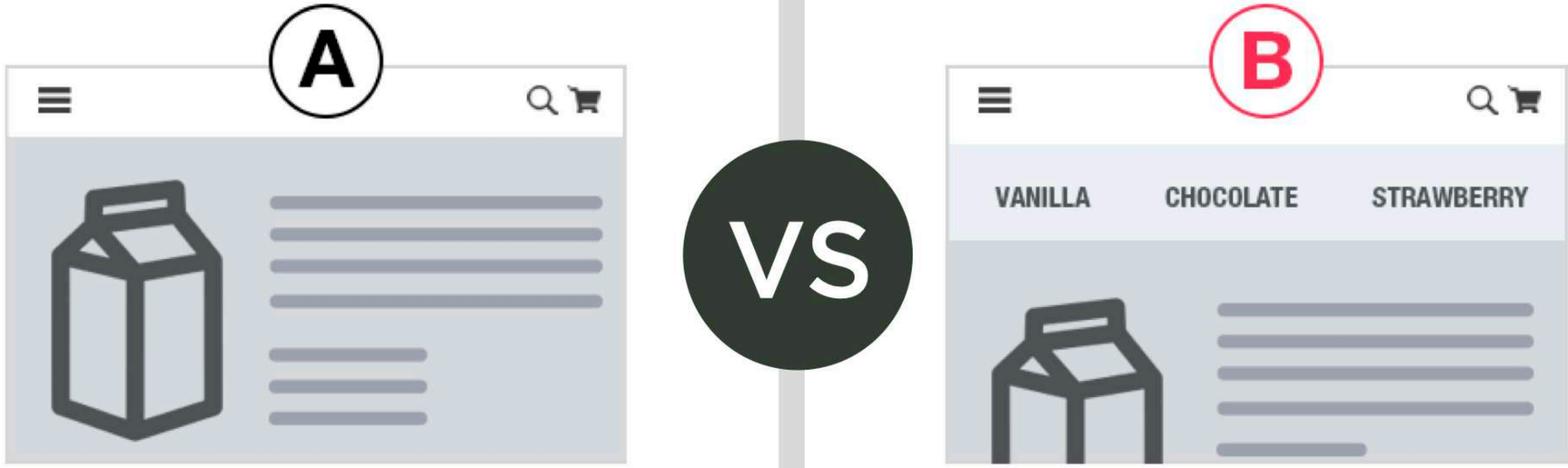
VS

+5%

INCREASE IN COMPLETED ORDERS

page views of the category pages increased by 10% – 12%

Source: https://growthrock.co/ecommerce-mobile-home-page-navigation/

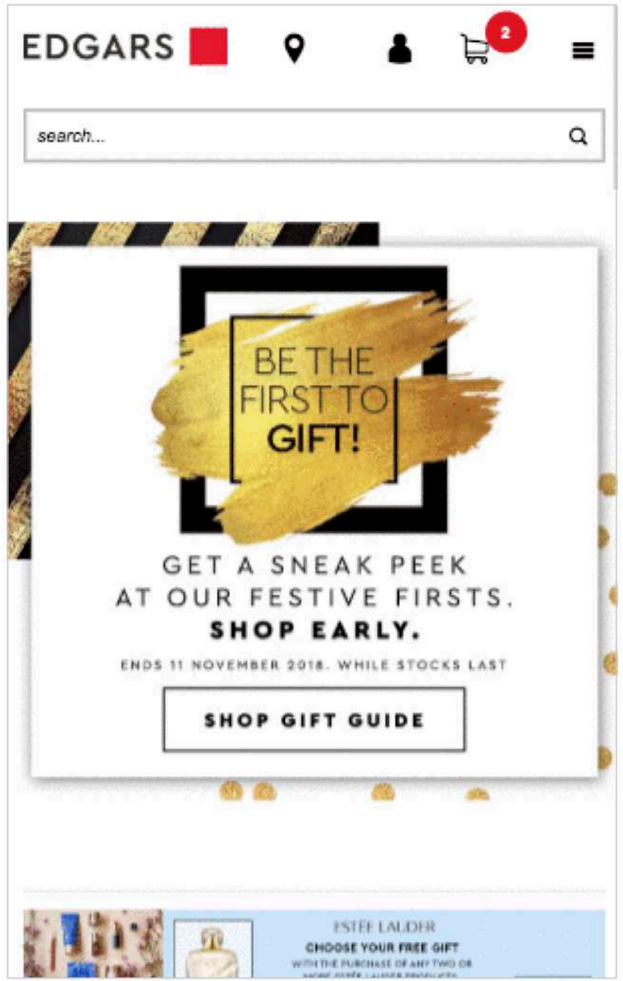


+29%

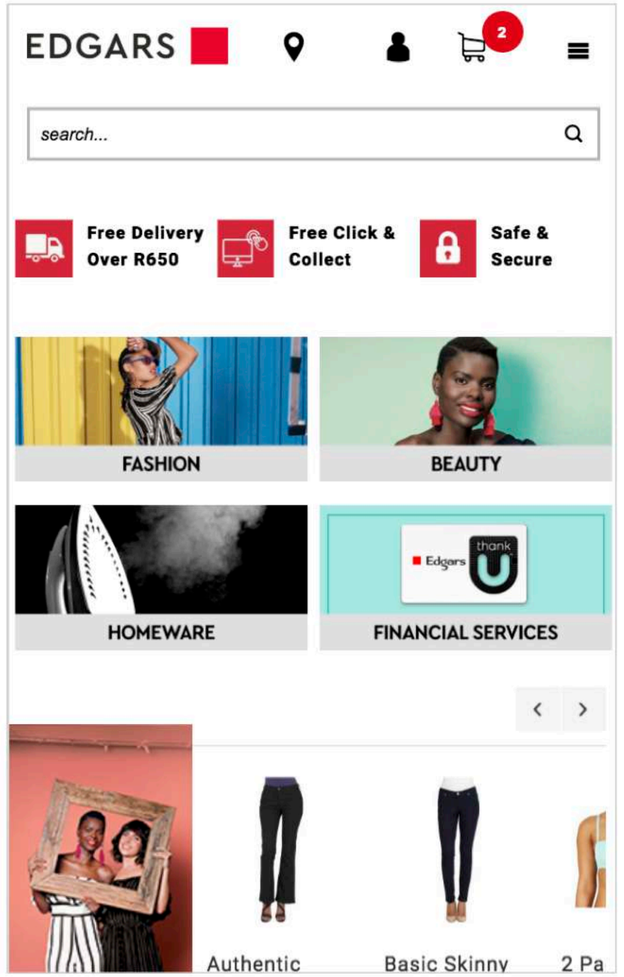
INCREASE IN COMPLETED ORDERS

page views of the category pages increased by 25% – 77%

Source: https://growthrock.co/ecommerce-mobile-home-page-navigation/



VS



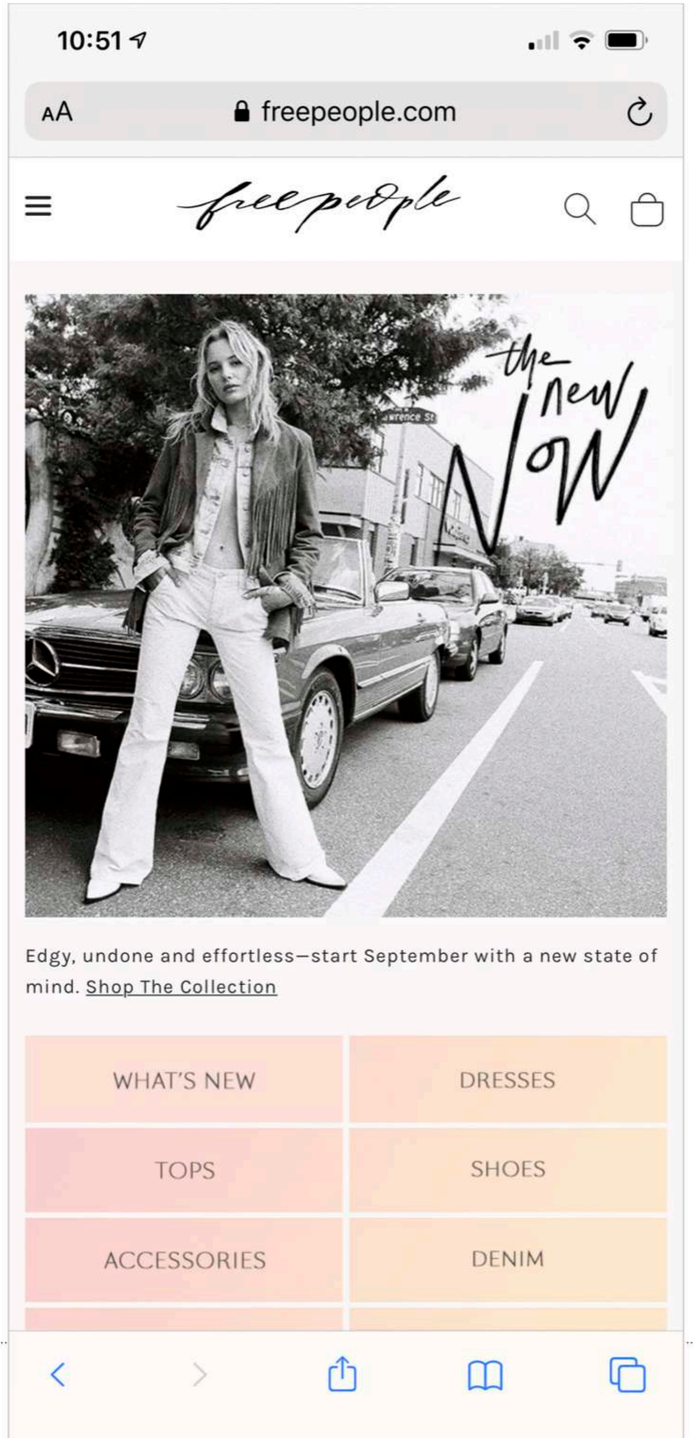
+13%

INCREASE IN REVENUE PER VISITOR

from a 11% increase in mobile conversion rate

LUKEW IDEATION + DESIGN

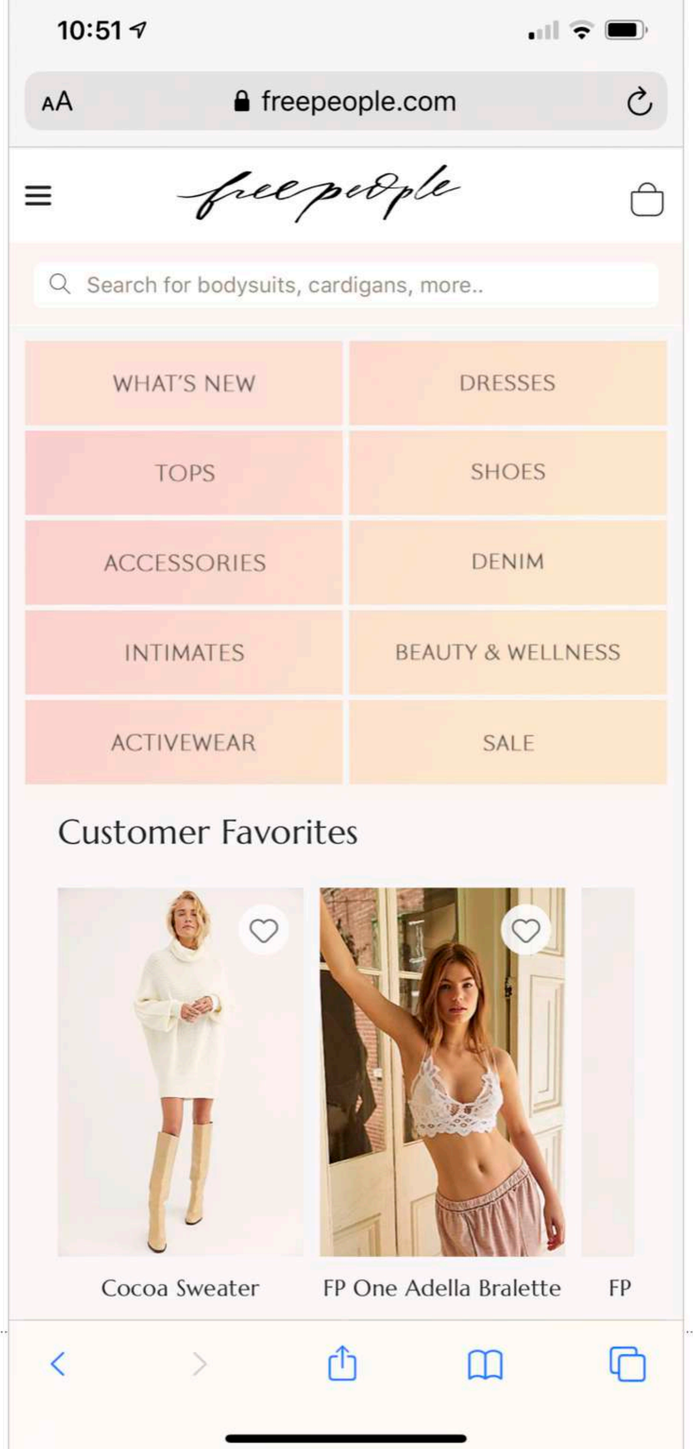
Source: https://bit.ly/2kvu3nJ



icon-based navigation

feature

category links

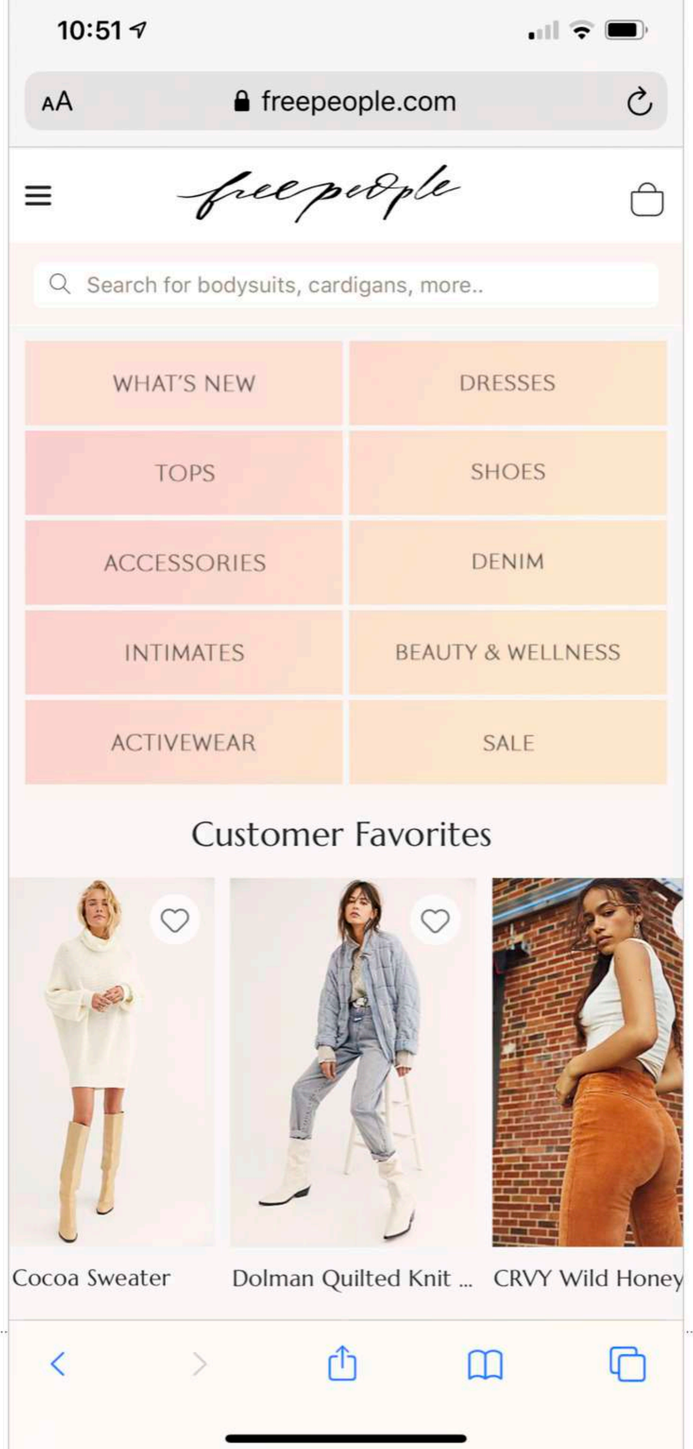


icon-based navigation

search bar

category links

popular products



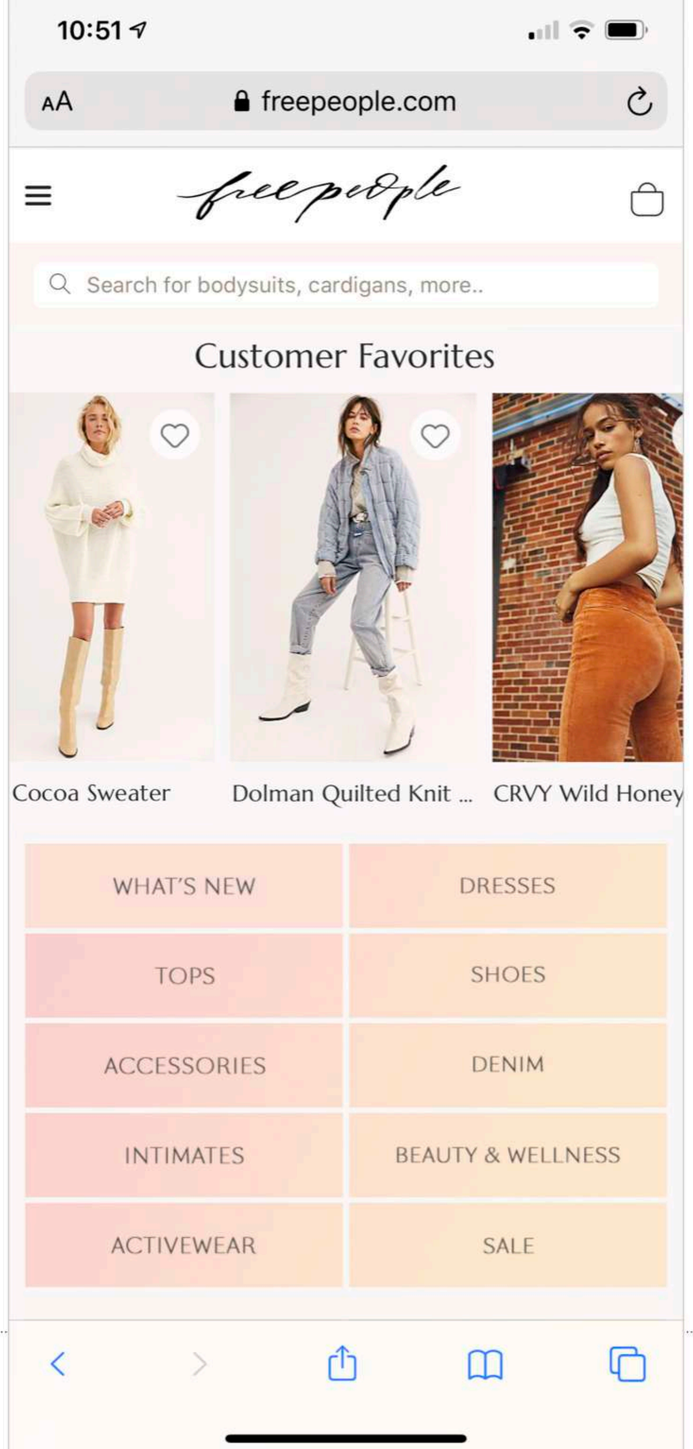
icon-based navigation

search bar

category links

popular products

OW
STRETCH
NATURAL



icon-based navigation

search bar

popular products

category links

8:57

freepeople.com

freepeople

Clothes / Sweaters / Tunics / Ottoman Slouchy Tunic

Ottoman Slouchy Tunic

$148.00

Free shipping! (on all orders over $100)

Shop all Free People

4.2 | 98 reviews

8:58

freepeople.com

Order Summary

Sub Total	$148.00
Shipping	Free shipping
Estimated Tax	$0.00
TOTAL	$148.00

PROCEED TO CHECKOUT

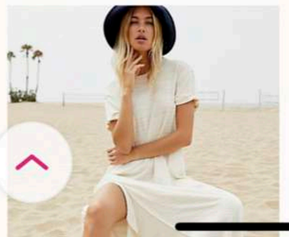
PayPal

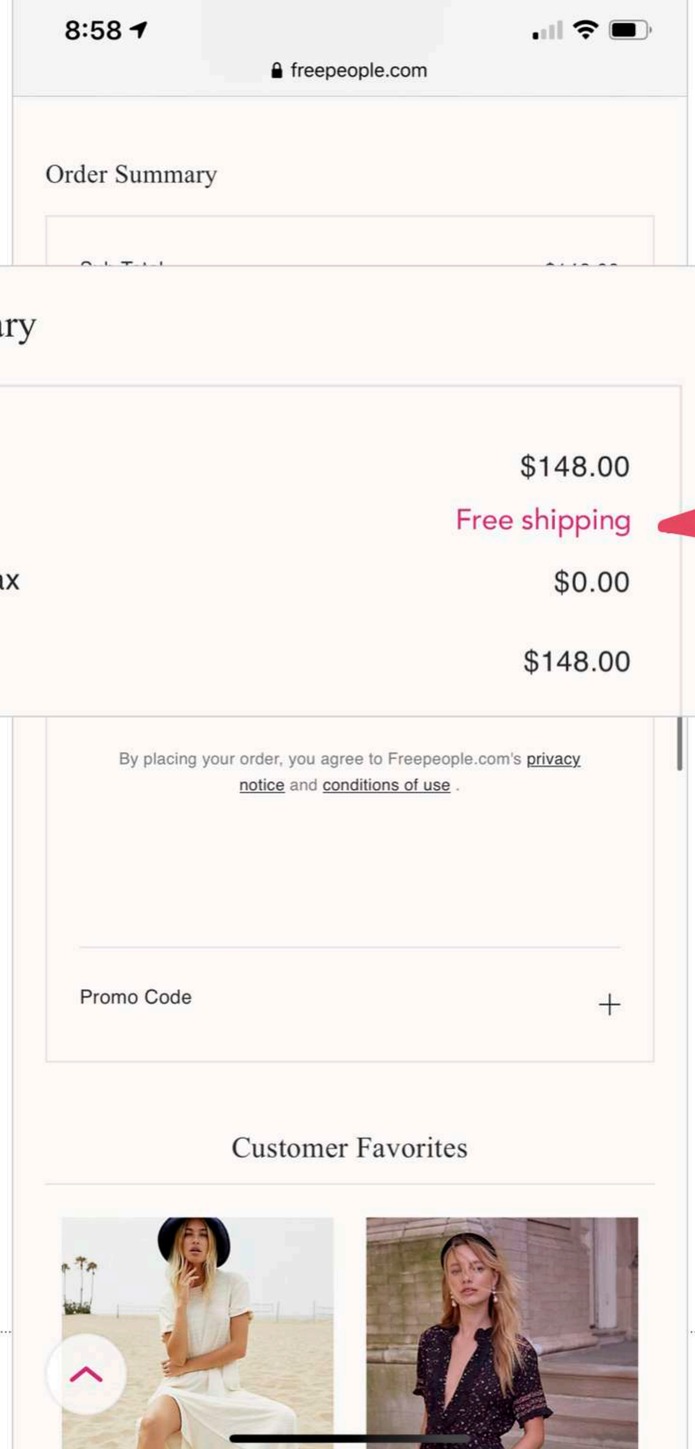
Pay

By placing your order, you agree to Freepeople.com's privacy notice and conditions of use .

Promo Code +

Customer Favorites





find the right time & place to surface useful information & actions

particularly on mobile where screen space is limited

eCommerce UX

First Impression

The *first thing* a customer is exposed to has a *disproportionate* impact on how they perceive, use and will think about the product — in eCommerce, and in any product or service.

Menu Icons

Menu Icons, *Alex Münch*, *https://twitter.com/alexmuench/status/1090550334286692352*

Dorsia - Prague

dorsia.io/cities/prague

Paused

Dorsia

Prague

The Corner

Log In

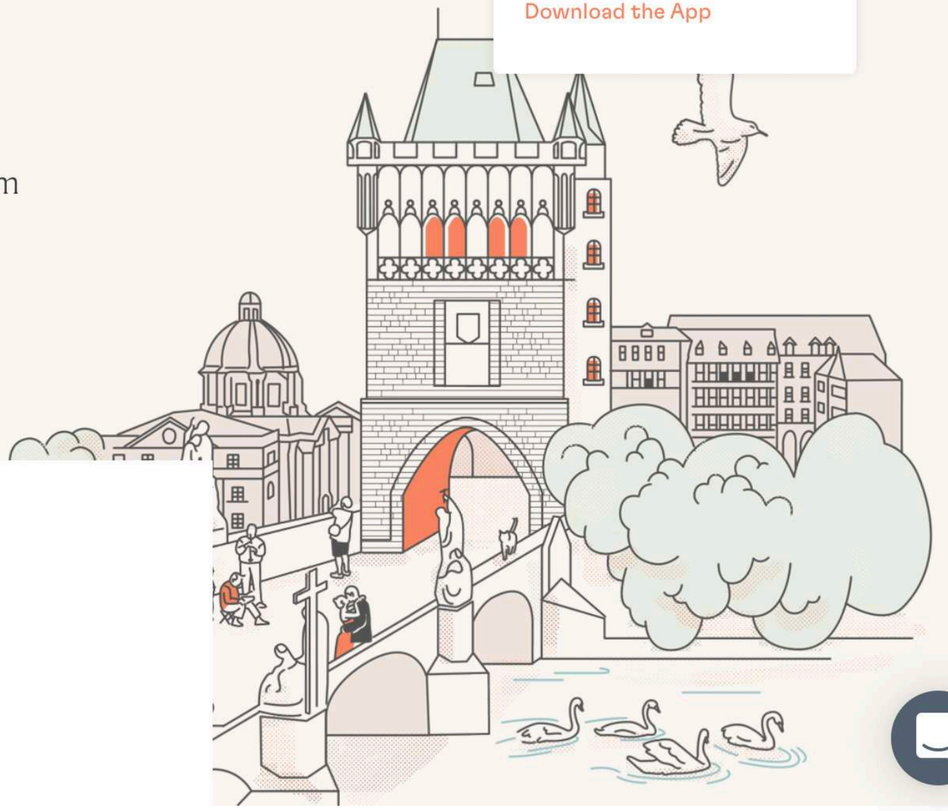
Sign Up

Download the App

Our Cities

Prague

Home to Europe's dreamiest streets, Prague is also known as the city of one hundred spires; counting them all might drive you insane, so opt for a picture instead. Locals claim they've got the best-tasting beer in the world — and they're right.



Explore Prague

14 Hoods | 158 Places | 0 Itineraries

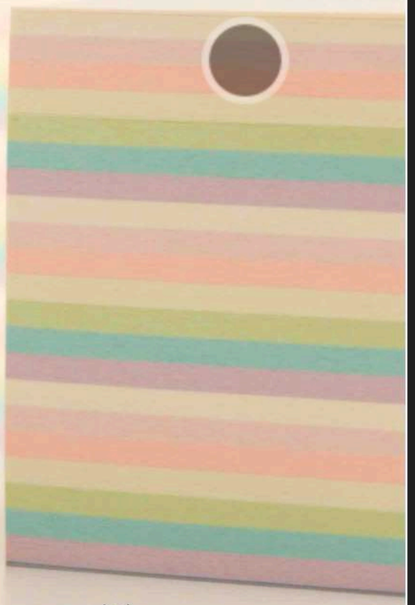
See all places

https://www.dorsia.io/signup

takeopaper.com

あの紙、この紙

竹尾の紙をお使いいただいているお客さまに、
そのご用途をおしえていただきました。



SR.de

Mehr Nachrichten

Mehrkosten und Mindereinnahmen

Corona bringt Saar-Haushalt durcheinander ›

Die Mehrkosten, die dem Saarland durch die Maßnahmen der Landesregierung zur Bekämpfung der Coronapandemie und ihrer Folgen entstehen, belaufen sich bereits jetzt auf rund 55 Millionen Euro. Zugleich muss das Land auch mit geringeren Einnahmen

HARBOUR.SPACE

APPLY NOW

MODULE 7

17 Feb 20 – 7 Mar 20

Irene Pereyra

Co-founder at Anton & Irene

US

3 weeks

Introduction to User Experience Design (Schematics)

Start date	17 Feb 20
Finish date	7 Mar 20
Total hours	45
Programme	Interaction Design

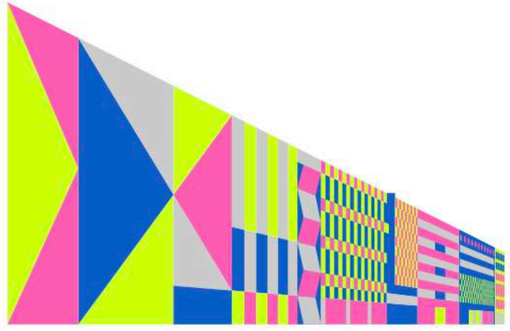
LEARN MORE

Marybeth Sandell

MoMA

Tickets Members

Visit What's on Art Store



A new MoMA opens October 21

We're getting ready for our reopening. With expanded galleries and spaces for live performance, making art, and conversation, we'll

MoMA is closed until October 21. Member previews begin October 13. Become a member to see it first.

MÅNDAG 23 MARS SÖK

ARBETET

Arbetsmiljö Arbetsrätt Avtal 2020 MENY

FK får 100 självmordshot varje månad

NYHETER Självmordshoten till Försäkringskassan har mer än ...

”Hur ska jag bevisa att jag är så sjuk som läkarna skriver”

Sign In

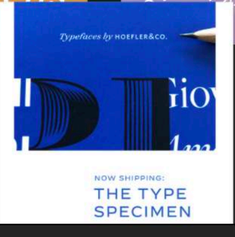
Fonts News Gear Help About

Composition
Quarterdecks
INQUIRE
Ringmasters
Imagination
$99

Type Capsule
The $99 tool from H&C

NEW FROM H&C
TYPE CAPSULE
$99 toolboxe for typograph

RESCALABLE
Distribution



Be the first to hear about new fonts.

Subscribe

UNEGUI.MN

92,102 Зар байна

Бүх байршил

Шүүлтүүр

- Хувцас хэрэглэл
- Гэр ахуйн бараа
- Үл хөдлөх
- Тэхнөөрөмж, материал, түлш
- Автомашин
- Амралт, спорт, хобби
- Ажлын зар
- Эрүүл мэнд, гоо сайхан, хүнс
- Хүүхдийн бараа
- Мал амьтан, ургамал
- Компьютер сэлбэг хэрэгсэл
- Үйлчилгээ
- Утас, дугаар
- Үнэгүй өгнө
- Цахилгаан бараа

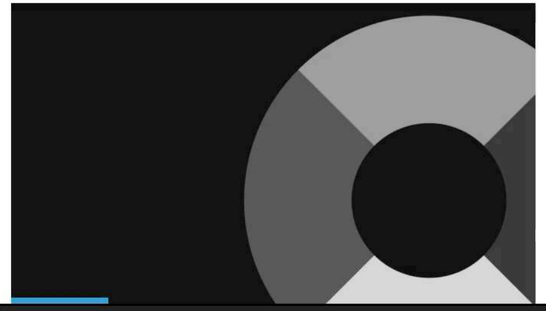
Эрүүл мэндийн мэргэжилтнүүдийн зааврыг дагаж мөрдөнө үү

Коронавирусын нөхцөл байдлын талаар найдвартай эх сурвалжаас мэдээлэл авааарай мэдээлэл авааарай. #COVID19

CNAS RESEARCH EXPERTS ABOUT

Combating Populism

Andrea Kendall-Taylor, Carisa Nietsche | March 19, 2020



skroutz

γράψε τον όρο αναζήτησης

-20% Για πληρωμές με VISA

Skroutz Food | Υγεία - Ομορφιά

*Μέγιστη ημερήσια έκπτωση 20€ για προϊόντα Υγείας-Ομορφιάς και 4€ για παραγγελίες Skroutz Food

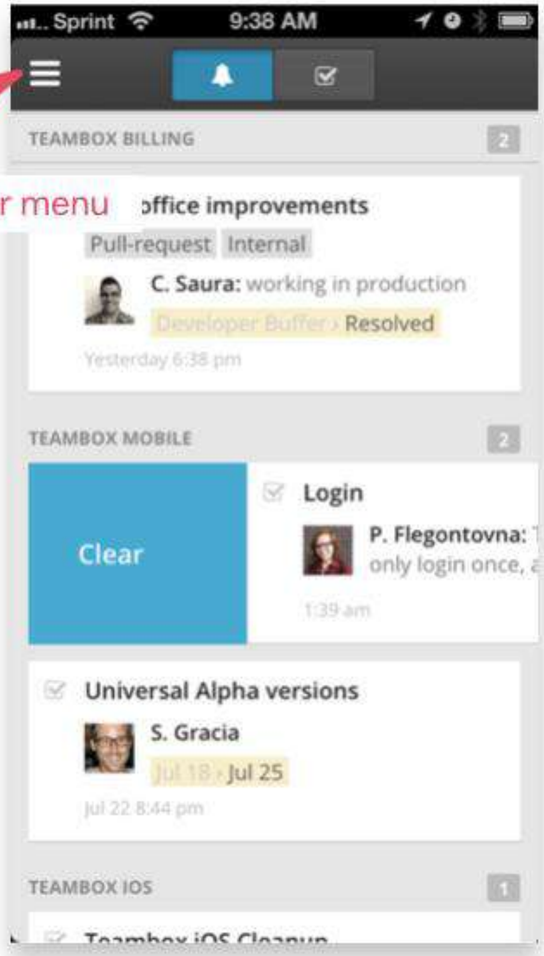
Τεχνολογία

- Κινητά Τηλέφωνα
- Laptops
- Θήκες Κινητών Τηλεφώνων

Σπίτι - Κήπος

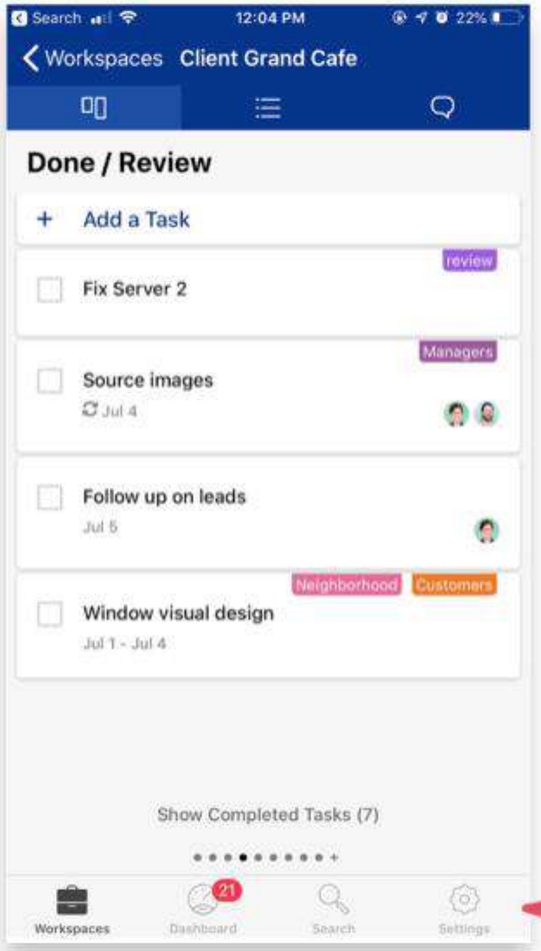
- Μάσκες Εργασίας
- Ψυγεία

Before



hamburger menu

After



bottom navigation menu

70% increase in session time

65% increase in daily active users

Google Conversions, *Luke Wroblewski*, *https://twitter.com/lukew/status/1182314747997278209*

December 6, 2019
Suzanne Scacca in #business #mobile

How To Design Profitable Sales Funnels On Mobile

Every website or PWA you build should automate as much prospecting and selling as possible, but can't just take every person who enters the site through the same path. You have to design a custom sales funnel (or pathway) for each kind of buyer. Here's what you need to keep in mind.

→ Keep reading

Up next on Smashing TV

Building a CSS Layout with Rachel Andrew

Watch it here

Available for free to all Smashing Members

LATEST POSTS

6 DAYS AGO

Smashing TV Live: Privacy UX, A Session With Vitaly Friedman

by Vitaly Friedman

Today, we broadcasted a live session on privacy UX, highlighting privacy UX patterns and strategies to consider when

6 DAYS AGO

Smashing Podcast Episode 4 With Heydon Pickering: What Are Inclusive Components?

by Drew McLellan

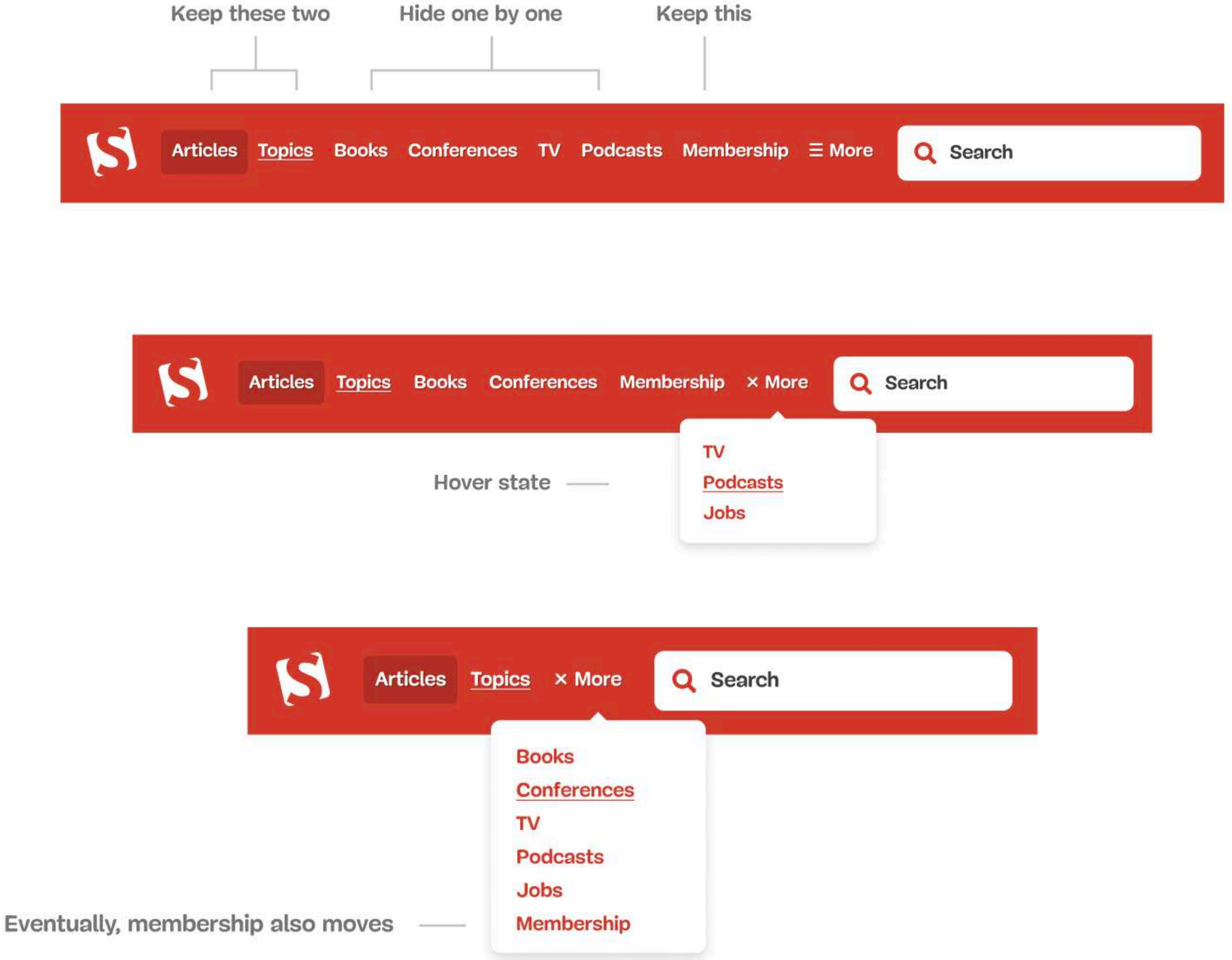
In this episode of the Smashing Podcast, we're talking about Inclusive Components. What does it mean to be inclusive, or a

9 DAYS AGO

Beating The End Of The Year Rush (December 2019 Wallpapers Edition)

by Cosima Mielke

December is here and with it a new collection of desktop wallpapers to celebrate the beginning of the month. Designed by

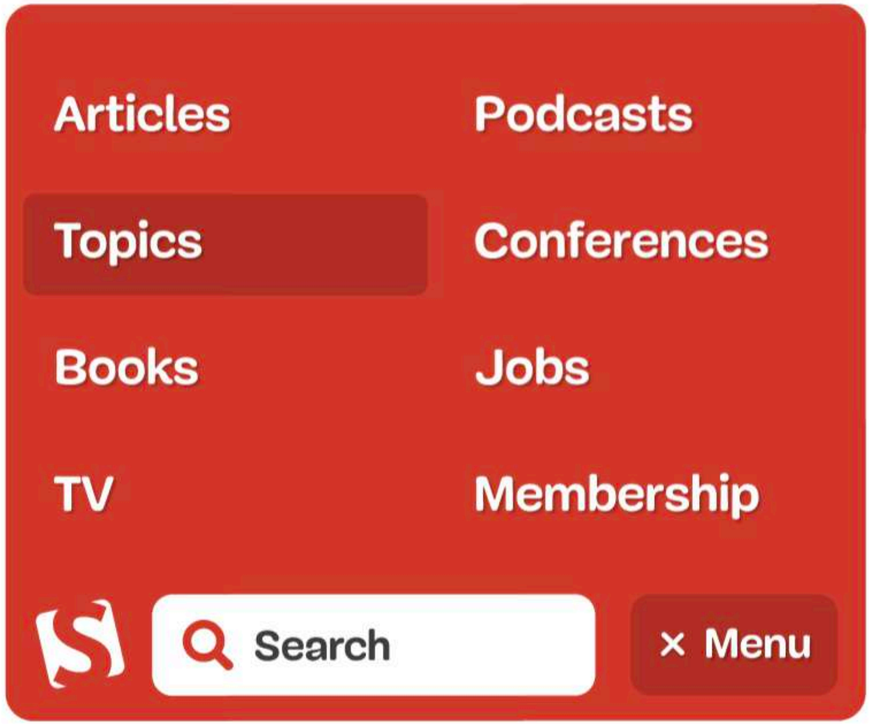

Keep these two
Hide one by one
Keep this
Articles
Topics
Books
Conferences
TV
Podcasts
Membership
☰ More
Search
Articles
Topics
Books
Conferences
Membership
× More
Search
TV
Podcasts
Jobs
Hover state
Articles
Topics
× More
Search
Books
Conferences
TV
Podcasts
Jobs
Membership
Eventually, membership also moves

Articles
Topics
Bool
Search

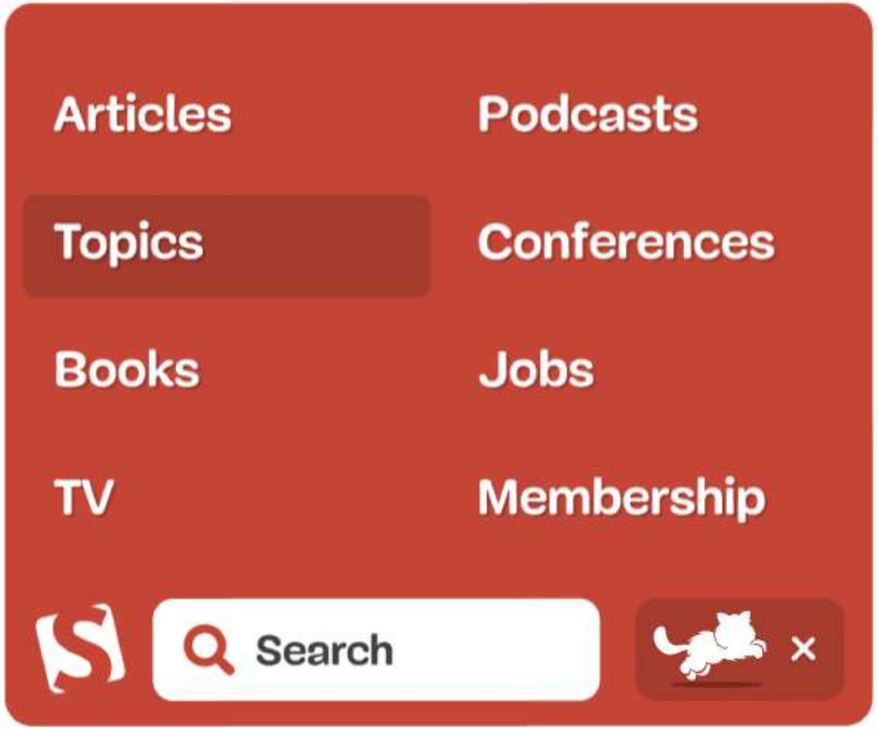
rticles
Topics
Books
Confe
Search

Books
Conferences
Members
Search

Search
Menu


Articles
Podcasts
Topics
Conferences
Books
Jobs
TV
Membership
Search
× Menu

Search
Menu


Articles
Podcasts
Topics
Conferences
Books
Jobs
TV
Membership
Search

December 6, 2019
Suzanne Scacca in #business #mobile

How To Design Profitable Sales Funnels On Mobile

Every website or PWA you build should automate as much prospecting and selling as possible, but can't just take every person who enters the site through the same path. You have to design a custom sales funnel (or pathway) for each kind of buyer. Here's what you need to keep in mind.

→ Keep reading

Rachel Andrew / Dec 11 / #business #mobile

Web Design And Development Advent Roundup For 2019

Eric Olive / Dec 11 / #business #mobile

Better Design With Deep Thinking

Up next on Smashing TV

Building a CSS Layout with Rachel Andrew

Watch it here

Available for free to all Smashing Members

Daily search operations

Total searches 521.75K

Web Forms

05 Managing Typos

5

How do we manage errors and typos?

Register

Already got an account? Log in

Email address

tada@gmail.com

Password

Must contain 8+ characters with at least 1 number

••••• Show

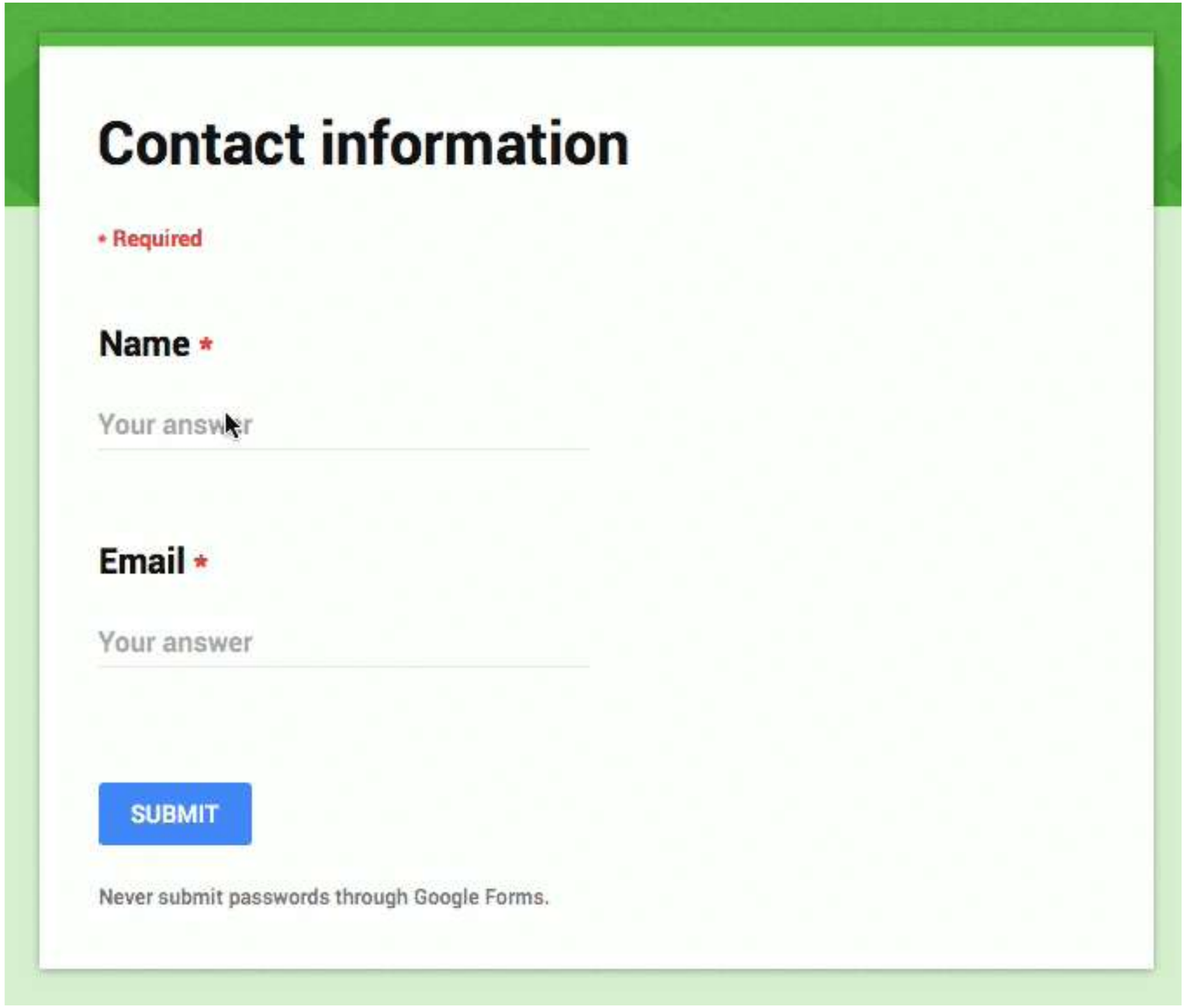
Register

Luke Wroblewski on

Inline Validation

> There are *three types of inline validation*: *premature* validation (on input focus), *immediate* validation (as a user types) and *late* validation (user has left the field, *onblur*). They all interrupt users too early or too late.

"Inline Validation in Forms", A List Apart


Contact information
* Required
Name *
Your answer
Email *
Your answer
SUBMIT
Never submit passwords through Google Forms.

2 Shipping Address

Shipping Address

First Name | Last Name

Company Name (optional)

Area Code | Primary Phone

Street Address

Apt, Suite, Bldg, Gate Code. (optional)

ZIP Code — Enter ZIP for City and State

United States

☐ This is a business address

Shipping Notifications

Shipment notification emails are sent to the Billing Contact. Another recipient email address may be added below.

Email Address (optional)

For shipment updates via text messages, enter a mobile number below.

Area Code | Mobile Phone (optional)

Apple Shipping Policy | Learn more

- Signature may be required for delivery
- We do not ship to P.O. boxes
- Delivery estimates below include item preparation and shipping time
- We do not ship directly to APO/FPO addresses.

INLINE VALIDATION

OPTIONS FOR SHOWING VALIDATION MESSAGES

Mihael Konjević on

Inline Validation

> There are *three types of inline validation*: *premature* validation (on input focus), *immediate* validation (as a user types) and *late* validation (user has left the field, *onblur*). They all interrupt users too early or too late.

“Inline Validation in Forms: Designing The Experience”, Medium

Mihael Konjević on

Reward Early, Punish Late

01 — For every input, set a min threshold of characters.

02 — Start validating only if that threshold is reached.

03 — If there is an error, show it immediately as you detect it.

04 — Show ‘*success*’ only if the the user has moved to the next field.

05 — Editing a field that was valid: validate after data entry.

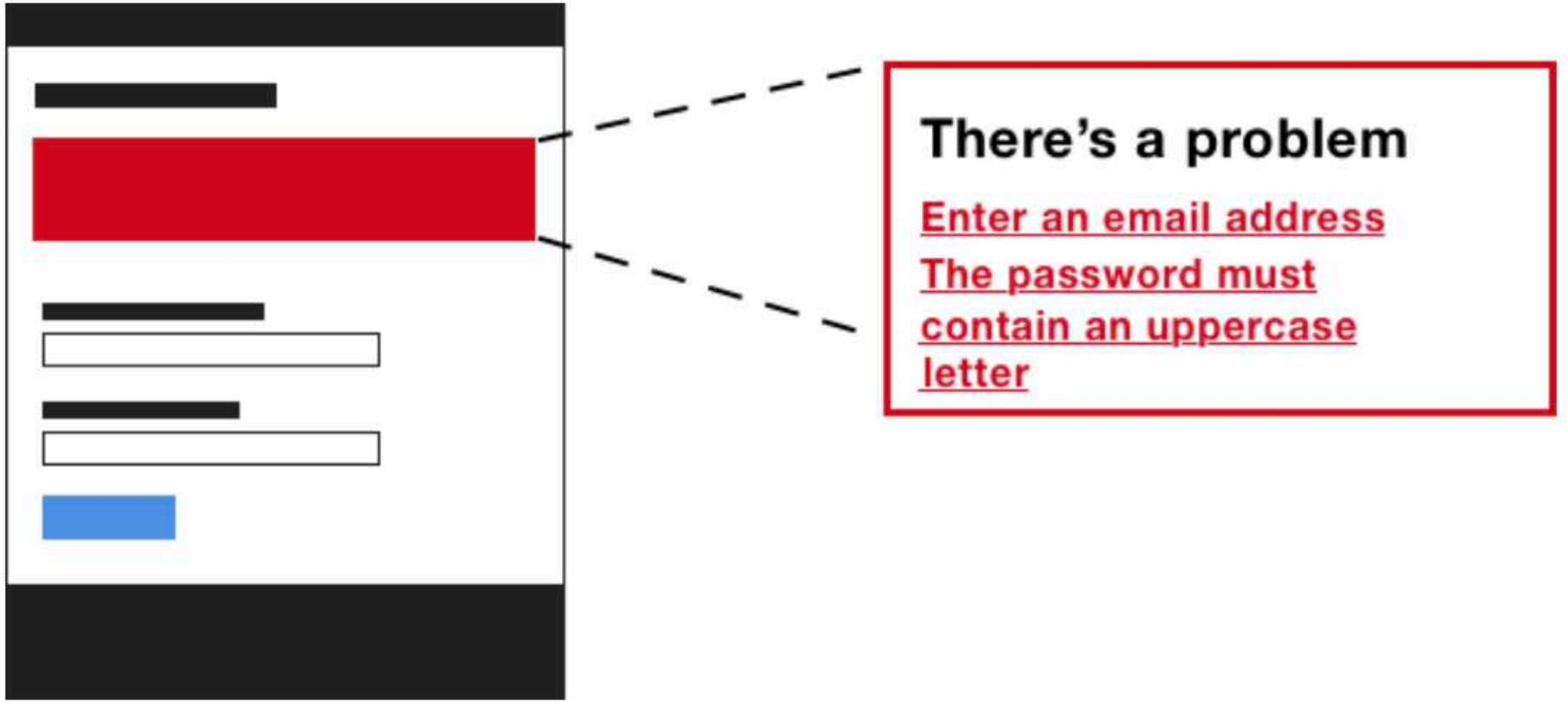
06 — Editing a field that was invalid: validate during data entry.

“Inline Validation in Forms: Designing The Experience”, Medium

https://medium.com/wdstack/inline-validation-in-forms-designing-the-experience-123fb34088ce#.fl86493cl

SMASHING MAGAZINE

Design & development | Physical & digital books | Conferences & workshops | Find work & employees | Webinars & early-birds


There’s a problem
Enter an email address
The password must contain an uppercase letter

There's a problem

Your password must contain at least 8 characters

Register

Already got an account? Log in

Email address

tada@gmail.com

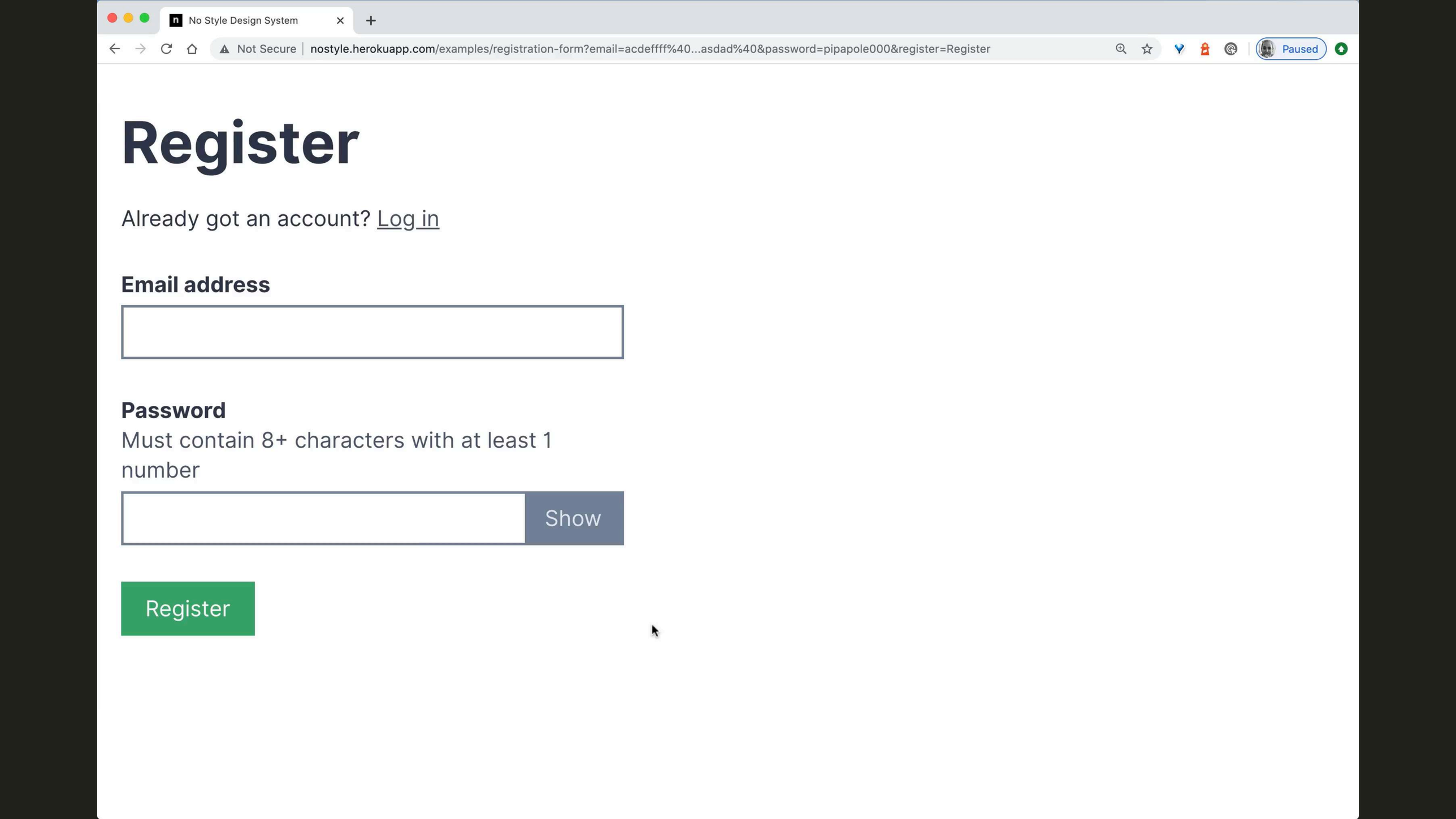
Password

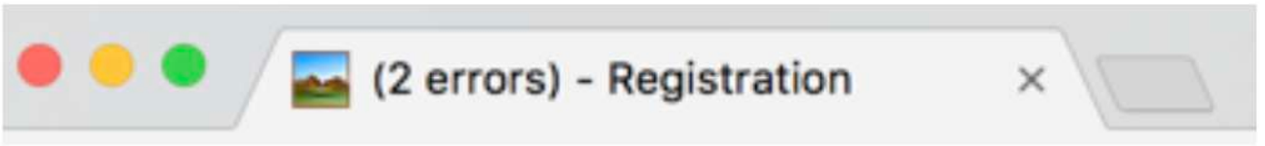
Must contain 8+ characters with at least 1 number

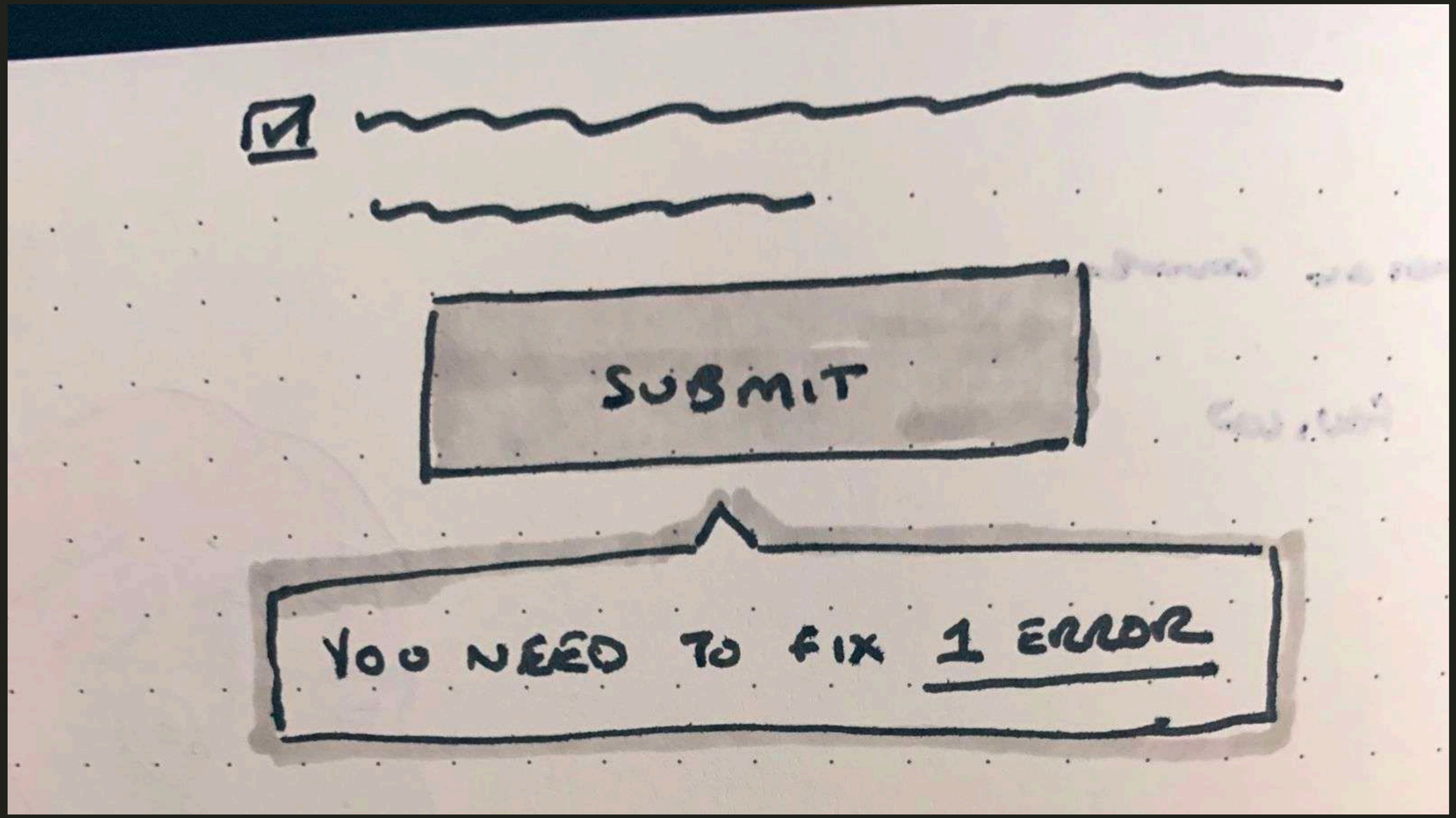
Your password must contain at least 8 characters

••••• Show

Register


No Style Design System
Not Secure
nostyle.herokuapp.com/examples/registration-form?email=acdeffff%40...asdad%40&password=pipapole000&register=Register
Paused
Register
Already got an account? Log in
Email address
Password
Must contain 8+ characters with at least 1 number
Show
Register


(2 errors) - Registration



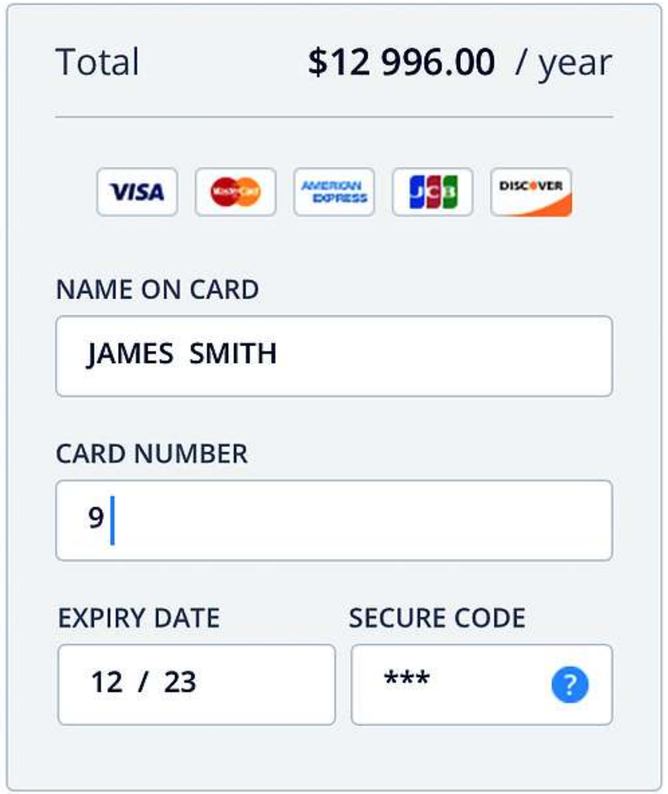
Illustrations by Jordan Moore, *https://twitter.com/jordanmoore/status/1250026238762266624*

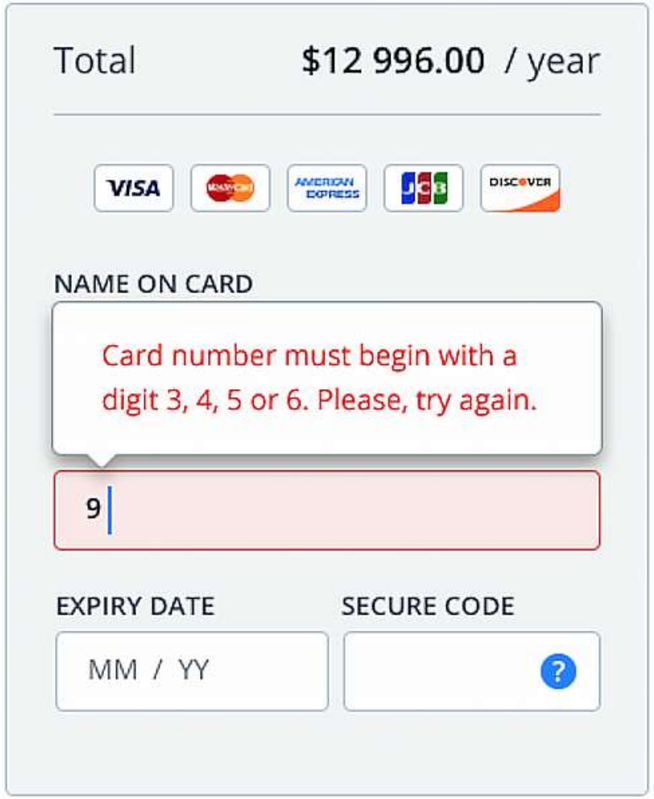
Password

Show

•

- One lowercase character
- One uppercase character
- One number
- One special character
- 8 characters minimum


Total $12 996.00 / year
NAME ON CARD
JAMES SMITH
CARD NUMBER
9
EXPIRY DATE
12 / 23
SECURE CODE
***
Somewhere something went wrong!
Check your data or try again later.


Total $12 996.00 / year
NAME ON CARD
Card number must begin with a digit 3, 4, 5 or 6. Please, try again.
9
EXPIRY DATE
MM / YY
SECURE CODE

Inline Validation

Actionable Error Messages

01 – Every message should drive user towards fixing the error.

02 – It’s worth investing time in adaptive error messages.

03 – Upon submit, scroll the user to the first error and focus on it.

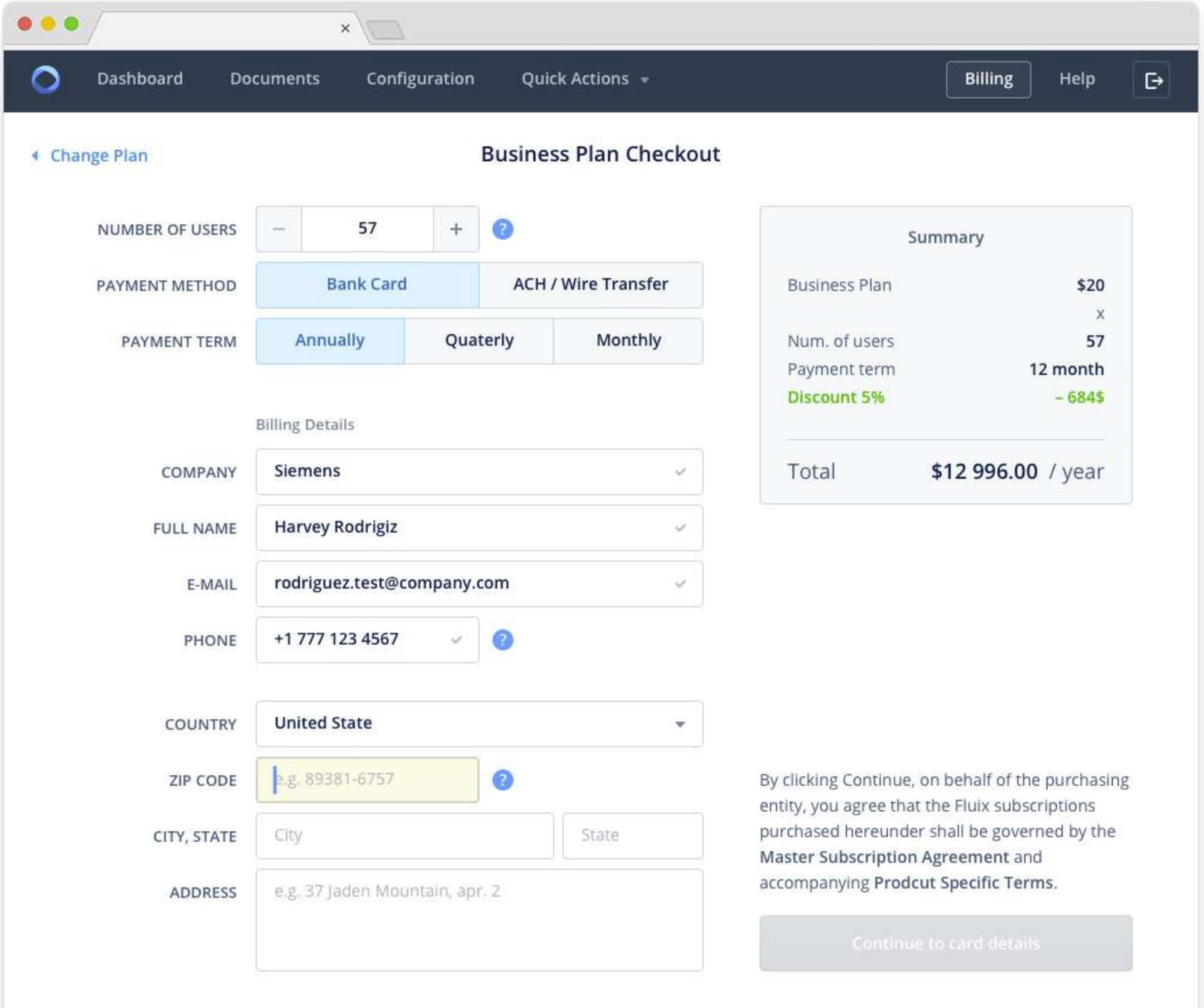
04 – ...or display the error above the submit button on click.

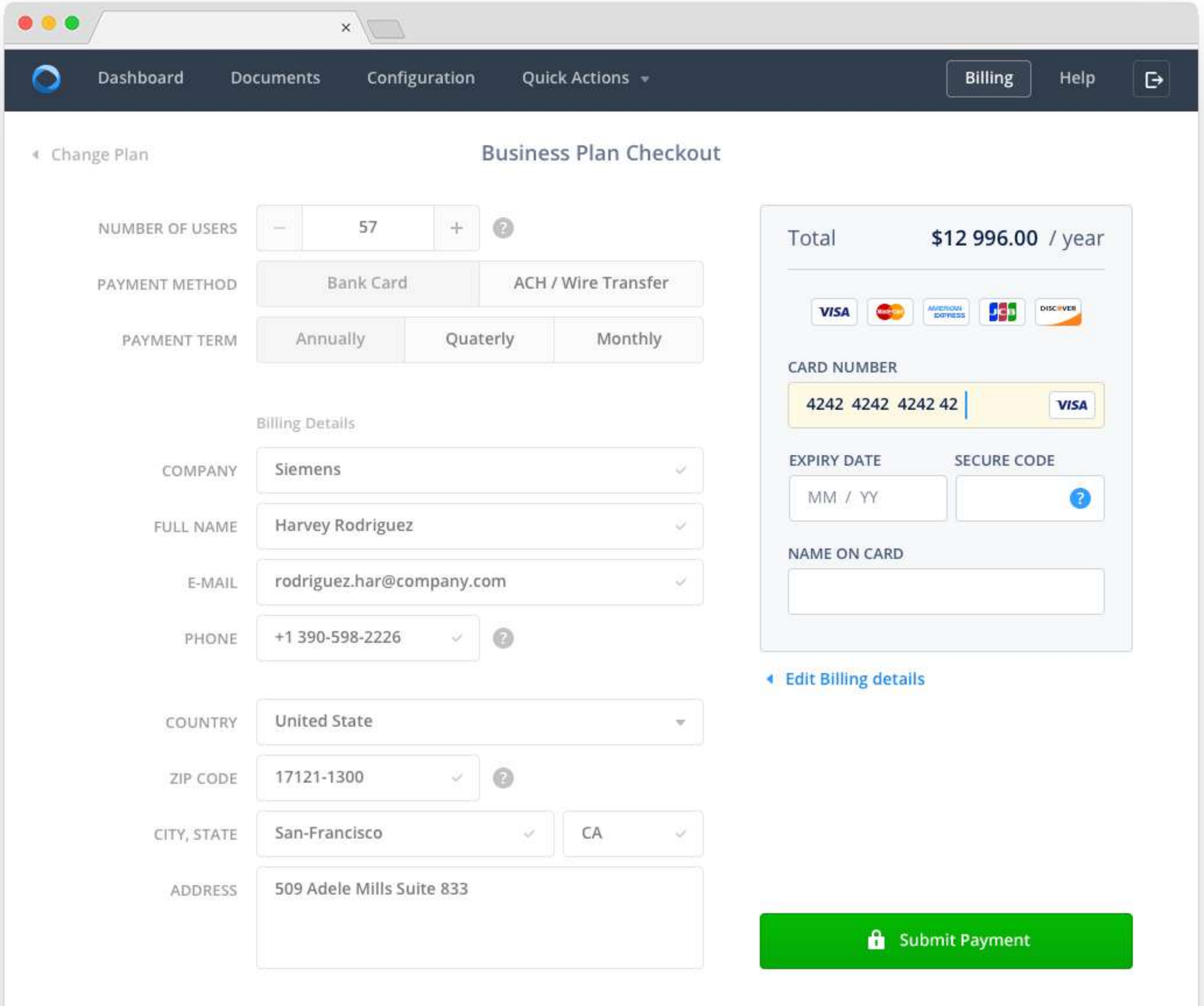
05 – If many errors, display a summary of errors on the top.

06 – Display the error message just above the input field.

07 – Show the number of errors in the tab title as a prefix.

08 – To prevent mistakes, use auto-suggest and buttons.


Dashboard
Documents
Configuration
Quick Actions
Billing
Help
Change Plan
Business Plan Checkout
NUMBER OF USERS
57
PAYMENT METHOD
Bank Card
ACH / Wire Transfer
PAYMENT TERM
Annually
Quaterly
Monthly
Billing Details
COMPANY
Siemens
FULL NAME
Harvey Rodrigiz
E-MAIL
rodriguez.test@company.com
PHONE
+1 777 123 4567
COUNTRY
United State
ZIP CODE
e.g. 89381-6757
CITY, STATE
City
State
ADDRESS
e.g. 37 Jaden Mountain, apr. 2
Summary
Business Plan
$20
x
Num. of users
57
Payment term
12 month
Discount 5%
– 684$
Total
$12 996.00 / year
By clicking Continue, on behalf of the purchasing entity, you agree that the Fluix subscriptions purchased hereunder shall be governed by the Master Subscription Agreement and accompanying Prodcut Specific Terms.
Continue to card details


Dashboard
Documents
Configuration
Quick Actions
Billing
Help
Change Plan
Business Plan Checkout
NUMBER OF USERS
57
PAYMENT METHOD
Bank Card
ACH / Wire Transfer
PAYMENT TERM
Annually
Quaterly
Monthly
Billing Details
COMPANY
Siemens
FULL NAME
Harvey Rodriguez
E-MAIL
rodriguez.har@company.com
PHONE
+1 390-598-2226
COUNTRY
United State
ZIP CODE
17121-1300
CITY, STATE
San-Francisco
CA
ADDRESS
509 Adele Mills Suite 833
Total
$12 996.00 / year
CARD NUMBER
4242 4242 4242 42
EXPIRY DATE
MM / YY
SECURE CODE
NAME ON CARD
Edit Billing details
Submit Payment

Sign in | Register

Personal account | Business account

First name

Last name

Email address

Password

Show

By **Registering**, you agree that you've read and accepted our User Agreement, you're at least 18 years old, and you consent to our Privacy Notice and receiving marketing communications from us.

Register

Adam Silver on

Disabling Submit Buttons

> Disabled buttons *don't explain what's wrong*. Sometimes users are left wondering what's missing. They are not focusable and hard to read as they are grayed out. With *enabled* buttons we can better highlight all the errors.

"Form Design Patterns", published by Smashing Magazine

Войти | Регистрация

Регистрация

Имя*

Email*

Пароль*

Повторите пароль*

Подписаться на получение промо-предложений

ЗАРЕГИСТРИРОВАТЬСЯ

Нажимая на кнопку “Зарегистрироваться”,
я принимаю условия Политики конфиденциальности
и даю согласие на обработку моих
персональных данных.

Регистрация

Имя

Фамилия

Вход

Введите логин и пароль от своего почтового ящика для того, чтобы продолжить работу с сервисом.

Логин | @mail.ru

Пароль

Забыли пароль?

запомнить

Войти

Регистрация в Почте

Зарегистрироваться

Нажимая кнопку «Зарегистрироваться», вы принимаете условия Пользовательского соглашения.

Afrekenen als gast

Voornaam

Achternaam

E-mailadres

Bevestig E-mailadres

Wachtwoorden moet uit minstens 6 tekens bestaand en moeten minstens één letter en één cijfer bevatten.

Wachtwoord invoeren

We willen graag contact houden om te horen wat uw behoeften zijn en om u te informeren over producten, diensten, oplossingen, exclusieve aanbiedingen en speciale evenementen. Plaats hieronder een vinkje om contact te houden via e-mail en post.

Er wordt een e-mailbericht naar u gestuurd om uw e-mailadres te verifiëren. Klik op de link in dat e-mailbericht om de verificatie te voltooien.

Account maken

Authentication UX

Email Verification unnecessary

> 60% of customers will *consistently* copy/paste their email address when asked to verify it in the eCommerce checkout, especially on mobile.

Baymard Institute, baymard.com

Customer Details (Already have an account? Log in)

Email
editor@smashingmagazine.com

Shipping Address — You've earned FREE shipping!

First name
VITALY

Last name
FRIEDMAN

Country
Germany

Postal code
79098

City
Freiburg

Street address
Werthmannstrasse 15

Apt / Suite (optional)

Art Direction for the Web
Book

1 × 39.00€ - 1 +

Discount code Cash in!

SUBTOTAL	35.50€
TAXES	3.50€
AIRMAIL SHIPPING	FREE
PAY BY CARD OR PAYPAL	FREE
ESTIMATED DELIVERY 🇩🇪	MAY 27 – JUN 2
FEELING SMASHING	PRICELESS

Just one more thing…

Your order confirmation will be sent to:

editor@smashingmagazine.com Edit

Finish Checkout →

Design Systems
Book

1 × $29.00

Ship to: Edit
Gast Gruppenbuchung beyond tellerrand V.Friedman
Maritim proArte Hotel
Friedrichstrasse 151
Berlin

Yay, it worked!

Your reference number is **#6a9ad5db**.
An order confirmation email has been sent to
smashingmag@gmail.com.

SEND CONFIRMATION TO ANOTHER EMAIL

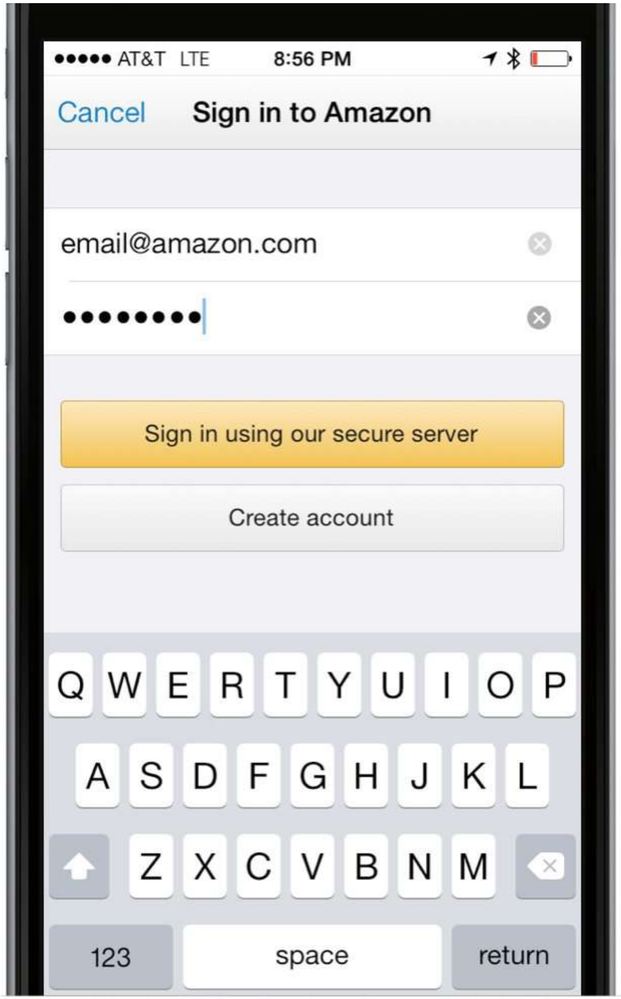
- Set your password and get an extra **$15 discount** for next purchases,
- Check delivery times if you're wondering when your order will arrive.
- Get your eBooks (ePUB, Kindle, PDF) in your personal dashboard.
- Get 10% off next purchase with the coupon code `IAMSMASHING`.

That's it! Contact us at help@smashingmagazine.com any time if you have any questions! You are truly *smashing*, and you should know that.

"authentication (sign-in) is one of the biggest reason people don't return to Web sites"

54% quit checkout if they are asked to sign-up

92% give up if they don't remember a password or user name



Source: Chrome data http://bit.ly/1AinNyU Blue Research http://bit.ly/2AqNGiN

CREATE YOUR USERNAME *

CREATE YOUR PASSWORD *

Show

Your password must

- Be at least 9 characters
- Include an uppercase letter
- Include a lowercase letter
- Include a number
- Not start or end with a space

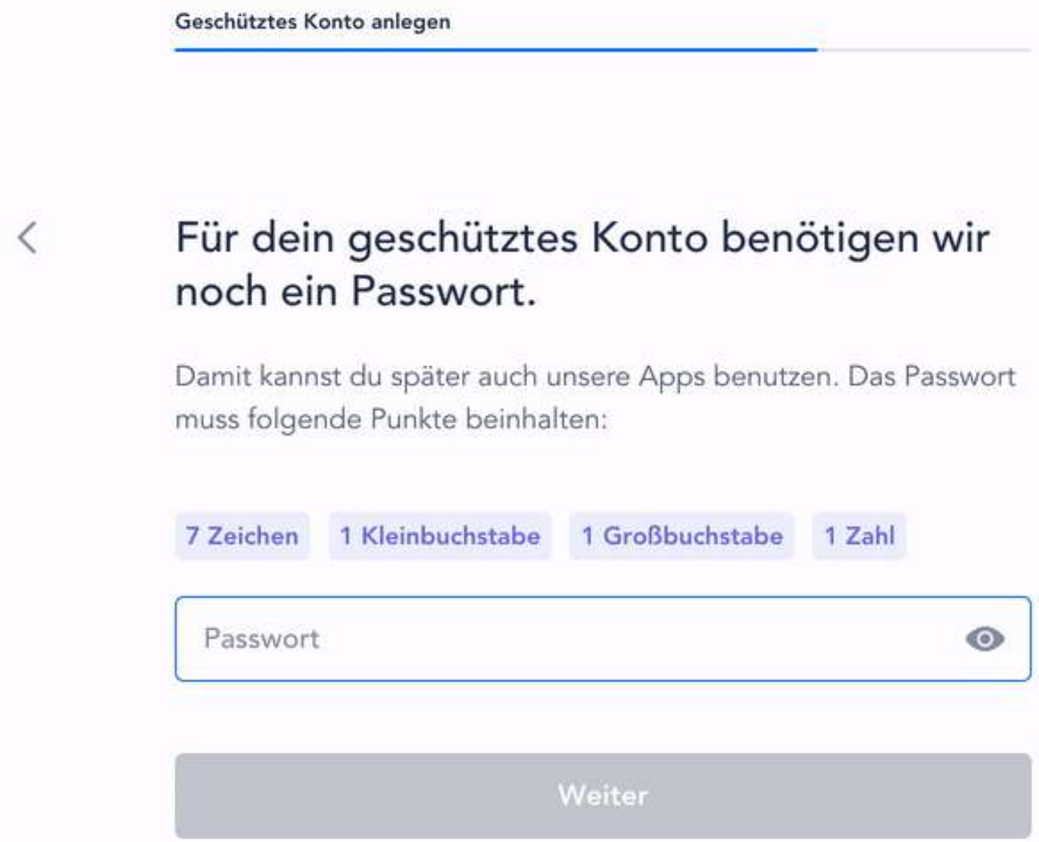
CREATE YOUR CALL-IN PIN *

Adrian Zumbrunnen
@azumbrunnen_

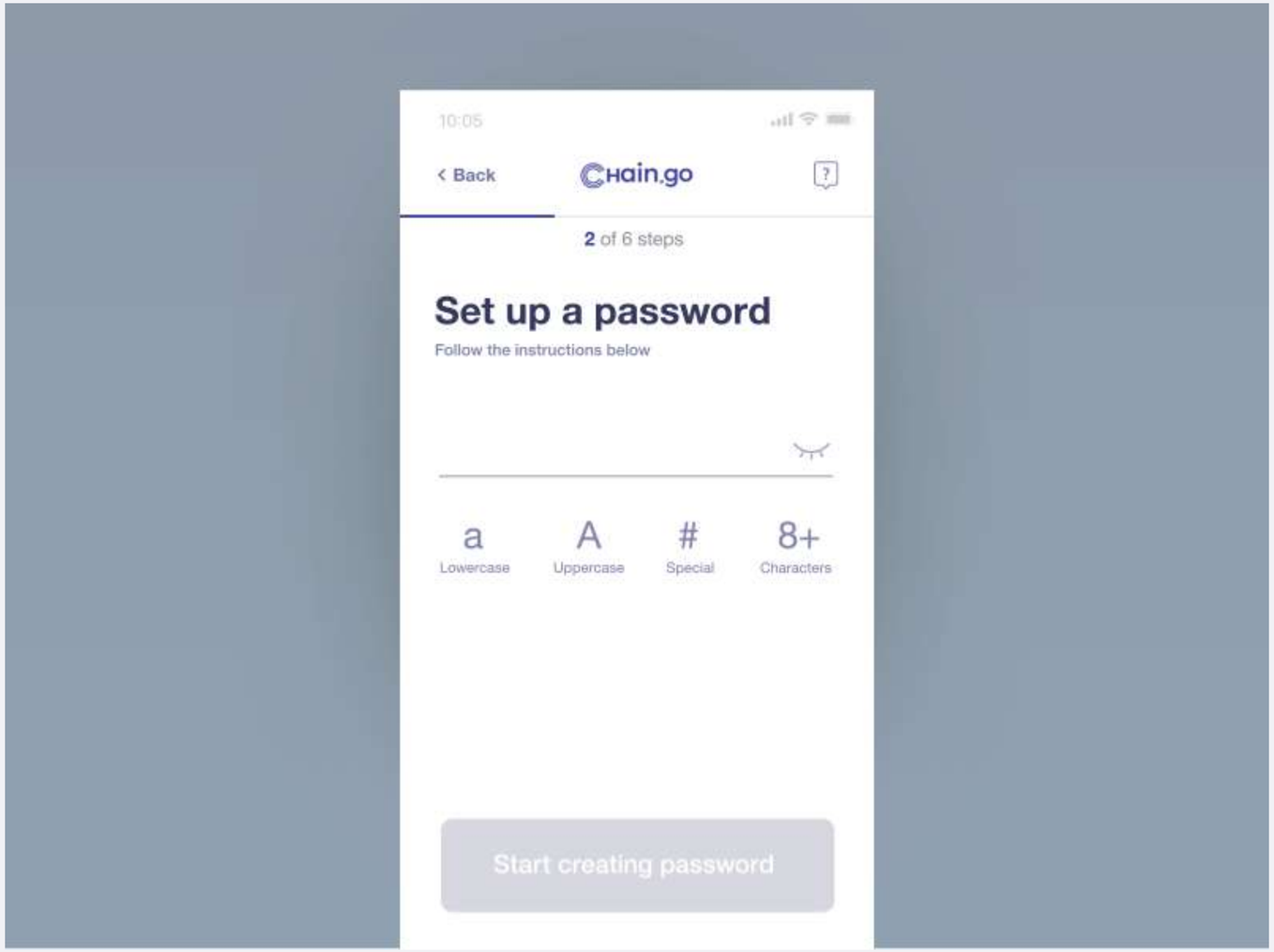
Sorry but your password must contain an uppercase letter, a number, a haiku, a gang sign, a hieroglyph, and the blood of a virgin. #ux #wcch

5:27 PM · May 3, 2014 · Twitter for iPhone

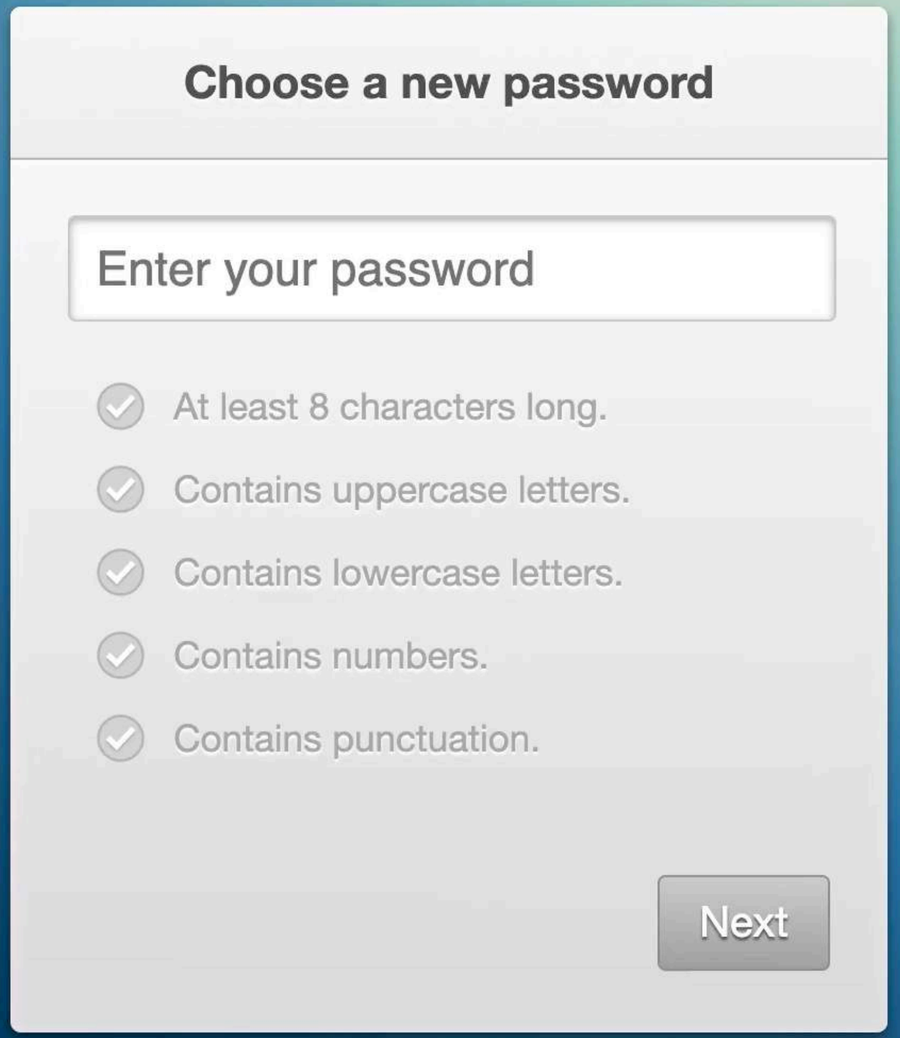
1.1K Retweets **724** Likes



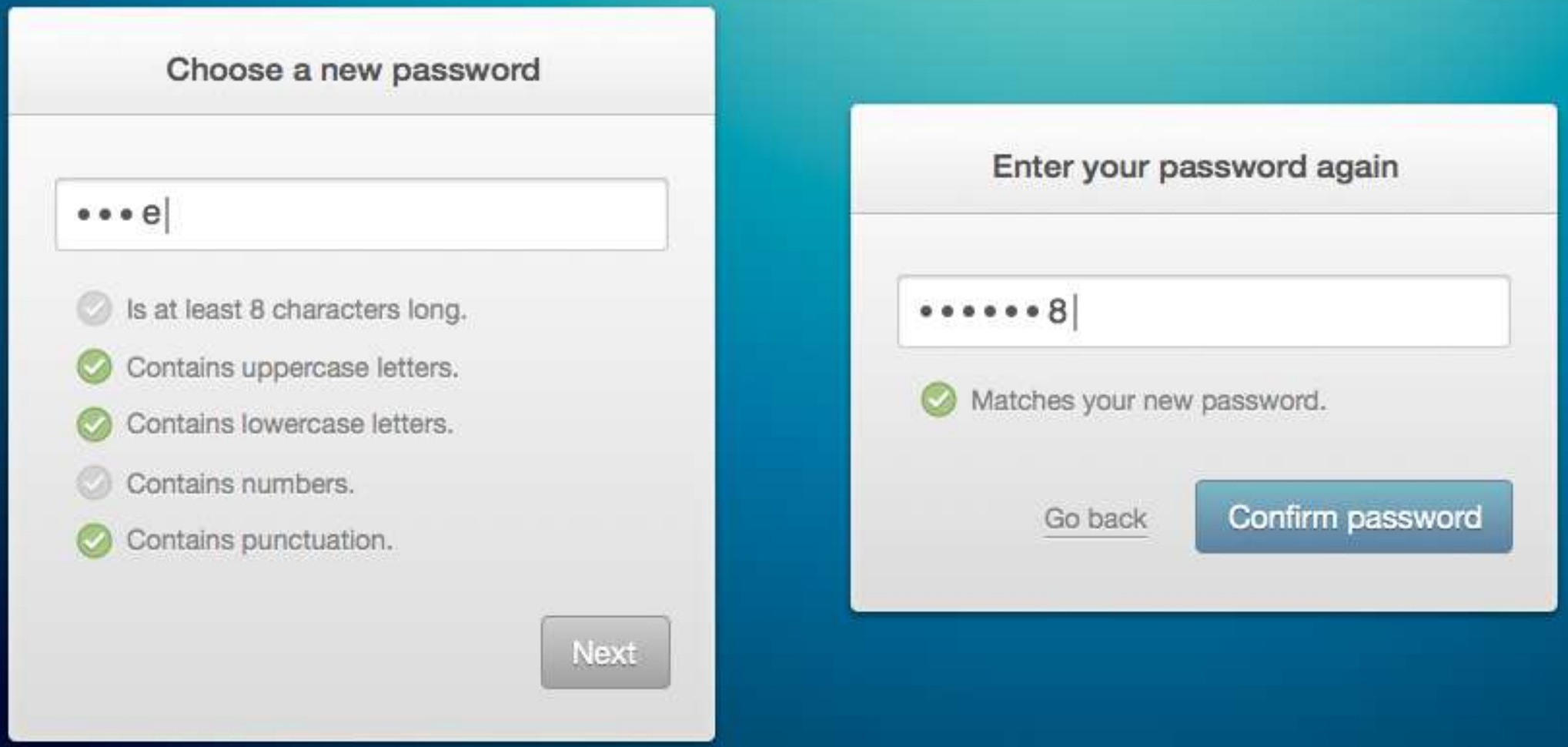
Password validation, *Andreas Storm*, *https://dribbble.com/shots/4879135-Password-validation*



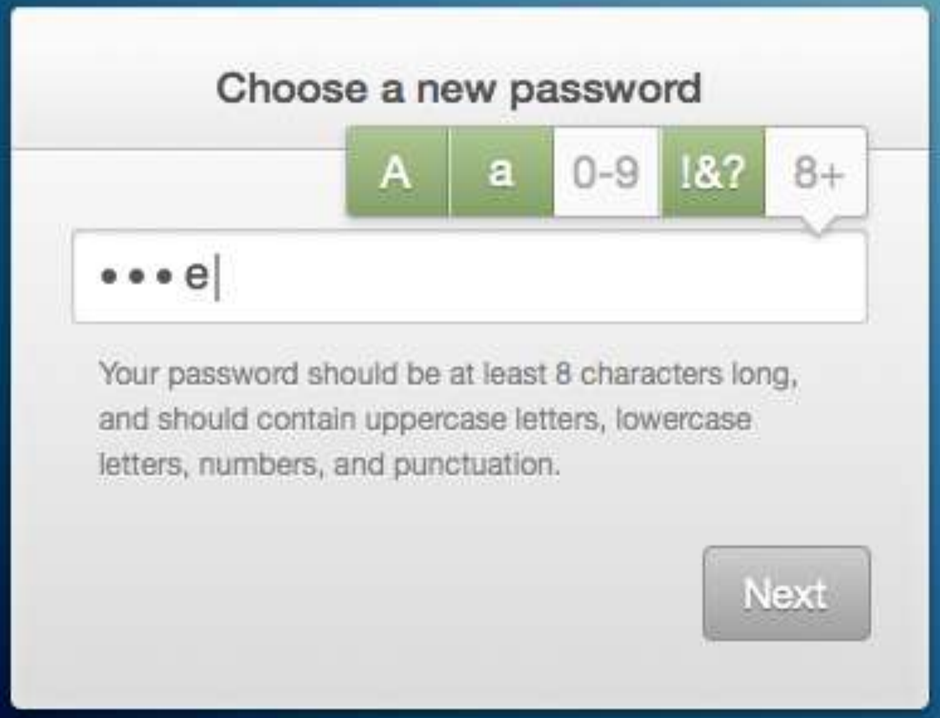
Fintech onboarding, *Piotr Sliwa*, *https://dribbble.com/shots/4957240-Fintech-Onboarding-Principles*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*

Dial login, *Nikita Shishkin*, *https://dribbble.com/shots/3031437-Dial-login*

Adam Silver on

Show & Hide Pattern

> When we *obscure passwords*, or ask users to *confirm them,* we make it harder to fix typos — users just delete entire input and start over. Always let users reveal their password. Use a *checkbox* with a persistent label (“*Show Password*”) or change button’s state, not label.

Password

Must contain 8+ characters with at least 1 number and 1 uppercase letter

Show

Usability > Security

> If a product is not usable, it's also not secure. That's when people start using *private email accounts* and put passwords on stick-it-notes because they forget them.

Jared Spool, UIE.com

SIMPLE

Account info | Personal info | Identity | Review & submit

Well, hello there!

We're so glad you're ready to join Simple. Let's start by creating your account login.

Username

Email address

Password Show

Using a phrase of four random words (like: pillow jar symbol lift) is secure and easy to remember.

Next

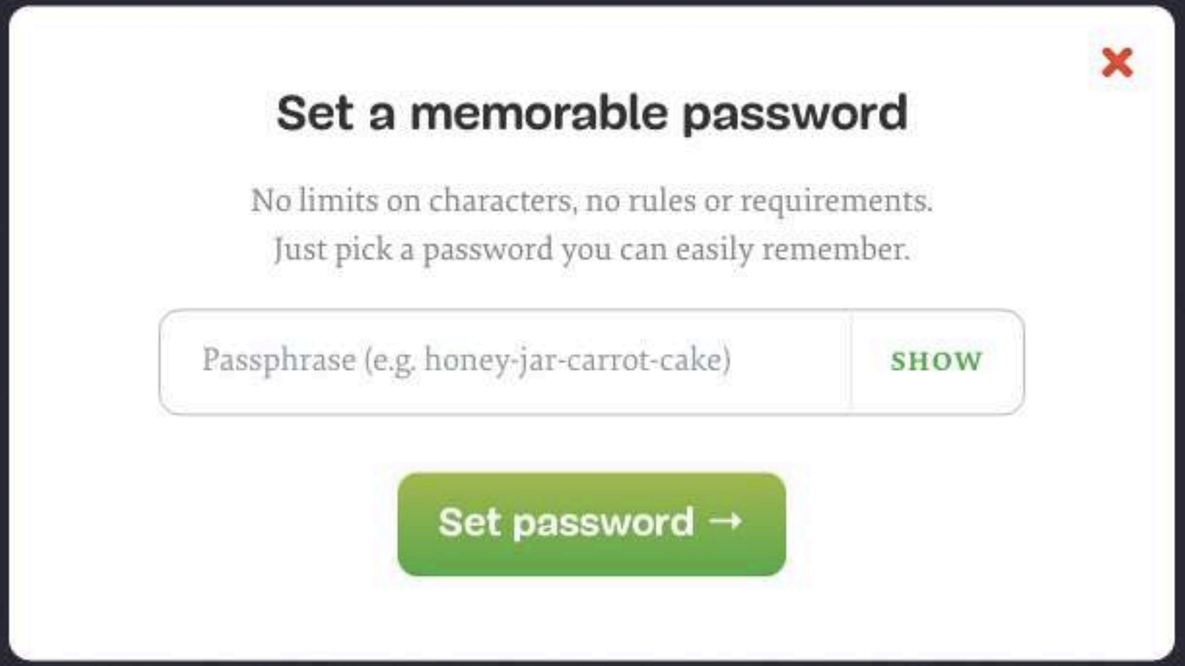
Update your password.

No limits on characters, no excessive requirements. Please **double check your password** before saving it. It goes without saying: we care about your privacy and will keep your data safe.

New password (e.g. honey-jar-carrot-cake) SHOW

Hint: Using four random words like *honey-jar-carrot-cake* (known as *passphrase*) is secure and easy to remember.

Save Changes


Set a memorable password
No limits on characters, no rules or requirements.
Just pick a password you can easily remember.
Passphrase (e.g. honey-jar-carrot-cake)
SHOW
Set password →

Recover Your Password

No worries — cats are terribly forgetful, too! **Need help?** We are here to help: fastlane@smashingmagazine.com.

Your email

Recover password →

← SIGN IN

Security-Related Behavior

01 — We log in *15-20 times* a day, seamless or explicitly.

02 — We tend to have *4.5 emails*, used regularly.

03 — We tend to reuse passwords for “simple” accounts.

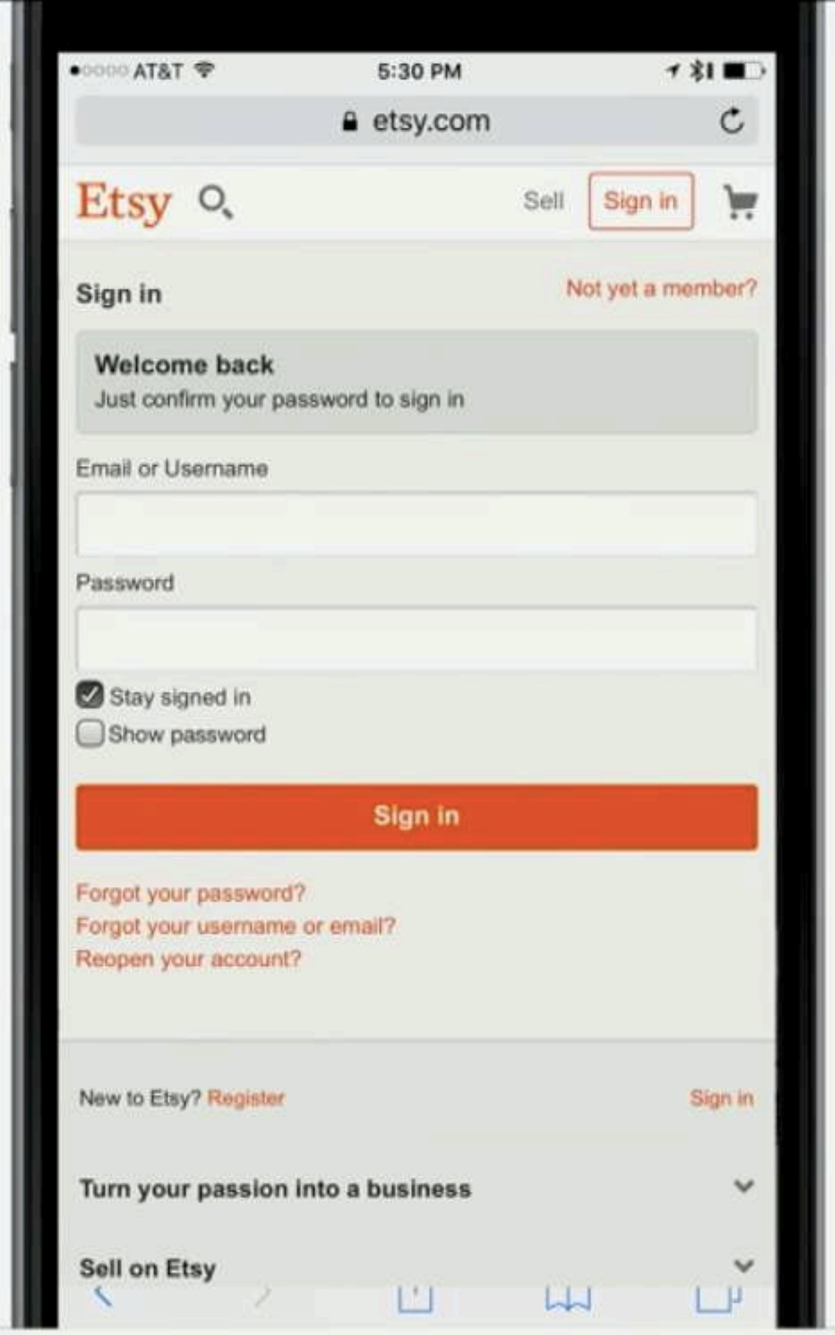
04 — We are really *bad* at remembering email/pass combos.

04 — We are really *good* at bypassing complexity with lifehacks.

05 — Most security breaches target DBs, not individual users.

06 — Strict security has a significant business cost.

07 — *Fishing* is a much higher threat than insecure passwords.



statistically significant decrease in failed logins

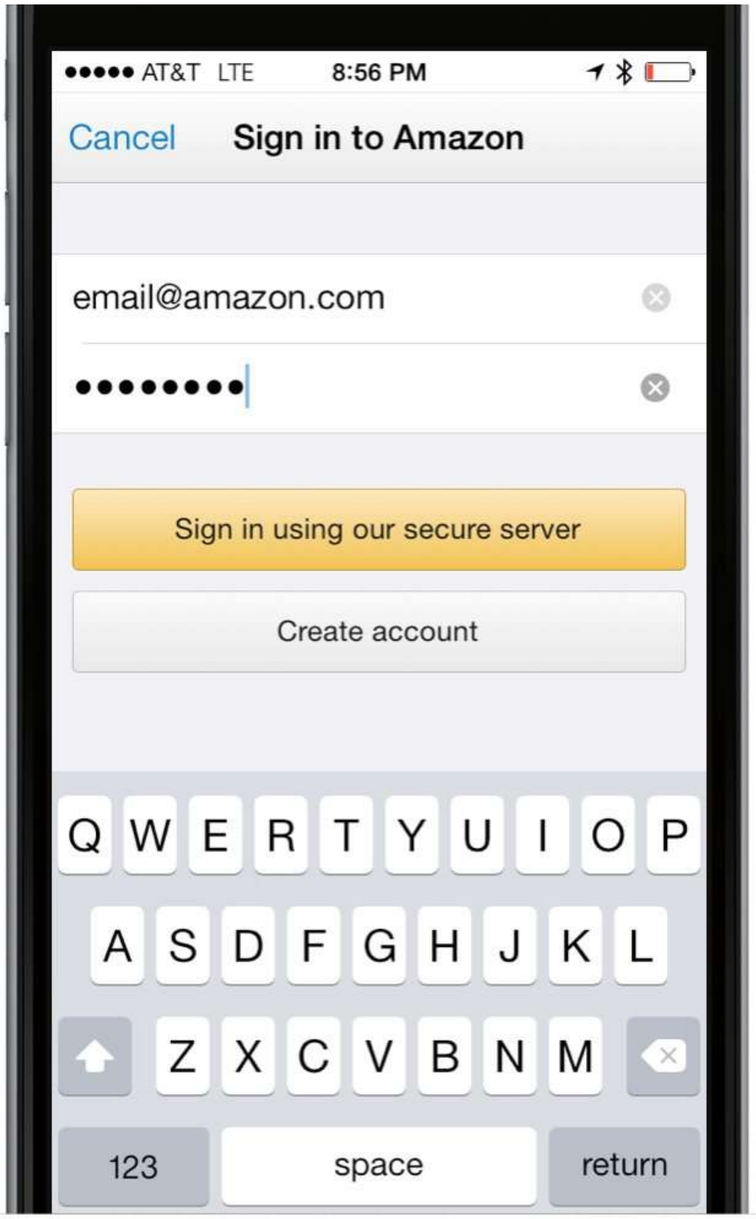
75% won't complete purchase if attempt to recover password while checking out

Source: http://bit.ly/1MDHDfX

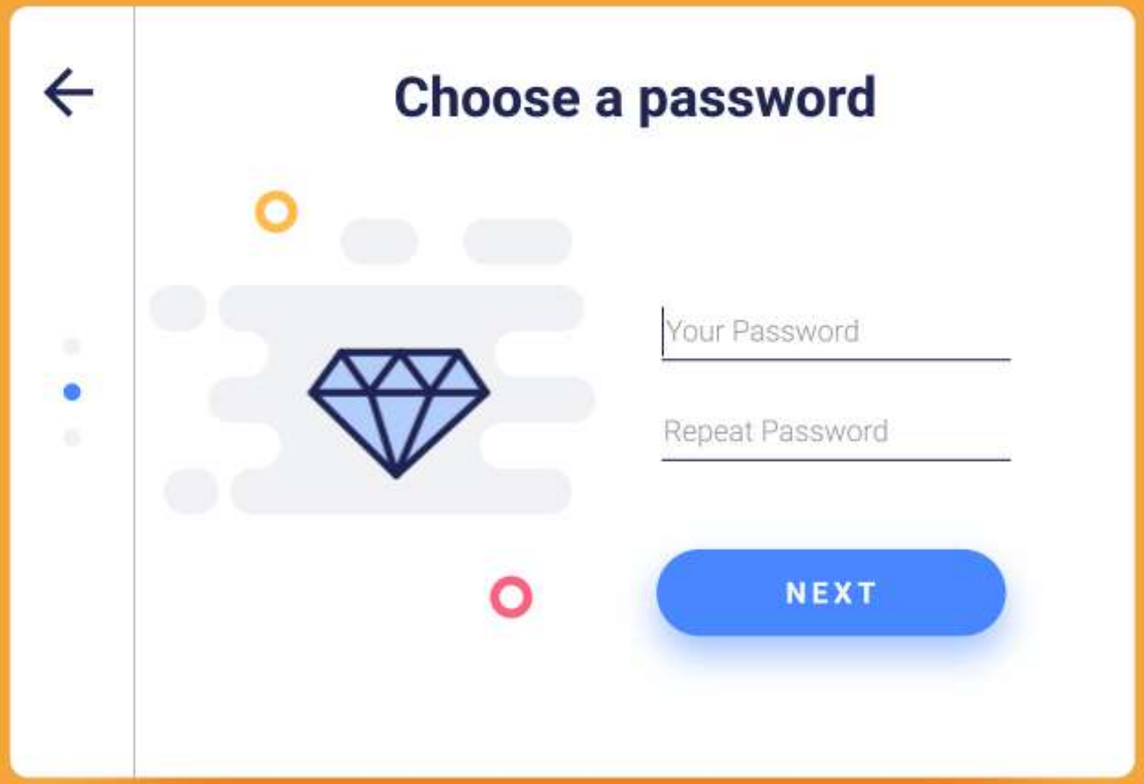
"authentication (sign-in) is one of the biggest reason people don't return to Web sites"

54% quit checkout if they are asked to sign-up

92% give up if they don't remember a password or user name



Source: Chrome data http://bit.ly/1AinNyU Blue Research http://bit.ly/2AqNGiN



Password strength indicator, *Claudio Scotto*, *https://dribbble.com/shots/4584825-Password-Strength*

Show password, *Prekesh*, *https://dribbble.com/shots/4298963-Show-password*

Email

email@domain.com

Password Show

Log in

Authentication UX

Usability > Security

> Authentication is always a *hurdle.* As users, we can't be trusted until our identities have been *established*, we've been *authenticated* in saying who we are and we are *authorized* for the transaction we need to perform.

Jared Spool, UIE.com

Authentication UX

Usability > Security

> We try to make it *easy* to use for people who should have access, often making it totally *unusable* for people who don't have access. We need to think in terms of *stages* of security and *layers* of authentication.

Jared Spool, UIE.com

Authentication UX

Severe Security Measures

01 — Requiring email confirmation to proceed.

02 — Disabling sign up with an “already existing” email.

03 — Overly strict password requirements.

04 — Setting up a 2-factor-authentication too early.

05 — Brand new password setup during pass recovery.

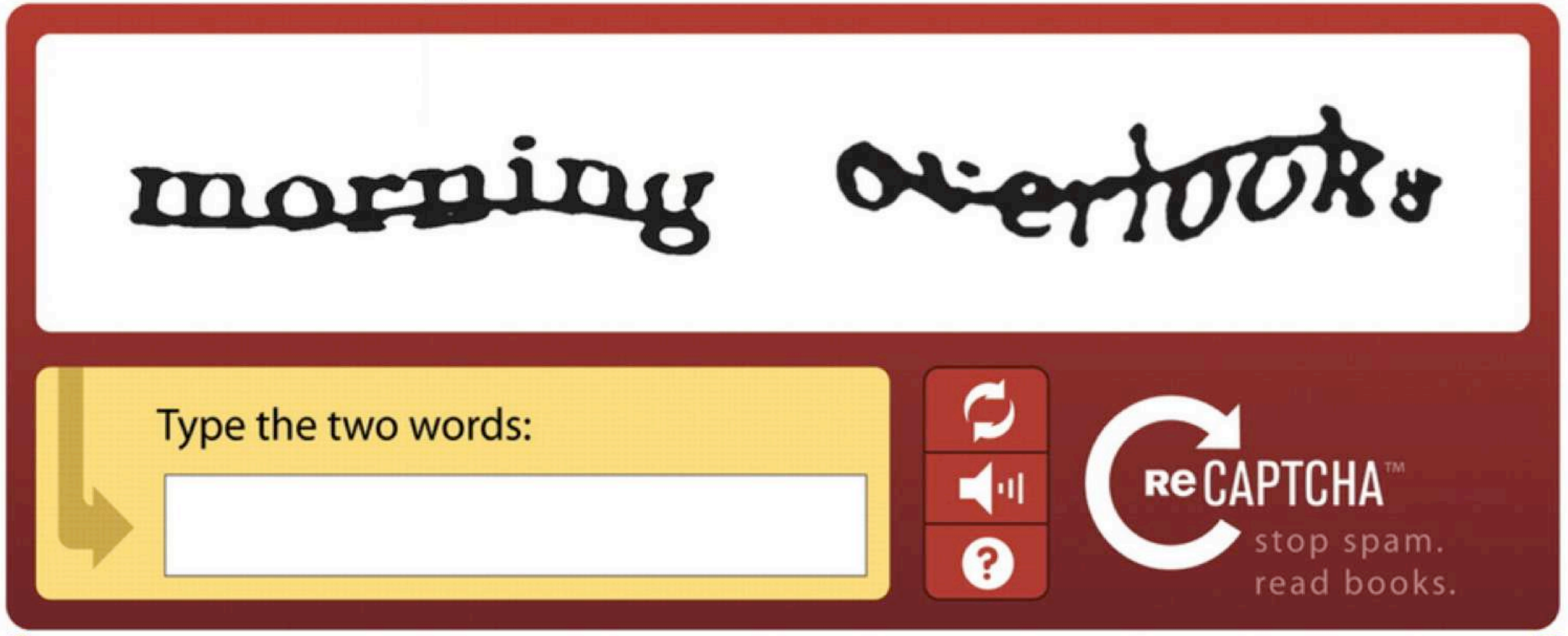
06 — Limiting pass attempts and emporary account lockouts.

07 — Identifying images (store fronts/cars).

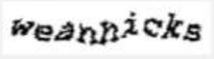
08 — Accessibility issues with visual recognition (CAPTCHA).

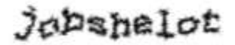
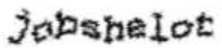
09 — Not revealing the whether login or pass is wrong.

10 — All ultimate examples of unloading our problems onto users.


morning overlook
Type the two words:
ReCAPTCHA™
stop spam.
read books.

morning overlook
Type the two words:
reCAPTCHA
stop spam.
read books.

Scheme	Website(s)	Example	Security Features		Excluded Characters
			Anti-segmentation	Anti-recognition	
Wikipedia	wikipedia.org		Overlapping characters, Enligh letters	Rotation, distortion, waving	–
Microsoft	{live, bing, miscosoft}.com {office, linkedin}.com		Overlapping characters, solid background	Different font styles, varied font sizes, rotation, waving	0, 1, 5, D, G, I, Q, U
eBay	ebay.com		Overlapping characters, Only arabic numerals	Character rotating, distortion and waving	–
Baidu	{baidu, qq}.com		Occluding lines, overlapping, only Enligh letters	Varied font size, color, rotation, disortion and waving	Z
Google	google.{com,co.in,co.jp, co.uk,ru,com.br,fr com.hk,it,ca,es,com.mx} youtube.com		Overlapping characters, Enligh letters	Varied font sizes & color, rotation, disortion, waving	–
Alipay	{alipay, tmall}.com {taobao, login.tmall}.com alipayexpress.com		English letters and arabic numerals, overlapping characters	Rotation and distortion	0, 1, I, L, O
JD	jd.com		English letters and arabic numerals, overlapping characters	Rotation and distortion	0, 1, 2, 7, 9, D, G, I, J, L, O, P, Q, Z
Qihu360	360.cn		English letters and arabic numerals, overlapping characters	Varied font sizes, rotation and distortion	0, I, L, O, T, i, l, o, t, q
Sina	sina.cn		English letters and arabic numerals, overlapping characters	Rotation, distortion, waving	1, 9, 0, D, I, J, L, O, T, i, j, l, o, t, g, r
Weibo	weibo.cn		English letters and arabic numerals, overlapping characters, occluding lines	Rotation and distortion	0, 1, 5, D, G, I, Q, U
Sohu	sohu.com		Complex background, occluding lines, and overlapping	Varied font size, color and rotation	0, 1, i, l, o, z

Captcha Scheme	Captcha Example	Success rate Ref. [10]	Success rate *Our approach*	Captcha Scheme	Captcha Example	Success rate Ref. [17]	Success rate *Our approach*
Megaupload		93%	100%	Baidu (2016)		46.6%	97.5%
Blizzard		70%	100%	QQ		56%	94%
Authorize		66%	100%	Taobao		23.4%	90.7%
Captcha.net		73%	99.6%	Sina		9.4%	90%
NIH		72%	99%	reCAPTCHA (2011)		77.2%	87.4%
Reddit		42%	98%	eBay		58.8%	86.6%
Digg		20%	95%	Amazon		25.8%	79%
eBay		43%	86.6%	Wikipedia		23.8%	78%
Slashdot		35%	86.4%	Microsoft		16.2%	72.1%
Wikipedia		25%	78%	Yahoo! (2016)		5.2%	63%

Authentication UX

CAPTCHA Performance

> On average, a user needs around *9.8 seconds* to solve a text-based CAPTCHA, and it takes *28.4 seconds* to solve the audio version. Notably, *20%* give up after a few tries.

Stanford University, Elie Bursztein

Authentication UX

CAPTCHA Performance

> Bots got *so* advanced that it's now nearly impossible to generate images that are easy to solve for humans but unsolvable for bots. AI can solve most difficult distorted texts with *99.8% accuracy* while humans with 33%.

The Verge, Josh Dzieza

Adversarial Attacks on CAPTCHA | Towards AI

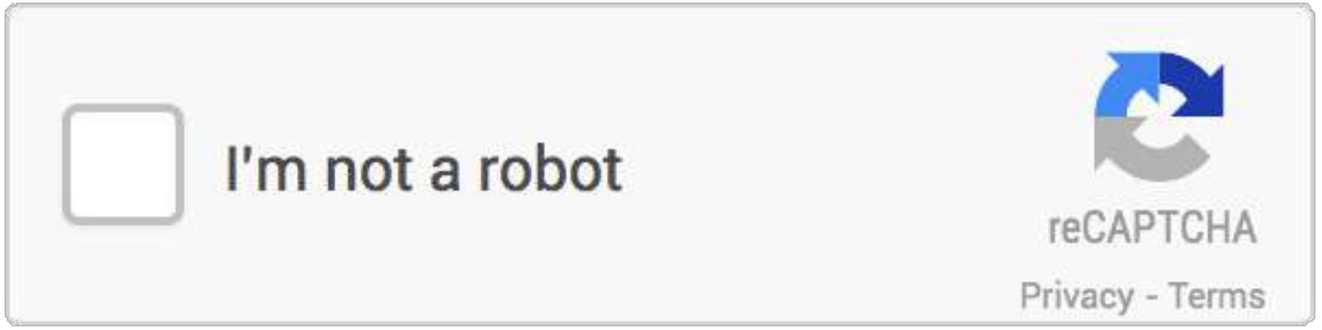
Breaking CAPTCHA Using Machine Learning in 0.05 Seconds

Machine learning model breaks CAPTCHA systems on 33 highly visited websites, concept is based on GANs

Top highlight

Roberto Iriondo Follow
Dec 19, 2018 · 6 min read ★

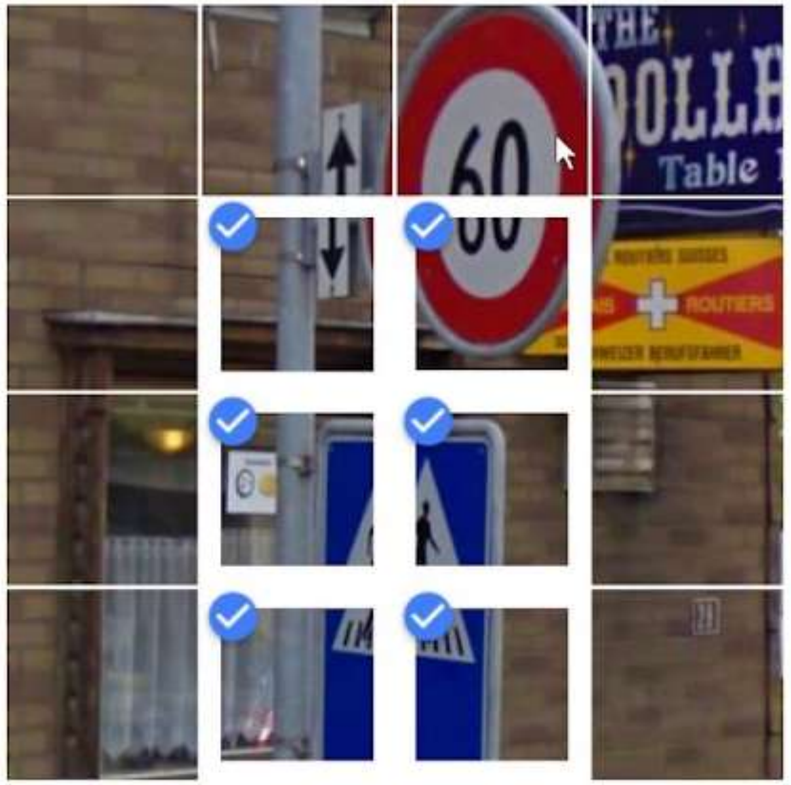
December 19, 2018 by Roberto Iriondo


I'm not a robot
reCAPTCHA
Privacy - Terms

Select all squares with

street signs

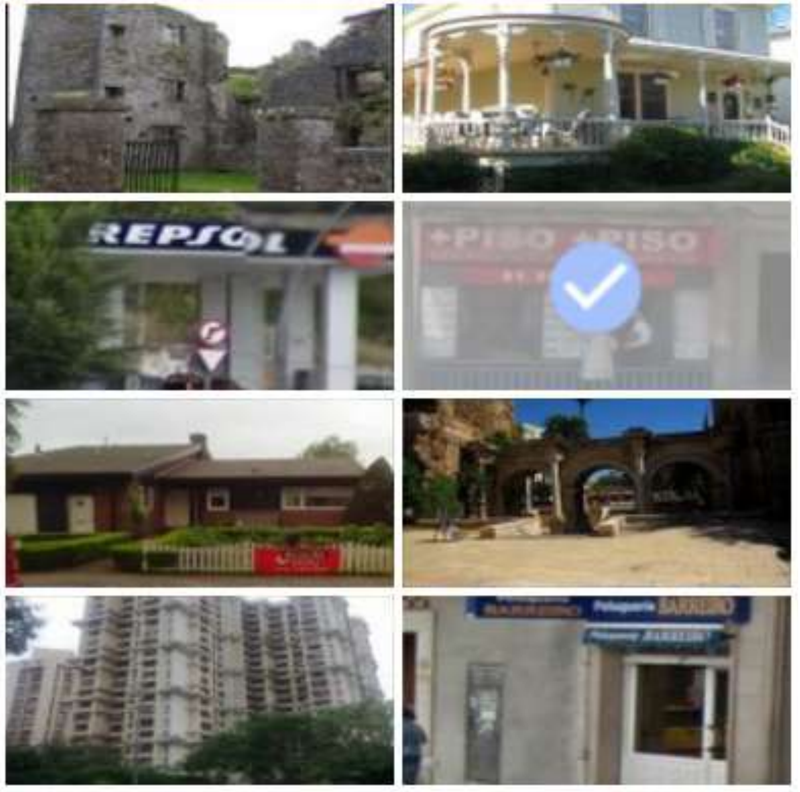
If there are none, click skip



NEXT

Select all images with a store front.

Click verify once there are none left.



Verify

Spam Prevention Strategy

01 — Use Akismet & Co. to block known spam IPs.

02 — Ask a random plain “human” question.

03 — Use a honeypot technique to lure bots into input.

04 — Use a keyboard-accessible slider to verify.

05 — Use time traps (< 1.5s) to disrupt repeated attempts.

06 — Turn off autocomplete for spam prevention input.

07 — Use legit labels (#phone) for a hidden field.

08 — If it doesn’t work, load reCAPTCHA 2 checkbox conditionally.

09 — If it doesn’t work, work around reCAPTCHA 3 on all pages.

10 — Don’t rely on pointer movements/text-based recognition.

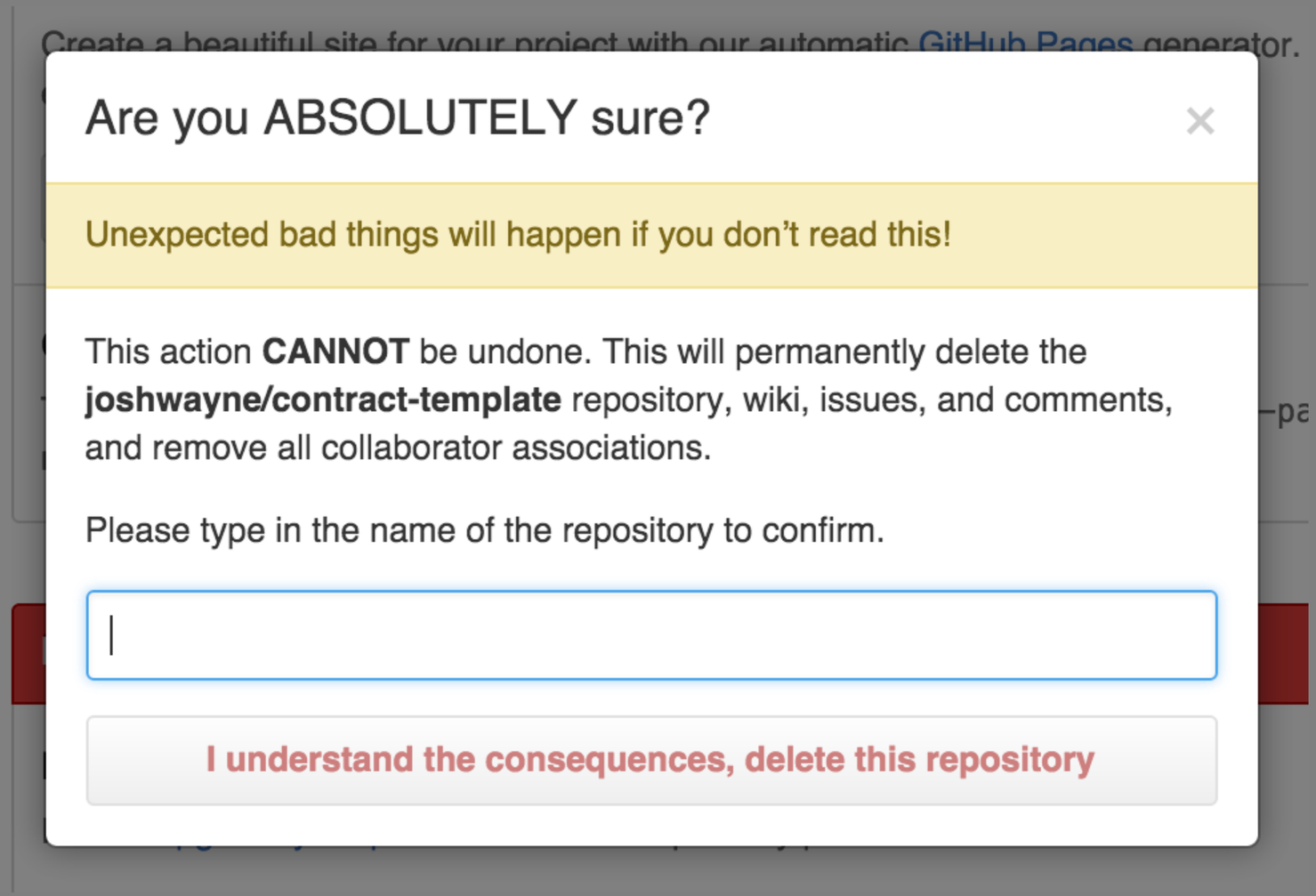
Smashing Magazine
@smashingmag

What technique do you use to prevent spam bots attacking your web forms? CAPTCHA? Honeypot technique (stackoverflow.com/questions/3622...) or just asking a question robot can't answer? Or something else? Or nothing?

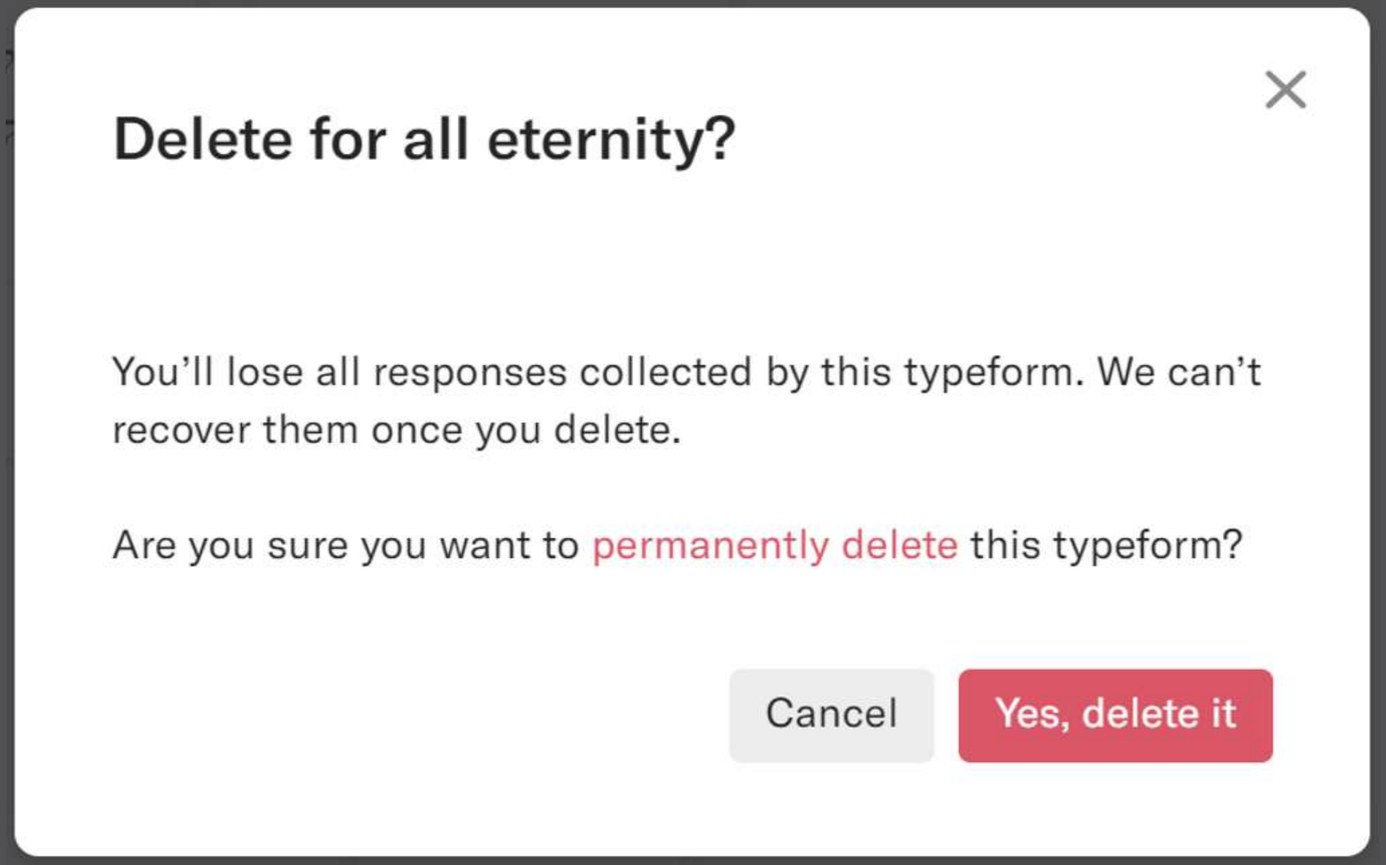
CAPTCHA	**49%**
"Honeypot"-technique	38%
"Human question"	8%
Other (please reply)	5%

507 votes · Final results

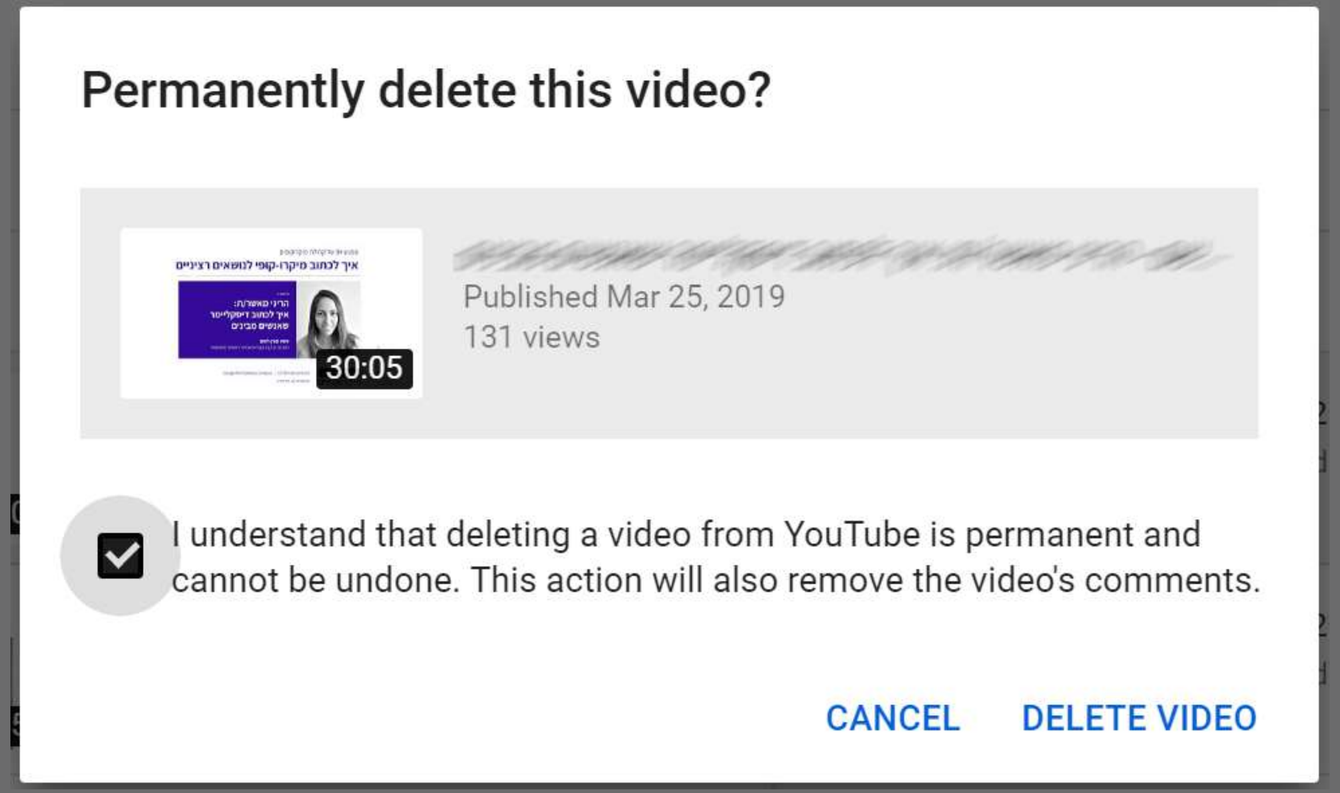
6:41 PM · Nov 26, 2018 · Twitter Web Client



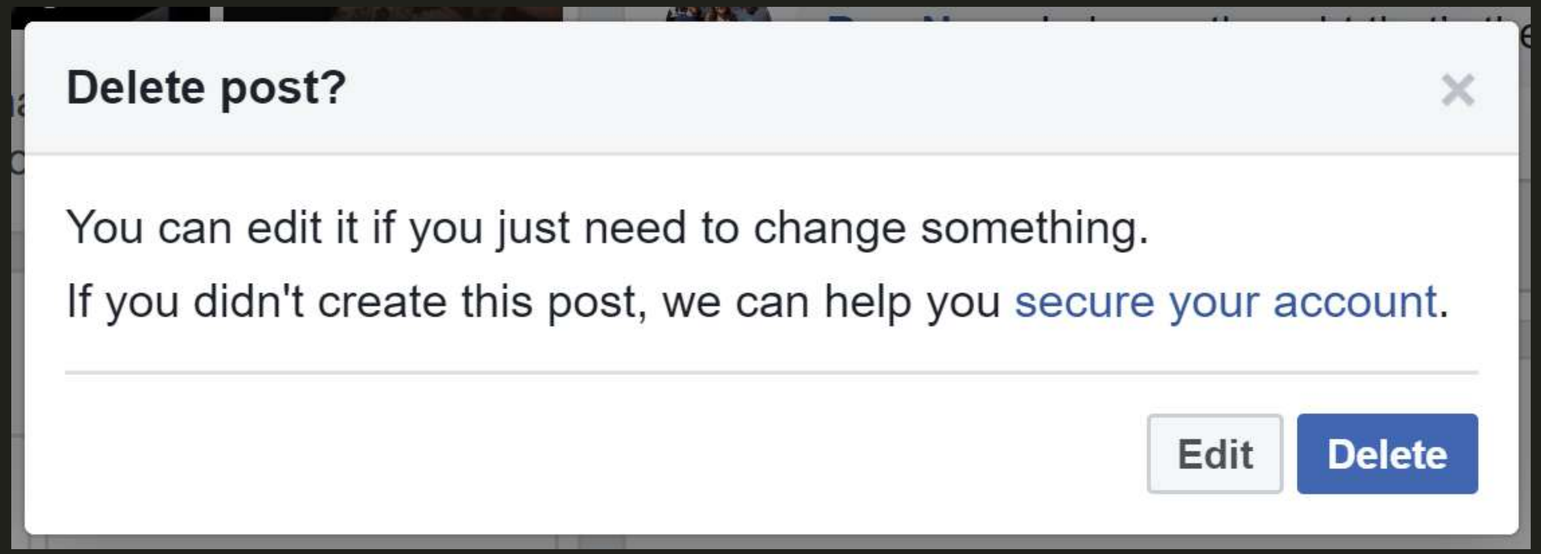
Microcopy for confirmation dialogues, *Kinneret Yifrah*, *UXdesign Medium*



Microcopy for confirmation dialogues, *Kinneret Yifrah*, *UXdesign Medium*



Microcopy for confirmation dialogues, *Kinneret Yifrah*, *UXdesign Medium*



Microcopy for confirmation dialogues, *Kinneret Yifrah*, *UXdesign Medium*

Adam Silver on

Confirm vs. Undo

> For *critical actions,* e.g. deleting an item, we might need to provide an option to *confirm* before the action is made, and *undo* once it has been made. Difficult for repetitive tasks, so we need to track how often it's used.

"Form Design Patterns", published by Smashing Magazine

Jakub Linowski on

Confirm vs. Undo

> *Confirmation prompts* question user's intent and are often confirmed instinctively, while *undos* respect the initial intent by allowing the action to happen smoothly first, and recover from mistakes quickly and easily.

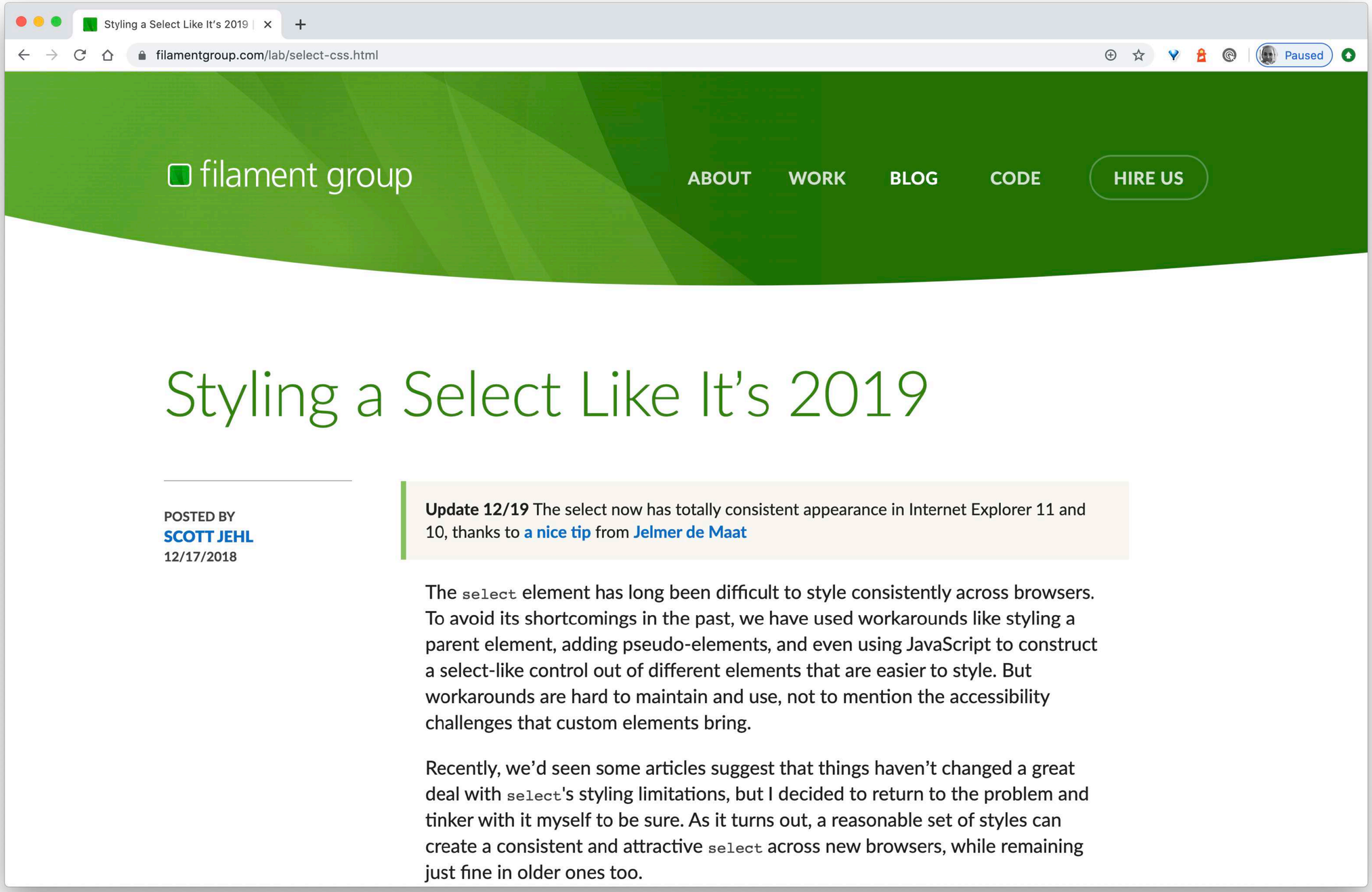
GoodUI.org

Alan Cooper on

Confirm vs. Undo

> For confirmation dialog boxes to work, they must *only appear* when a user will almost definitely click the “No” or “Cancel” button, and they should never appear when a user is likely to click the “Yes” or “OK” button.

“About Face”



Styling a Select Like It's 2019

POSTED BY
SCOTT JEHL
12/17/2018

Update 12/19 The select now has totally consistent appearance in Internet Explorer 11 and 10, thanks to **a nice tip** from **Jelmer de Maat**

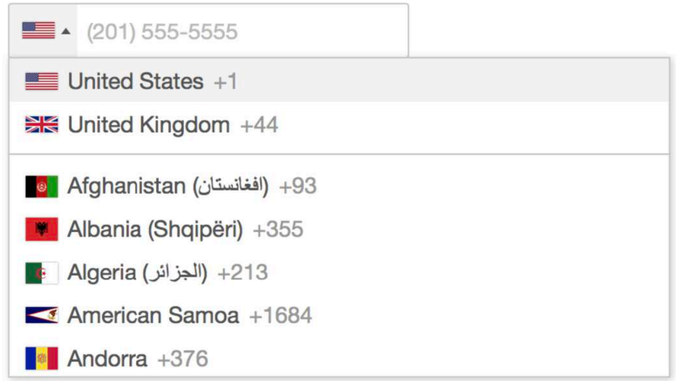
The `select` element has long been difficult to style consistently across browsers. To avoid its shortcomings in the past, we have used workarounds like styling a parent element, adding pseudo-elements, and even using JavaScript to construct a select-like control out of different elements that are easier to style. But workarounds are hard to maintain and use, not to mention the accessibility challenges that custom elements bring.

Recently, we'd seen some articles suggest that things haven't changed a great deal with `select`'s styling limitations, but I decided to return to the problem and tinker with it myself to be sure. As it turns out, a reasonable set of styles can create a consistent and attractive `select` across new browsers, while remaining just fine in older ones too.

GitHub - jackocnr/intl-tel-input
github.com/jackocnr/intl-tel-input#demo-and-examples
Paused

International Telephone Input

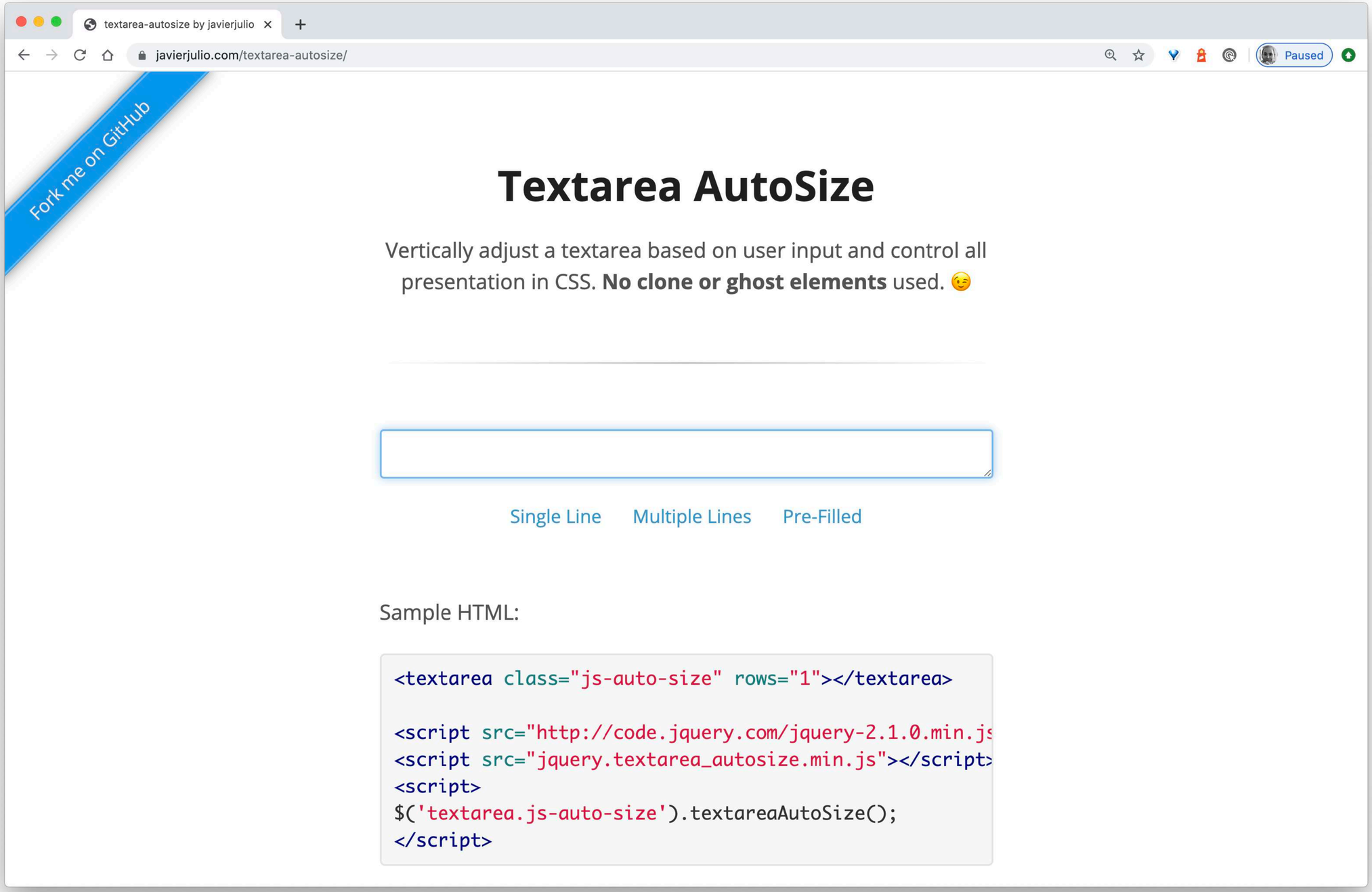
A JavaScript plugin for entering and validating international telephone numbers. It adds a flag dropdown to any input, detects the user's country, displays a relevant placeholder and provides formatting/validation methods.



If you like it, please consider making a donation, which you can do from the demo page.

Table of Contents

- Demo and Examples
- Features
- Browser Compatibility
- Getting Started
- Recommended Usage
- Options
- Public Methods


textarea-autosize by javierjulio
javierjulio.com/textarea-autosize/
Paused
Fork me on GitHub
Textarea AutoSize
Vertically adjust a textarea based on user input and control all presentation in CSS. No clone or ghost elements used. 😉
Single Line
Multiple Lines
Pre-Filled
Sample HTML:
<textarea class="js-auto-size" rows="1"></textarea>
<script src="http://code.jquery.com/jquery-2.1.0.min.js
<script src="jquery.textarea_autosize.min.js"></script>
<script>
$('textarea.js-auto-size').textareaAutoSize();
</script>

GoodUI ideas and A/B tested p

goodui.org

GoodUI PATTERNS LEAKS BETTERUI REVIEW DATASTORIES BLOG Log In Get Access

Improve Your UI With Winning & Losing A/B Tests

Be it landing pages, funnels, ecommerce sites or apps, they all get better with UI changes backed by positive design experiments - the more the better. And so we actively publish results of amazing companies that learn from experimentation:

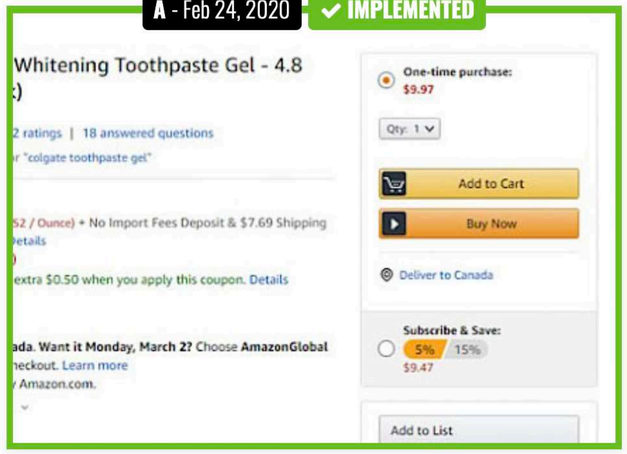
NEWEST LEAKED A/B TEST

View all leaks

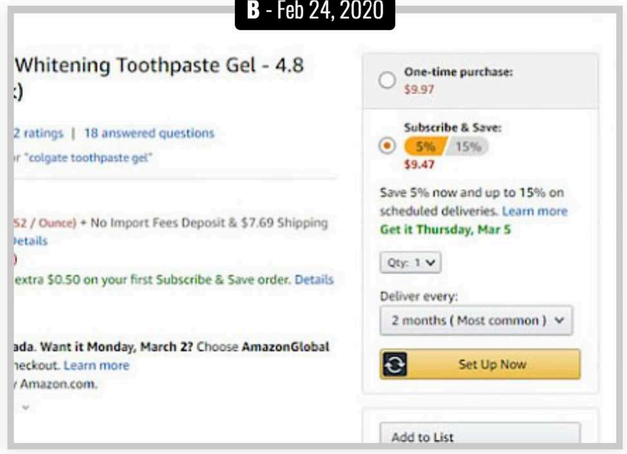
Leak #50 from Amazon.com | Mar 30, 2020 Product

Amazon's One Time Purchase Vs Subscription Experiment

A - Feb 24, 2020 ✔ IMPLEMENTED



B - Feb 24, 2020



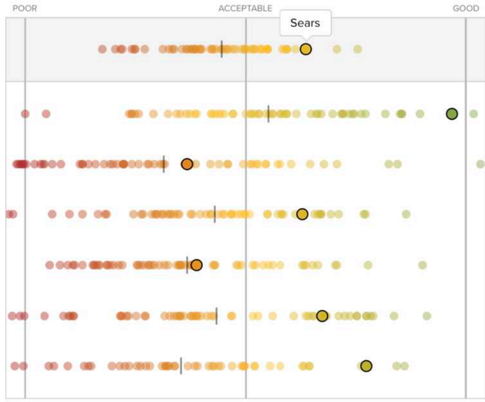
In this experiment captured from a random toothpaste product page, Amazon was testing two separate purchase related defaults. Some visitors would be defaulted to a "One-time purchase" buy box (control version). While others would first see a preselected subscription option, encouraging a recurring product purchase (variation B). View Leak

Researching the best ways to i

baymard.com

Baymard Institute | Articles | Benchmarks | Page Designs | Research Catalog | Audit Service | About | Search | Sign in

Empower Your E-Commerce Design with 49,000+ Hours of UX Research



Baymard Institute provides you with 49,000+ hours of large-scale **e-commerce UX research** – uncovering what designs cause usability issues, how to create "State of the Art" e-commerce experiences, and how your UX performance stacks up against leading e-commerce sites.

The research is published as articles, benchmarks and UX case studies, page designs, and in our extensive premium research catalog.

2 × Products & Services

49,000+ hours of research available in 2 different formats, for different needs and budgets

Research Catalog

"Learn on your own"

Full access to all 705 research guidelines and 60 in-depth UX case studies

Audit Service

"Baymard's researchers audit your site"

Analysis of your site's UX performance and 15-50 suggestions for improvements

ADAM SILVER

Form Design Patterns

WITHOUT FORMS, THE WEB IS A PASSIVE EXPERIENCE WHERE CONTENT IS JUST CONSUMED. BUT with forms the web can be collaborative, creative and productive. Forms are at the center of every meaningful interaction, so they're worth getting a firm handle on. Jump to table of contents.

On first glance, forms are simple to learn. Made up of just a handful of inputs, you can create a form in little time. But when we consider the journeys we need to design, the users we need to design for, the browsers and devices of varying sizes, capabilities and bugs being used; and ensuring that the result is *simple and inclusive*, form design becomes a far more interesting and bigger challenge.

Published on October 2018
Tags: Design, Accessibility

PRINT + EBOOK
EBOOK

The Fundamentals

Web Form Design Checklist

01 — What's the minimum user input needed for them to get started?

02 — When is the right time and place to ask users to verify critical input?

03 — For each input, what's the best form element to collect it fast and accurately?

04 — For sensitive data input (e.g. gender), do we explain why we need it?

05 — Do any form elements need hints (e.g. pass requirements, username)?

06 — Do we have an attribute profile for each input in our form?

07 — Do we always prioritize actionable copy (e.g. "Choose password")?

08 — Do we always prefer tap-friendly components (buttons, toggles, sliders)?

09 — Do text boxes appear as text boxes (good padding, bordered)?

10 — Have we adjusted the width of each box as a hint to expected input?

11 — Do we use proper labels, associated with input fields?

Web Form Design Checklist

12 — Do we use letter case for the microcopy on labels?

13 — Do we highlight required or optional fields, or both?

14 — How do we style placeholders, and is the microcopy helpful?

15 — Will labels be top-aligned or right-aligned (preferably the former)?

16 — Will we be using floating labels? If so, are they accessible?

17 — Do inputs have `:focus` and `:active` styles?

18 — Have we enabled/disabled autocorrect, spell-check, autocapitalization?

19 — Do we use HTML5's `pattern` to restrict input with in-browser validation?

20 — Are there any inputs where we need to provide a reasonable default value?

21 — Do we make use of *autofill* with the `autocomplete` attribute?

22 — Do we always display the right keyboard on mobile (`inputmode`)?

Web Form Design Checklist

23 — Do we use `autofocus` to bring focus to the first input element on page load?

24 — Do we lay out fields in a single column (preferably yes)?

25 — Do we lay out field groups in multiple pages (*one-thing-per-page*)?

26 — Do we show at most 7–8 input fields at a time on desktop, 3–4 on mobile?

27 — Are radio buttons actually round (preferably yes)?

28 — Do we need a fallback input for radio buttons (“I’d rather not say”, “Other”)?

29 — Are checkboxes square, with enough padding and large font size (18px+)?

30 — For checkboxes used as filters, do we track low result count?

31 — Do we avoid <select>-dropdowns as much as possible?

32 — …and use steppers (<10 options) or datalist/autocomplete (>10 options)?

33 — For autocomplete, do we surface frequent hits at the top of autosuggestions?

Web Form Design Checklist

34 — For a country selector, do we display some countries as frequently used?

35 — If so, do frequently used countries appear in the alphabetical list, too?

36 — How do we design the country selector, and what height should it have?

37 — For autocomplete, do we accept abbreviations (GB, UK, DE, NL, CH etc.)?

38 — For our autocomplete, do we also accept alternative manual input?

39 — Do we display the results count for categories with autocomplete?

40 — Is autocomplete keyboard-accessible, and forgiving of minor typos?

41 — Do we use a localization based on user-provided country or ZIP/postal code?

42 — Can we ask for a full name instead of first, middle and last names?

43 — Do we replace “Address Line 2” with contextual labels (*Apt, suite, unit* etc.)?

44 — Can we use an address look-up widget to speed up location input?

Web Form Design Checklist

45 — For date/time input, do we display input boxes or widgets with steppers?

46 — Do we provide autoformatting for phone, birthday, amounts, numbers, dates?

47 — For credit card input, can we avoid selection of the credit card type?

48 — As a label for the name on a credit card, do we use “Name on card”?

49 — As a label for security code, can we use “Security code” instead of “CVC”?

50 — As a label for expiry date, can we use a single input field with auto-masking?

51 — Can we use Payment Request API, Apple Pay, Google Pay etc.?

52 — For inline validation, can we define a threshold per input field?

53 — Can we not validate the input yet unless the threshold is reached?

54 — When editing a valid field, do we validate after full data entry?

55 — When editing an invalid field, do we validate during data entry?

Web Form Design Checklist

56 — Do we show success only if the user has moved to the next field?

57 — Do our error messages drive users to a clear path on how to fix the error?

58 — On submit, do we scroll the user to the first error and focus on it?

59 — ...or display the error above the submit button (focused)?

60 — If there are a few errors, do we additionally display a summary of errors?

61 — Do we display the error message just above the input field?

62 — Do we show the number of errors in the tab title as a prefix?

63 — Can we not disable submit buttons until all fields are filled in?

64 — Do we display confirmation boxes only for absolutely critical situations?

65 — Can we use undos to help users quickly restore data instead?

66 — Do we move users to the next field automatically after successful input?

Web Form Design Checklist

67 — Do we persist the data on refresh?

68 — Have we tabbed through the entire form (incl. date picker/autocomplete)?

69 — Is the tab order predictable and reasonable?

70 — Have we tested the form on desktop, tablet, mobile?

71 — Where do error messages appear? Do labels always appear in full?

72 — For lengthy forms, do we explain to users what docs/time the form requires?

73 — Do we have an input budget in place (max number of input fields per step)?

74 — Do we track the tap count (min number of taps needed to complete form)?

75 — What happens when the form is loading (skeleton screen, loading indicator)?

Summary

01 – Humans interpret input as solid, single entities.

02 – Always prefer (large) buttons, toggles, sliders.

03 – When typing, let users stay on keypad + autocomplete.

04 – Floating labels or top-/right-aligned labels.

05 – Radio buttons are round, checkboxes are squared.

06 – Avoid <select>-dropdowns: use steppers/datalist instead.

07 – Consider profiling every single input element.

08 – One-thing-per-page-flow, max 6–7 input fields per page.

09 – Single-col-layout with top-aligned labels is a safe bet.

10 – Inline validation: set thresholds, reward early, punish late.

Web Forms

06 Privacy Patterns

Privacy

Sensitive Form Input

01 — Title

02 — Gender

03 — Age

04 — Birthday

05 — Phone number

06 — Personal photo

07 — Credit card and bank details

08 — Signature

09 — Passport details

10 — Social security number

Back to catalog

Loewe

Multicolor Leather Low-Top Sneakers

Low-top buffed leather sneakers colorblocked in navy, yellow, red, and white. Round toe. Lace-up closure in black. Perforated at sides. Logo embossed at outer side. Textured rubber sole in red. Tonal stitching.

Details | Shipping | Sizing | Returns

Color

Size

39 40 42 44 45

View size chart

$148 Or $168 with insurnace.

Add to Basket without insurnace

Add to Basket with insurance

by Paul Boag

Privacy UX

Hidden Costs (Paul Boag)

> Dark patterns help increase conversion *short-term*, but can damage company's reputation *irreversibly* long-term. Often there are hidden costs that aren't considered when a solution is implemented: lost in processing returns, cost of support, sales, marketing, renewed acquisition.

Healthy Business Metrics Mix

Increase!	Conversion rate.
Reduce!	Time to repeat purchase.
Improve!	Progressive privacy rate.
Reduce!	Time to first share.
Reduce!	Time to first purchase.
Reduce!	Time to first upgrade.
Improve!	Custom perf metrics.
Increase!	Life-time value.

Measure!	Sales and marketing costs.
Reduce!	Customer support inquiries.
Reduce!	Confusing encounters per visit.
Reduce!	Negative encounters per visit.
Reduce!	Total cost and ratio of returns.
Reduce!	Ratio of negative reviews.
Reduce!	“Marked as spam” signal.
Increase!	“Turn-around” score.

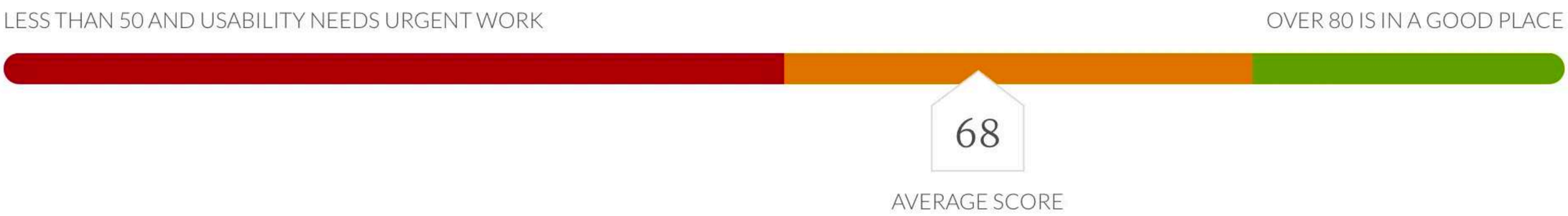
I think that I would like to use this website frequently.

I found the website unnecessarily complex.

I thought the website was easy to use.

I thought there was too much inconsistency on the site.

What your system usability scale score means



Customers have *many major concerns* when it comes to their privacy and how their data is managed. Violating privacy can be very *expensive*.

Sensitive Privacy Issues

01 — Tracking and evaluating user preferences, location etc.

02 — Convoluted privacy policy changes.

03 — Lack of trust for free or freemium services.

04 — Disturbing and annoying advertising in apps or on websites.

05 — Targeting with commercial and political messages.

06 — Unwanted notifications and marketing emails.

07 — No proper control of personal data.

08 — Exposing personal preferences to third parties.

09 — Difficulty to delete personal details.

10 — Difficulty to cancel/close account.

11 — Safety of stored data on servers.

Sensitive Privacy Issues

12 — Uploading a photo of a credit card or passport scan.

13 — Use of personal data for commercial purposes.

14 — Exposing private messages and emails publicly.

15 — Exposing search history publicly.

16 — Social profiling by potentials employers.

17 — An app posting on user's behalf.

18 — Difficulty to export personal data.

19 — Difficulty to cancel a subscription.

20 — Hidden fees and costs not explicitly mentioned.

21 — Importing contacts of friends.

22 — Trolling and stalking online.

Sensitive Privacy Issues

23 — Data breach of login, password and credit card details.

24 — Hacked Gmail, Facebook, Twitter or Instagram accounts.

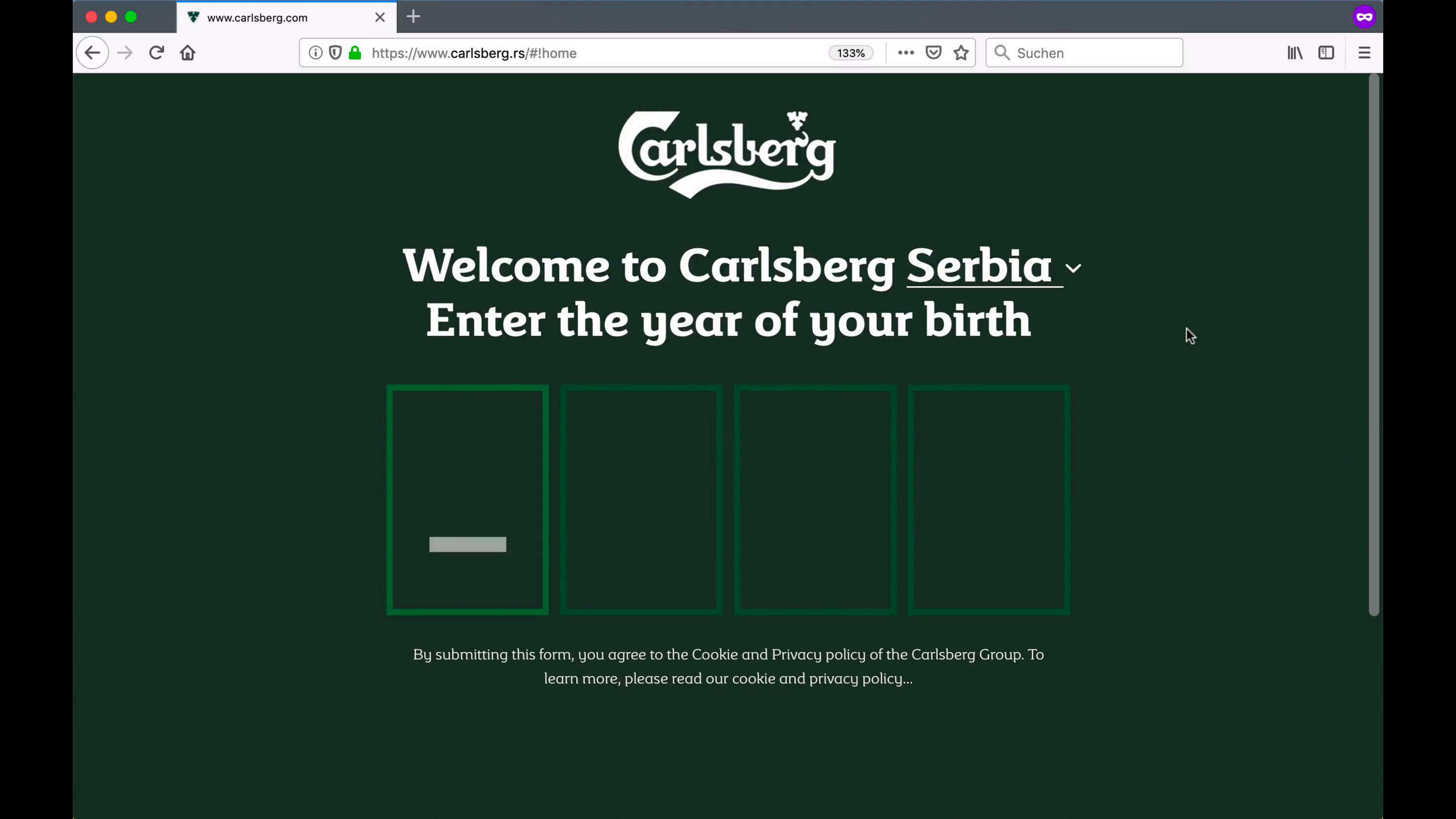
Create a Firefox Account

p_gasston@yahoo.com

•••••••• Show

Year of birth

Year of birth
1990 or earlier
1991
1992


www.carlsberg.com
https://www.carlsberg.rs/#!home
133%
Suchen
Welcome to Carlsberg Serbia
Enter the year of your birth
By submitting this form, you agree to the Cookie and Privacy policy of the Carlsberg Group. To learn more, please read our cookie and privacy policy...

Welcome to Carlsberg Serbia

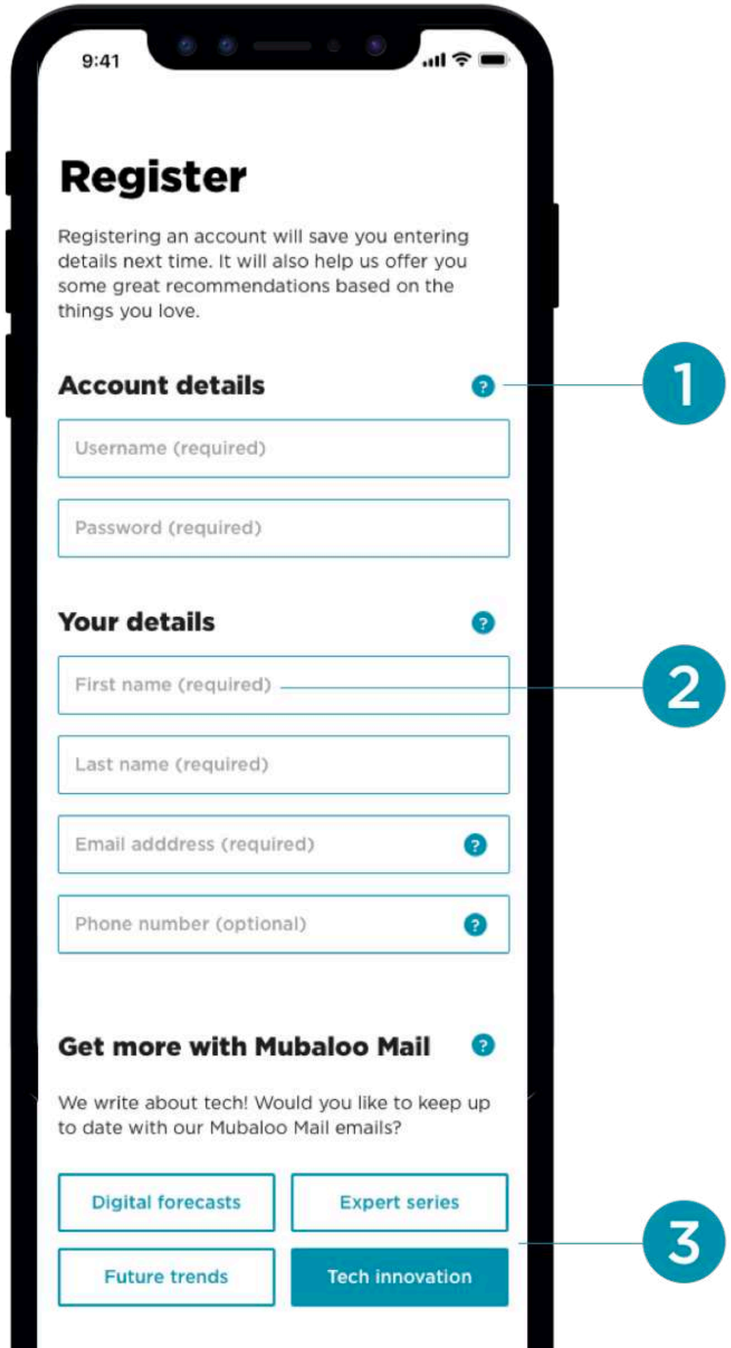
Enter the month of your birth

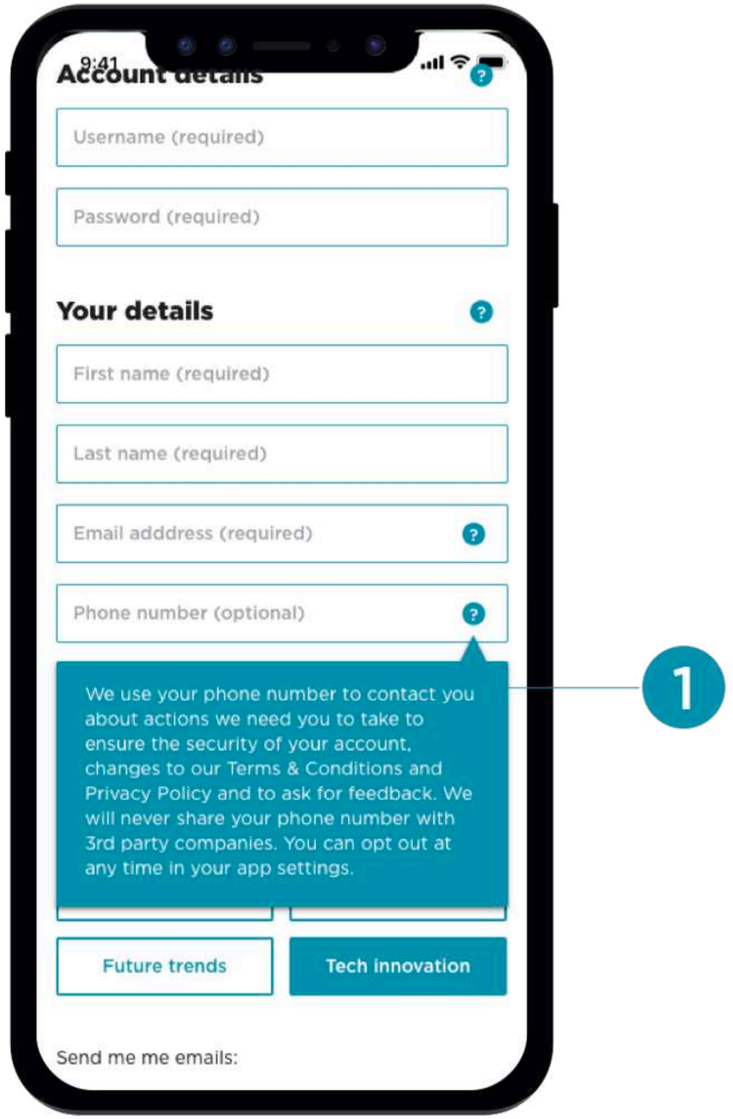
1 0 _

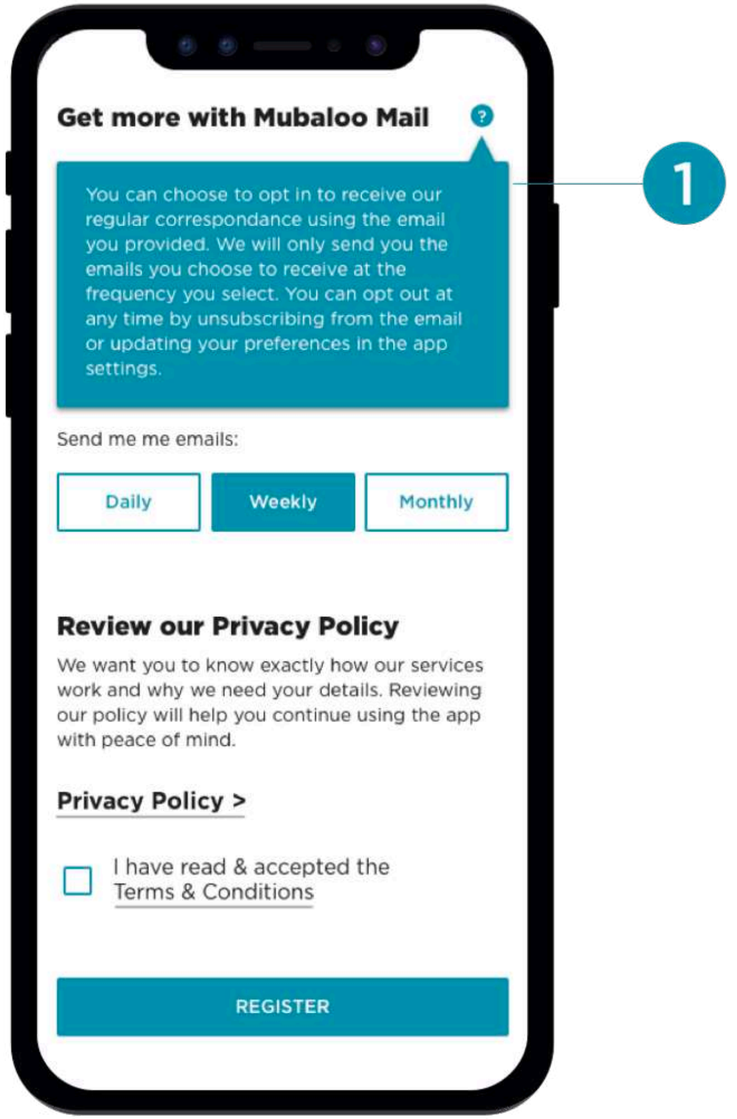
By submitting this form, you agree to the Cookie and Privacy policy of the Carlsberg Group. To learn more, please read our cookie and privacy policy...

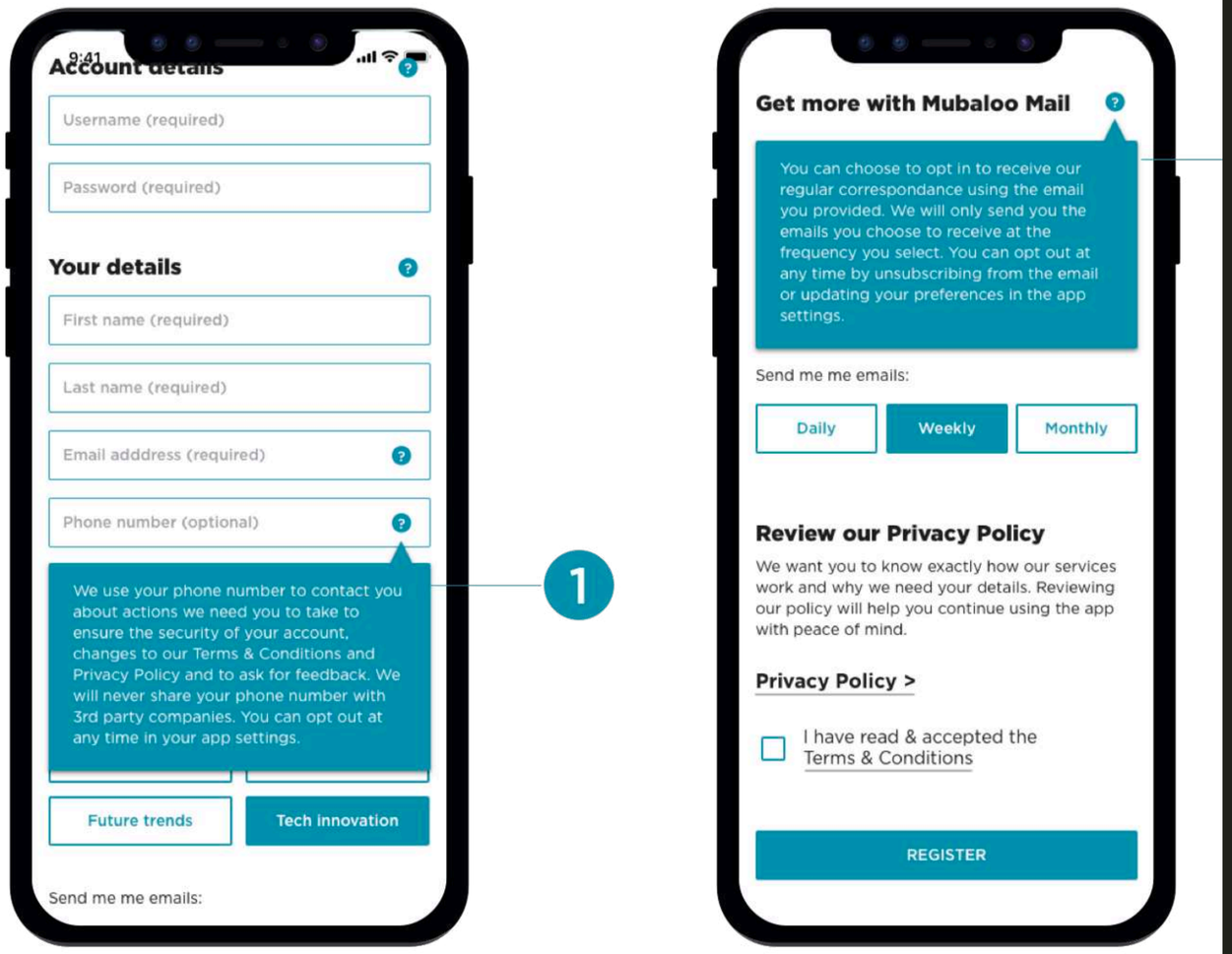
Ask Only What Needed, Not More

Never ask more than you need. For their age prompt, **Carlsberg** asks *only* the year of birth, and ask for month and day only if necessary to verify that the customer is 18+ years old.


9:41
Register
Registering an account will save you entering details next time. It will also help us offer you some great recommendations based on the things you love.
Account details
Username (required)
Password (required)
Your details
First name (required)
Last name (required)
Email adddress (required)
Phone number (optional)
Get more with Mubaloo Mail
We write about tech! Would you like to keep up to date with our Mubaloo Mail emails?
Digital forecasts
Expert series
Future trends
Tech innovation
1
2
3


9:41
Account details
Username (required)
Password (required)
Your details
First name (required)
Last name (required)
Email adddress (required)
Phone number (optional)
We use your phone number to contact you about actions we need you to take to ensure the security of your account, changes to our Terms & Conditions and Privacy Policy and to ask for feedback. We will never share your phone number with 3rd party companies. You can opt out at any time in your app settings.
Future trends
Tech innovation
Send me me emails:
1

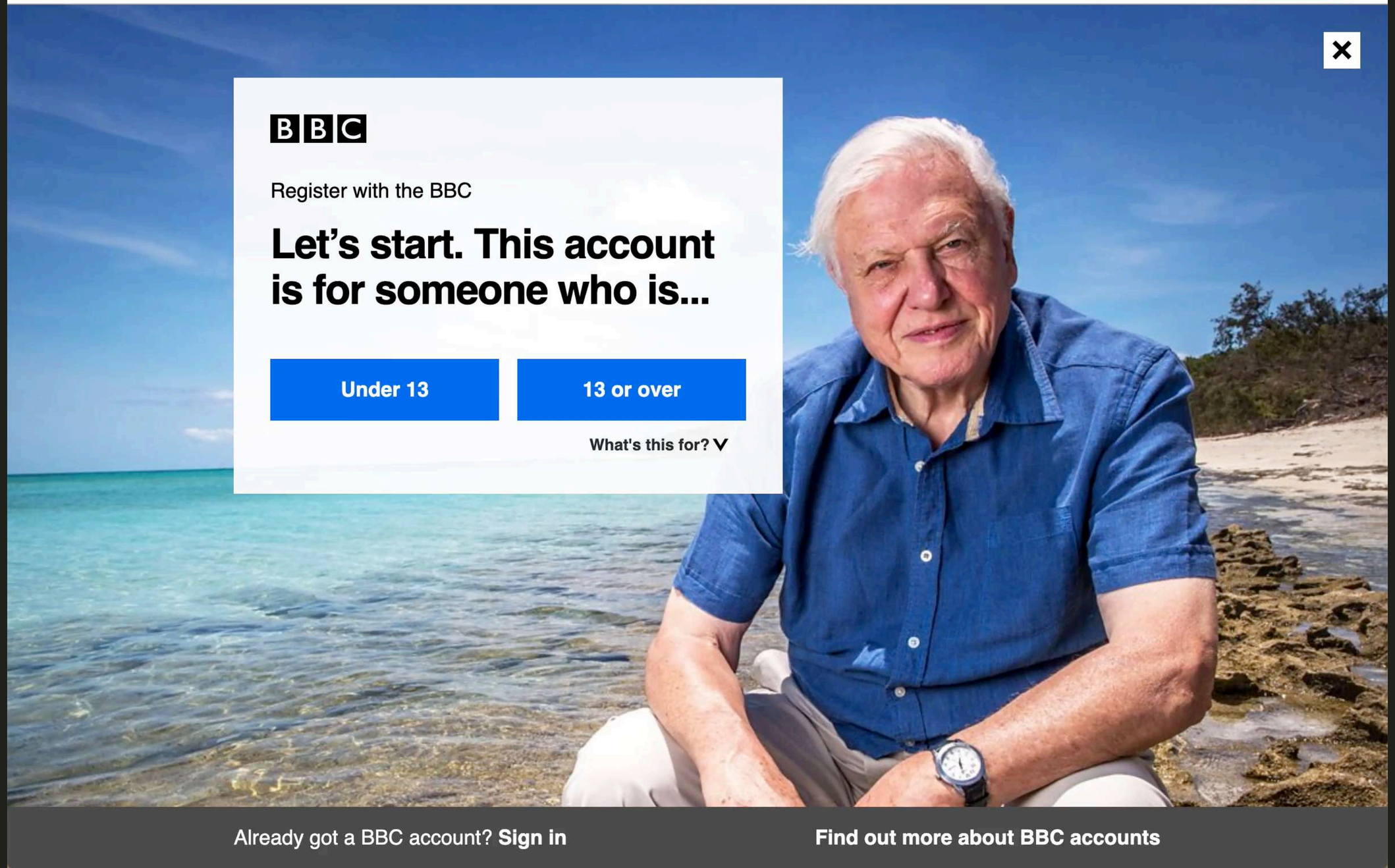

Get more with Mubaloo Mail
You can choose to opt in to receive our regular correspondance using the email you provided. We will only send you the emails you choose to receive at the frequency you select. You can opt out at any time by unsubscribing from the email or updating your preferences in the app settings.
Send me me emails:
Daily
Weekly
Monthly
Review our Privacy Policy
We want you to know exactly how our services work and why we need your details. Reviewing our policy will help you continue using the app with peace of mind.
Privacy Policy >
I have read & accepted the Terms & Conditions
REGISTER
1

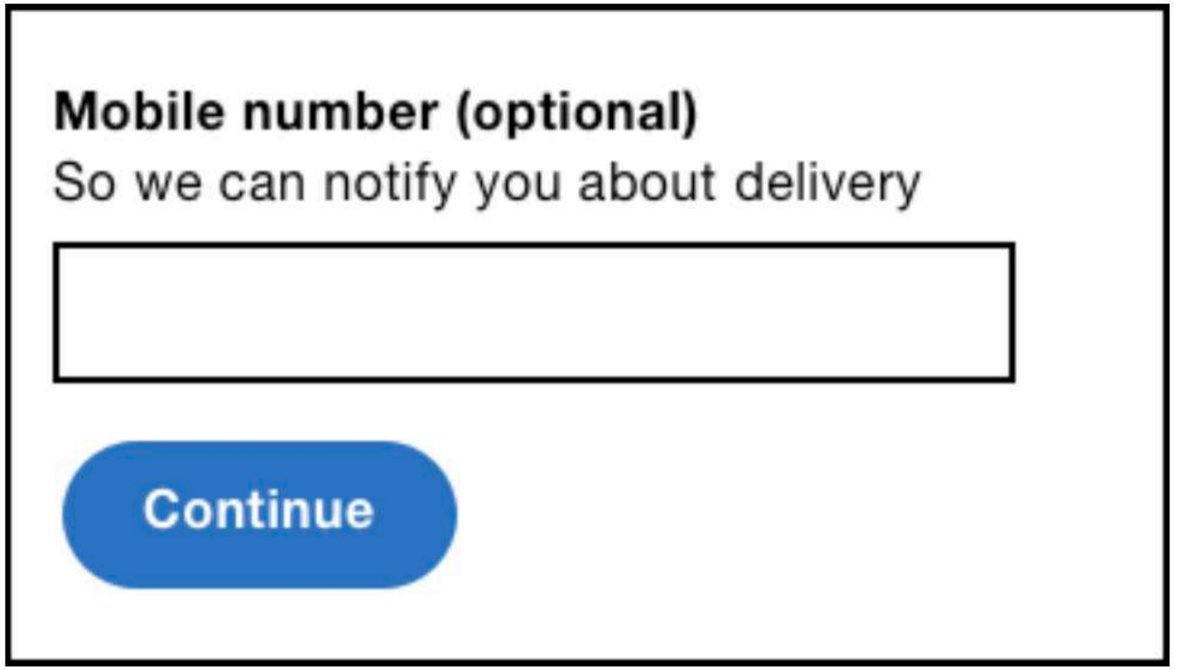


“Just-In-Time” Explanations

Doubts raise when private information is required without an adequate explanation of why it’s needed. Always consider **“just-in-time”**-tooltips.

Claire Barrett, “What does GDPR mean for UX?”, February 2019. *https://uxdesign.cc/what-does-gdpr-mean-for-ux-9b5ecbc51a43*


BBC – Register
account.bbc.com/register?redirectUri=https%3A%2F%2Fsession.bbc.com%2Fsession%2Fcallback&service=Id...
Paused
BBC
Register with the BBC
Let's start. This account is for someone who is...
Under 13
13 or over
What's this for?
Already got a BBC account? Sign in
Find out more about BBC accounts


Mobile number (optional)
So we can notify you about delivery
Continue

General information

How is your personal data processed?

1. General statement about the purposes of data processing

2. Information you provide to us

3. Information we automatically obtain through your use of XING

4. Information we obtain about you from other sources

5. Who may receive information about you?

What rights can you exercise?

2. Information you provide to us.

This includes data that we have obtained from you directly and information that you publish or send on XING Websites. There are both mandatory entry fields (which as marked as such) and optional information you can provide.

Login details
e.g. username and password

Mandatory information in the social network
e.g. job title, company name, industry

Optional information in the social network
e.g. contact options, educational background, photo

Mandatory information in other applications
e.g. first name, last name, e-mail address

Optional information in other applications
e.g. employer reviews

E-mail address(es)
e.g. to send you newsletters or status e-mails

XING Privacy at XING

Introduction Your

Privacy Policy

General information

How is your personal data processed?

1. General statement about the purposes of data processing

2. Information you provide to us

3. Information we automatically obtain through your use of XING

4. Information we obtain about you from other sources

5. Who may receive information about you?

What rights can you exercise?

2. Information yo

This includes data that we have obtain on XING Websites. There are both man information you can provide.

Login details
e.g. username and password

Mandatory information in the s
e.g. job title, company name, indus

Optional information in the soc
e.g. contact options, educational b

Mandatory information in othe
e.g. first name, last name, e-mail a

Optional information in other a
e.g. employer reviews

E-mail address(es)
e.g. to send you newsletters or sta

Set Up A Central Privacy Hub

Most interfaces make it difficult to adjust privacy settings after providing consent. Set up a **privacy hub** that contains all privacy policies and settings.

(via *Martin Wiesemborski*)

Account

Name

A lot of people use their real name, but anything you choose will probably be better than "user5582238."

SmashingMagazine

Email address

Use this to log in to your account and to receive email notifications and updates from us.

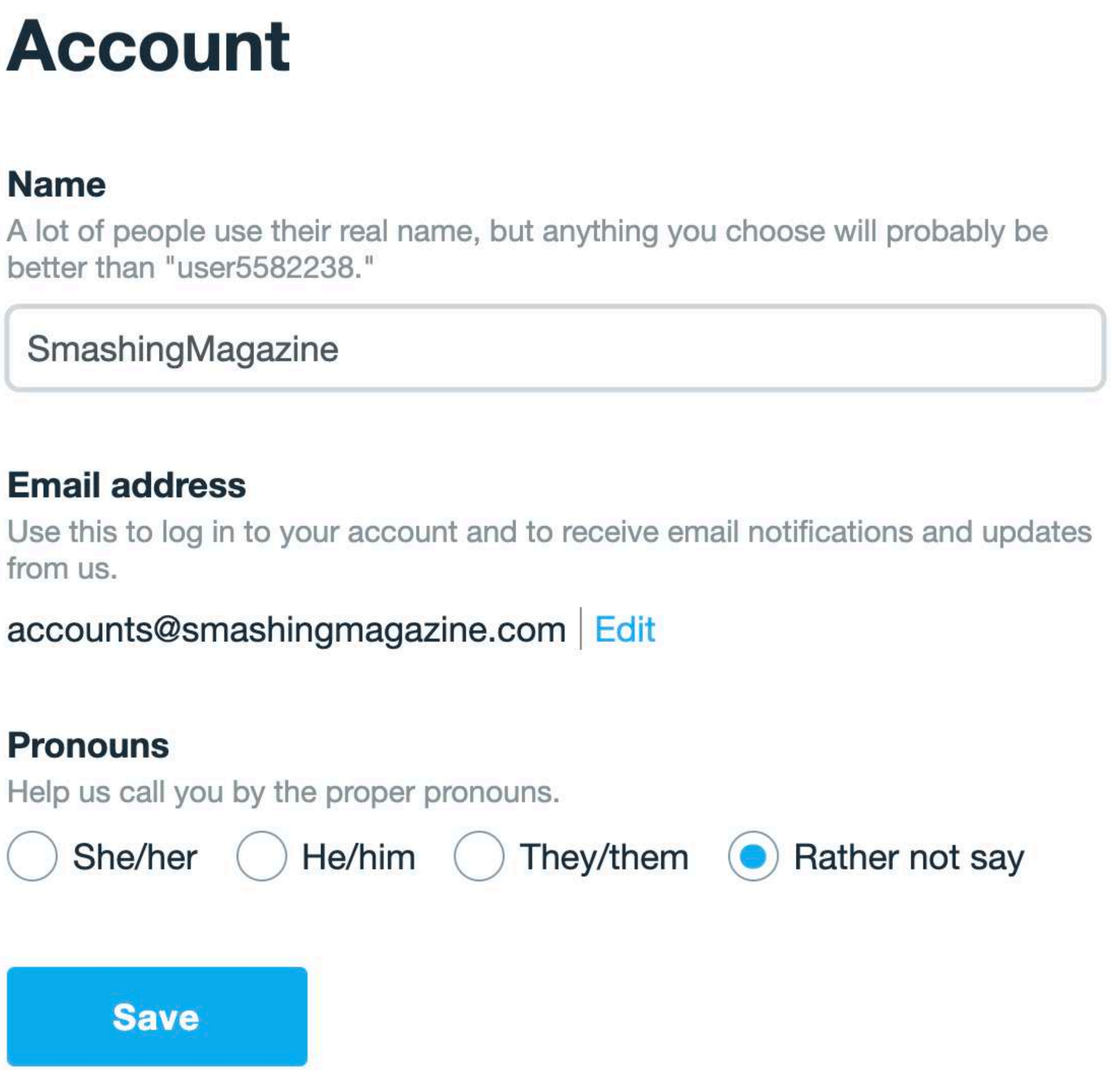
accounts@smashingmagazine.com | Edit

Pronouns

Help us call you by the proper pronouns.

- ( ) She/her
- ( ) He/him
- ( ) They/them
- (•) Rather not say

Save



Always Provide A Way Out

The reality is rarely a set of straightforward binary choices. Avoid lock-in for “Title” and “Gender” with **gender-neutral replies**, and provide an option “I’d rather not say”.

FINANCIAL TIMES

Vitaly Friedman, we're sorry you don't want to keep your Premium FT.com Trial.

Before you go please tell us why, because it helps us give our readers what they need.

Please choose one:

- (●) I only wanted to read one article
- ( ) I just wanted the four-week trial, not a full subscription
- ( ) I am not reading enough
- ( ) I already subscribe to the Financial Times newspaper
- ( ) My organisation has an FT Group Subscription
- ( ) I am a student
- ( ) It is too expensive
- ( ) Other

Your trial ends on 19th September 2019

Keep my trial | Continue cancellation

FINANCIAL TIMES

Vitaly, before you confirm your cancellation, maybe we can help?

Save money and stay informed. Get our Digital package and keep access to stories that matter.

Your current subscription

Premium Digital Trial

All the essentials plus deeper insights and analysis.

1,00 € for 4 weeks *
Then **59,35 €** per month after 19th September 2019

Keep my trial

Recommend for you:

Digital

Be informed with the essential news and opinion.

Monthly option
25,00 €

Annual option: Save 25%
Single **228,28 €** payment †
Just 4,39 € per week

Switch and save now

What's in each subscription?

Your trial ends on 19th September 2019

Keep my trial

Continue cancellation

FINANCIAL TIMES

We've cancelled your trial for you.

You can go on enjoying full access to FT.com until your Premium FT.com Trial ends on 19th September 2019.

After your trial ends, your login details will still give you access to:

FT Videos

Daily video coverage brings stories to life in short, sharp summaries of the days biggest topics.

Watch the latest videos

FT Podcasts

In-depth coverage ready to listen to in your car, on the train, at your desk or on your phone.

Listen or download now

Selected email updates and newsletters

Email briefings on topics from politics to tech.

Select your briefings

If you have any questions, our Customer Services team be happy to help.

Visit us at help.ft.com/

Return to FT.com

Before you go, take a moment celebrate your Appcues story so far 🎉

THIS MONTH

We showed **34 flows** a total of 67,000 times to 10,506 unique users

We showed **2 checklists** a total of 24,034 times to 6,789 unique users

SINCE YOU JOINED APPCUES

FLOWS SHOWN

5,40,006 All time flows

USERS REACHED BY APPCUES

102,005 All time users reached

ALL TIME MOST VIEWED FLOWS

Cross-Country Walkthrough	2,050,000 views
Hotline Onboarding Flow — All Regions	1,989,754 views
Pick Up the Phone Tooltip Group	60,780 views

CONTENT LIVE ON YOUR SITE TODAY

FLOWS

10

Flows live on your site

CHECKLISTS

2

Checklists live on your site

NO NPS SURVEYS YET

Capture feedback + measure sentiment.

Learn more...

← Back to Appcues

Cancel my Subscription

We miss you already, Markus.

But sometimes it's time for new adventures — for cats, too!

Please confirm that you'd like to cancel your account.

← Oh, hold on...

Yes, please. →

No worries, stuff happens.

Your subscription has been **terminated**. Your card won't be charged any longer. We can't believe you stuck with us for *so* long!

- Your data will be **wiped out in 7 days**. Until then, you can still restore your plan.
- Perhaps you'd like to export your orders before your data is deleted?
- Your data belongs to you. We would never share it with third-parties, but you knew it already, *didn't you*?

Please let us know what went wrong (if you have a moment). *Thank you.*

Okay, I'm good.

FINANCIAL TIMES

Vitaly, before you confirm your cancellation, maybe we can help?

Save money and stay informed. Get our Digital package and keep access to stories that matter.

Your current subscription

Premium Digital Trial

All the essentials plus deeper insights and analysis.

1,00 € for 4 weeks *
Then **59,35 €** per month after 19th September 2019

Keep my trial

Recommend for you:

Digital

Be informed with the essential news and opinion.

Monthly option
25,00 €

Annual option: Save 25%
Single **228,28 €** payment †
Just 4,39 € per week

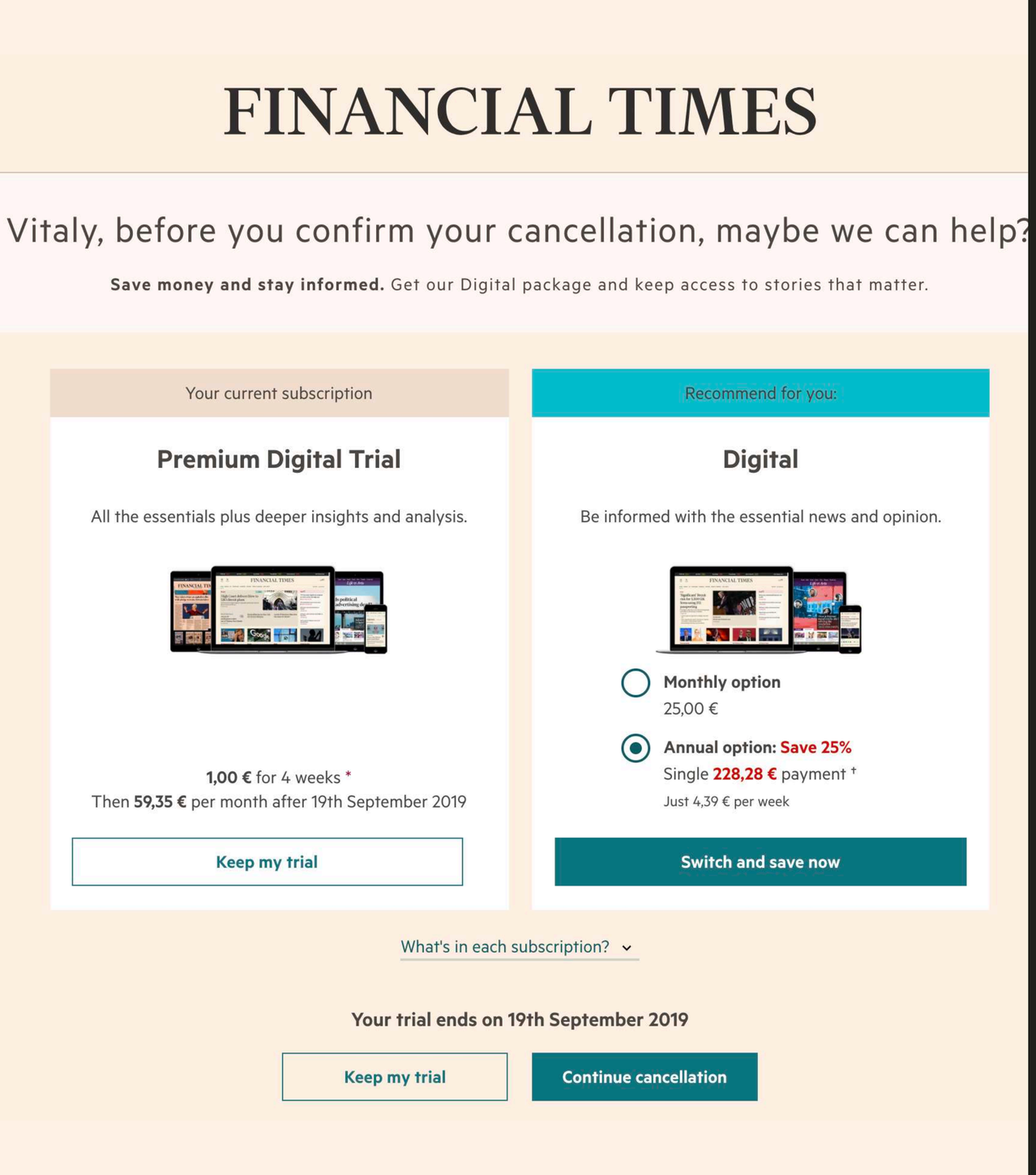
Switch and save now

What's in each subscription?

Your trial ends on 19th September 2019

Keep my trial

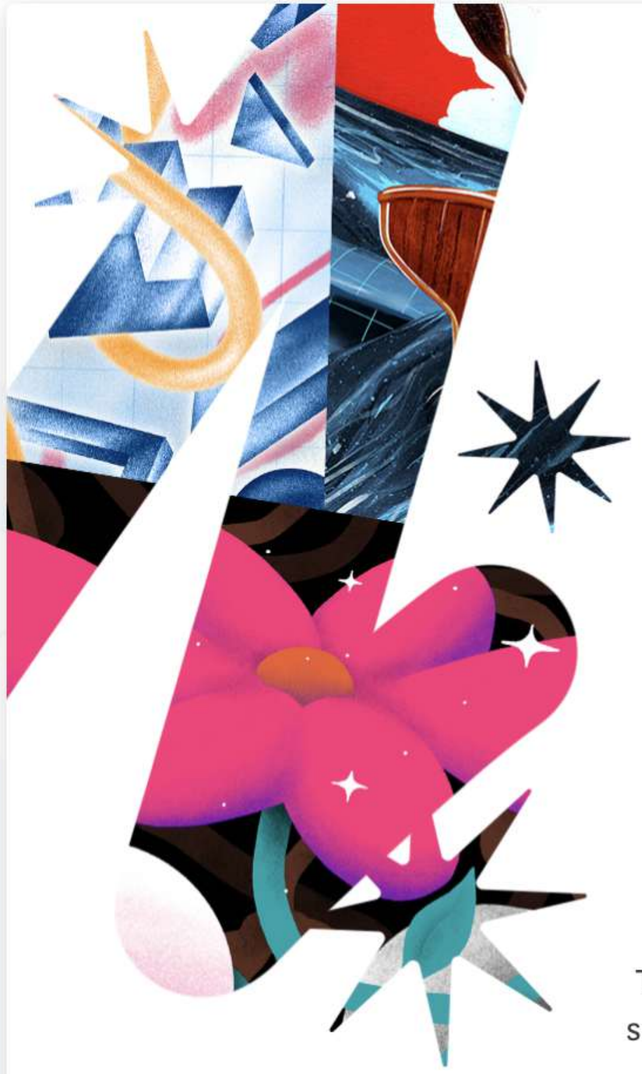
Continue cancellation



Create Positive Offboarding UX

The last thing we want when people leave, is for them to slam the door on their way out. Keep the **cost of move low** to avoid being marked as spam, or blocked.

Trine Falbe, "Ethical Design Handbook", August 2019.



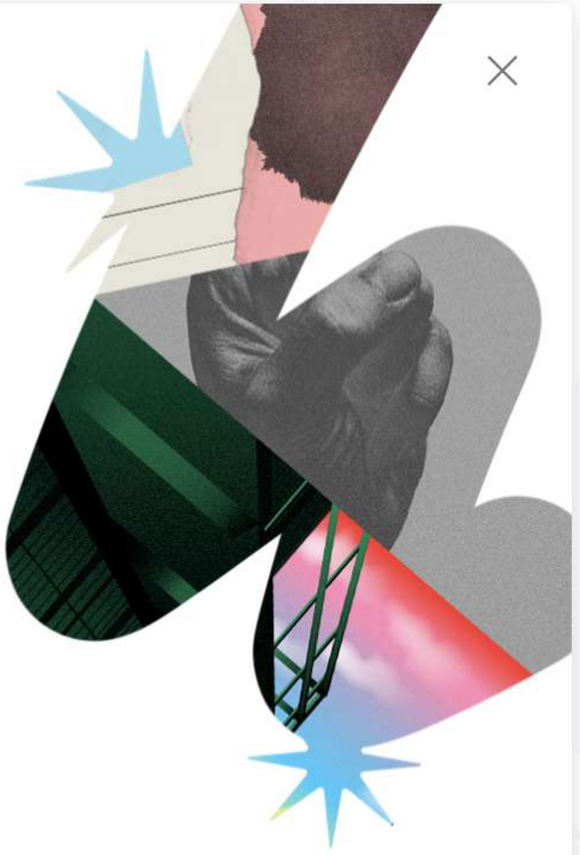
Pardon the interruption.

We've seen you here before. Let's make things official.

Sign up with Google

Sign up with Facebook

Already have an account? Sign in



To make Medium work, we log user data and share it with service providers. Click "Sign up" above to accept Medium's Terms of Service & Privacy Policy.

Create your account to keep reading

Already have a Times account? **Log in**

Google

Facebook

OR

Email Address

Password

Show

Receive occasional updates and special offers for Times products and services. You may opt out or contact us anytime.

By creating an account, you agree to the Terms of Service and acknowledge our Privacy Policy.

Create Account

This site is protected by reCAPTCHA and the Google Privacy Policy and Terms of Service apply.

How E-Commerce Sites Manipu
nytimes.com/2019/06/24/technology/e-commerce-dark-patterns-psychology.html?re...
Incognito (2)

The New York Times

SUBSCRIBE NOW

How E-Commerce Sites Manipulate You Into Buying Things You May Not Want

"Alexandra from Anaheim" was among the shoppers that visitors to ThredUp were told had recently bought items on the site. But she didn't exist.

Photo Illustration by The New York Times; Screen grabs, via ThredUp

By Jennifer Valentino-DeVries

June 24, 2019

Leer en español

When potential customers visit the online resale store ThredUp, messages on the screen regularly tell them just how much other users of the site are saving.

"Alexandra from Anaheim just saved $222 on her order" says one message next to an image of a bright, multicolored dress. It's a

Get 4 weeks free, then 50% off. Ends soon.

App Store Google Play TEMPMAIL EN

Your Temporary Email Address

basohum@top-mails.net

Forget about spam, advertising mailings, hacking and attacking robots. Keep your real mailbox clean and secure. Temp Mail provides temporary, secure, anonymous, free, disposable email address.

Telenor 3G 16:18 12 %

panel.mywifi.pro
Loft Free WiFi

Log In Cancel

Dobro došli. Izaberite način logovanja na naš **besplatni WiFi.**

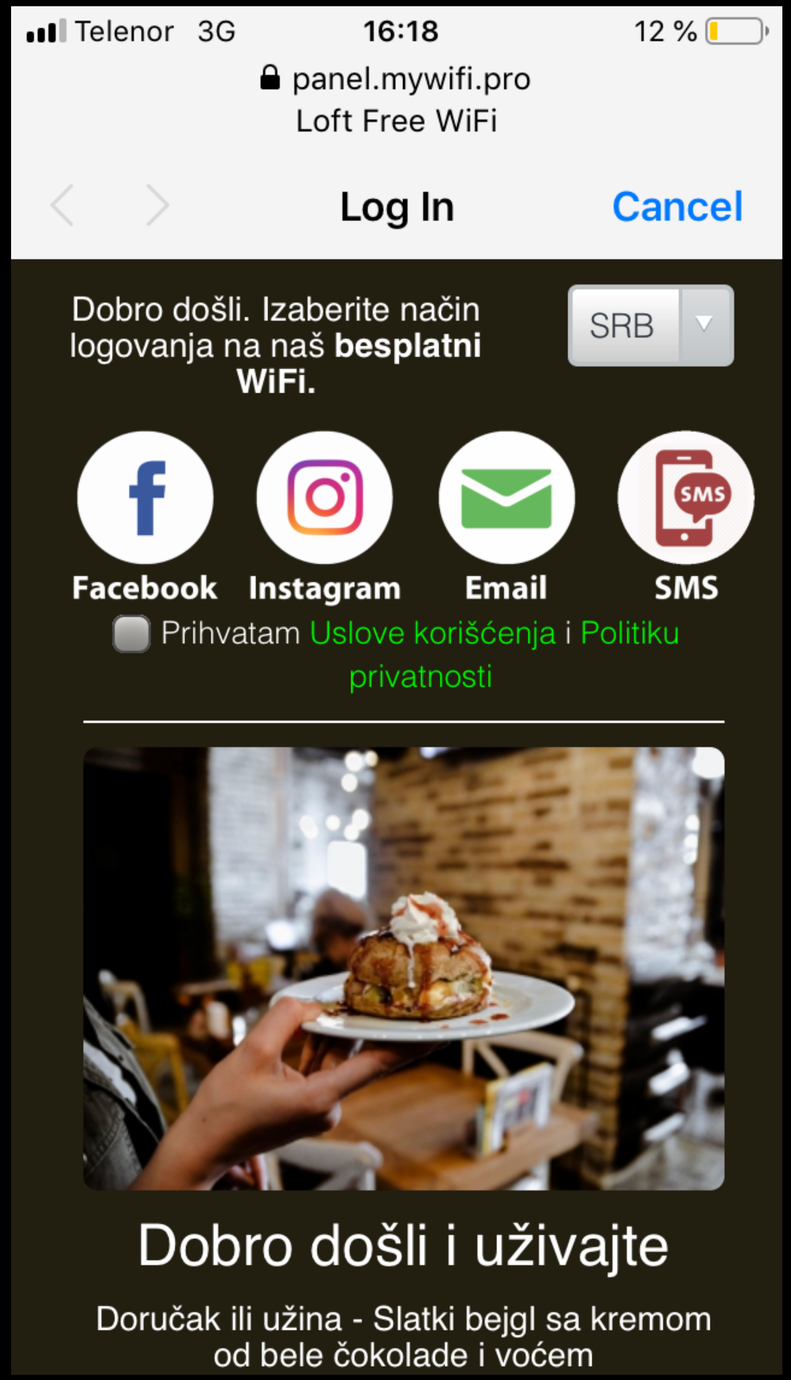
SRB

Facebook Instagram Email SMS

Prihvatam Uslove korišćenja i Politiku privatnosti

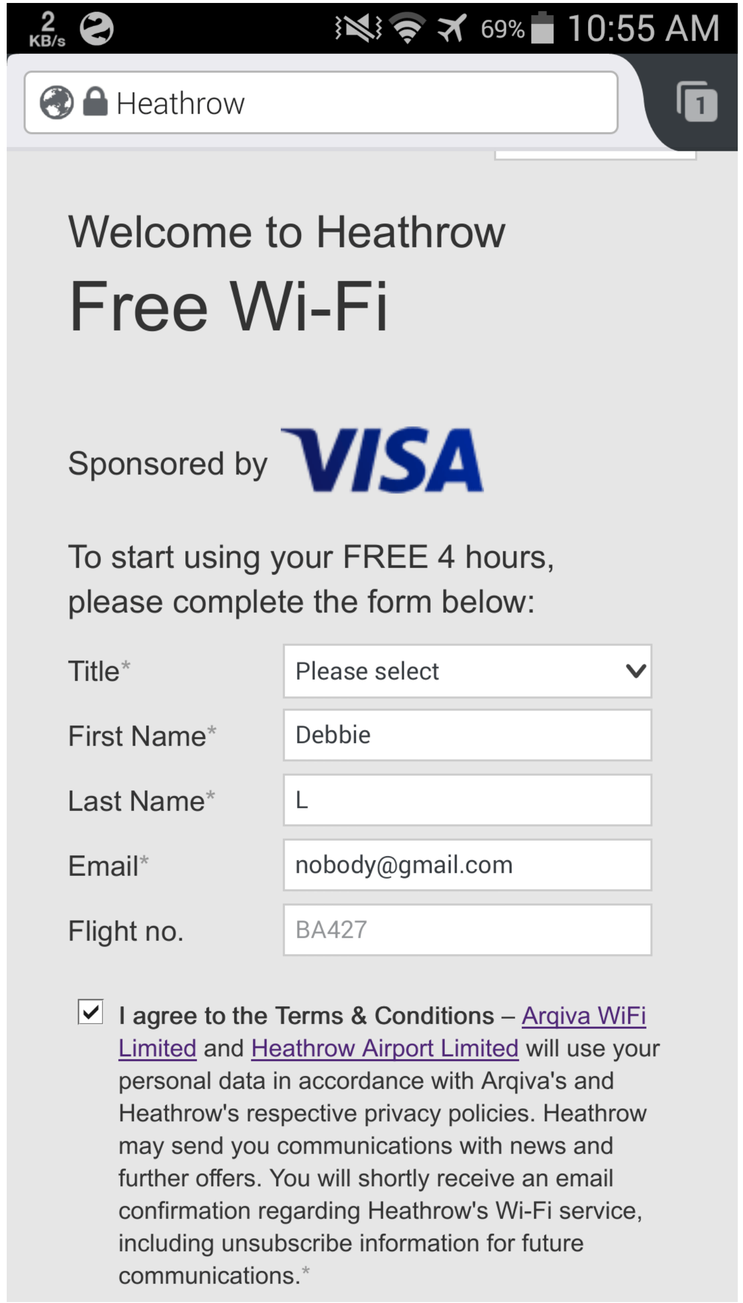
Dobro došli i uživajte

Doručak ili užina - Slatki bejgl sa kremom od bele čokolade i voćem



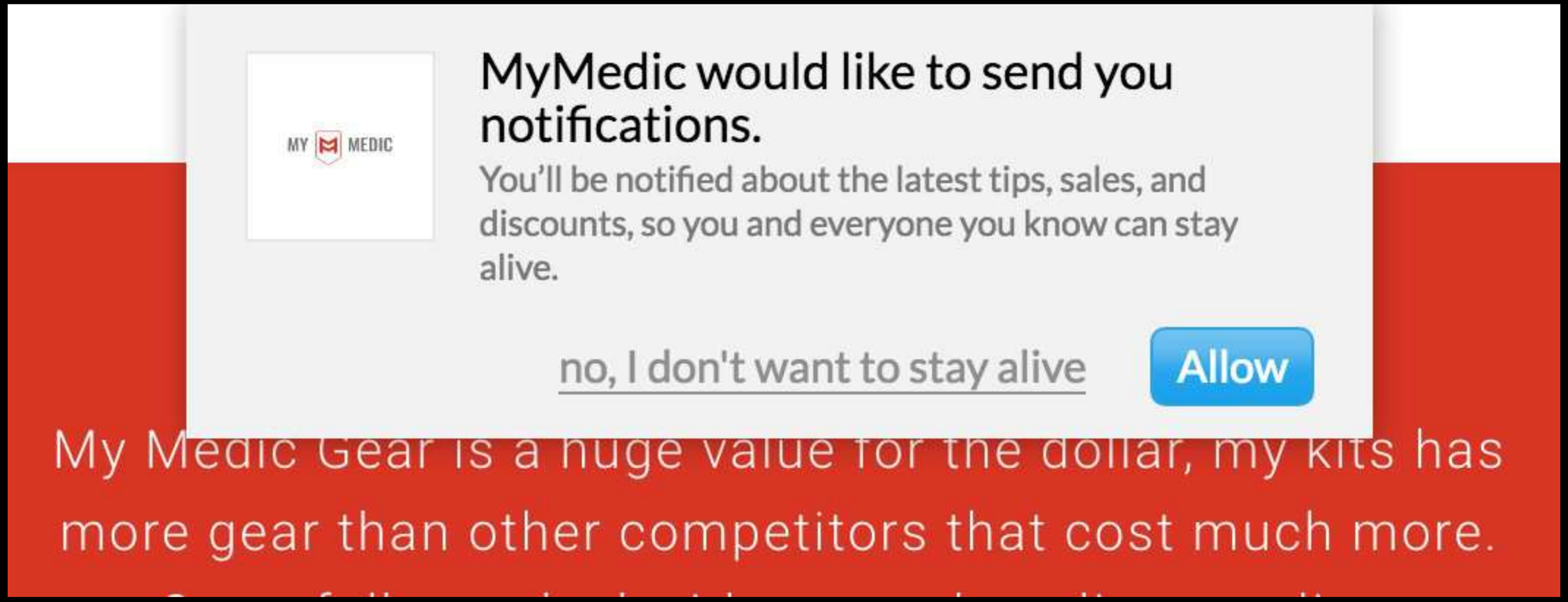
Users Watch Out For Traps

When asked to sign in for “**temporary**” accounts, users are least likely to use Facebook or Instagram to sign in. Preferred is email, but we need to provide reasons for first-class emails.



Provide Reasons For Good Data

Don’t expect accurate data for temporary accounts. Customers tend to have **“throw-away”** emails used for new accounts, spam, newsletters and coupons.


MY MEDIC
MyMedic would like to send you notifications.
You'll be notified about the latest tips, sales, and discounts, so you and everyone you know can stay alive.
no, I don't want to stay alive
Allow
My Medic Gear is a huge value for the dollar, my kits has more gear than other competitors that cost much more.

Meduza

Medusa Project, SIA [LV] meduza.io/en

Paused

meduza.io wants to

Show notifications

Block Allow

After enc , Chechen and Azerbaij

11 hours ago

Five business associations ask Russia's top investigator to move American investment manager to house arrest

13 hours ago

NEWS

These are Russia's charges against American investment manager Michael Calvey, and here's why he says it's all baloney

4 days ago

STORIES

The war to start all wars 30 years later, 'Meduza' answers key questions about the Soviet-Afghan War

4 days ago

STORIES

The Iron Lady of Siberia How an indigenous, female opposition candidate became Russia's most popular mayor

5 days ago

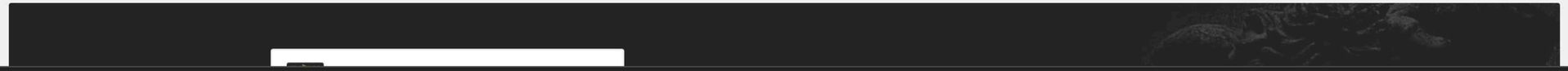
STORIES

Volunteers sifted through tens of thousands of hours of footage to spot election fraud near Moscow. Here's what they found.

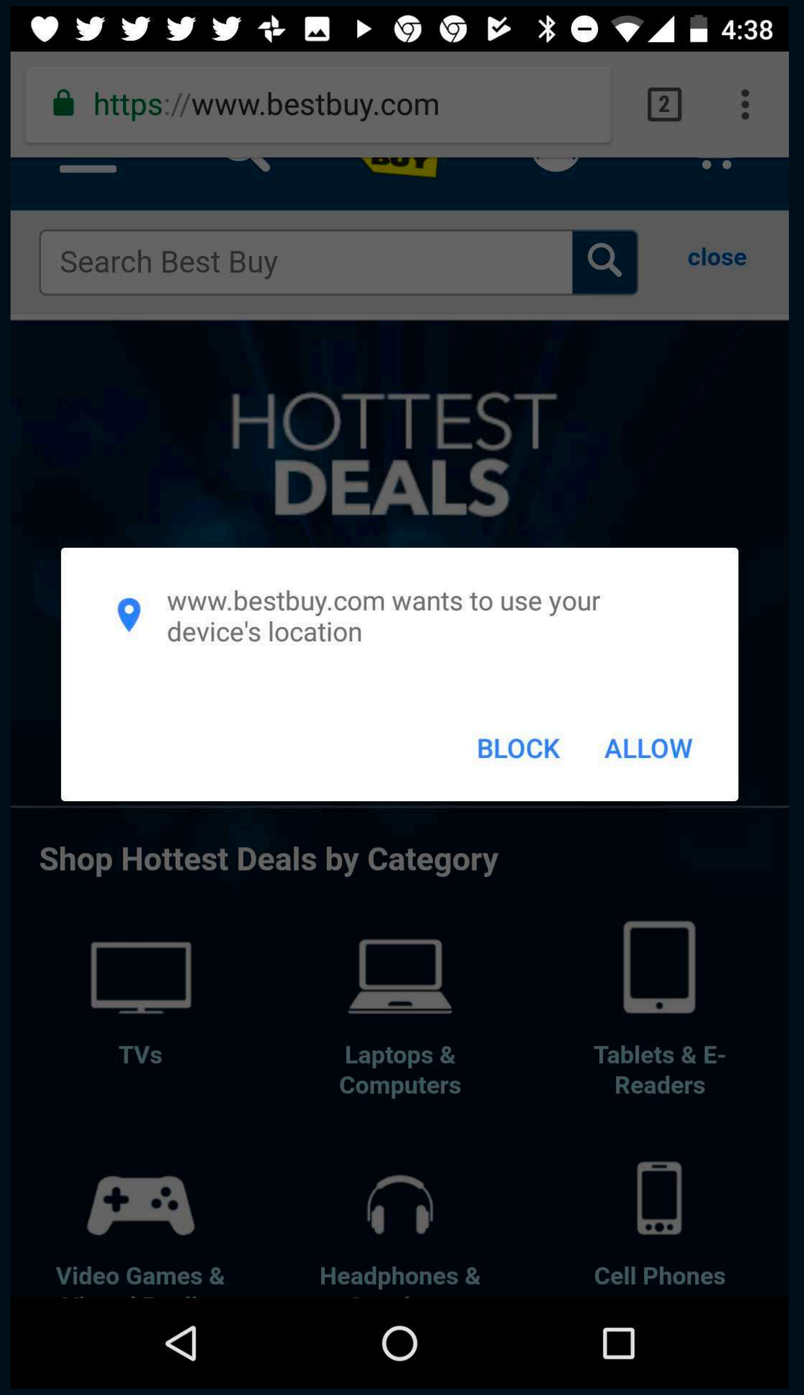
6 days ago

The Real Russia. Today. Origins of the Russian mafia, speculation about the Calvey case, and key questions about the Soviet-Afghan War

9 hours ago



WE USE COOKIES! WHAT DOES THAT MEAN?

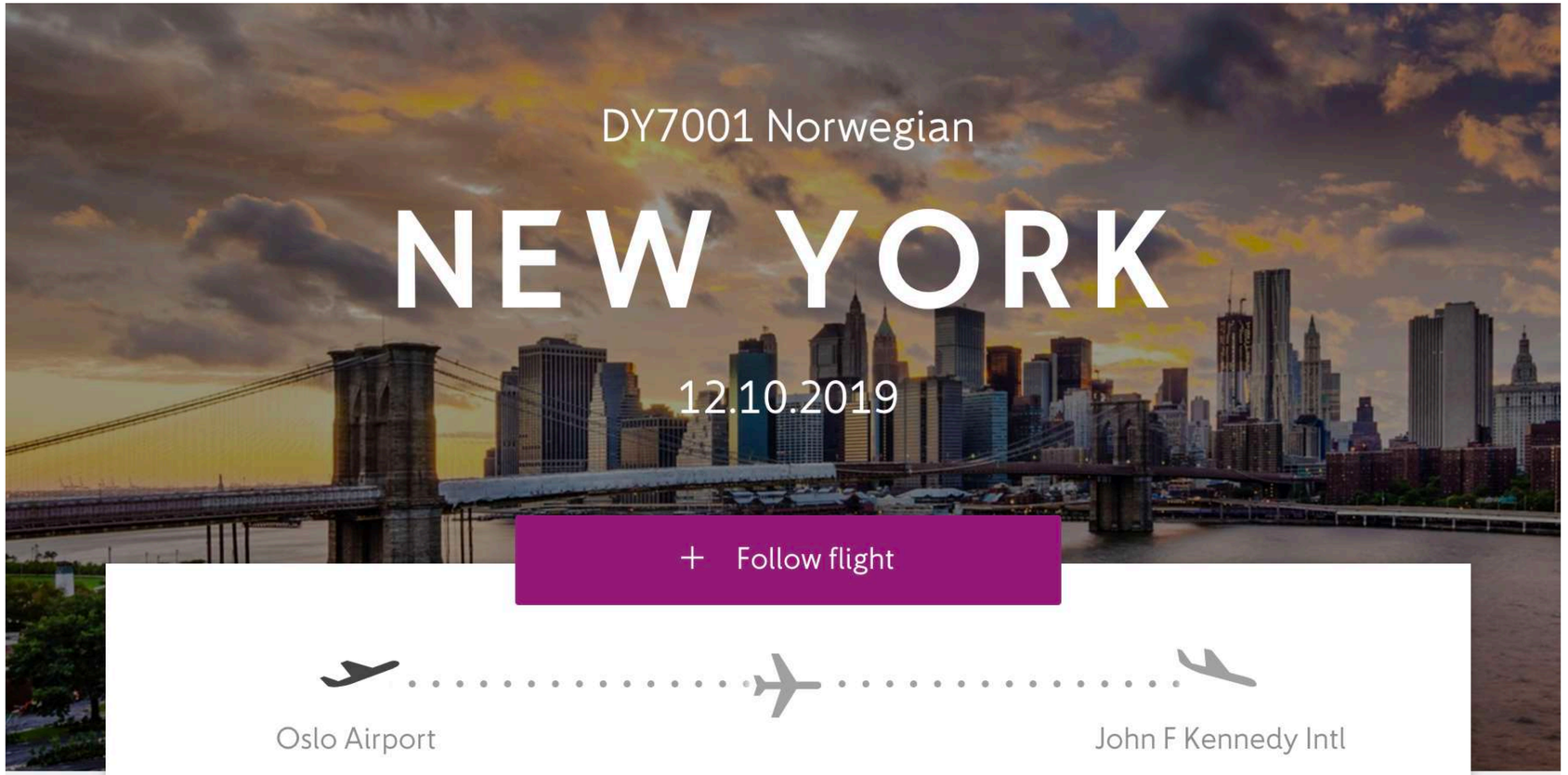

4:38
https://www.bestbuy.com
2
Search Best Buy
close
HOTTEST
DEALS
www.bestbuy.com wants to use your device's location
BLOCK
ALLOW
Shop Hottest Deals by Category
TVs
Laptops & Computers
Tablets & E-Readers
Video Games &
Headphones &
Cell Phones

Jason Grigsby is one of the co-founders of Cloud Four, Mobile Portland and Responsive Field Day. He is the author of Progressive Web Apps from A Book Apart. Follow him at @grigs.

Never miss an article!

Get Notifications

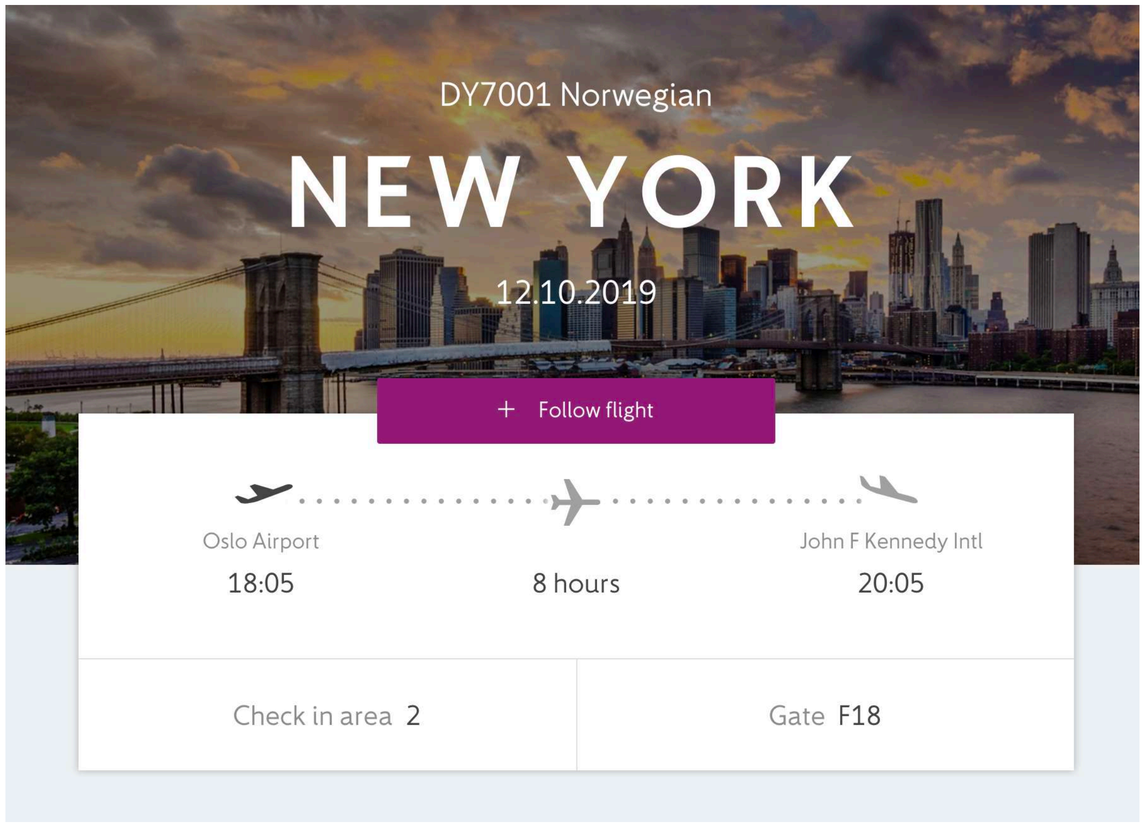
Get Weekly Digests



+ Follow flight

Oslo Airport		John F Kennedy Intl
18:05	8 hours	20:05

Check in area 2	Gate F18



Ask Permissions At The Right Time

Never ask for permissions on the first page load. Let users engage first and invite them when they are actually ready to commit. Ask permissions only when you know for sure that **you'll receive them.**

Brad Frost
@brad_frost

I'd love it if way more monthly services offered a "pause subscription" option instead of just cancel.

8:25 PM · Sep 7, 2019 · Twitter Web App

79 Retweets **782** Likes

Privacy UX

Privacy Design Patterns

01 — Translate privacy UX to business vocabulary.

02 — Measure hidden costs and a mix of metrics.

03 — Ask only what you need to know, and not more.

04 — Always provide a way out: no binary input.

05 — Users are very good at finding a way out.

06 — Getting accurate data requires effort.

07 — “Just-in-time” explanations matter.

08 — Group and refine the frequency of notifications.

09 — Group privacy policy in scannable accordions.

10 — Ask for permissions only if you are likely to get them.

Web Forms

03 Authentication

Войти | Регистрация

Регистрация

Имя*

Email*

Пароль*

Повторите пароль*

Подписаться на получение промо-предложений

ЗАРЕГИСТРИРОВАТЬСЯ

Нажимая на кнопку “Зарегистрироваться”,
я принимаю условия Политики конфиденциальности
и даю согласие на обработку моих
персональных данных.

Регистрация

Имя

Фамилия

Вход

Введите логин и пароль от своего почтового ящика для того, чтобы продолжить работу с сервисом.

Логин | @mail.ru

Пароль

Забыли пароль?

запомнить

Войти

Регистрация в Почте

Зарегистрироваться

Нажимая кнопку «Зарегистрироваться», вы принимаете условия Пользовательского соглашения.

Afrekenen als gast

Voornaam

Achternaam

E-mailadres

Bevestig E-mailadres

Wachtwoorden moet uit minstens 6 tekens bestaand en moeten minstens één letter en één cijfer bevatten.

Wachtwoord invoeren

We willen graag contact houden om te horen wat uw behoeften zijn en om u te informeren over producten, diensten, oplossingen, exclusieve aanbiedingen en speciale evenementen. Plaats hieronder een vinkje om contact te houden via e-mail en post.

Er wordt een e-mailbericht naar u gestuurd om uw e-mailadres te verifiëren. Klik op de link in dat e-mailbericht om de verificatie te voltooien.

Account maken

Authentication UX

Email Verification unnecessary

> 60% of customers will *consistently* copy/paste their email address when asked to verify it in the eCommerce checkout, especially on mobile.

Baymard Institute, baymard.com

Customer Details (Already have an account? Log in)

Email
editor@smashingmagazine.com

Shipping Address — You've earned FREE shipping!

First name
VITALY

Last name
FRIEDMAN

Country
Germany

Postal code
79098

City
Freiburg

Street address
Werthmannstrasse 15

Apt / Suite (optional)

Art Direction for the Web
Book

1 × 39.00€ - 1 +

Discount code Cash in!

SUBTOTAL	35.50€
TAXES	3.50€
AIRMAIL SHIPPING	FREE
PAY BY CARD OR PAYPAL	FREE
ESTIMATED DELIVERY 🇩🇪	MAY 27 – JUN 2
FEELING SMASHING	PRICELESS

Just one more thing…

Your order confirmation will be sent to:

editor@smashingmagazine.com Edit

Finish Checkout →

Design Systems
Book

1 × $29.00

Ship to: Edit
Gast Gruppenbuchung beyond tellerrand V.Friedman
Maritim proArte Hotel
Friedrichstrasse 151
Berlin

Yay, it worked!

Your reference number is **#6a9ad5db**.
An order confirmation email has been sent to
smashingmag@gmail.com.

SEND CONFIRMATION TO ANOTHER EMAIL

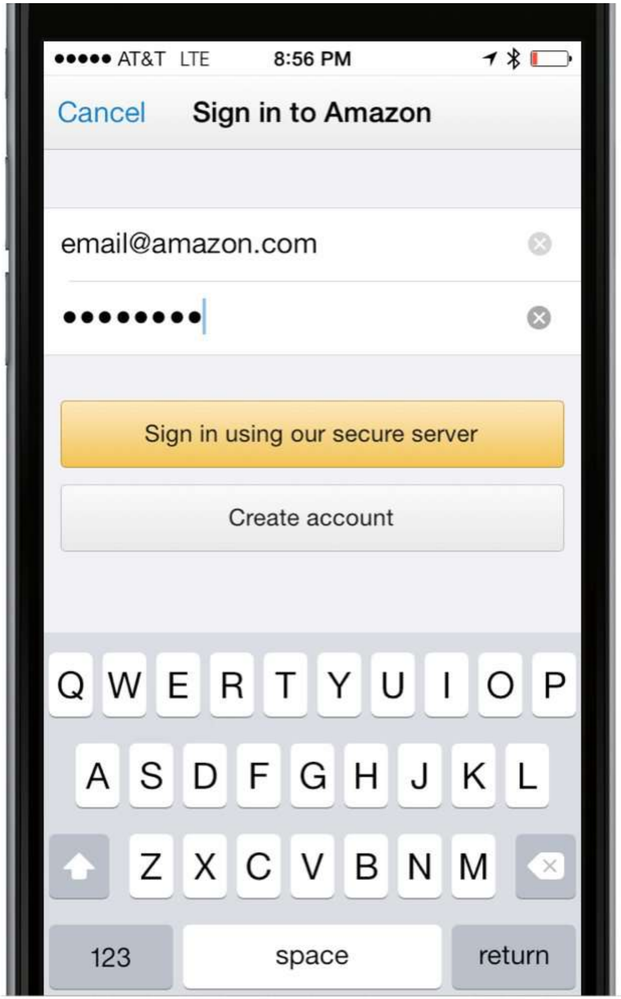
- Set your password and get an extra **$15 discount** for next purchases,
- Check delivery times if you're wondering when your order will arrive.
- Get your eBooks (ePUB, Kindle, PDF) in your personal dashboard.
- Get 10% off next purchase with the coupon code `IAMSMASHING`.

That's it! Contact us at help@smashingmagazine.com any time if you have any questions! You are truly *smashing*, and you should know that.

"authentication (sign-in) is one of the biggest reason people don't return to Web sites"

54% quit checkout if they are asked to sign-up

92% give up if they don't remember a password or user name



Source: Chrome data http://bit.ly/1AinNyU Blue Research http://bit.ly/2AqNGiN

CREATE YOUR USERNAME *

CREATE YOUR PASSWORD *

Show

Your password must

- Be at least 9 characters
- Include an uppercase letter
- Include a lowercase letter
- Include a number
- Not start or end with a space

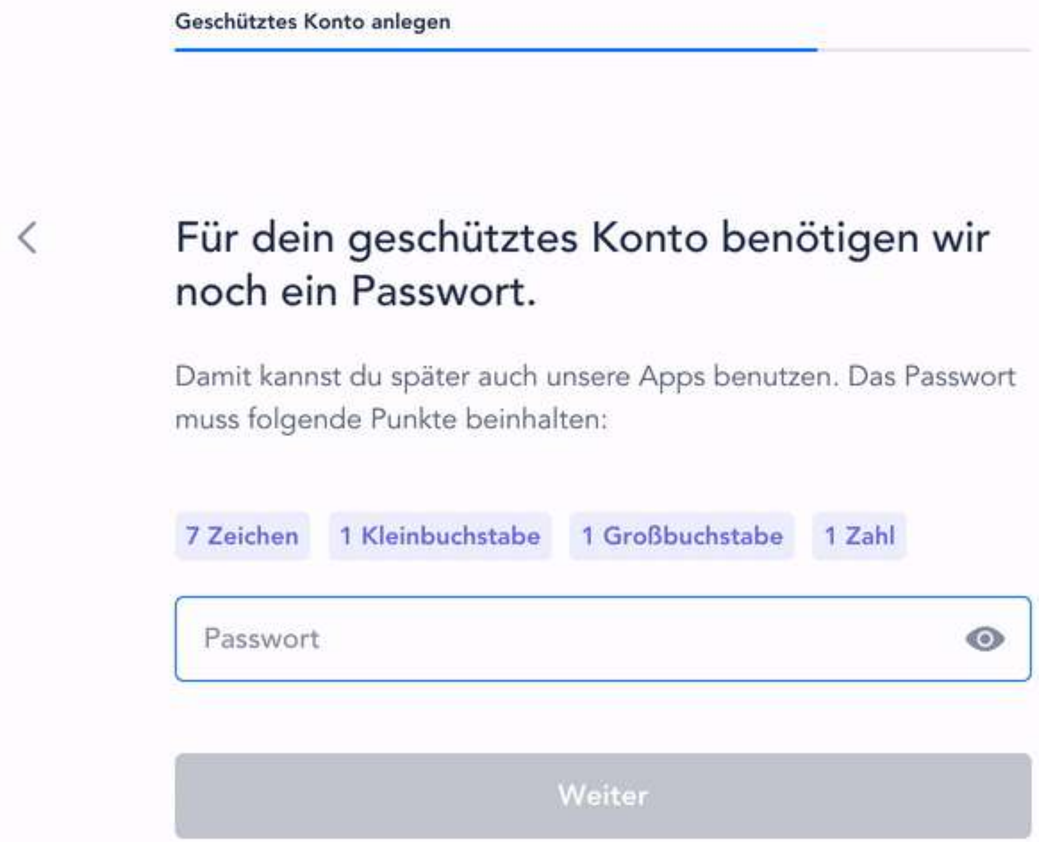
CREATE YOUR CALL-IN PIN *

Adrian Zumbrunnen
@azumbrunnen_

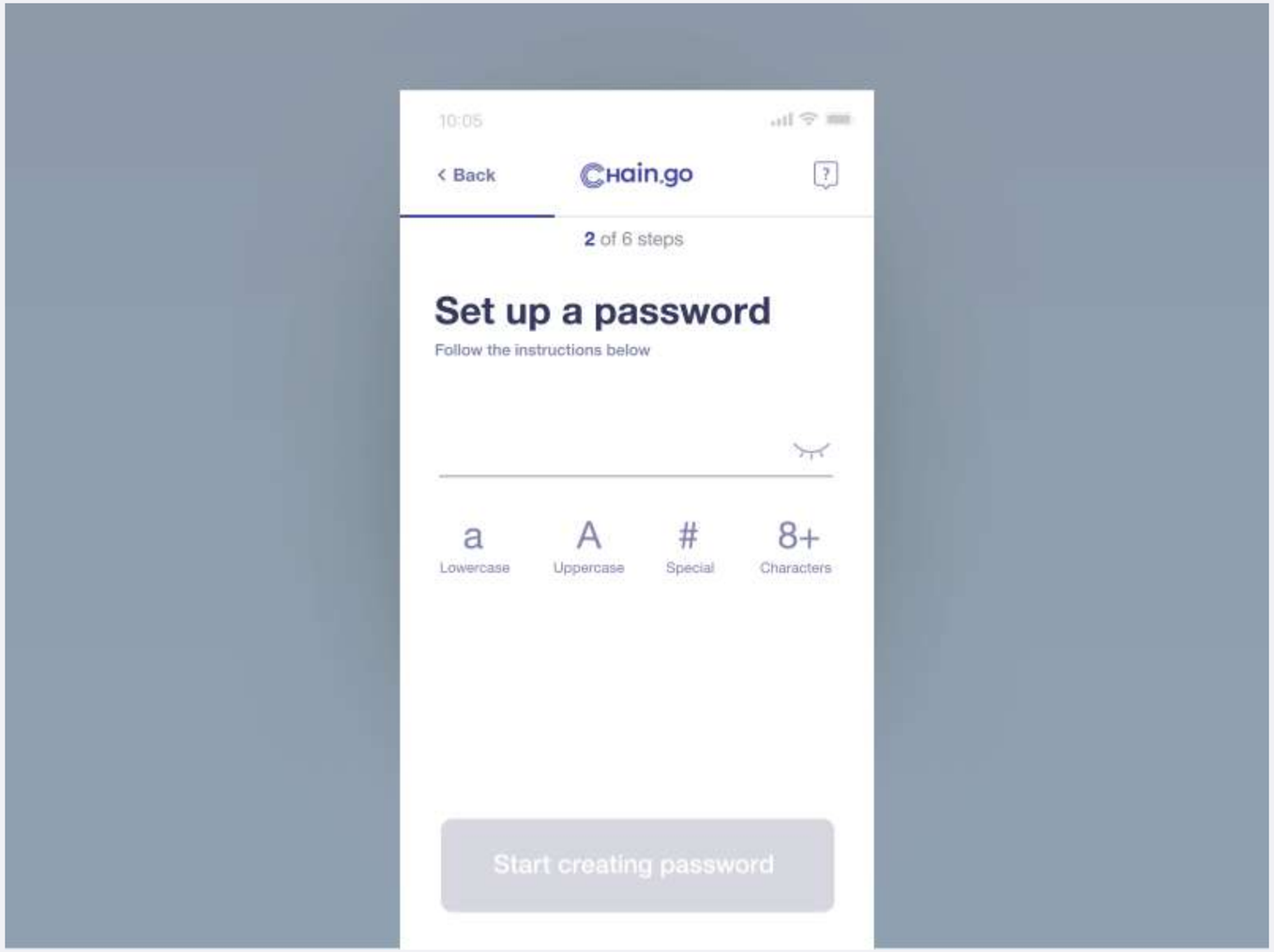
Sorry but your password must contain an uppercase letter, a number, a haiku, a gang sign, a hieroglyph, and the blood of a virgin. #ux #wcch

5:27 PM · May 3, 2014 · Twitter for iPhone

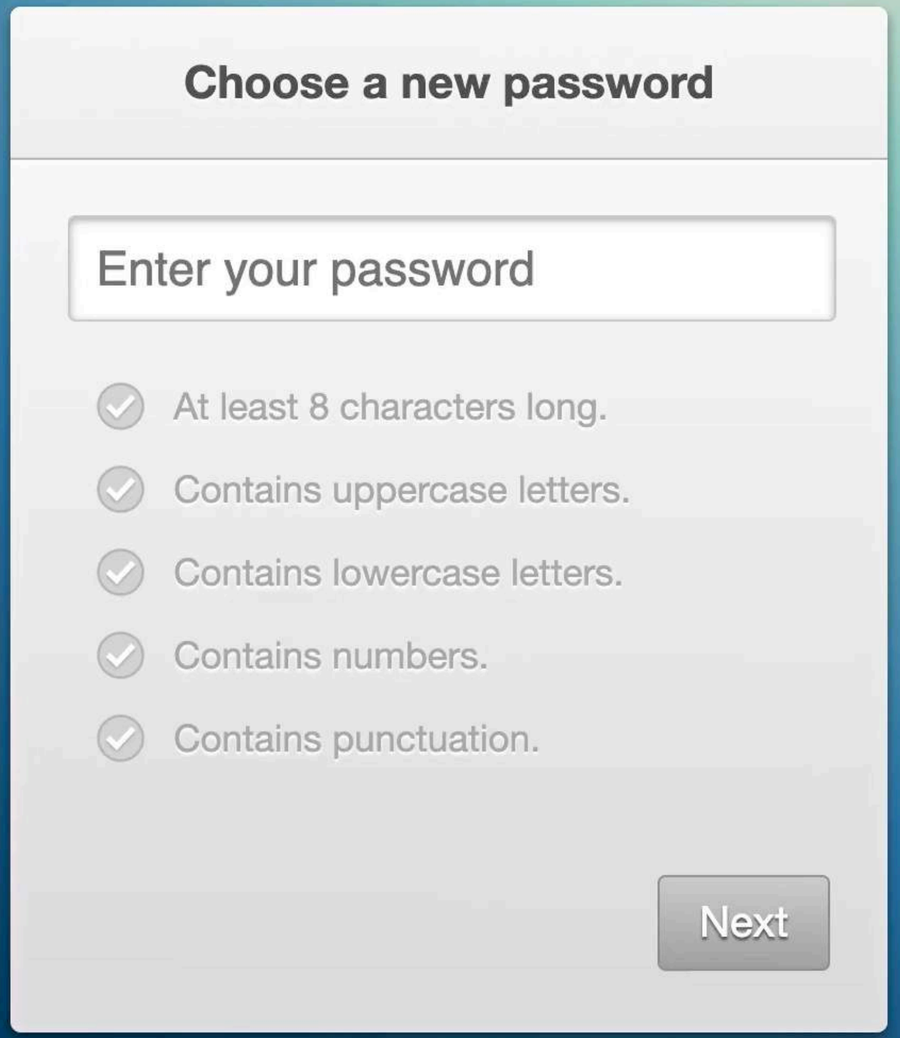
1.1K Retweets **724** Likes



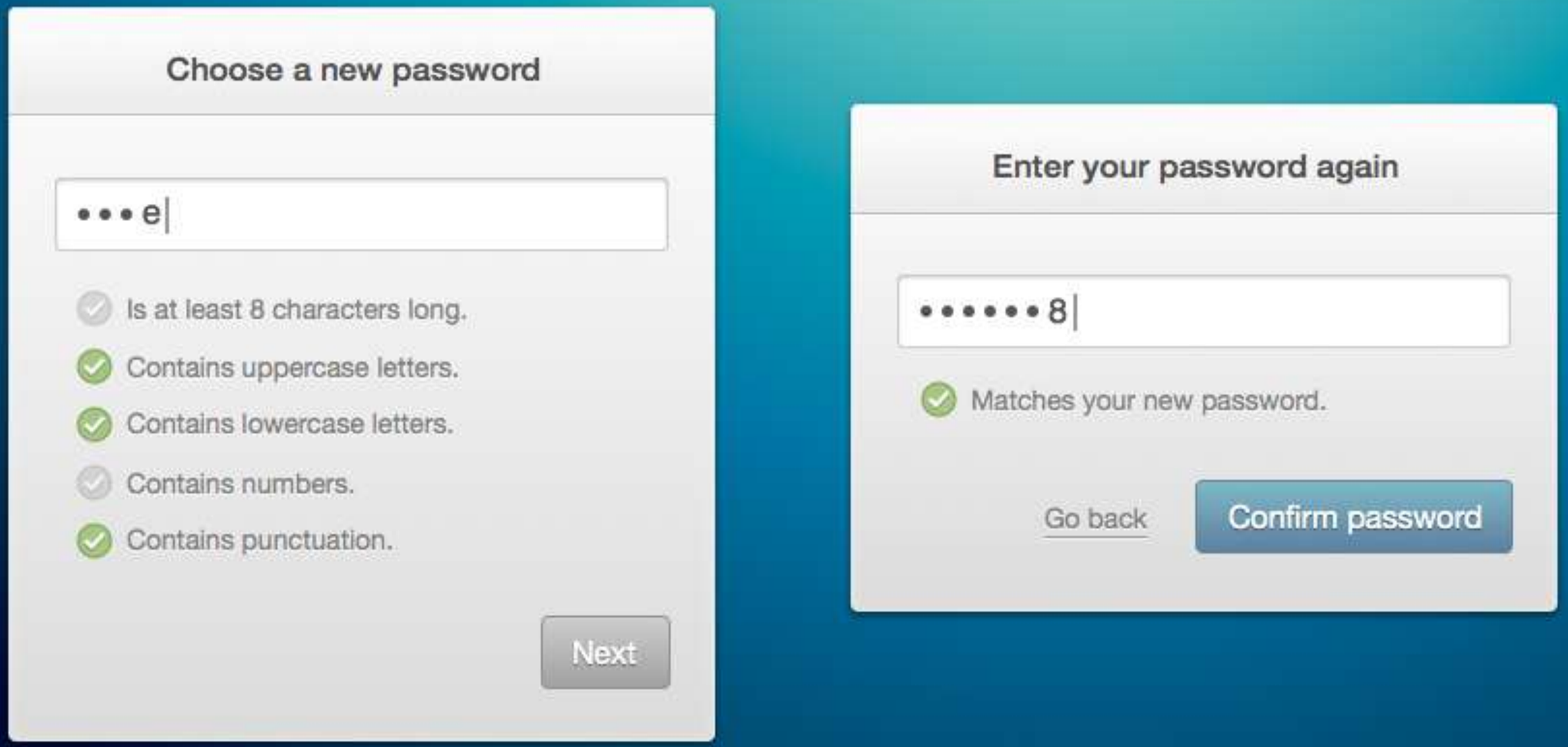
Password validation, *Andreas Storm*, *https://dribbble.com/shots/4879135-Password-validation*



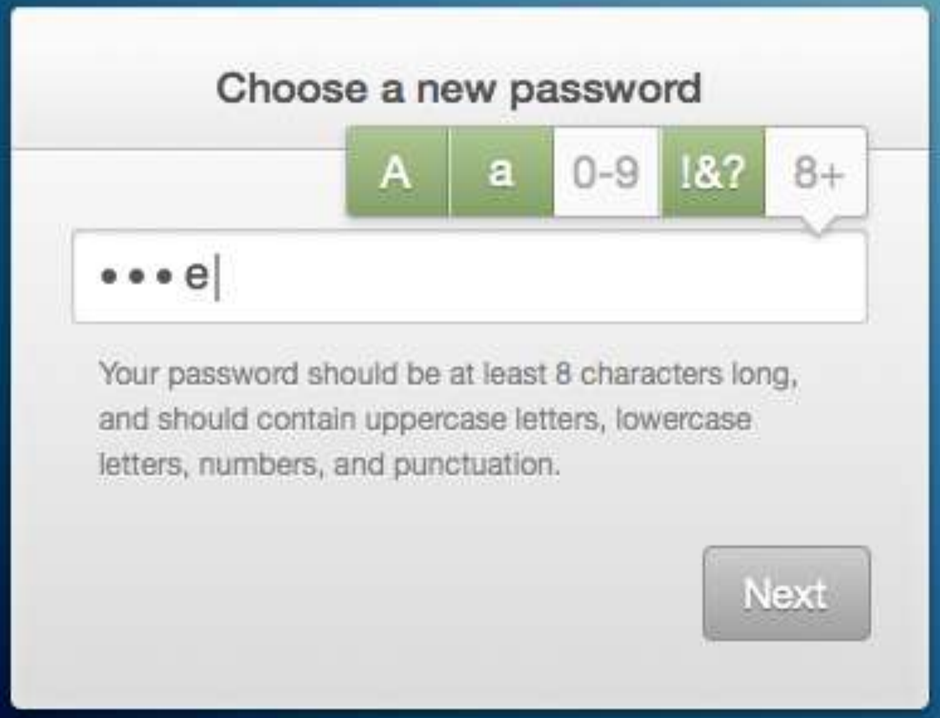
Fintech onboarding, *Piotr Sliwa*, *https://dribbble.com/shots/4957240-Fintech-Onboarding-Principles*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*



Better password form fields, *Paul Lewis*, *https://aerotwist.com/blog/better-password-form-fields/*

Dial login, *Nikita Shishkin*, *https://dribbble.com/shots/3031437-Dial-login*

Adam Silver on

Show & Hide Pattern

> When we *obscure passwords*, or ask users to *confirm them,* we make it harder to fix typos — users just delete entire input and start over. Always let users reveal their password. Use a *checkbox* with a persistent label (“*Show Password*”) or change button’s state, not label.

Password

Must contain 8+ characters with at least 1 number and 1 uppercase letter

Show

Usability > Security

> If a product is not usable, it's also not secure. That's when people start using *private email accounts* and put passwords on stick-it-notes because they forget them.

Jared Spool, UIE.com

SIMPLE

Account info | Personal info | Identity | Review & submit

Well, hello there!

We're so glad you're ready to join Simple. Let's start by creating your account login.

Username

Email address

Password Show

Using a phrase of four random words (like: pillow jar symbol lift) is secure and easy to remember.

Next

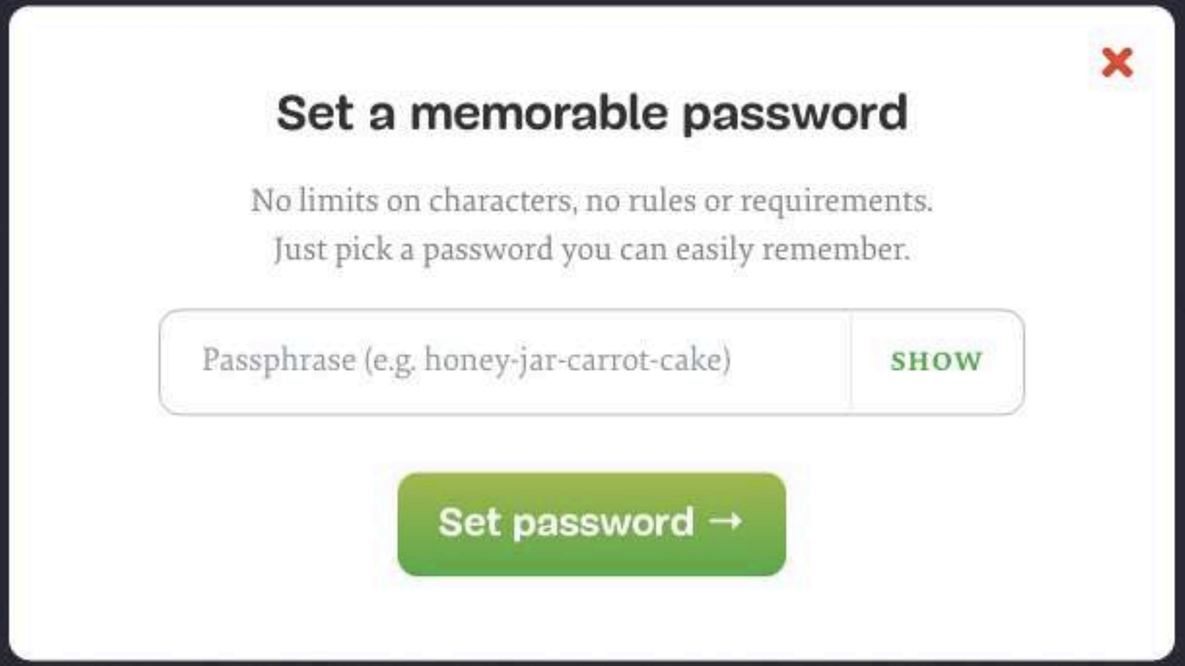
Update your password.

No limits on characters, no excessive requirements. Please **double check your password** before saving it. It goes without saying: we care about your privacy and will keep your data safe.

New password (e.g. honey-jar-carrot-cake) SHOW

Hint: Using four random words like *honey-jar-carrot-cake* (known as *passphrase*) is secure and easy to remember.

Save Changes


Set a memorable password
No limits on characters, no rules or requirements.
Just pick a password you can easily remember.
Passphrase (e.g. honey-jar-carrot-cake)
SHOW
Set password →

Recover Your Password

No worries — cats are terribly forgetful, too! **Need help?** We are here to help: fastlane@smashingmagazine.com.

Your email

Recover password →

← SIGN IN

Security-Related Behavior

01 — We log in *15-20 times* a day, seamless or explicitly.

02 — We tend to have *4.5 emails*, used regularly.

03 — We tend to reuse passwords for “simple” accounts.

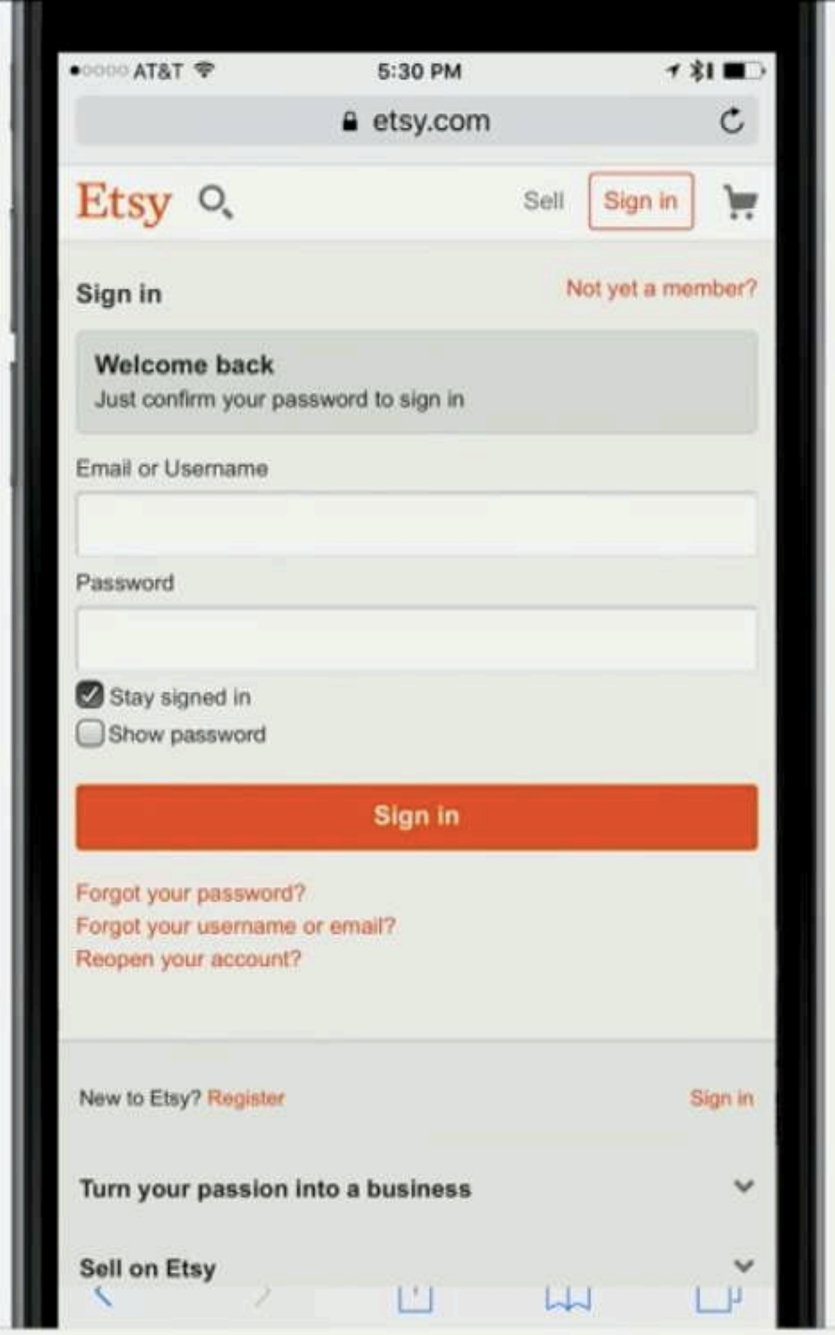
04 — We are really *bad* at remembering email/pass combos.

04 — We are really *good* at bypassing complexity with lifehacks.

05 — Most security breaches target DBs, not individual users.

06 — Strict security has a significant business cost.

07 — *Fishing* is a much higher threat than insecure passwords.



statistically significant decrease in failed logins

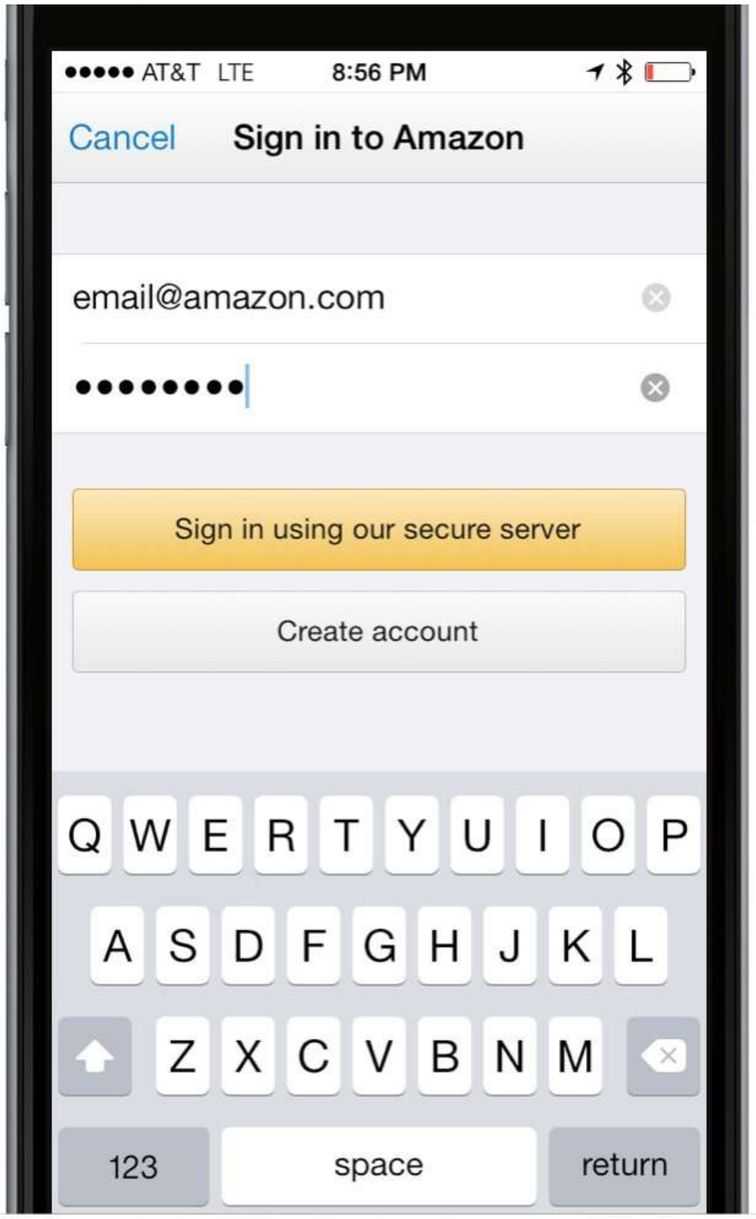
75% won't complete purchase if attempt to recover password while checking out

Source: http://bit.ly/1MDHDfX

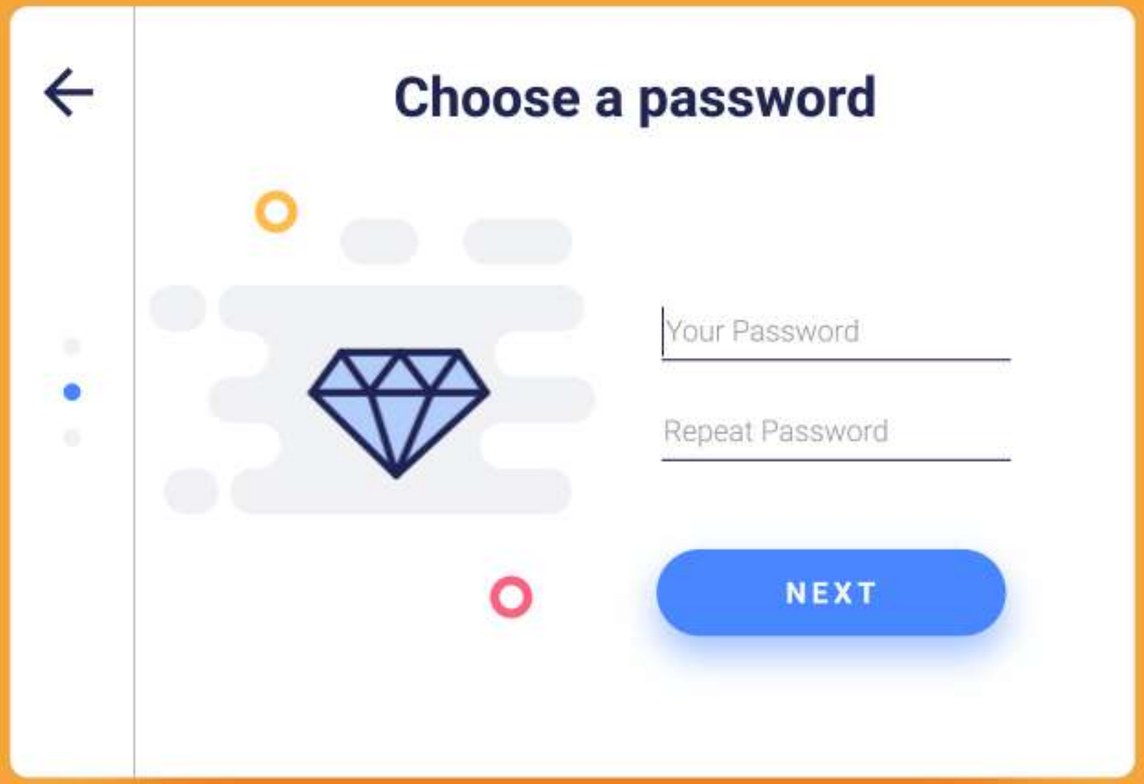
"authentication (sign-in) is one of the biggest reason people don't return to Web sites"

54% quit checkout if they are asked to sign-up

92% give up if they don't remember a password or user name



Source: Chrome data http://bit.ly/1AinNyU Blue Research http://bit.ly/2AqNGiN



Password strength indicator, *Claudio Scotto*, *https://dribbble.com/shots/4584825-Password-Strength*

Show password, *Prekesh*, *https://dribbble.com/shots/4298963-Show-password*

Email

email@domain.com

Password Show

Log in

Authentication UX

Usability > Security

> Authentication is always a *hurdle.* As users, we can't be trusted until our identities have been *established*, we've been *authenticated* in saying who we are and we are *authorized* for the transaction we need to perform.

Jared Spool, UIE.com

Authentication UX

Usability > Security

> We try to make it *easy* to use for people who should have access, often making it totally *unusable* for people who don't have access. We need to think in terms of *stages* of security and *layers* of authentication.

Jared Spool, UIE.com

Authentication UX

Severe Security Measures

01 — Requiring email confirmation to proceed.

02 — Disabling sign up with an “already existing” email.

03 — Overly strict password requirements.

04 — Setting up a 2-factor-authentication too early.

05 — Brand new password setup during pass recovery.

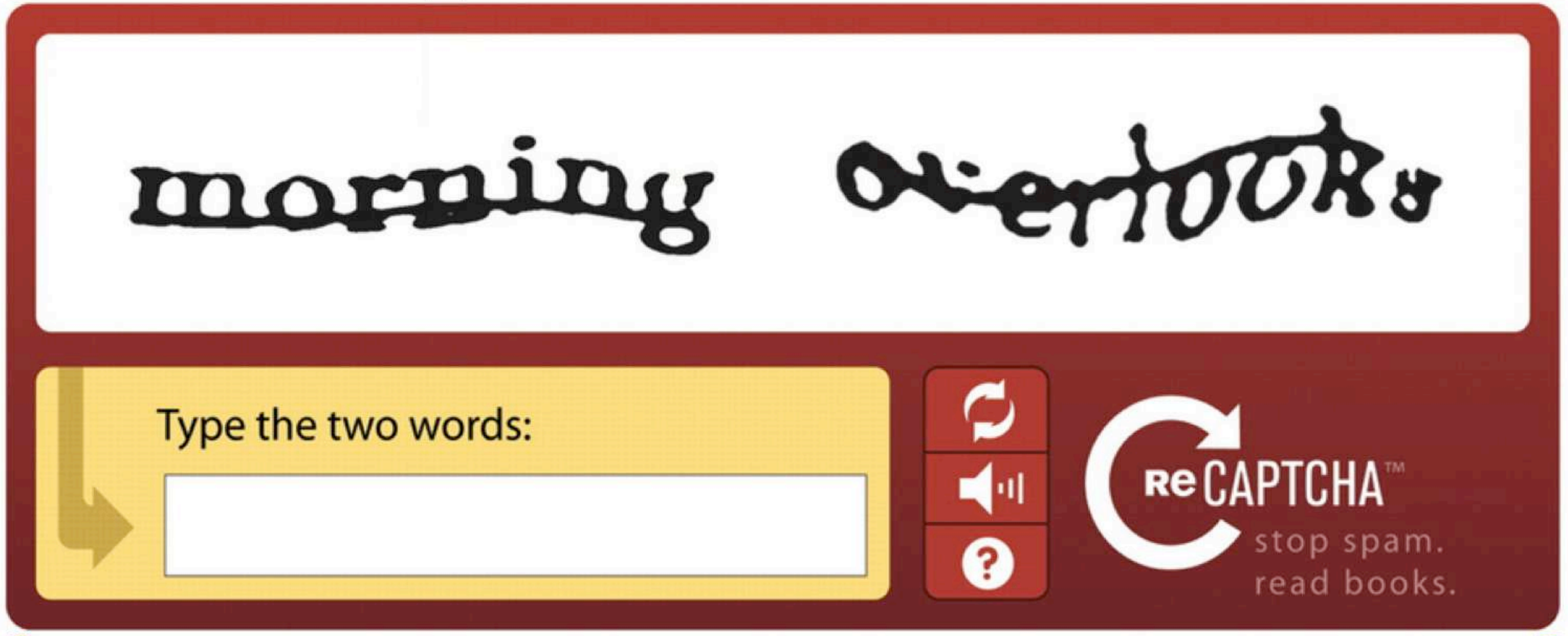
06 — Limiting pass attempts and emporary account lockouts.

07 — Identifying images (store fronts/cars).

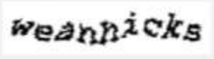
08 — Accessibility issues with visual recognition (CAPTCHA).

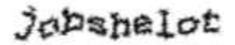
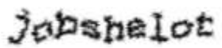
09 — Not revealing the whether login or pass is wrong.

10 — All ultimate examples of unloading our problems onto users.


morning overlook
Type the two words:
ReCAPTCHA™
stop spam.
read books.

morning overlook
Type the two words:
reCAPTCHA
stop spam.
read books.

Scheme	Website(s)	Example	Security Features		Excluded Characters
			Anti-segmentation	Anti-recognition	
Wikipedia	wikipedia.org		Overlapping characters, Enligh letters	Rotation, distortion, waving	–
Microsoft	{live, bing, miscosoft}.com {office, linkedin}.com		Overlapping characters, solid background	Different font styles, varied font sizes, rotation, waving	0, 1, 5, D, G, I, Q, U
eBay	ebay.com		Overlapping characters, Only arabic numerals	Character rotating, distortion and waving	–
Baidu	{baidu, qq}.com		Occluding lines, overlapping, only Enligh letters	Varied font size, color, rotation, disortion and waving	Z
Google	google.{com,co.in,co.jp, co.uk,ru,com.br,fr com.hk,it,ca,es,com.mx} youtube.com		Overlapping characters, Enligh letters	Varied font sizes & color, rotation, disortion, waving	–
Alipay	{alipay, tmall}.com {taobao, login.tmall}.com alipayexpress.com		English letters and arabic numerals, overlapping characters	Rotation and distortion	0, 1, I, L, O
JD	jd.com		English letters and arabic numerals, overlapping characters	Rotation and distortion	0, 1, 2, 7, 9, D, G, I, J, L, O, P, Q, Z
Qihu360	360.cn		English letters and arabic numerals, overlapping characters	Varied font sizes, rotation and distortion	0, I, L, O, T, i, l, o, t, q
Sina	sina.cn		English letters and arabic numerals, overlapping characters	Rotation, distortion, waving	1, 9, 0, D, I, J, L, O, T, i, j, l, o, t, g, r
Weibo	weibo.cn		English letters and arabic numerals, overlapping characters, occluding lines	Rotation and distortion	0, 1, 5, D, G, I, Q, U
Sohu	sohu.com		Complex background, occluding lines, and overlapping	Varied font size, color and rotation	0, 1, i, l, o, z

Captcha Scheme	Captcha Example	Success rate Ref. [10]	Success rate *Our approach*	Captcha Scheme	Captcha Example	Success rate Ref. [17]	Success rate *Our approach*
Megaupload		93%	100%	Baidu (2016)		46.6%	97.5%
Blizzard		70%	100%	QQ		56%	94%
Authorize		66%	100%	Taobao		23.4%	90.7%
Captcha.net		73%	99.6%	Sina		9.4%	90%
NIH		72%	99%	reCAPTCHA (2011)		77.2%	87.4%
Reddit		42%	98%	eBay		58.8%	86.6%
Digg		20%	95%	Amazon		25.8%	79%
eBay		43%	86.6%	Wikipedia		23.8%	78%
Slashdot		35%	86.4%	Microsoft		16.2%	72.1%
Wikipedia		25%	78%	Yahoo! (2016)		5.2%	63%

Authentication UX

CAPTCHA Performance

> On average, a user needs around *9.8 seconds* to solve a text-based CAPTCHA, and it takes *28.4 seconds* to solve the audio version. Notably, *20%* give up after a few tries.

Stanford University, Elie Bursztein

Authentication UX

CAPTCHA Performance

> Bots got *so* advanced that it's now nearly impossible to generate images that are easy to solve for humans but unsolvable for bots. AI can solve most difficult distorted texts with *99.8% accuracy* while humans with 33%.

The Verge, Josh Dzieza

Adversarial Attacks on CAPTCHA | Towards AI

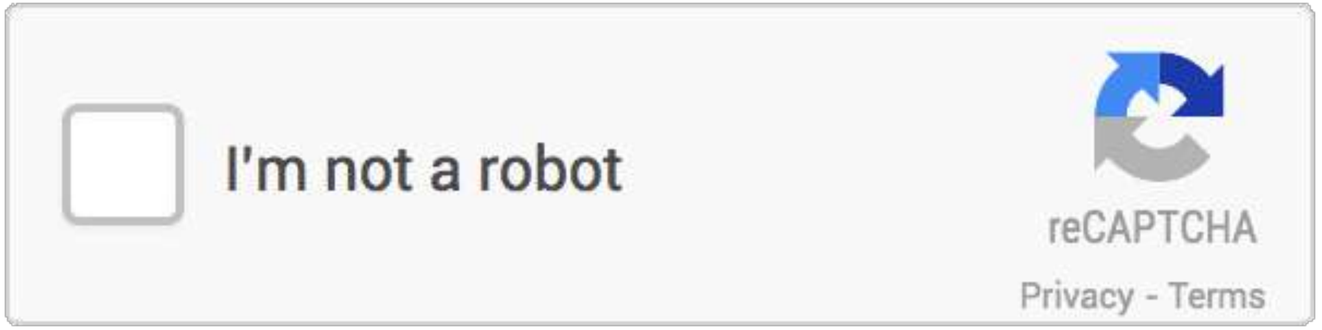
Breaking CAPTCHA Using Machine Learning in 0.05 Seconds

Machine learning model breaks CAPTCHA systems on 33 highly visited websites, concept is based on GANs

Top highlight

Roberto Iriondo Follow
Dec 19, 2018 · 6 min read ★

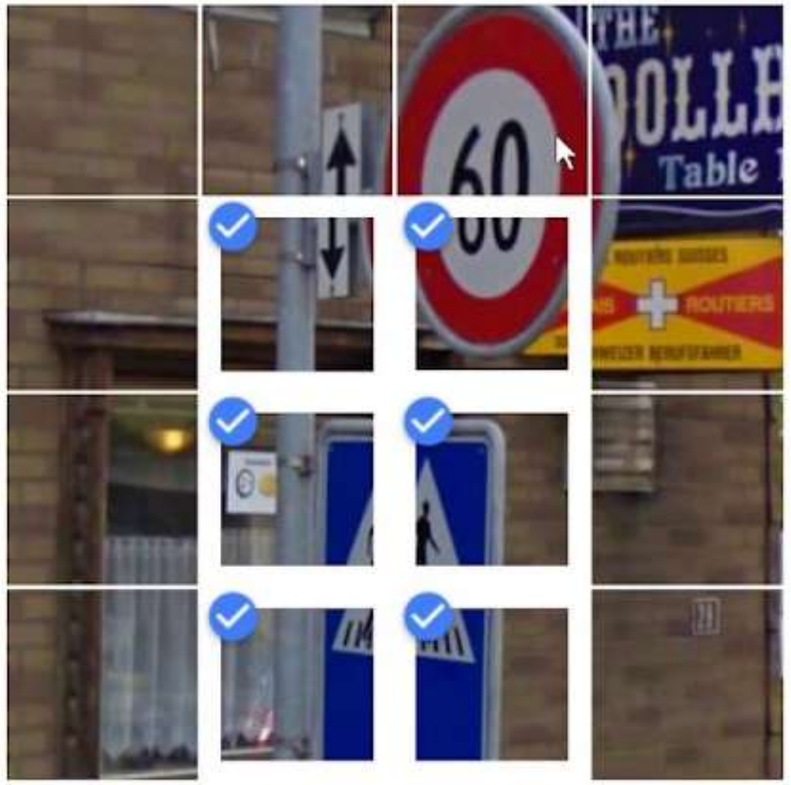
December 19, 2018 by Roberto Iriondo


I'm not a robot
reCAPTCHA
Privacy - Terms

Select all squares with

street signs

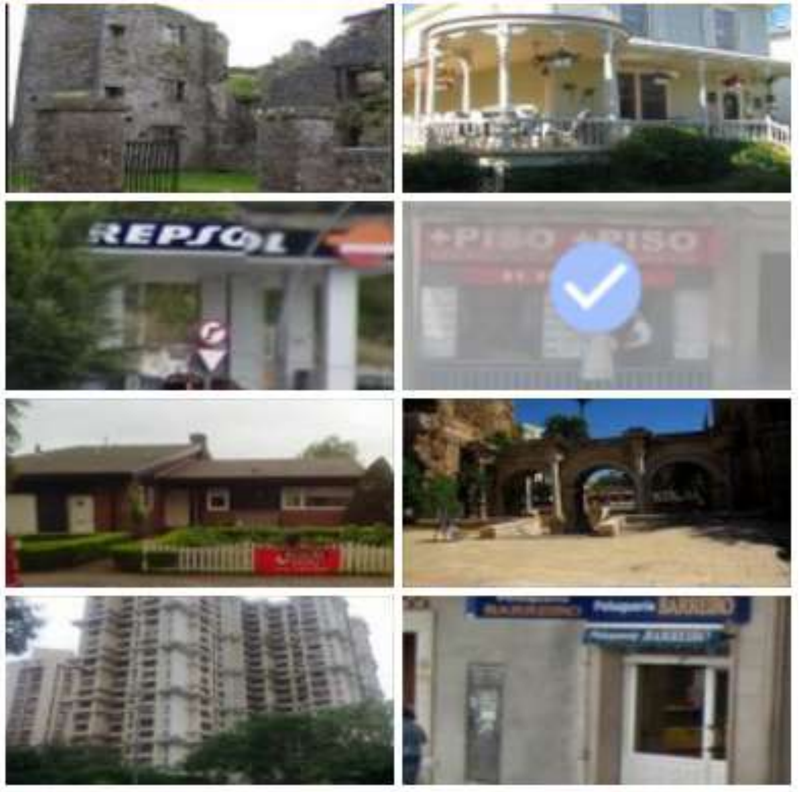
If there are none, click skip



NEXT

Select all images with a store front.

Click verify once there are none left.



Verify

Spam Prevention Strategy

01 — Use Akismet & Co. to block known spam IPs.

02 — Ask a random plain “human” question.

03 — Use a honeypot technique to lure bots into input.

04 — Use a keyboard-accessible slider to verify.

05 — Use time traps (< 1.5s) to disrupt repeated attempts.

06 — Turn off autocomplete for spam prevention input.

07 — Use legit labels (#phone) for a hidden field.

08 — If it doesn’t work, load reCAPTCHA 2 checkbox conditionally.

09 — If it doesn’t work, work around reCAPTCHA 3 on all pages.

10 — Don’t rely on pointer movements/text-based recognition.

Smashing Magazine
@smashingmag

What technique do you use to prevent spam bots attacking your web forms? CAPTCHA? Honeypot technique (stackoverflow.com/questions/3622...) or just asking a question robot can't answer? Or something else? Or nothing?

CAPTCHA	**49%**
"Honeypot"-technique	38%
"Human question"	8%
Other (please reply)	5%

507 votes · Final results

6:41 PM · Nov 26, 2018 · Twitter Web Client

Username / Password

The most well-understood and obvious pattern.

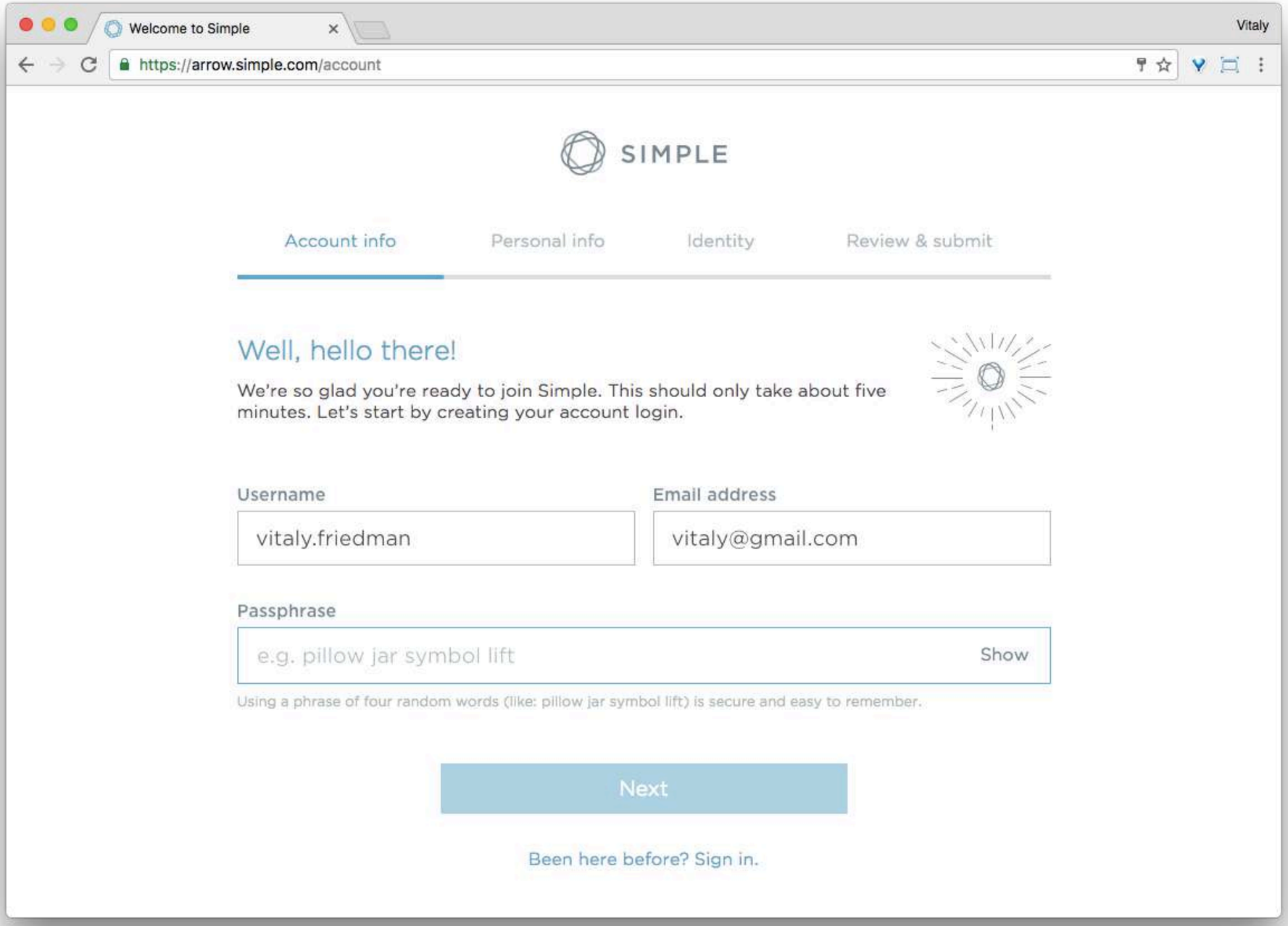
Users often reuse password (87%) or write it down.

Strict rules on number and type of characters.

Works well with password managers.

Very effective, but at the cost of usability.

Delay cookie expiry to avoid frequent sign-ins.


Welcome to Simple
Vitaly
https://arrow.simple.com/account
SIMPLE
Account info
Personal info
Identity
Review & submit
Well, hello there!
We're so glad you're ready to join Simple. This should only take about five minutes. Let's start by creating your account login.
Username
vitaly.friedman
Email address
vitaly@gmail.com
Passphrase
e.g. pillow jar symbol lift
Show
Using a phrase of four random words (like: pillow jar symbol lift) is secure and easy to remember.
Next
Been here before? Sign in.

Username / Passphrase

The most well-understood and obvious pattern.

Users often reuse password (87%) or write it down.

No need for strict rules on number and type of chars.

Easier to remember, and also more secure.

Still needs quite a bit of getting used to.

Delay cookie expiry to avoid frequent sign-ins.

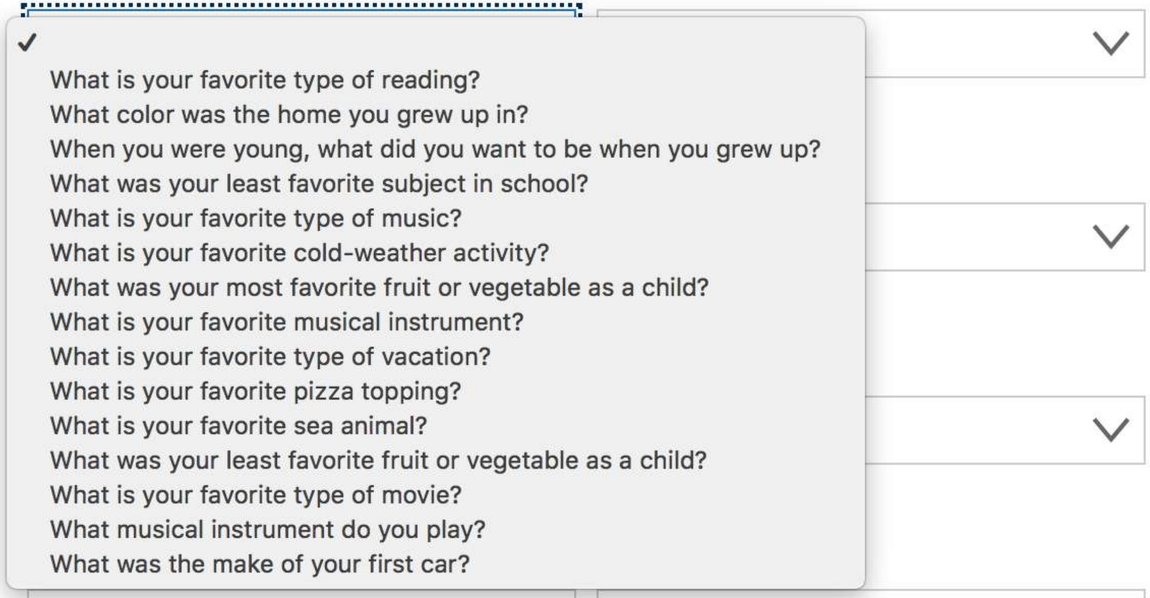
MileagePlus account security enhancements

In order to enhance the security of your MileagePlus account, we need you to make a few account updates. You will no longer account.

Your account must include five security questions. We may use these questions to verify your identity when you sign in to you password. We provide predefined questions and answers because we've found that the majority of security issues our custon that record typing, and using predefined answers protects against this type of intrusion.

Please select security questions and answers from the dropdown menus.

Question 1 of 5



Question 5 of 5

Select question*

Select your answer*

Save my security questions

2-Factor Authentication

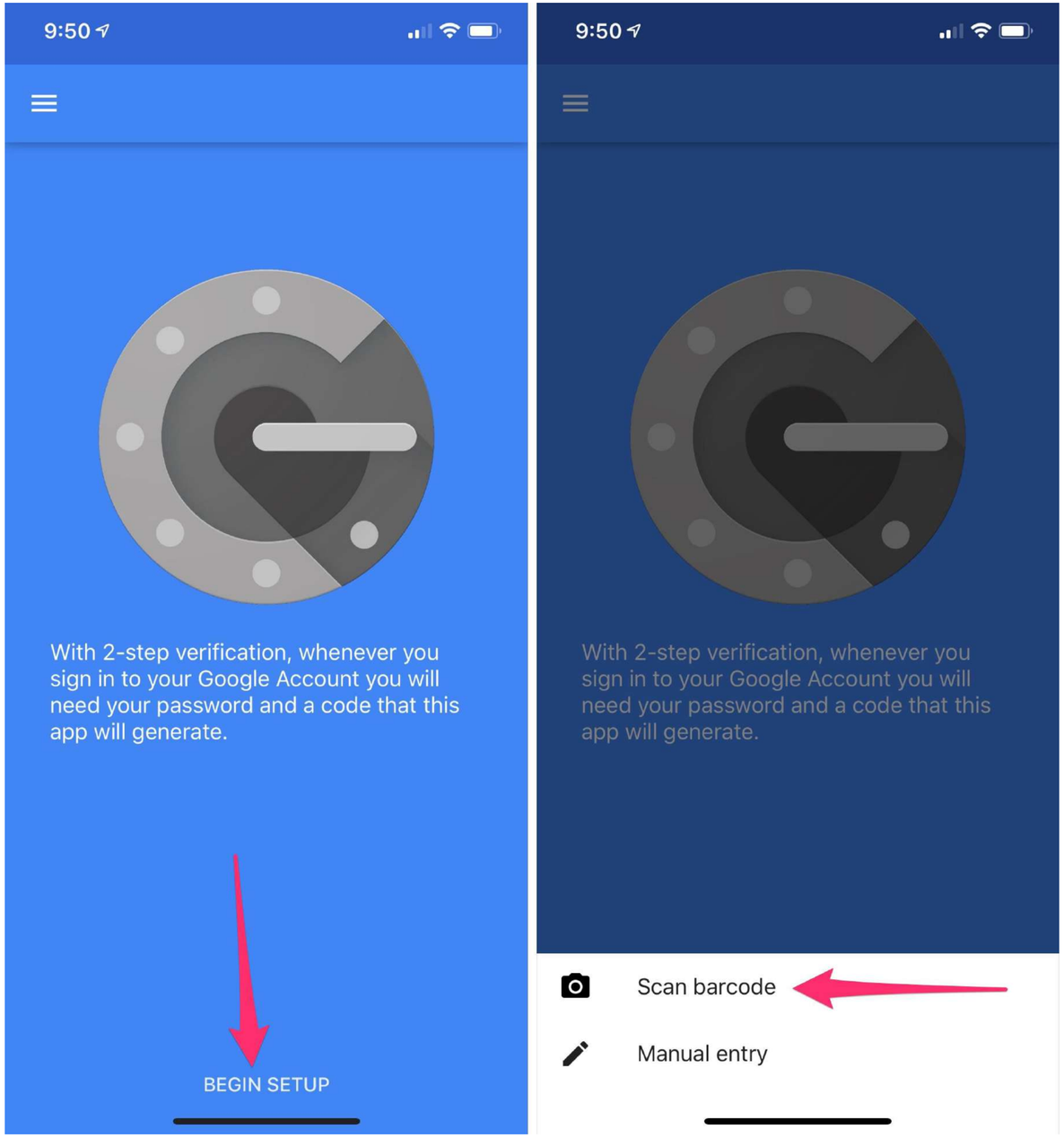
We need *2 separate things* to authenticate. Something a user knows (*password*), and/or something user has (*device*, *key*), and/or something user is (*biometrics*).

Dan Kaminsky
@dakami

OH: "Ah yes, two factor authentication. Something you've forgotten and something you've lost."

3:26 AM · Jan 9, 2017 · Twitter Web Client

720 Retweets **1.1K** Likes


9:50
With 2-step verification, whenever you sign in to your Google Account you will need your password and a code that this app will generate.
BEGIN SETUP
9:50
With 2-step verification, whenever you sign in to your Google Account you will need your password and a code that this app will generate.
Scan barcode
Manual entry

SMS Verification APIs

Search

Language

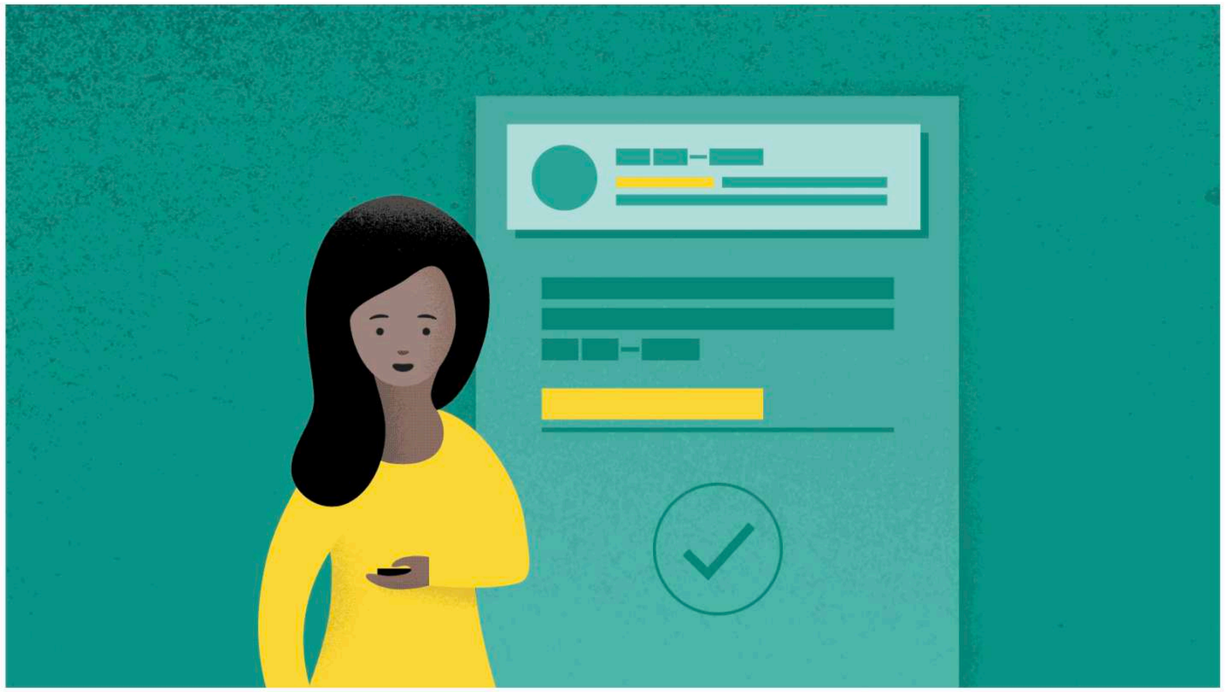
Create streamlined phone verification flows on Android

Home Guides

Automatic and one-tap SMS verification

Verify your users by SMS without making them deal with verification codes. By using the SMS Retriever API, your app can automatically retrieve verification codes intended for your app, without having to request full SMS reading permissions. Or, use the SMS User Consent API to get one-time permission to retrieve a single verification code.

Learn more



SMS Verification API, *https://developers.google.com/identity/sms-retriever*

2-Factor-Authentication

- A quite accepted pattern that is becoming a standard.
- Needs backup codes if device is no longer available.
- “Trust this device for 30 days” or similar restrictions needed.
- Comes in various flavours, SMS, QR code, app prompt.
- No need for password rules, easier for signing up.
- Delay cookie expiry to avoid frequent sign-ins.

✔ Password updated

Your password has been updated successfully.

Get a magic link by email to automatically sign in on your mobile device.

Typing out a proper, secure password on your phone can be a pain (you're using a good strong password, right?). We can take away a little bit of that pain by sending you a magic link that will automatically sign you in to your iOS or Android device.

Open the email on your iPhone, iPad or Android device, click the button and you'll be all set with your new password.

✉ Send me a magic sign in link for my mobile device

Magical Sign-In

- Basically 2-factor-auth but without a password at all.
- Needs backup codes if email is no longer available.
- The link should expire soon (15 mins) and be used only 1×.
- Need to only remember email or phone number.
- No need for password rules, as there are no passwords.
- Doesn’t work with pass managers, can get annoying.

Social Media Sign-In

Quick and no hassle for customers to sign in.

Users are increasingly worried about privacy.

Services often have more accounts than users.

Great if the service merges multiple accounts into one.

Users often don’t remember what they’ve signed in with.

Requires a fallback if users don’t want to sign in this way.

Sign in to get started

Spectrum is a place where communities can share, discuss, and grow together. Sign in below to get in on the conversation.

Previously signed in with

Sign in with Twitter

Sign in with Facebook

Sign in with Google

Smashing Magazine
@smashingmag

What method of authentication do you personally prefer? Login/password, social sign-in (e.g. Facebook) or email/SMS?

Login/password	**48.5%**
Social sign-in (e.g. FB)	28.1%
Verification via email	11.6%
Verification via SMS	11.8%

2,002 votes · Final results

10:57 AM · May 23, 2016 · Twitter Web Client

Smashing Magazine
@smashingmag

What's your preferred method of authentication for frequently visited websites, e.g. eCommerce or online subscriptions?

– Login/pass/passphrase
– 2-factor-auth (e.g. SMS)
– Social sign-in
– Magical link sign-in (email)
– Biometric
– Anything else?

Login / password	47%
2-factor-auth (e.g. SMS)	27.3%
Social sign-in	17.2%
Magical link / via email	8.4%

878 votes · 4 days left

9:23 PM · Apr 14, 2020 · Twitter Web App

Authentication Design Checklist

01 — How do we ensure that auth/security don’t stand in the way of usability?

02 — Do we prioritize usability vs. security in our UI, or the other way around?

03 — What are the more sensitive areas which require a more strict auth?

04 — In which situations will we prompt users to authenticate themselves?

05 — What password requirements do we want/need to implement?

06 — What authentication method do we want to prioritize for signing in?

07 — Is authentication via login/password going to be a default choice?

08 — Can we avoid asking users to verify email immediately?

09 — Can we ask users to verify email at review page or success page?

10 — Can we avoid asking users to verify their password?

11 — Can we use the show/hide pattern for password input?

Authentication Design Checklist

12 — Can we provide a live password requirement checklist?

13 — Can we ask for a pass*phrase* instead of a pass*word*? How do we explain it?

14 — Do we provide a 2-factor-authentication (2-FA)?

15 — How do we explain 2-FA? What's the flow like?

16 — Can we replace security questions with a 2-FA?

17 — With 2-FA, can we avoid the SMS option (instead: QR, app, email)?

18 — Can we reward customers for using 2-FA (discount, free month etc.)?

19 — Do we provide a social media sign in?

20 — If yes, what services do we support? What permissions do they get?

21 — Do we provide a magical link sign in? If so, when?

22 — Do we provide a biometric sign in? If so, when?

Authentication Design Checklist

23 — Do we provide a connected device/Bluetooth sign in? If so, when?

24 — Do we have a spam prevention strategy in place?

25 — Do we *really* need CAPTCHA, or can we use honeypot/time traps instead?

26 — Can we set a long cookie expiry date to avoid frequent sign-ins?

27 — Can we set a long cookie expiry date for checkout (1-click-checkout)?

28 — When is the right time/place to ask for permissions (location/camera, etc.)?

29 — Can we authenticate with a phone number and a security text code?

30 — How do we design and build a password recovery experience?

31 — Do we limit the frequency of password recovery attempts?

32 — Do we enable customers to merge multiple accounts (email/Twitter etc.)?

33 — If not, can we suggest to customers what they signed in with last time?

34 — What do we do to prevent customers from using insecure passwords?

Summary

01 — Avoid old versions of CAPTCHA at all costs.

02 — Verify email when it matters most to users.

03 — Avoid strict password rules, they decrease privacy.

04 — Consider passphrases instead of passwords.

05 — Login failures have impact on revenue; measure it.

06 — Indicate what users signed in with last time.

07 — Regular accounts, online subscriptions: login/pass.

08 — One-time-customers, quick sign in: social sign in.

09 — Online banking, email lists: 2-factor auth.

10 — Workhorse apps: magical sign-in, with long cookie expiry.

Web Forms

04 Onboarding

Landing Page Banner Animation, *https://dribbble.com/shots/3938570-Landing-page-Banner-Animation*

Numero¹ SKIP

Welcome

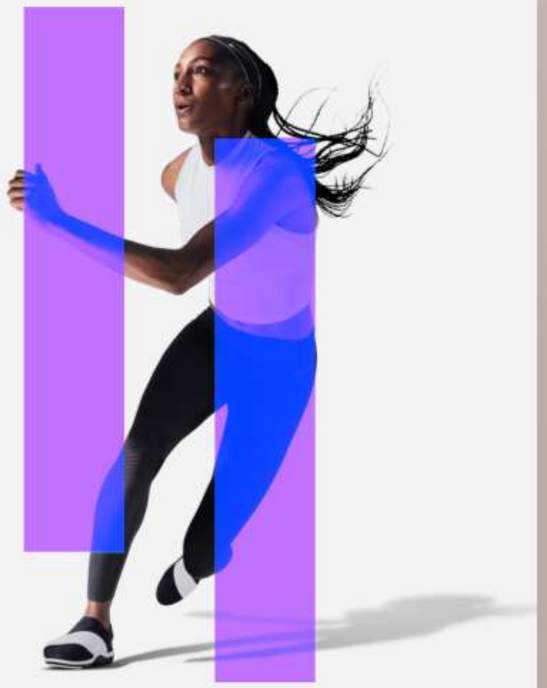
Discover new sales & fitness updates everyday with **Numero1.**

Numero¹ SKIP

Browse

We connect you to your favourite online retailers and show you all the best deals in one place.

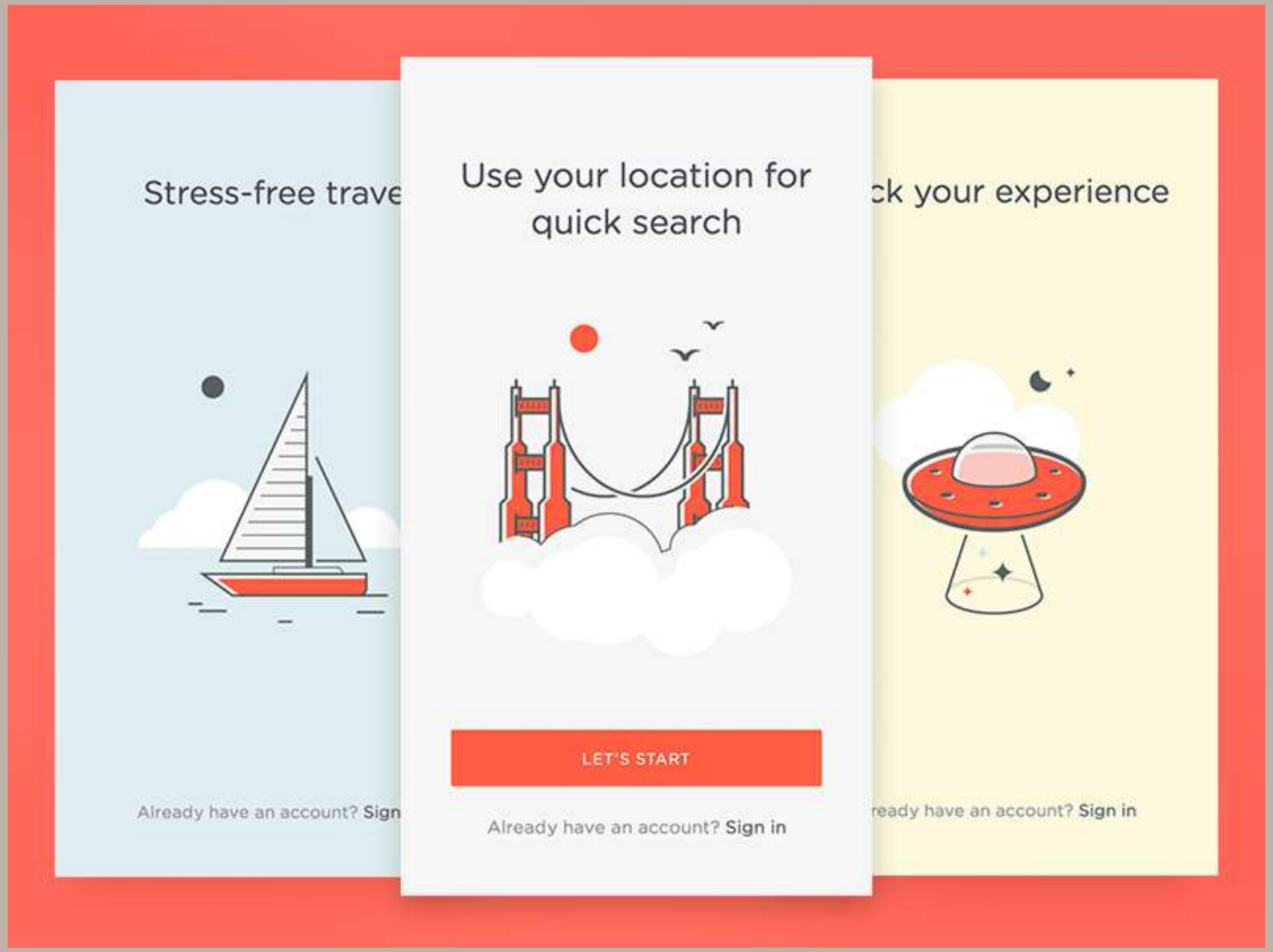
Numero¹ DONE



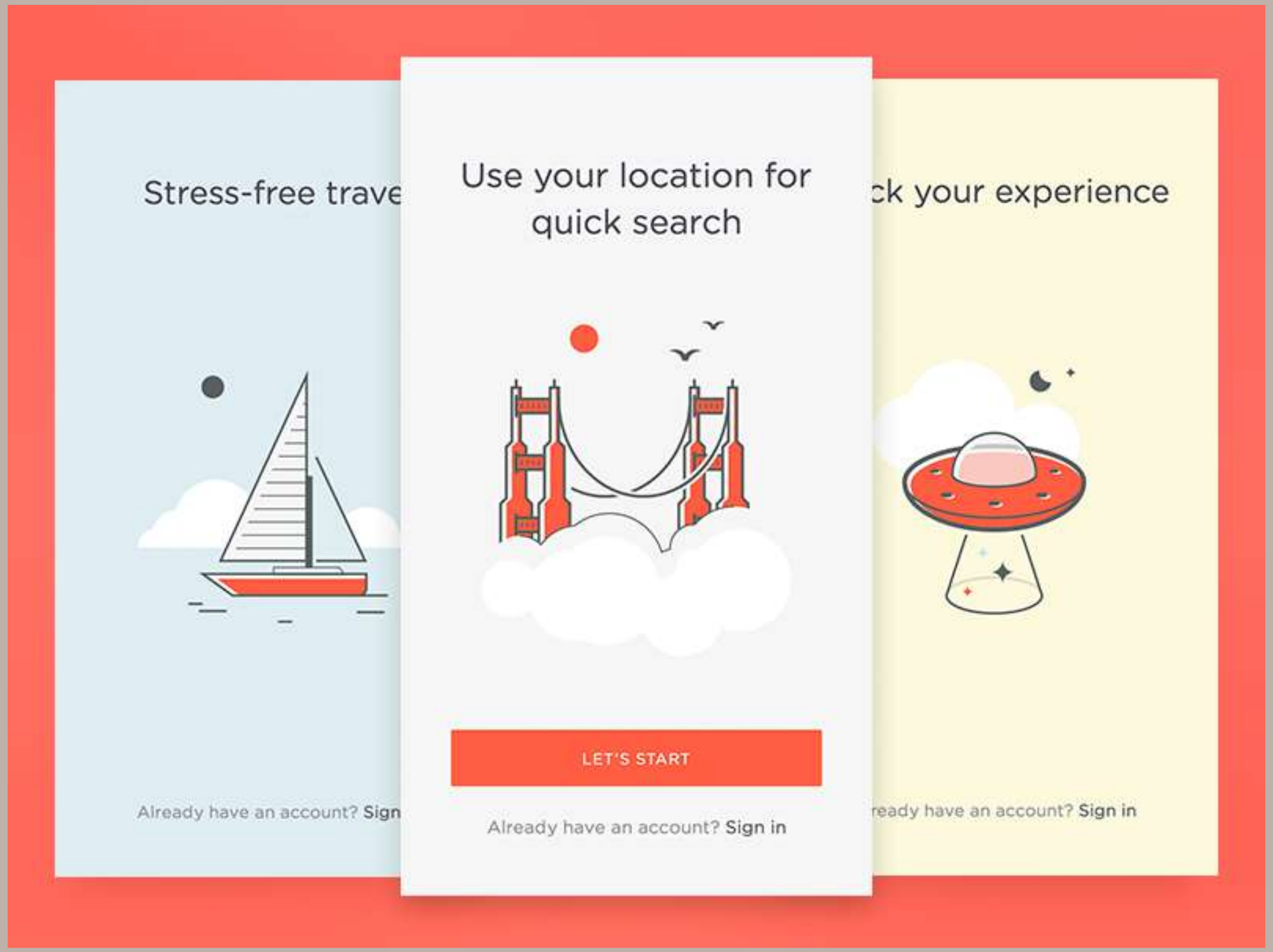
Ready, set ..

Find the perfect fit for you.

Onboarding, *https://dribbble.com/shots/3546996-Onboarding-Art-Direction/attachments/788404*

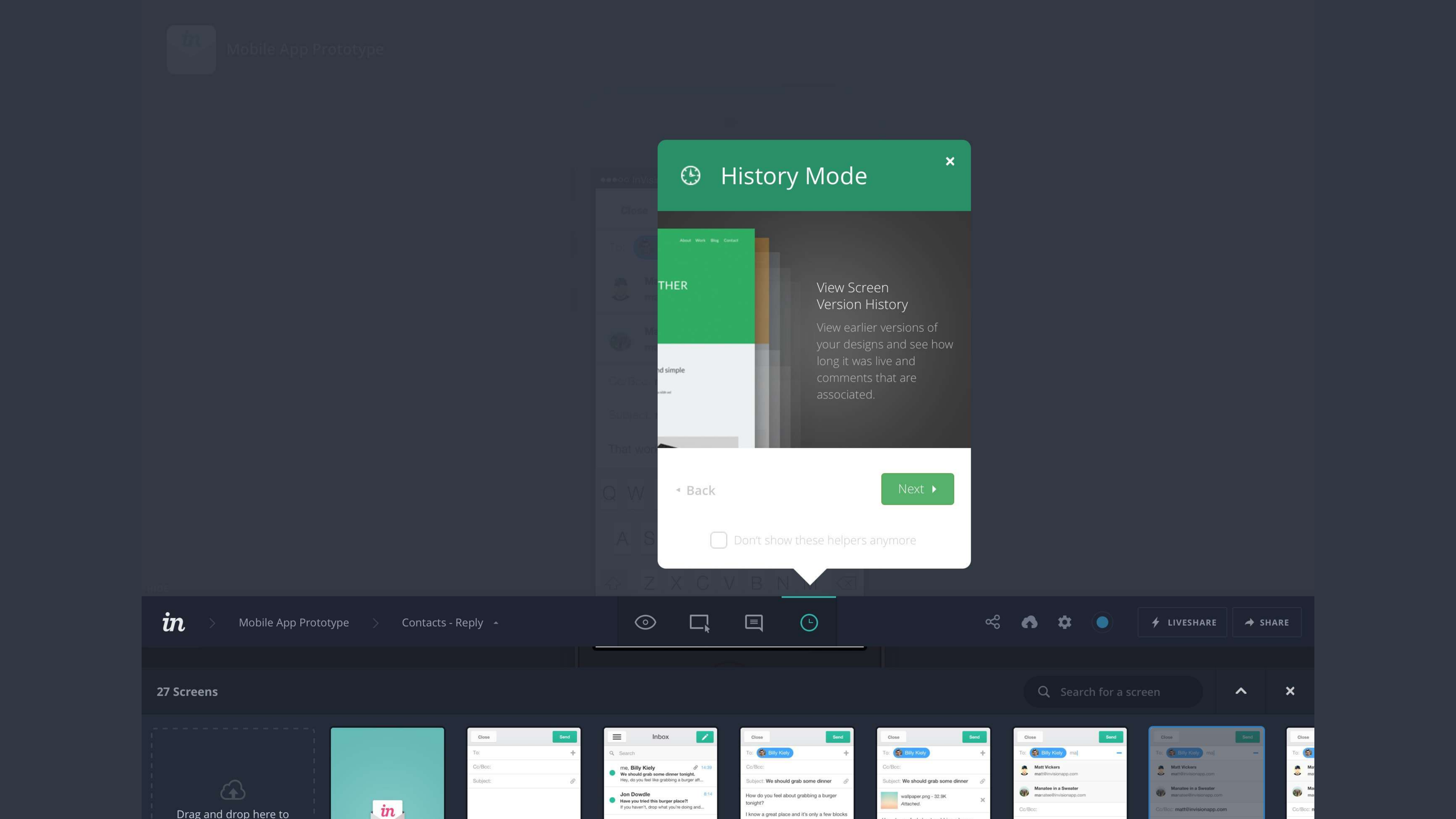


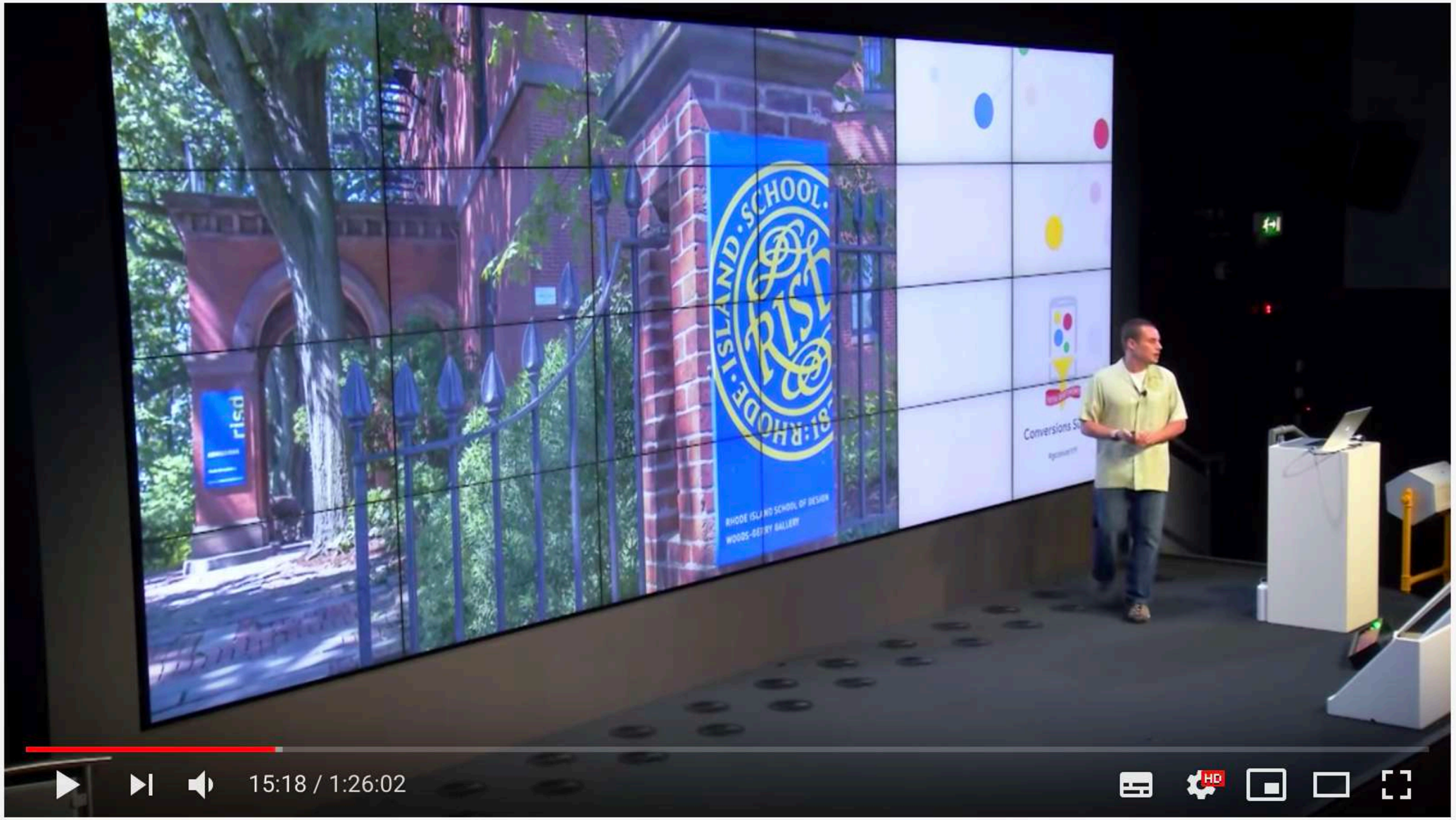
https://dribbble.com/shots/2485988-Onboarding-Cards



https://dribbble.com/shots/2485988-Onboarding-Cards

Onboarding can’t be a crutch


Mobile App Prototype
History Mode
View Screen
Version History
View earlier versions of your designs and see how long it was live and comments that are associated.
Back
Next
Don't show these helpers anymore
Mobile App Prototype
Contacts - Reply
LIVESHARE
SHARE
27 Screens
Search for a screen
Drag and drop here to



Mind The Gap, *Luke Wroblewski*, *https://youtu.be/mAiNdU1go1A*

Native Mobile Apps

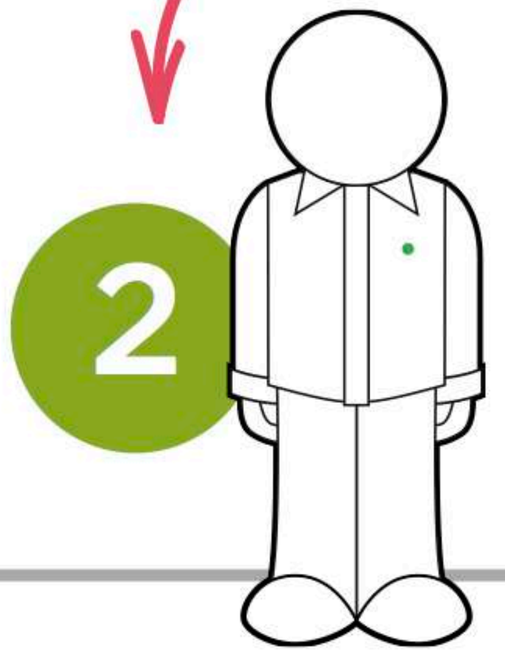
169min

MOBILE APPS

2.8M
in Google Play Store

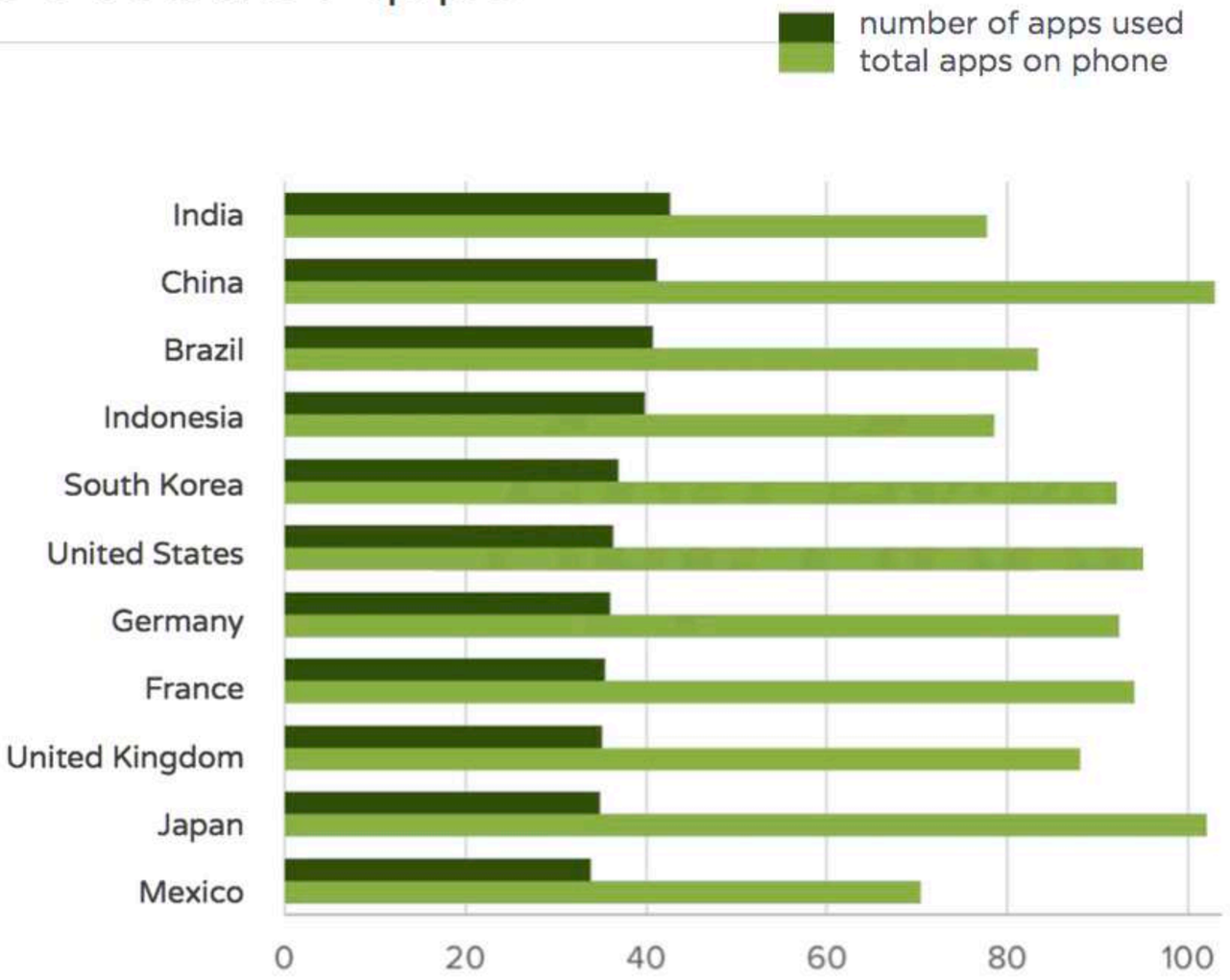
2.2M
in Apple App Store

nearly 2 smartphone apps are downloaded every month per human being on Earth



Native Mobile Apps

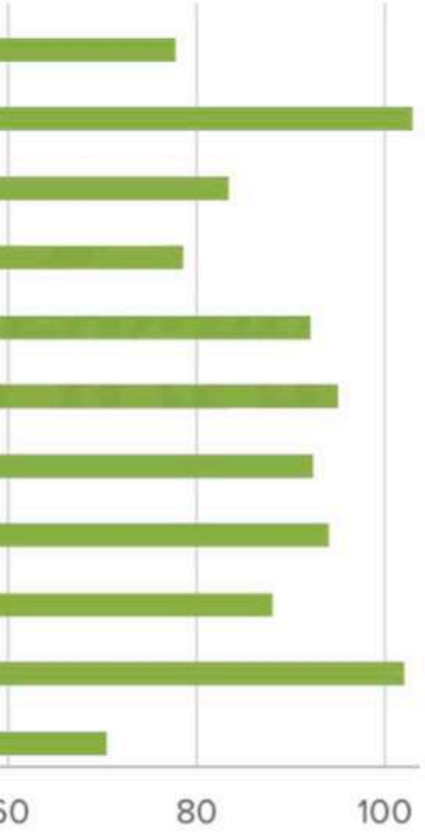
but people **only** use one-third to one-half of the apps on their phone per month



Source: App Annie 2017 Retrospective Report http://bit.ly/2mOtB0J

App Annie

Native Mobile Apps



25% ARE ABANDONED AFTER FIRST TIME USE

34% ARE OPENED 11 TIMES OR MORE

-77% AVG. DAILY ACTIVE USER LOSS IN 1ST 3 DAYS OF INSTALL

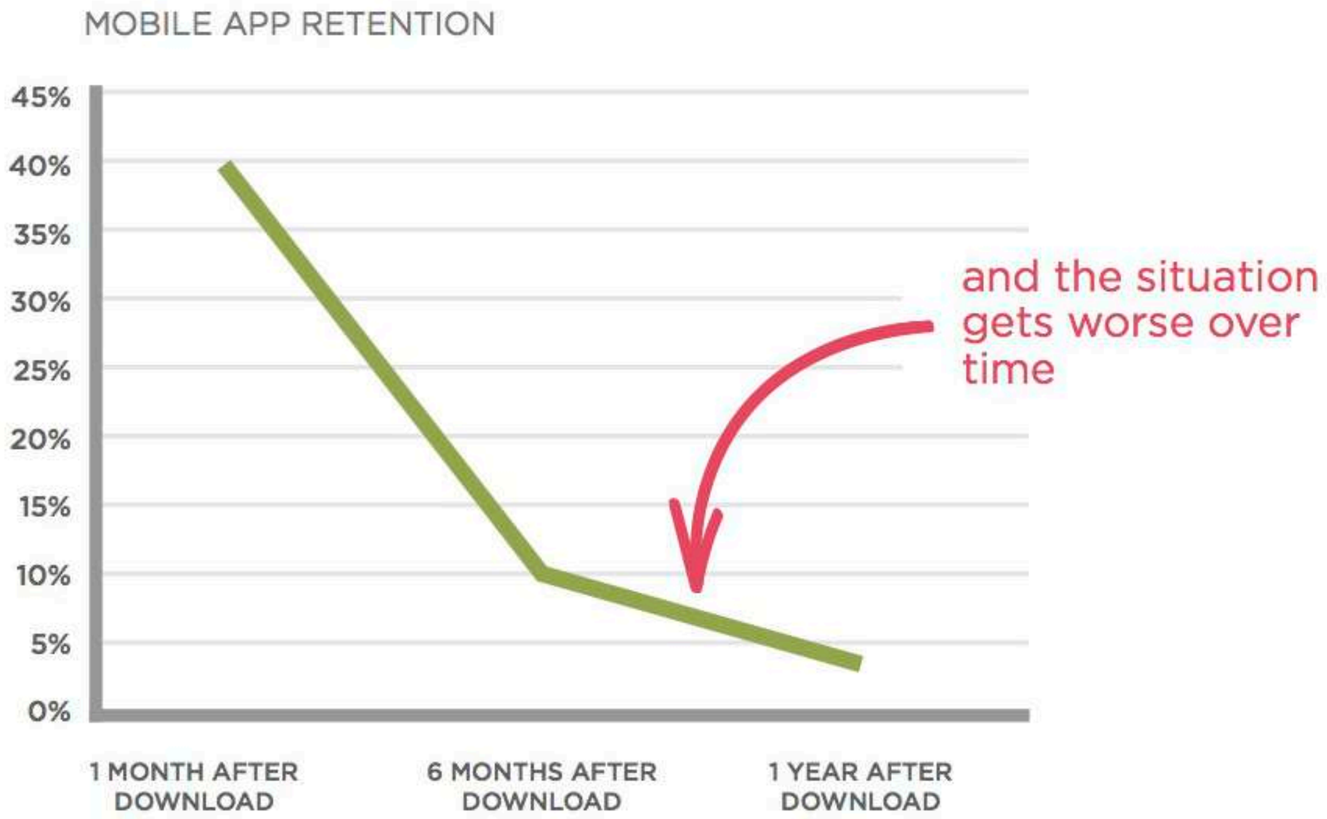
-95% AVG. DAILY ACTIVE USER LOSS 90 DAYS AFTER INSTALL

Sources: http://on.recode.net/1Go6ZYp | http://bit.ly/1KA51rQ | http://bit.ly/1Hq53AR

Native Mobile Apps

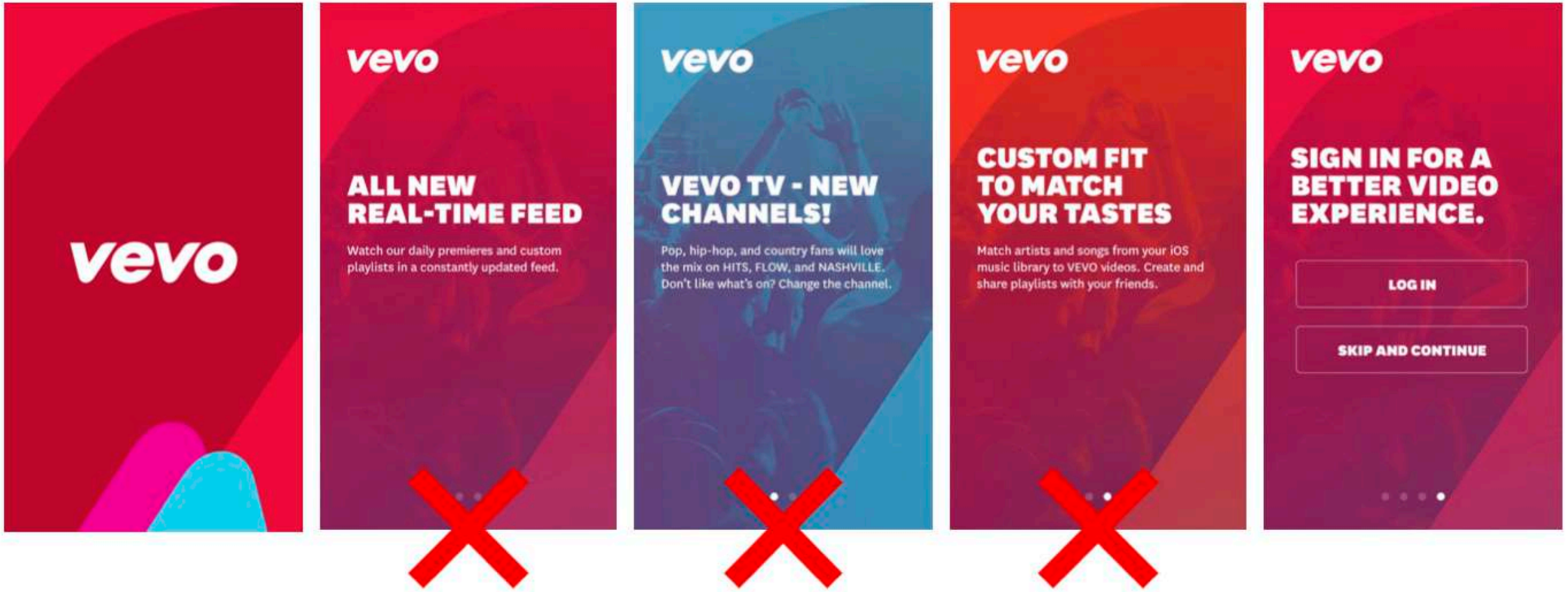
-77% AVG. DAILY ACTIVE USER LOSS IN 1ST 3 DAYS OF INSTALL

-95% AVG. DAILY ACTIVE USER LOSS 90 DAYS AFTER INSTALL



LUKEW IDEATION + DESIGN

Source: https://bit.ly/2dvndVz



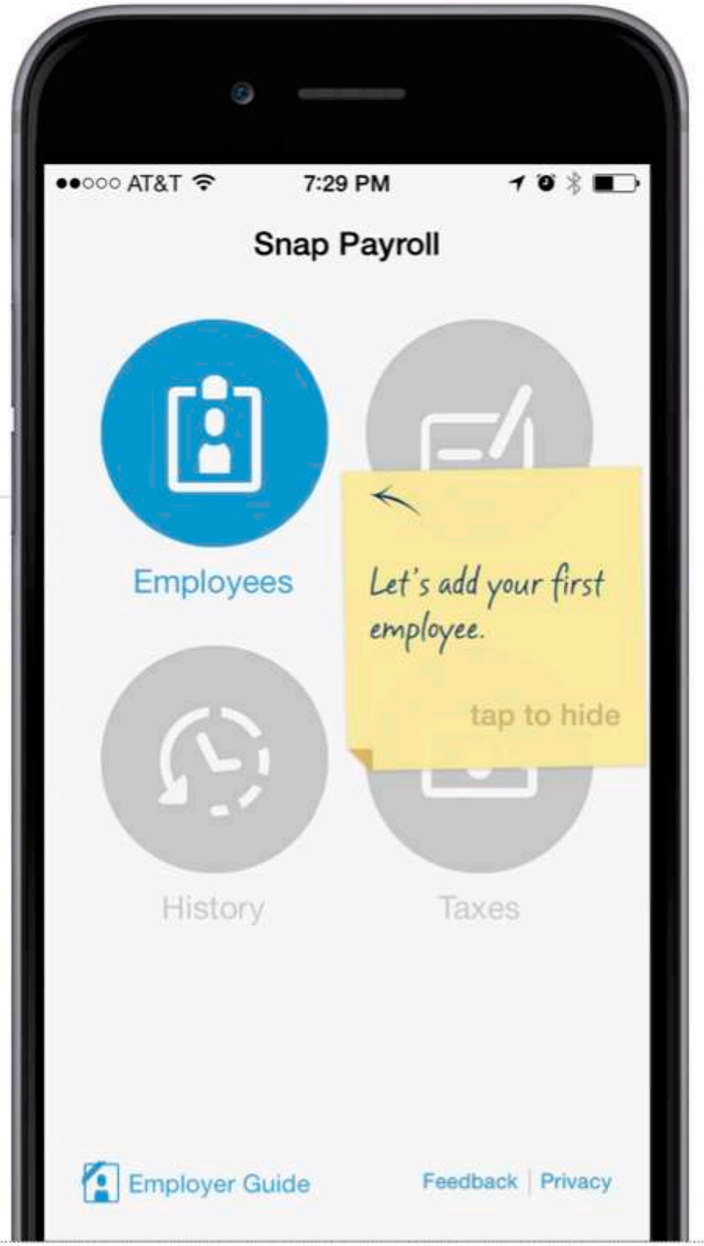
10% INCREASE IN SUCCESSFUL LOG INS

6% INCREASE IN COMPLETED SIGN UPS

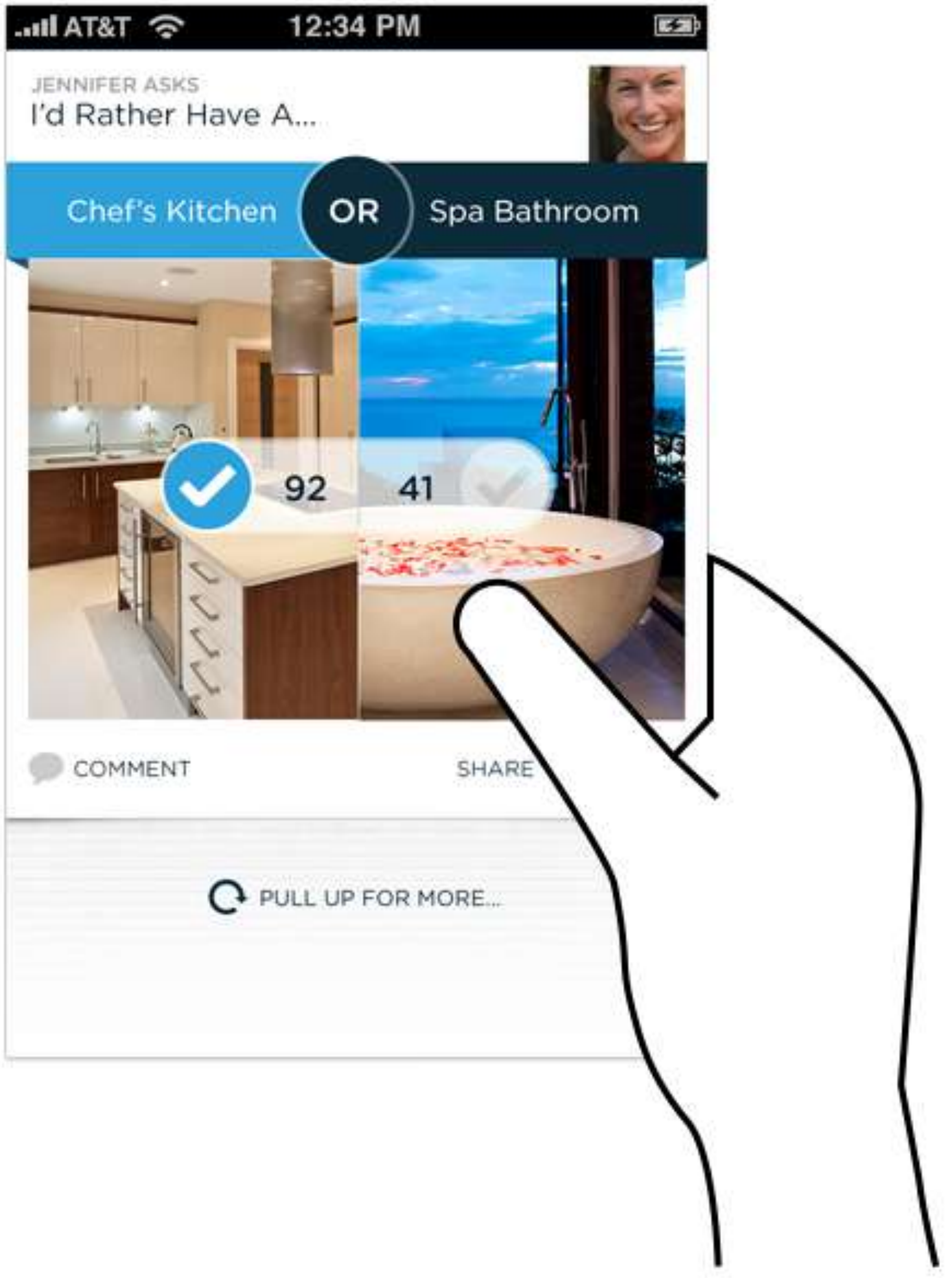
Source: https://bit.ly/2lyNVjM

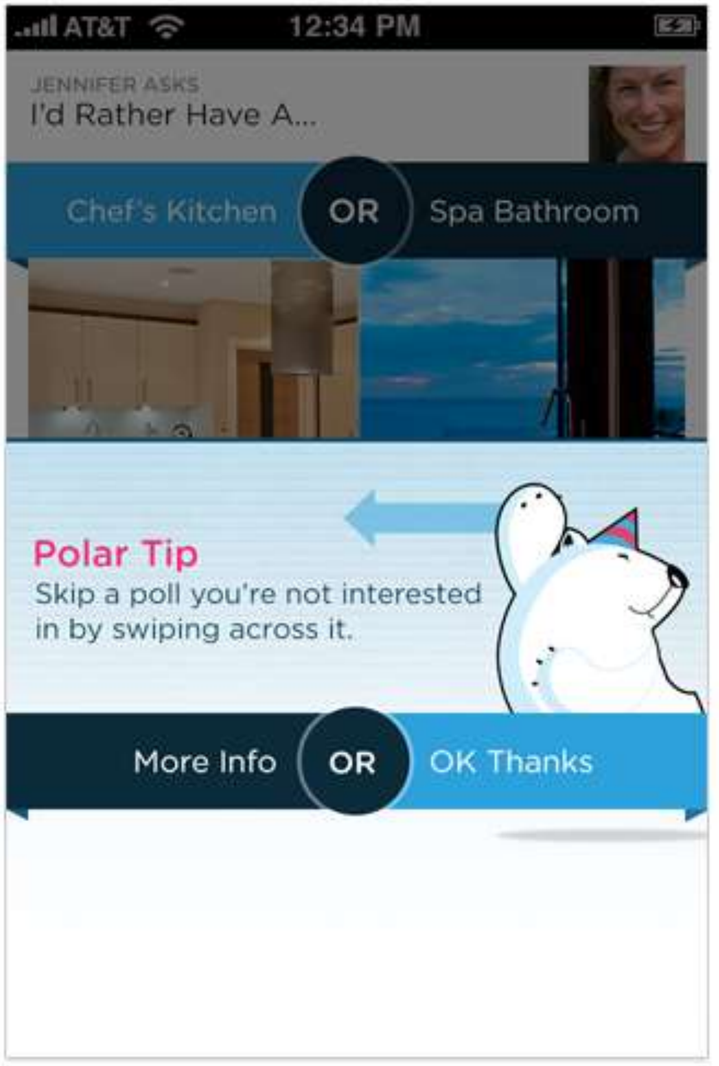
JUST-IN-TIME TIP

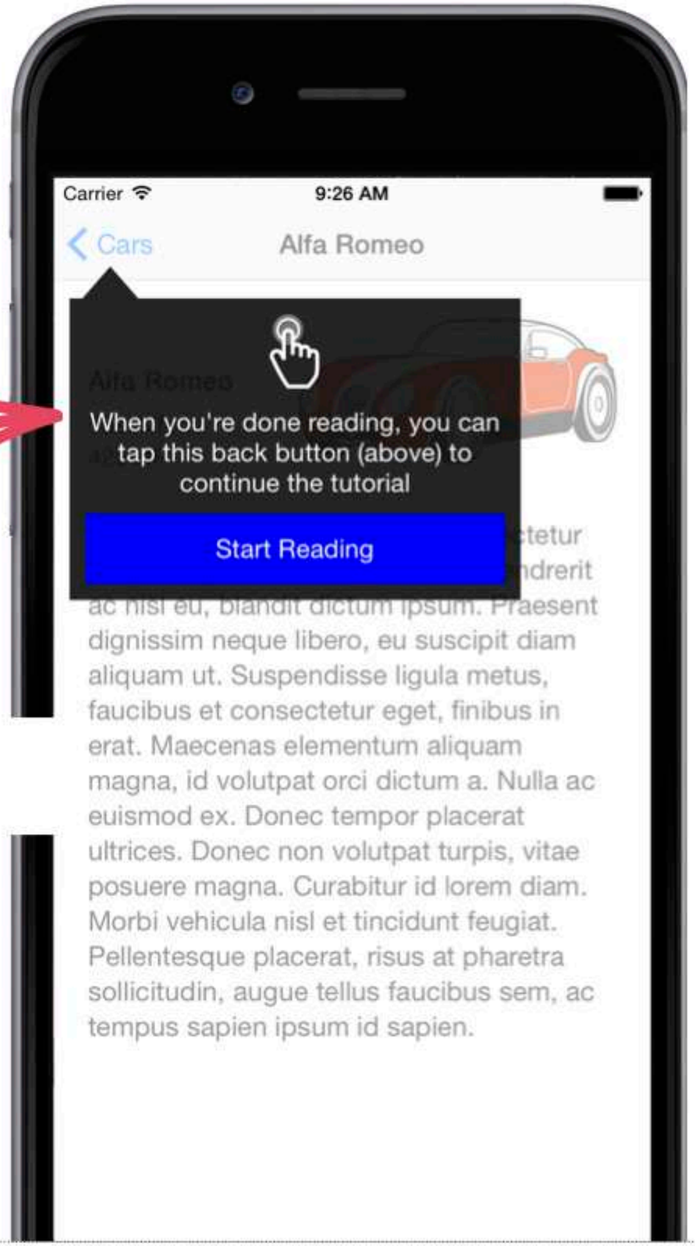
Customers had a good sense of what was available to them and a clear first step.



Source: http://j.mp/1nRsiZi

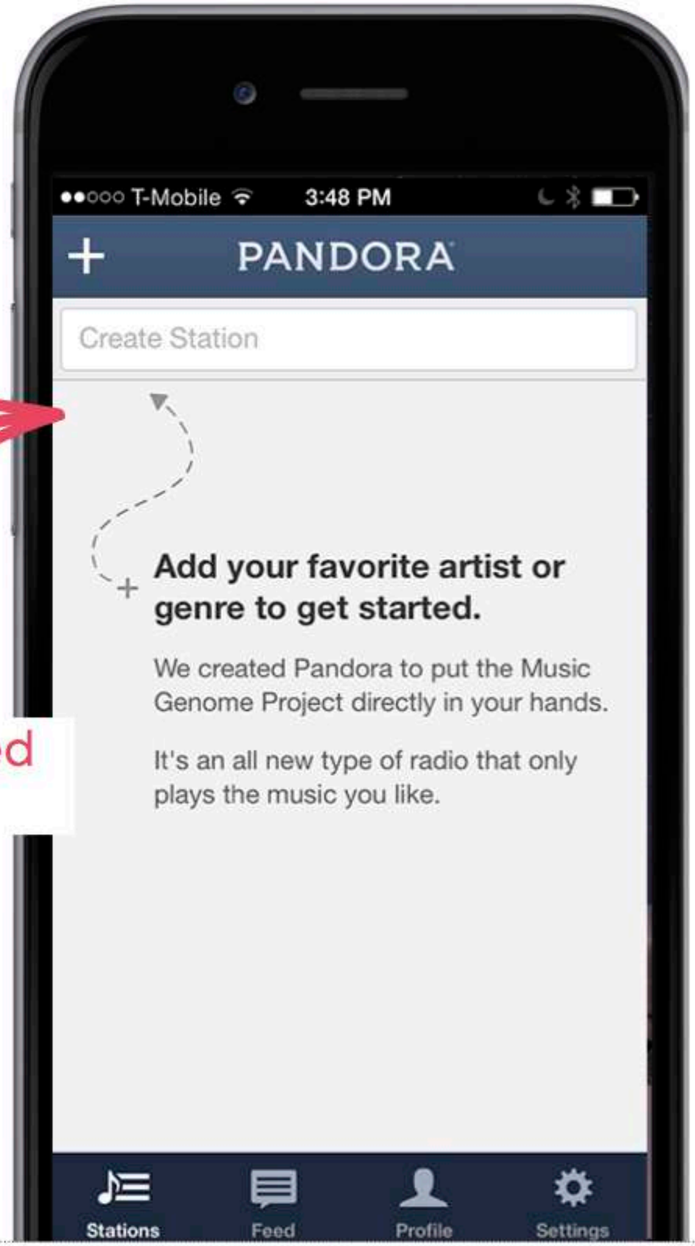

AT&T
12:34 PM
JENNIFER ASKS
I'd Rather Have A...
Chef's Kitchen
OR
Spa Bathroom
92
41
COMMENT
SHARE
PULL UP FOR MORE...


AT&T
12:34 PM
JENNIFER ASKS
I'd Rather Have A...
Chef's Kitchen
OR
Spa Bathroom
Polar Tip
Skip a poll you're not interested in by swiping across it.
More Info
OR
OK Thanks

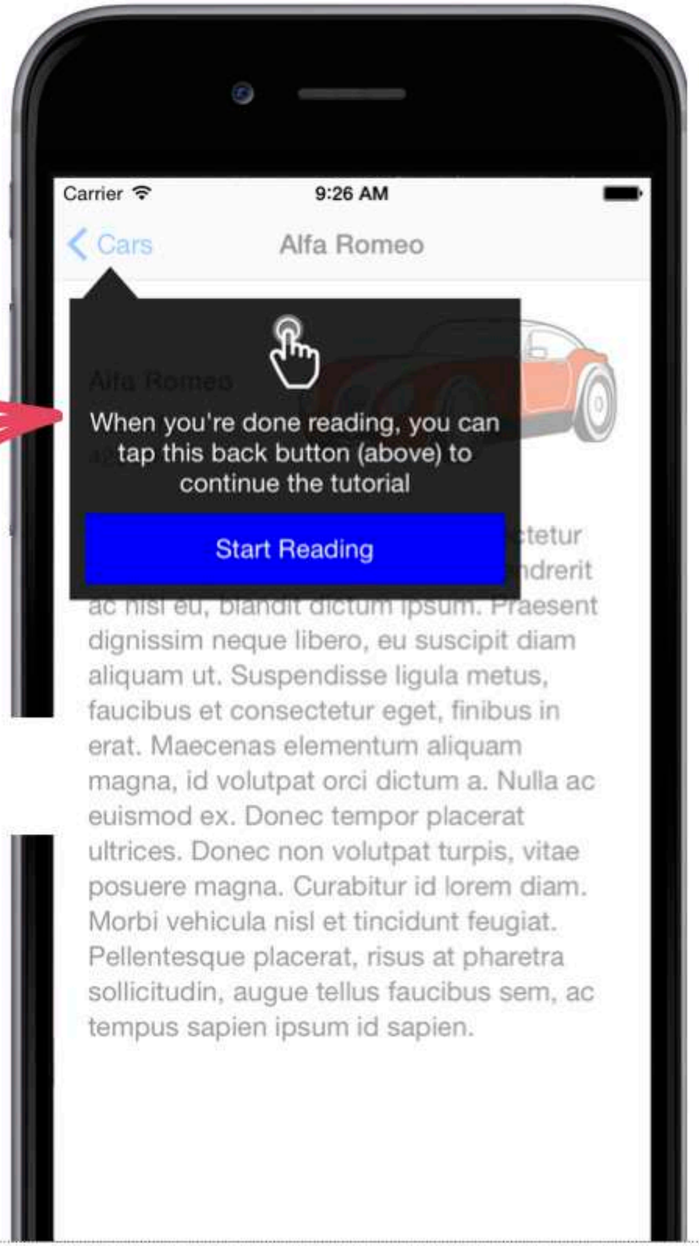


tooltip overlay

VS



integrated UI

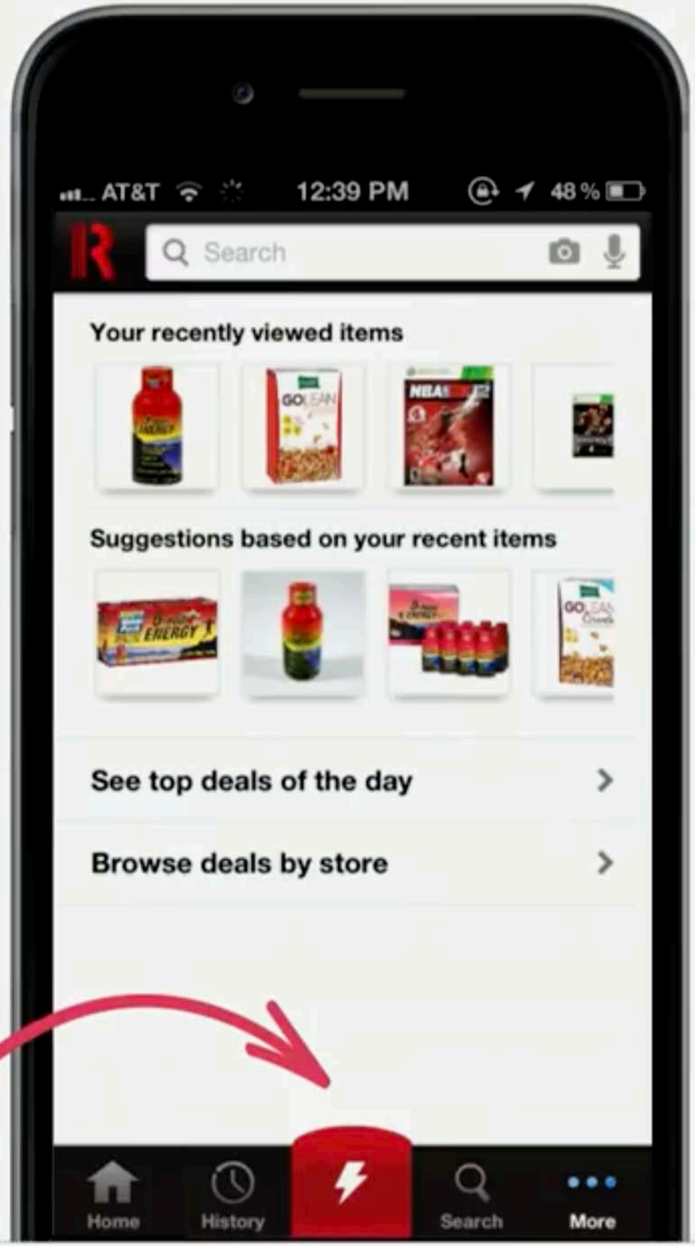


> We see overlay avoidance consistently in the research we conduct with mobile users. Especially when people are task focussed. Then when they do come to use a new function they can't find the help and don't recall seeing the help previously.

Lisa Duddington
Co-founder, Keep It Usable

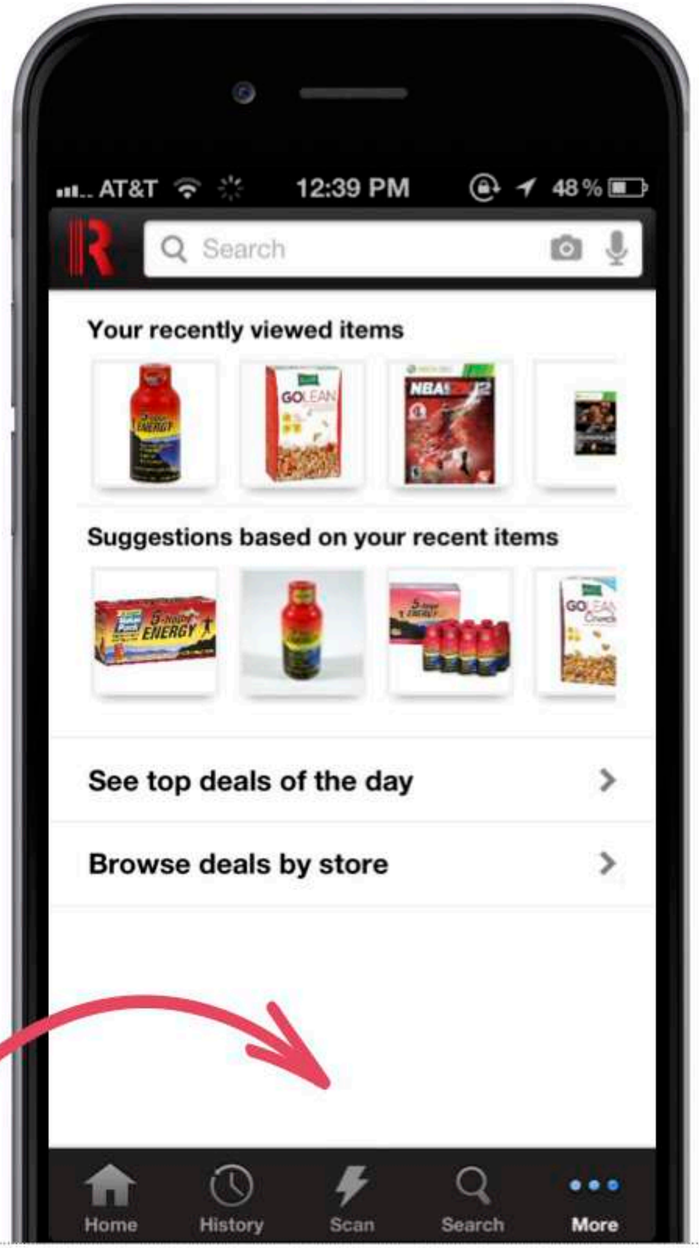
> “We saw this all the time at Facebook. People very often, instinctively, dismiss tooltips. On occasion even accidentally. By the time they realize the message may have been helpful, it's already gone and there's no way to recover it.”

Tanner Christensen
Product Designer, Facebook



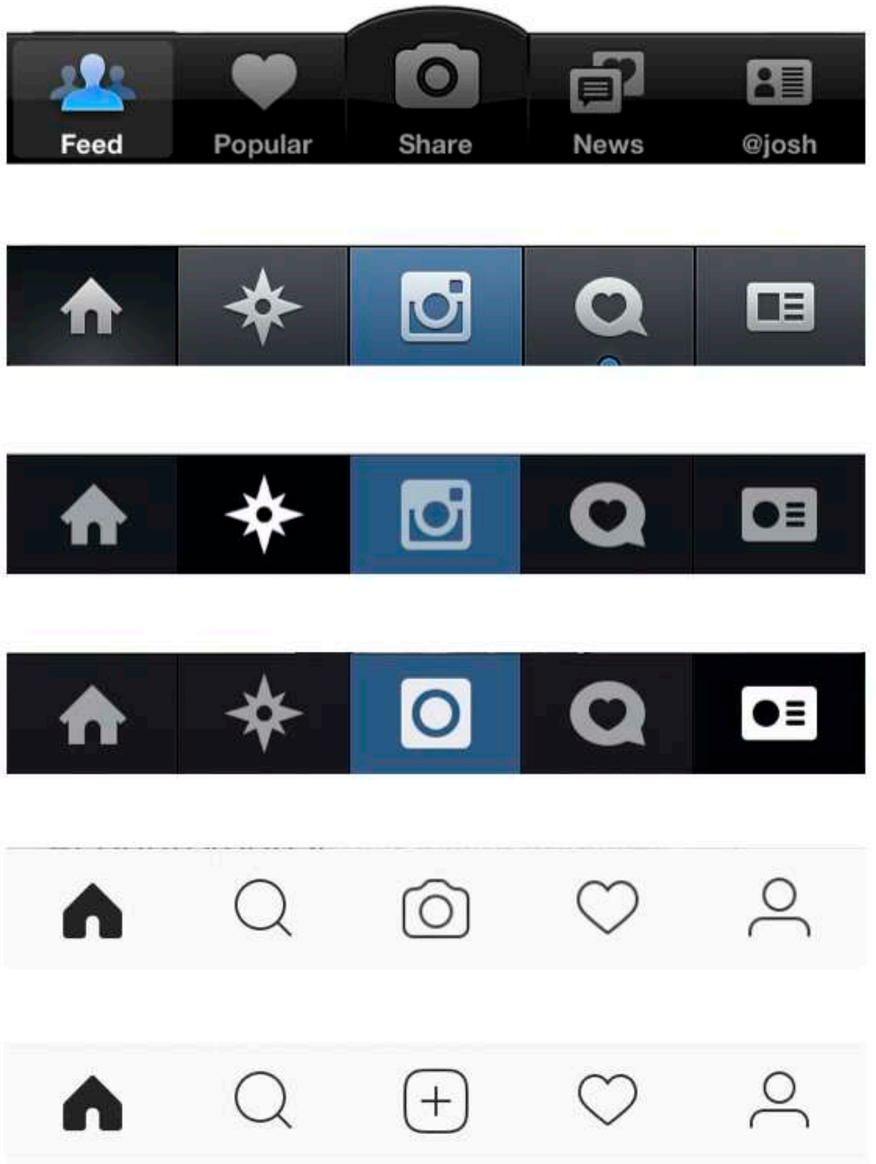
"We made our "scan" button huge and different color from the rest of the nav menu and users entirely ignored it."

Miles Skorpen
Head of Business Development, Red Laser



> "We made our "scan" button huge and different color from the rest of the nav menu and users entirely ignored it."

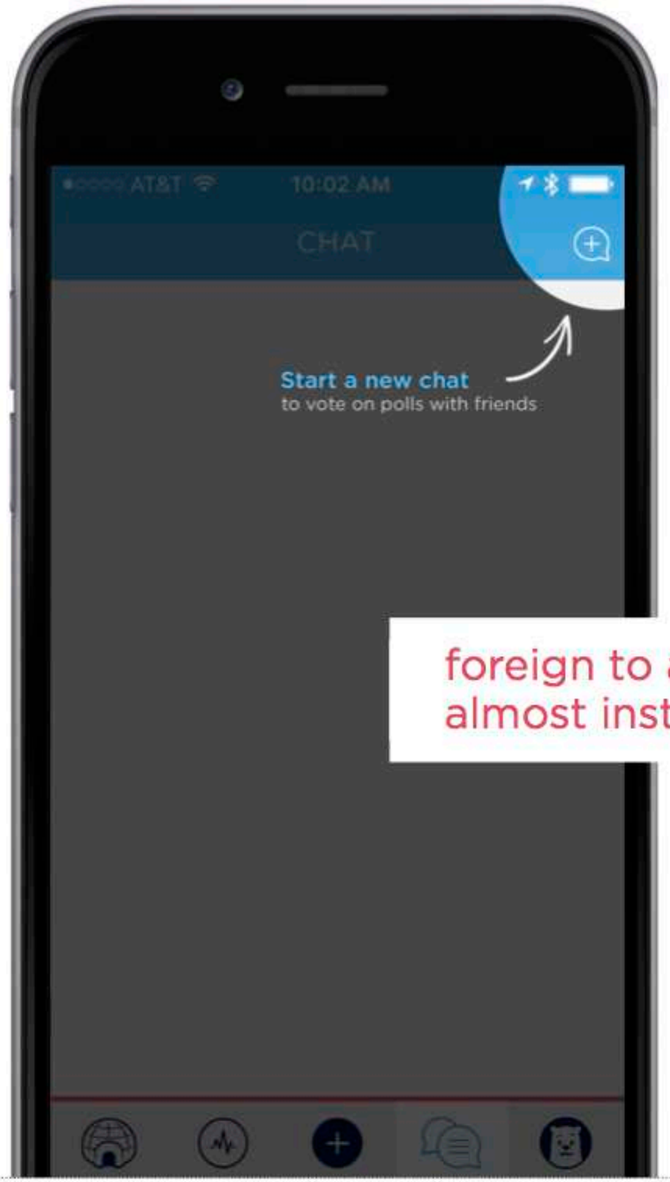
Miles Skorpen
Head of Business Development, Red Laser



make primary action “pop”

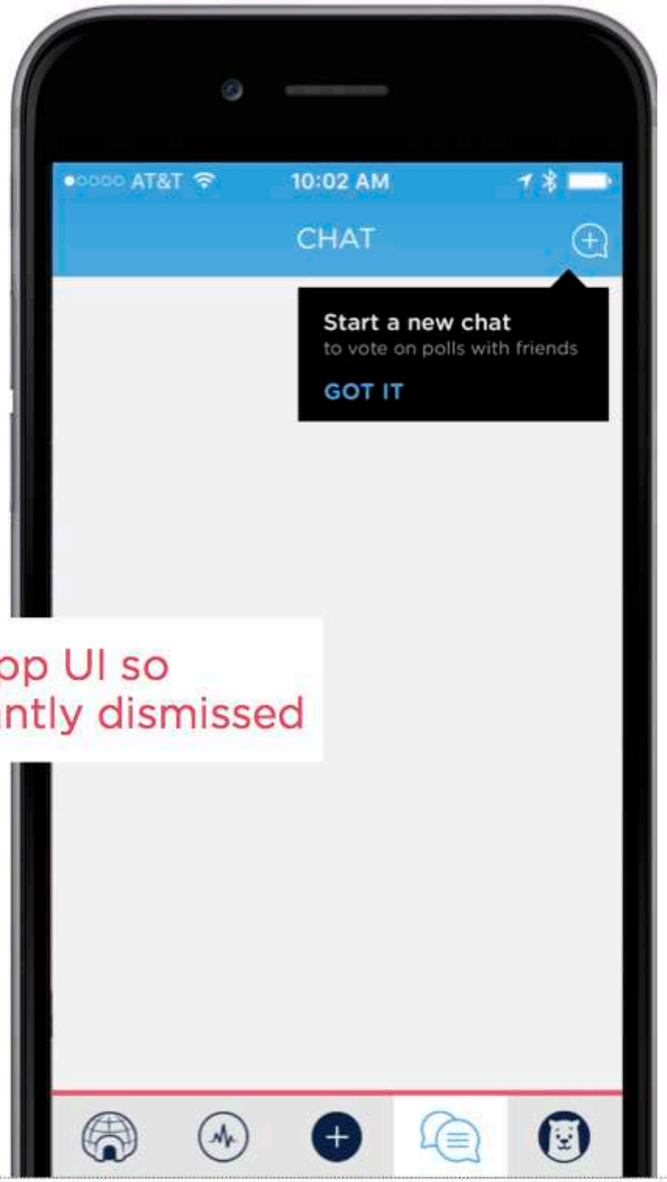
primary action integrated with UI

OVERLAY

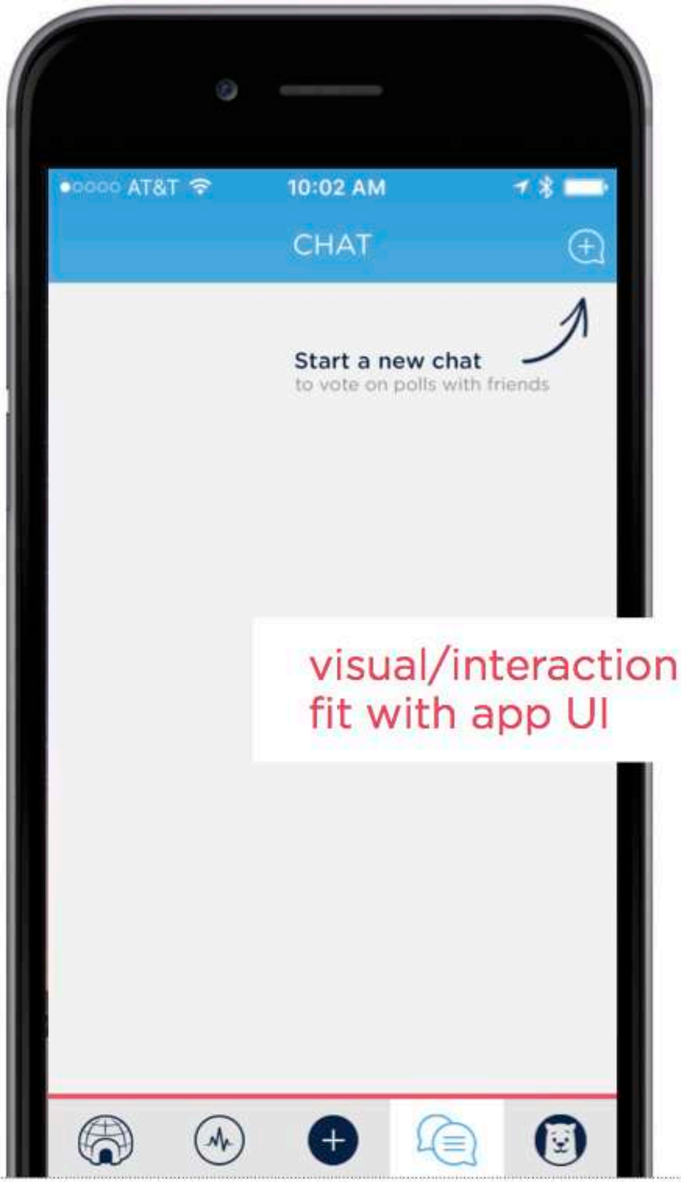


foreign to app UI so almost instantly dismissed

TOOLTIP



INTEGRATED



visual/interaction fit with app UI

Hotel Tonight

The Only Booking App You Need

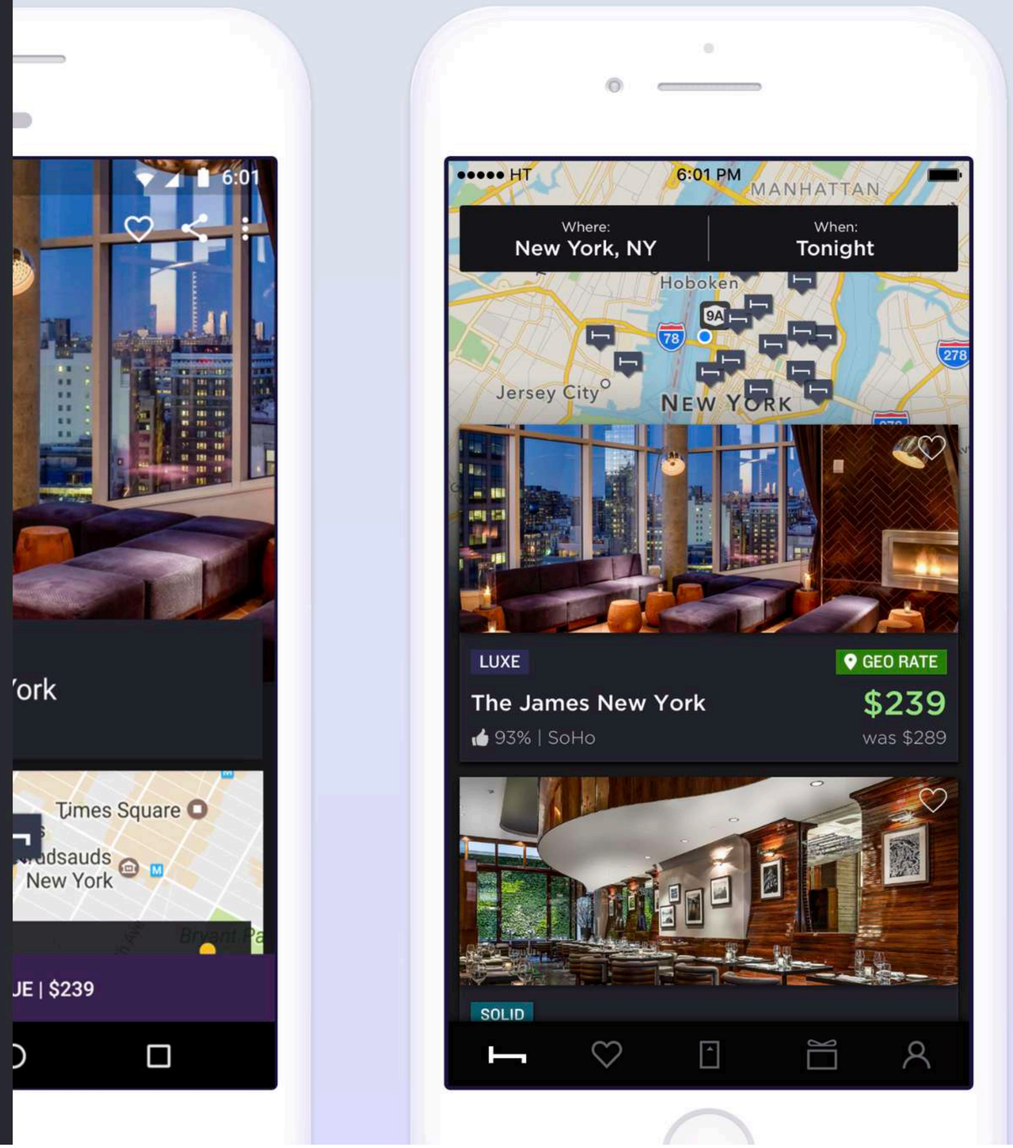
Download to score amazing last-minute hotel deals.

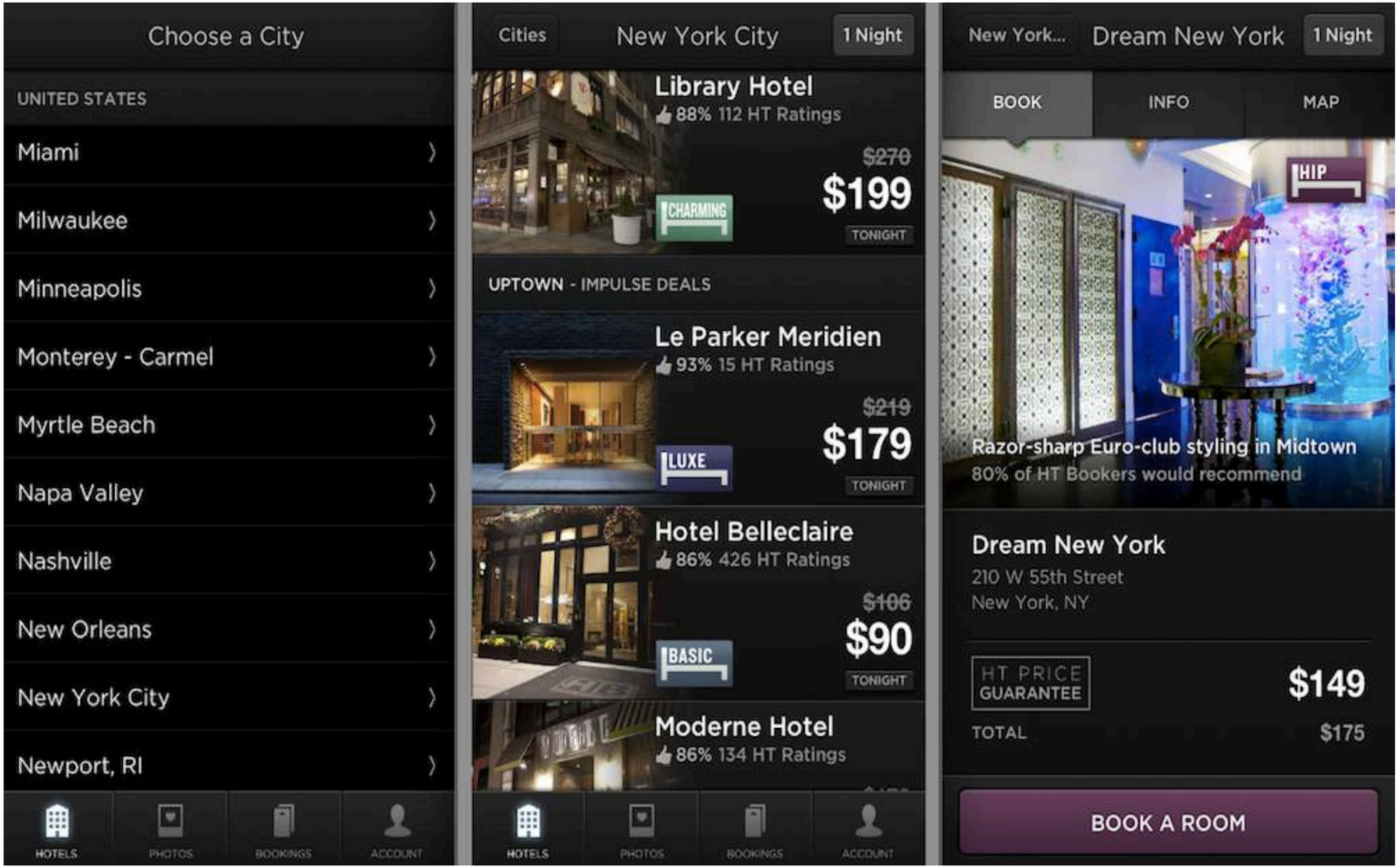
+1 Mobile Number

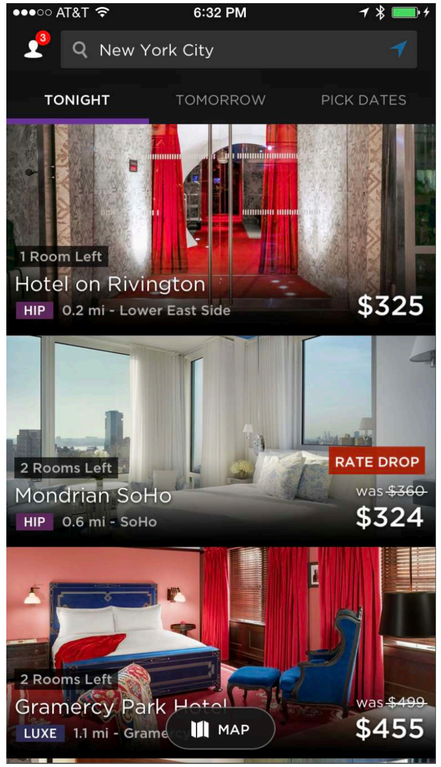
DOWNLOAD THE APP

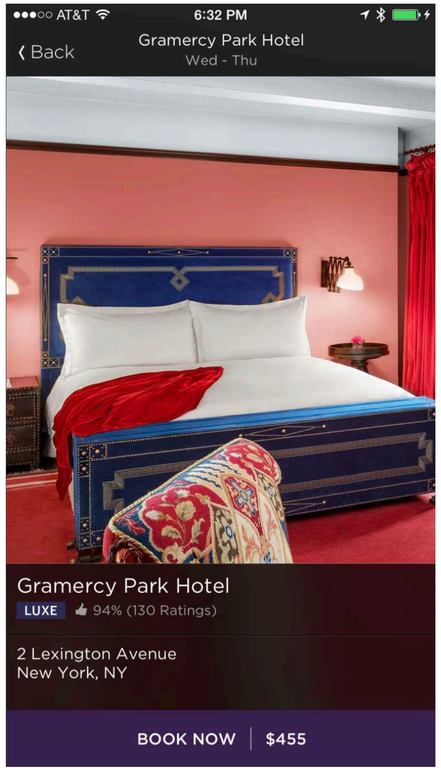
Available on the App Store and Google Play.
Standard SMS fees may apply.

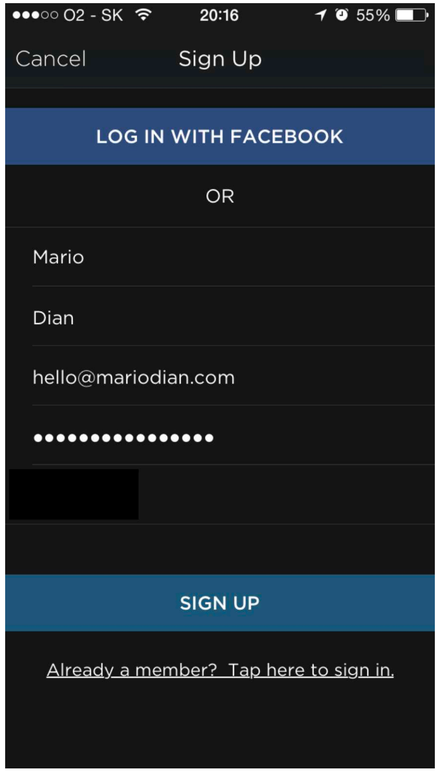
DOWNLOAD APP

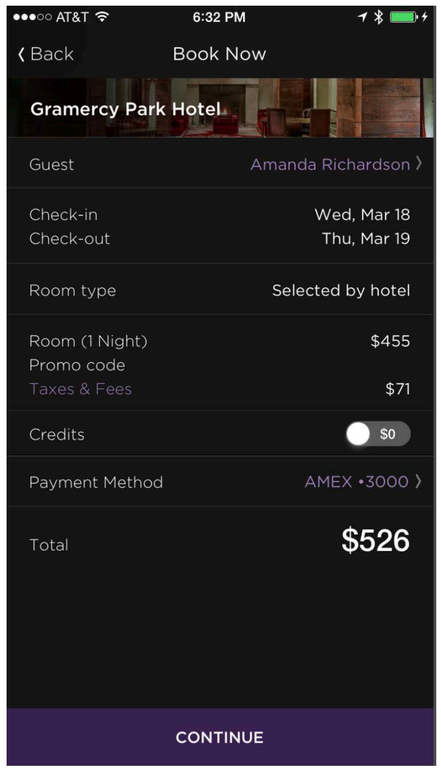


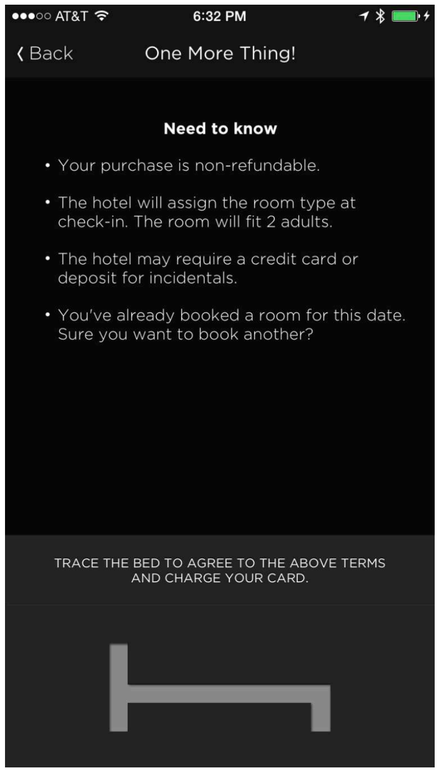

Choose a City
UNITED STATES
Miami
Milwaukee
Minneapolis
Monterey - Carmel
Myrtle Beach
Napa Valley
Nashville
New Orleans
New York City
Newport, RI
HOTELS
PHOTOS
BOOKINGS
ACCOUNT
Cities
New York City
1 Night
Library Hotel
88% 112 HT Ratings
CHARMING
$270
$199
TONIGHT
UPTOWN - IMPULSE DEALS
Le Parker Meridien
93% 15 HT Ratings
LUXE
$219
$179
TONIGHT
Hotel Belleclaire
86% 426 HT Ratings
BASIC
$106
$90
TONIGHT
Moderne Hotel
86% 134 HT Ratings
HOTELS
PHOTOS
BOOKINGS
ACCOUNT
New York...
Dream New York
1 Night
BOOK
INFO
MAP
HIP
Razor-sharp Euro-club styling in Midtown
80% of HT Bookers would recommend
Dream New York
210 W 55th Street
New York, NY
HT PRICE GUARANTEE
$149
TOTAL
$175
BOOK A ROOM

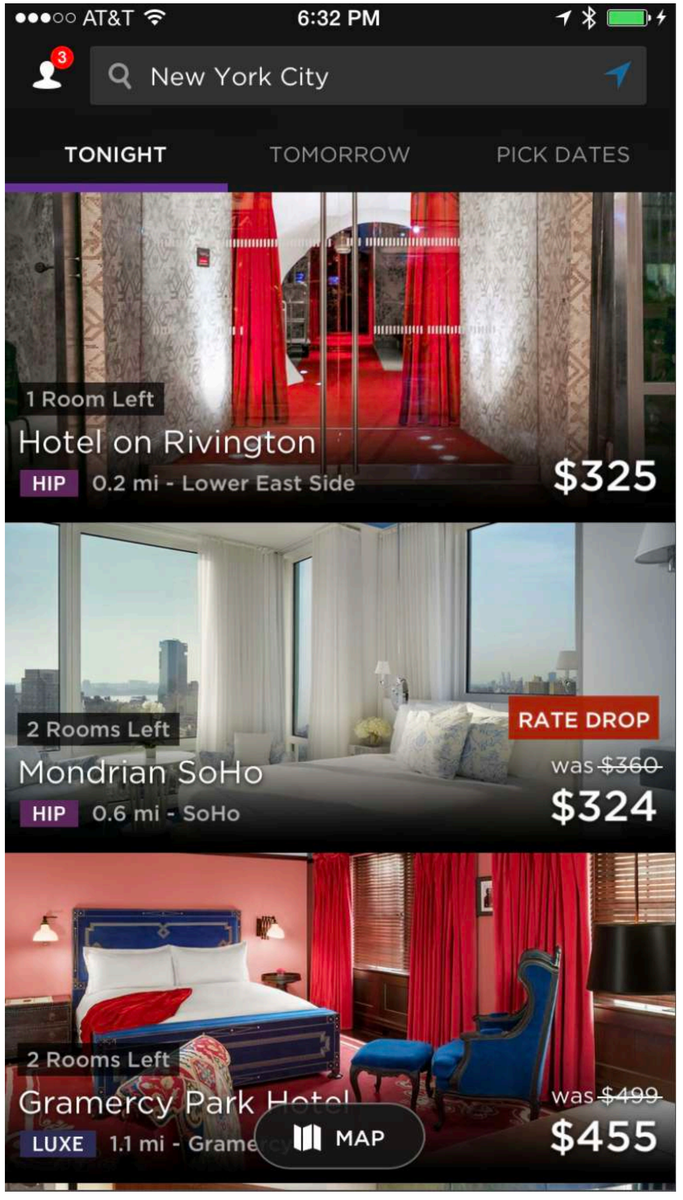

●●●○○ AT&T
6:32 PM
New York City
TONIGHT
TOMORROW
PICK DATES
1 Room Left
Hotel on Rivington
HIP
0.2 mi - Lower East Side
$325
2 Rooms Left
RATE DROP
Mondrian SoHo
was $360
HIP
0.6 mi - SoHo
$324
2 Rooms Left
was $499
LUXE
1.1 mi - Grame
MAP
$455

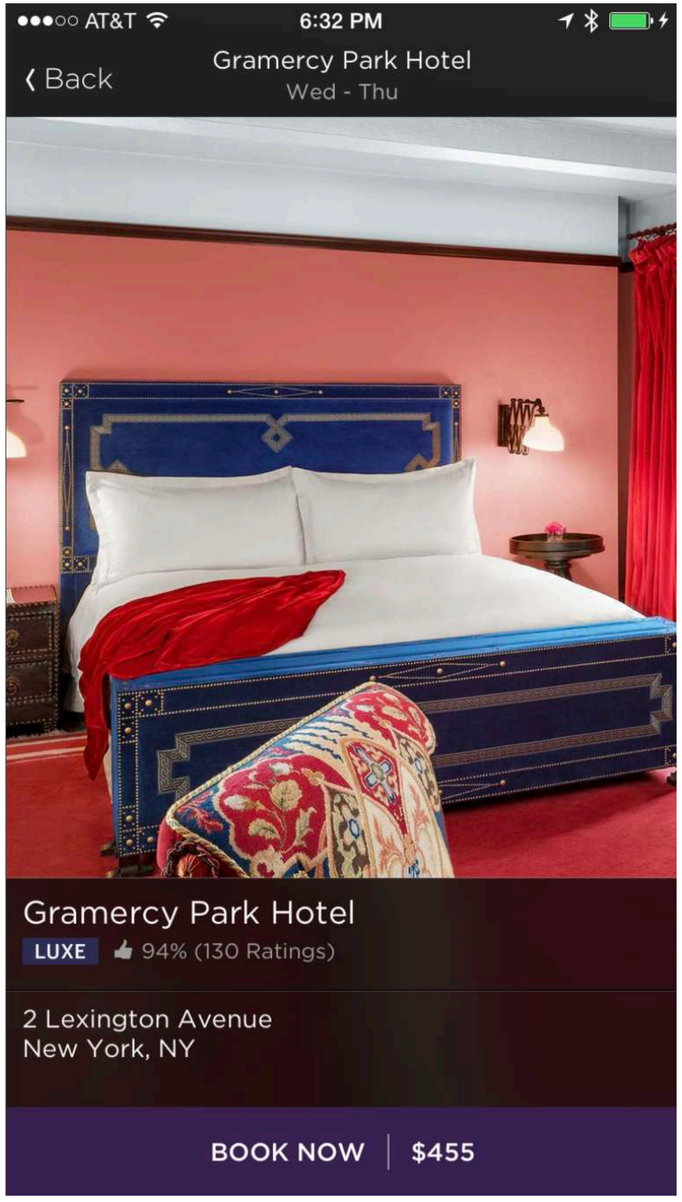

●●●○○ AT&T
6:32 PM
Back
Gramercy Park Hotel
Wed - Thu
Gramercy Park Hotel
LUXE
94% (130 Ratings)
2 Lexington Avenue
New York, NY
BOOK NOW
$455

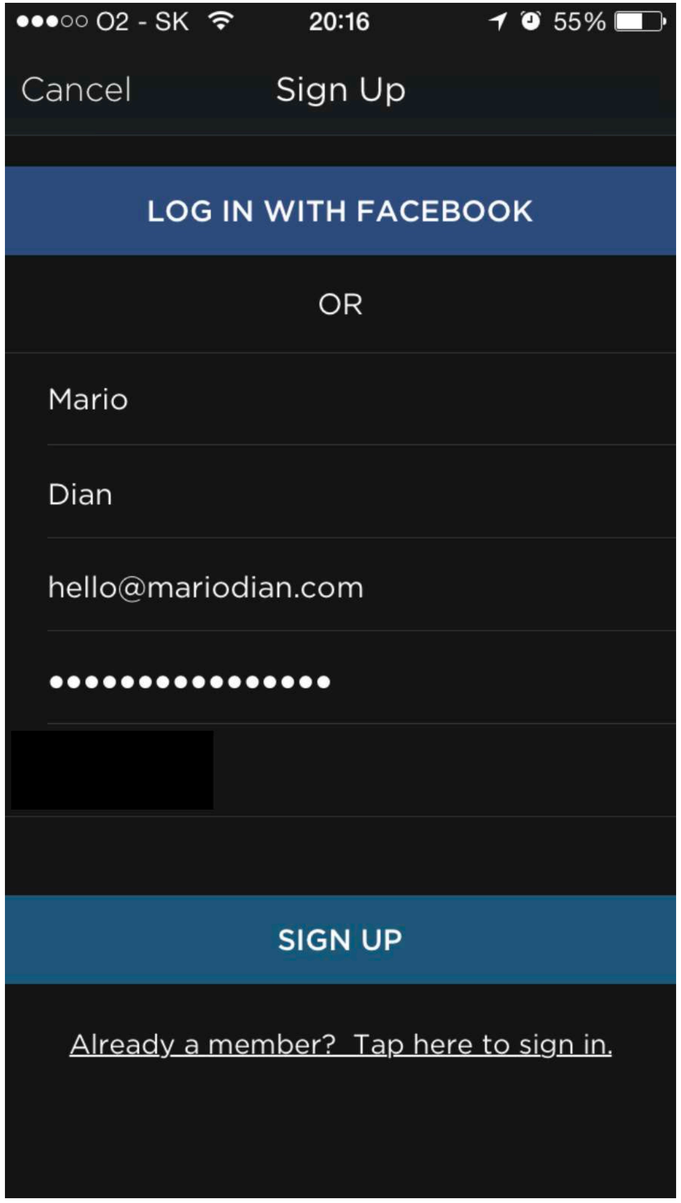

●●●○○ O2 - SK
20:16
55%
Cancel
Sign Up
LOG IN WITH FACEBOOK
OR
Mario
Dian
hello@mariodian.com
SIGN UP
Already a member? Tap here to sign in.

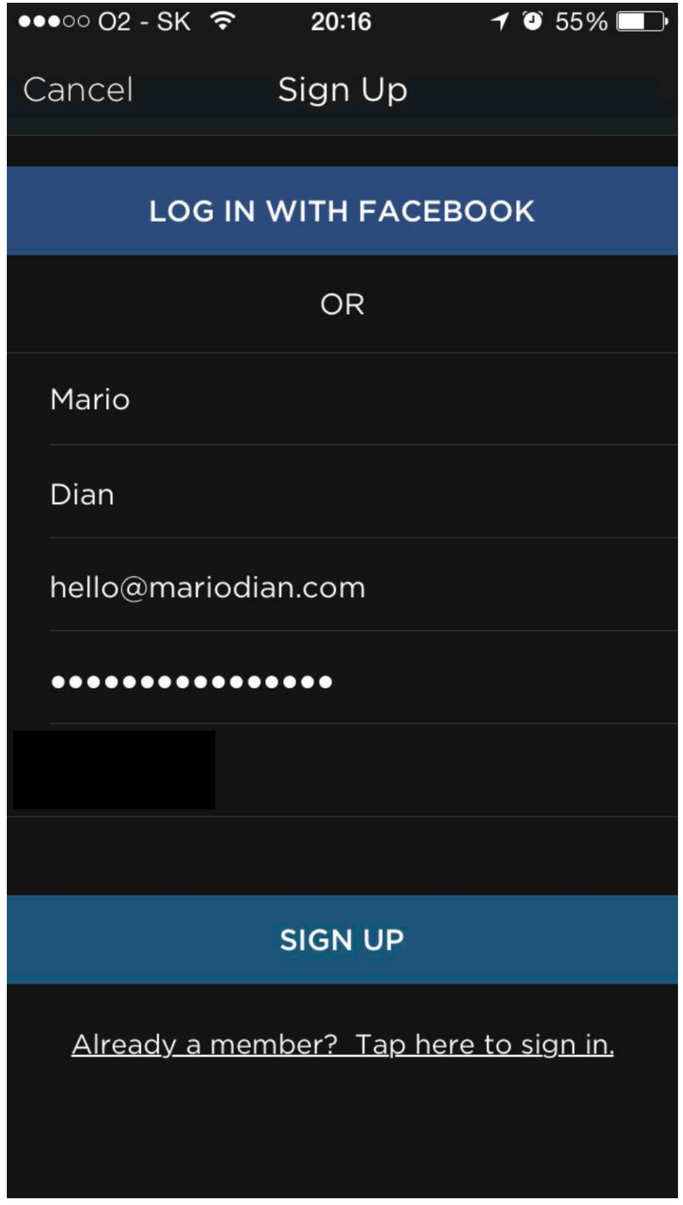

●●●○○ AT&T
6:32 PM
Back
Book Now
Gramercy Park Hotel
Guest
Amanda Richardson
Check-in
Wed, Mar 18
Check-out
Thu, Mar 19
Room type
Selected by hotel
Room (1 Night)
$455
Promo code
Taxes & Fees
$71
Credits
$0
Payment Method
AMEX •3000
Total
$526
CONTINUE

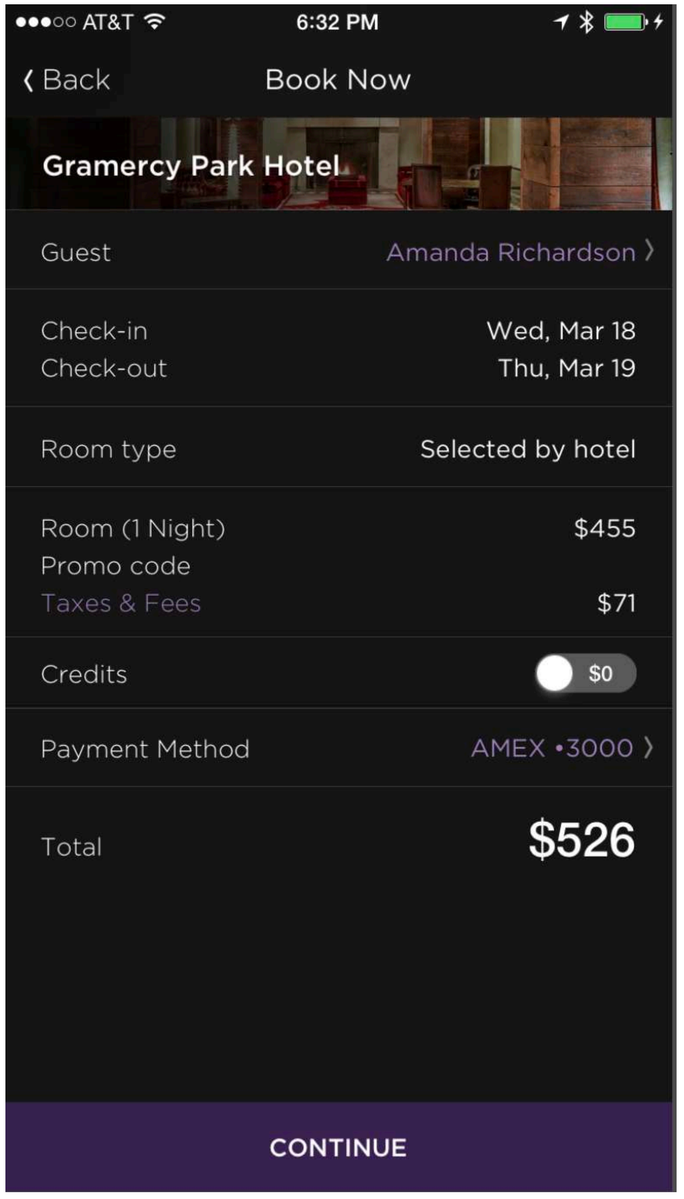

●●●○○ AT&T
6:32 PM
Back
One More Thing!
Need to know
• Your purchase is non-refundable.
• The hotel will assign the room type at check-in. The room will fit 2 adults.
• The hotel may require a credit card or deposit for incidentals.
• You've already booked a room for this date. Sure you want to book another?
TRACE THE BED TO AGREE TO THE ABOVE TERMS AND CHARGE YOUR CARD.

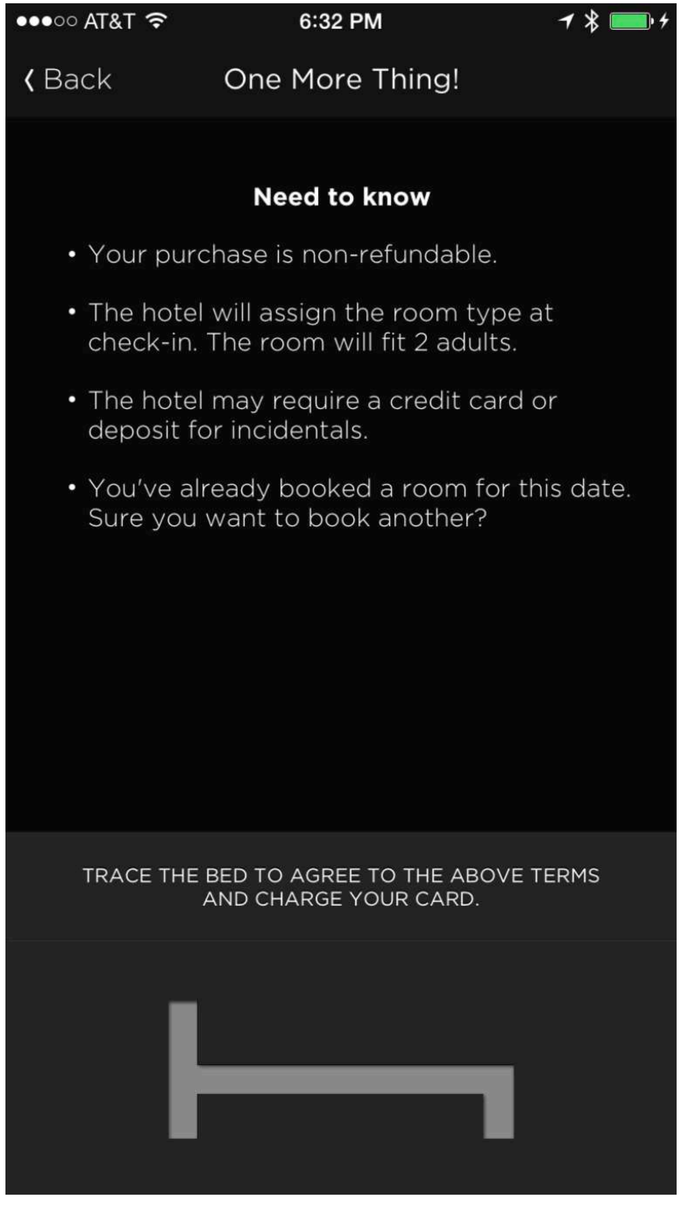

AT&T 6:32 PM
3
New York City
TONIGHT
TOMORROW
PICK DATES
1 Room Left
Hotel on Rivington
HIP 0.2 mi - Lower East Side
$325
2 Rooms Left
RATE DROP
Mondrian SoHo
was $360
HIP 0.6 mi - SoHo
$324
2 Rooms Left
Gramercy Park Hotel
was $499
LUXE 1.1 mi - Grame
MAP
$455

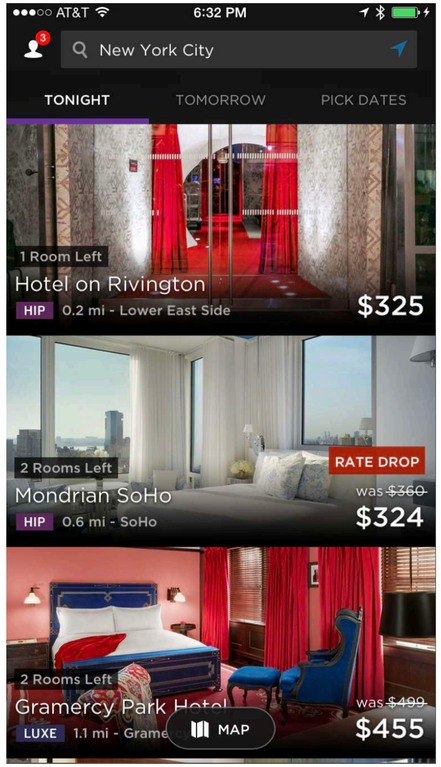

AT&T 6:32 PM
Back
Gramercy Park Hotel
Wed - Thu
Gramercy Park Hotel
LUXE 94% (130 Ratings)
2 Lexington Avenue
New York, NY
BOOK NOW
$455

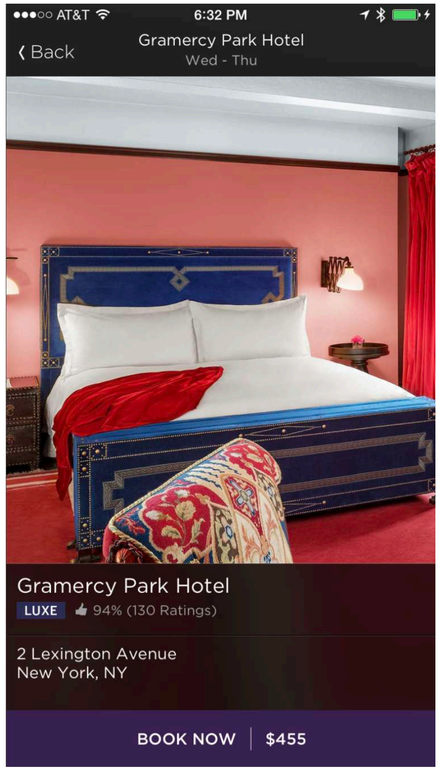

O2 - SK 20:16 55%
Cancel
Sign Up
LOG IN WITH FACEBOOK
OR
Mario
Dian
hello@mariodian.com
SIGN UP
Already a member? Tap here to sign in.

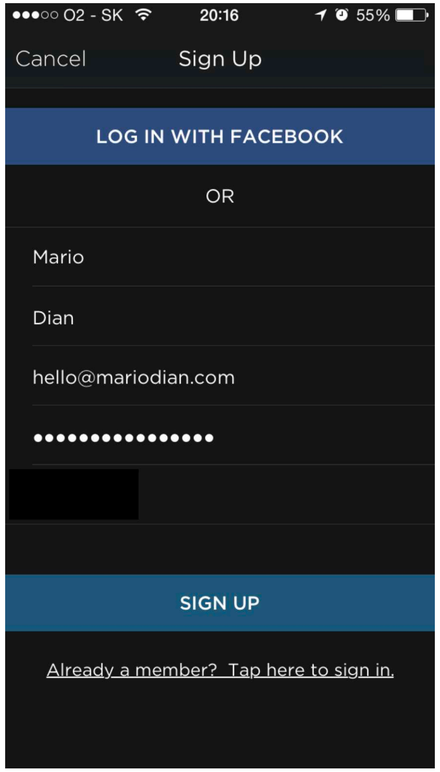

●●●○○ O2 - SK
20:16
55%
Cancel
Sign Up
LOG IN WITH FACEBOOK
OR
Mario
Dian
hello@mariodian.com
SIGN UP
Already a member? Tap here to sign in.

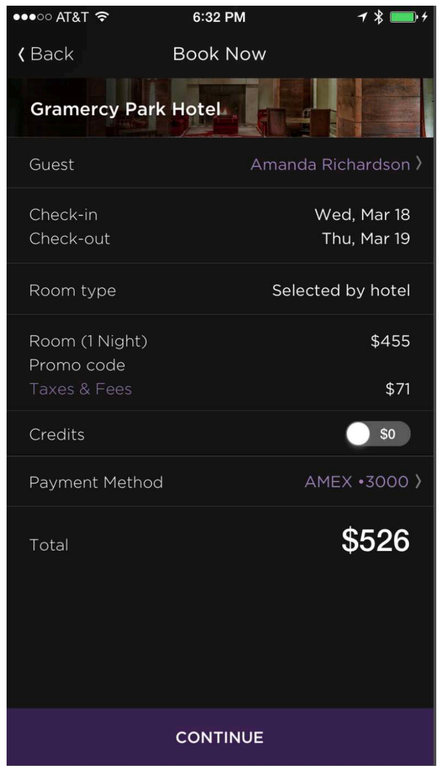

●●●○○ AT&T
6:32 PM
Back
Book Now
Gramercy Park Hotel
Guest
Amanda Richardson
Check-in
Wed, Mar 18
Check-out
Thu, Mar 19
Room type
Selected by hotel
Room (1 Night)
$455
Promo code
Taxes & Fees
$71
Credits
$0
Payment Method
AMEX •3000
Total
$526
CONTINUE

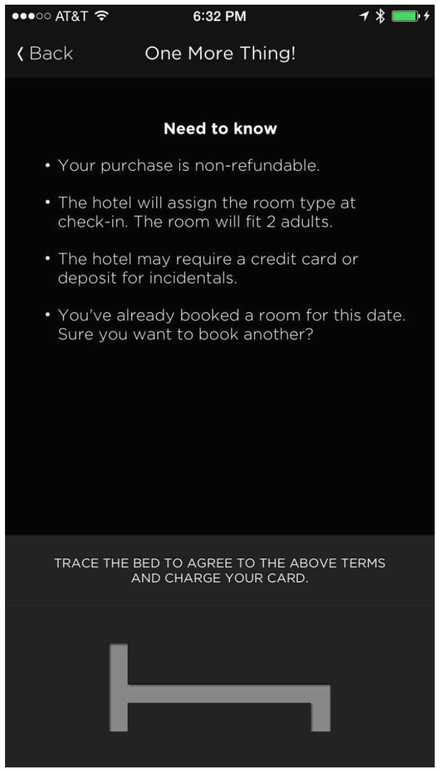

●●●○○ AT&T
6:32 PM
Back
One More Thing!
Need to know
• Your purchase is non-refundable.
• The hotel will assign the room type at check-in. The room will fit 2 adults.
• The hotel may require a credit card or deposit for incidentals.
• You've already booked a room for this date. Sure you want to book another?
TRACE THE BED TO AGREE TO THE ABOVE TERMS AND CHARGE YOUR CARD.

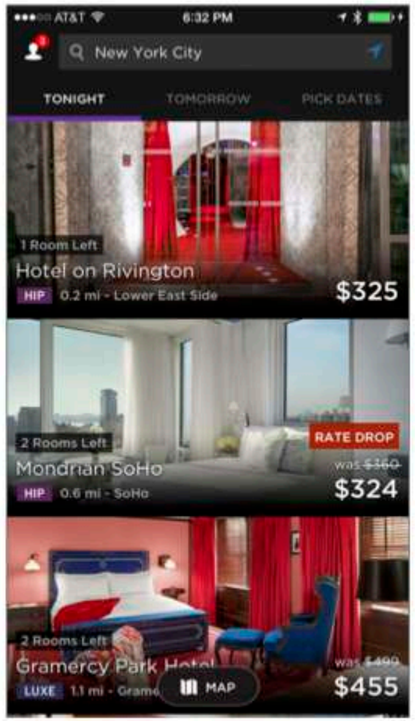

●●●○○ AT&T
6:32 PM
New York City
TONIGHT
TOMORROW
PICK DATES
1 Room Left
Hotel on Rivington
HIP
0.2 mi - Lower East Side
$325
2 Rooms Left
RATE DROP
Mondrian SoHo
was $360
HIP
0.6 mi - SoHo
$324
2 Rooms Left
was $499
LUXE
1.1 mi - Grame
MAP
$455

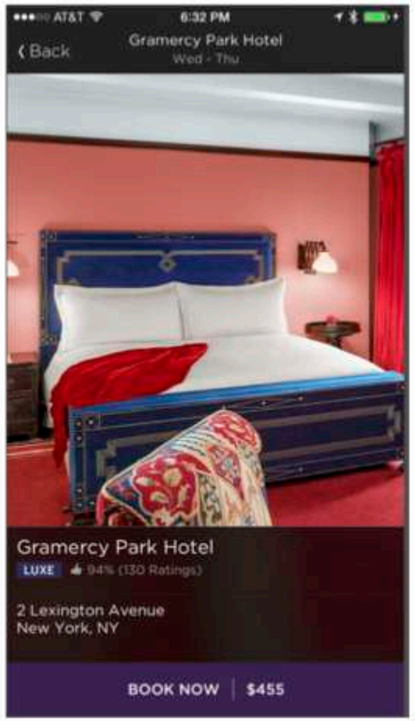

●●●○○ AT&T
6:32 PM
Back
Gramercy Park Hotel
Wed - Thu
Gramercy Park Hotel
LUXE
94% (130 Ratings)
2 Lexington Avenue
New York, NY
BOOK NOW
$455

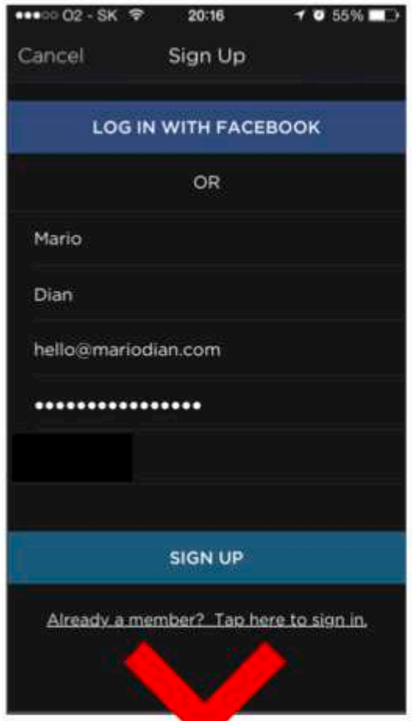

●●●○○ O2 - SK
20:16
55%
Cancel
Sign Up
LOG IN WITH FACEBOOK
OR
Mario
Dian
hello@mariodian.com
SIGN UP
Already a member? Tap here to sign in.

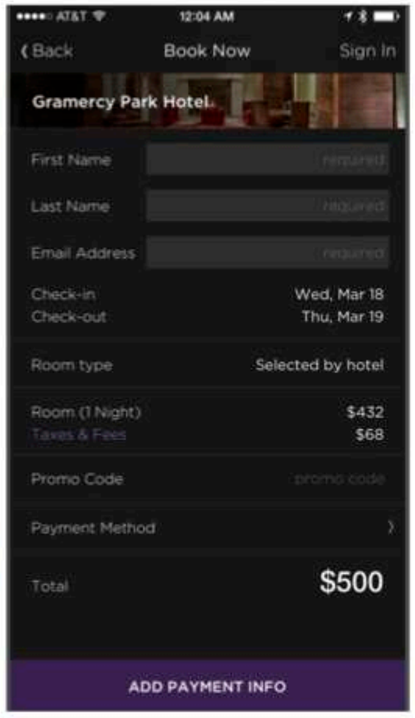

●●●○○ AT&T
6:32 PM
Back
Book Now
Gramercy Park Hotel
Guest
Amanda Richardson
Check-in
Wed, Mar 18
Check-out
Thu, Mar 19
Room type
Selected by hotel
Room (1 Night)
$455
Promo code
Taxes & Fees
$71
Credits
$0
Payment Method
AMEX •3000
Total
$526
CONTINUE

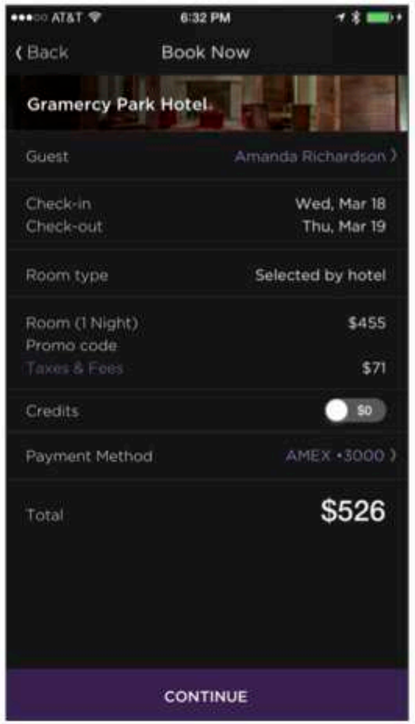

●●●○○ AT&T
6:32 PM
Back
One More Thing!
Need to know
• Your purchase is non-refundable.
• The hotel will assign the room type at check-in. The room will fit 2 adults.
• The hotel may require a credit card or deposit for incidentals.
• You've already booked a room for this date. Sure you want to book another?
TRACE THE BED TO AGREE TO THE ABOVE TERMS AND CHARGE YOUR CARD.

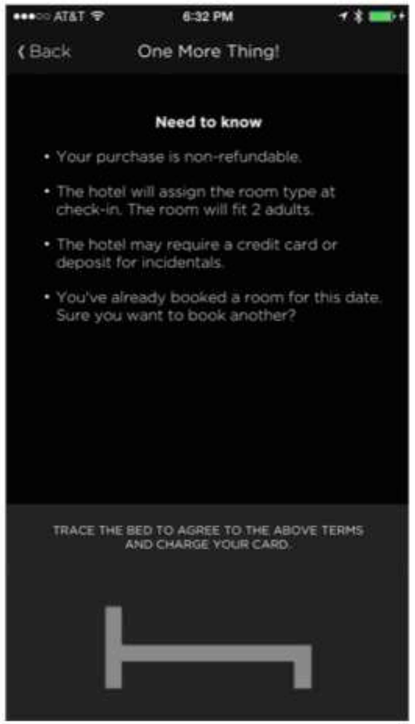












15% INCREASE IN CONVERSIONS

Source: https://www.slideshare.net/kendrickapp/hotel-tonight-mobile

Ruthlessly edit. Even when you have the slimmest funnel, cut again.

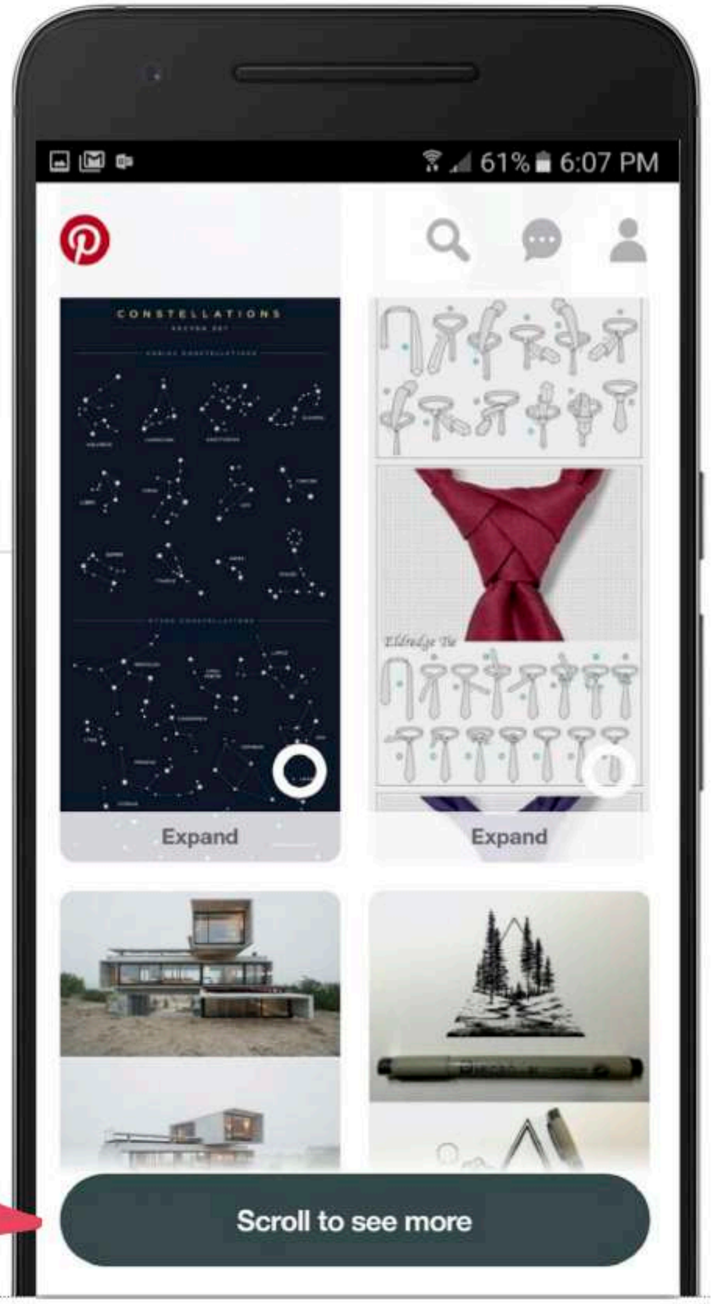
Amanda Richardson, Hotel Tonight

Source: https://www.slideshare.net/kendrickapp/hotel-tonight-mobile

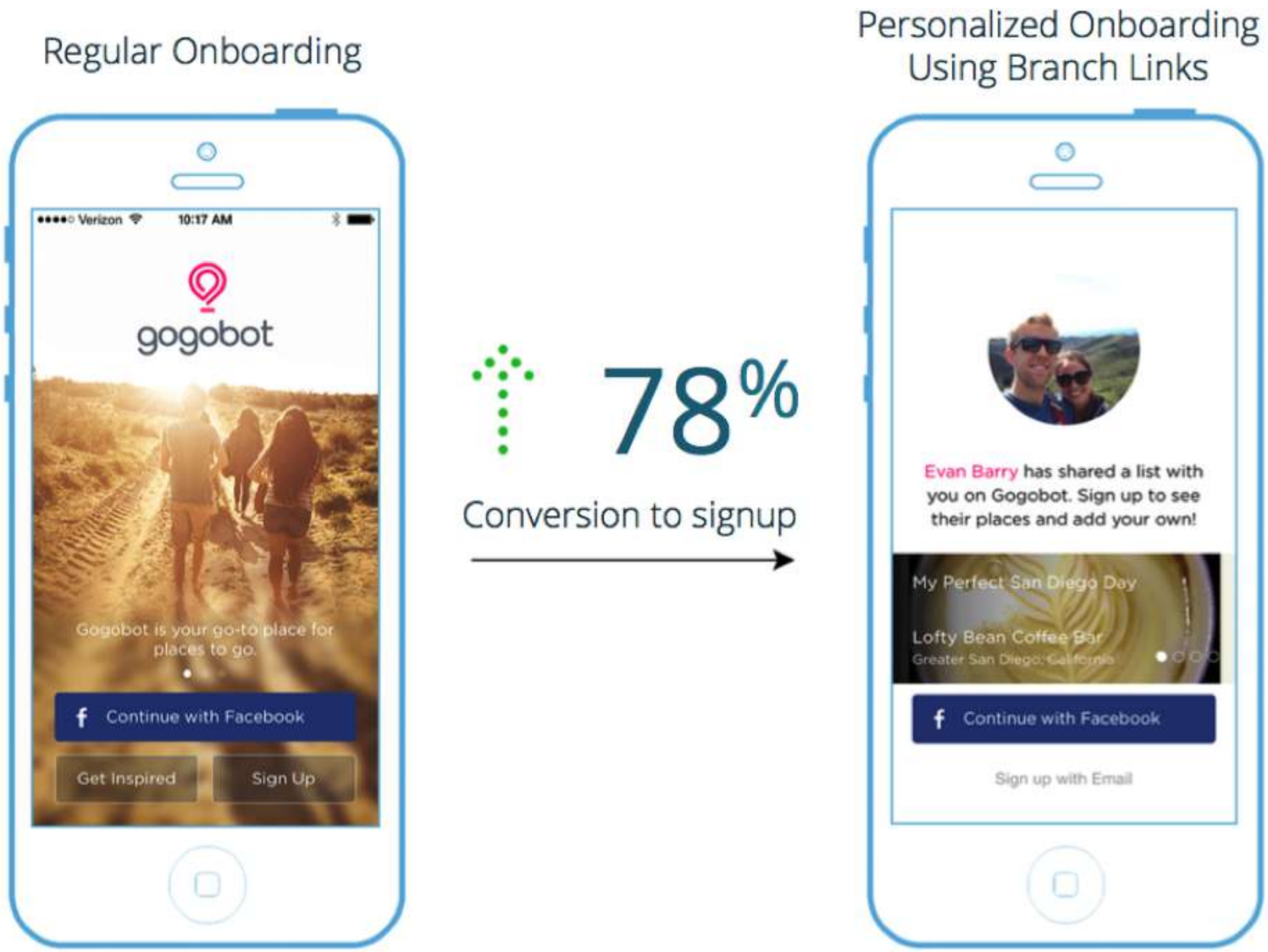
SUCCESSFUL ONBOARDING

Don’t be afraid to educate contextually

but do so with integrated UI



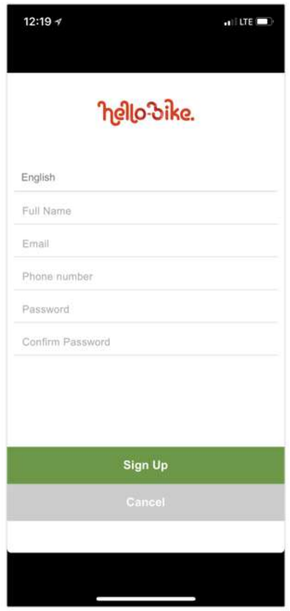
Source: https://bit.ly/2skdEAc



Focus on App Onboarding, *https://blog.branch.io/want-mobile-growth-focus-on-user-onboarding/*

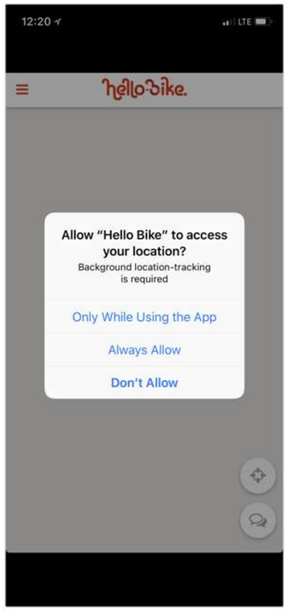
SPLASH SCREEN

SIGN UP FORM

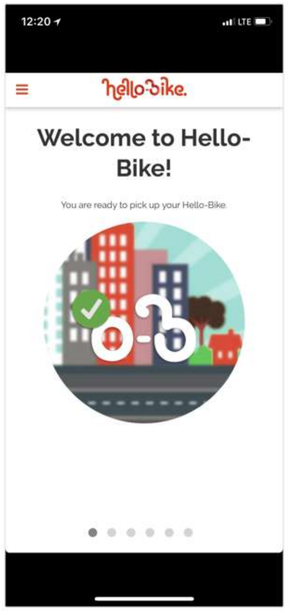


TERMS & CONDITIONS

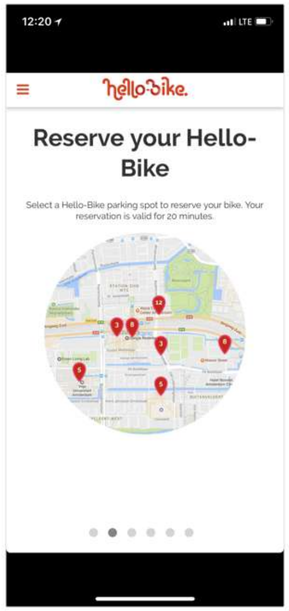
LOCATION PERMISSIONS



TUTORIAL

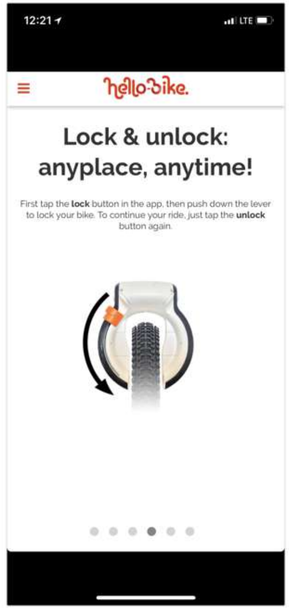


TUTORIAL

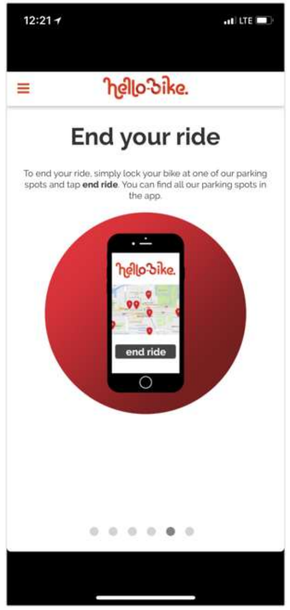


TUTORIAL

TUTORIAL

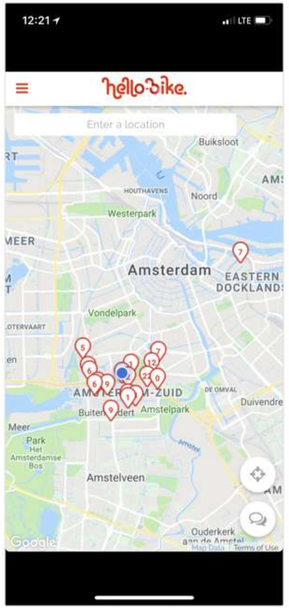


TUTORIAL

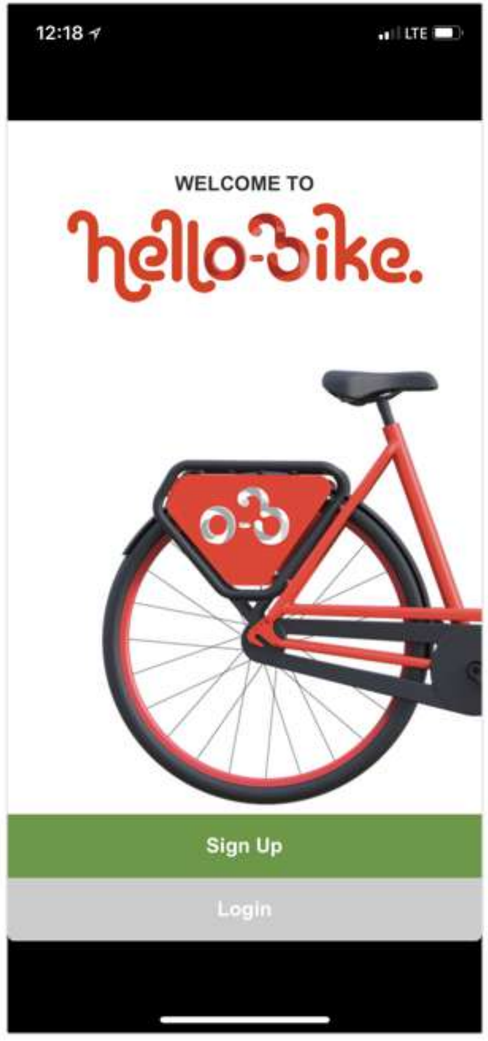


TUTORIAL

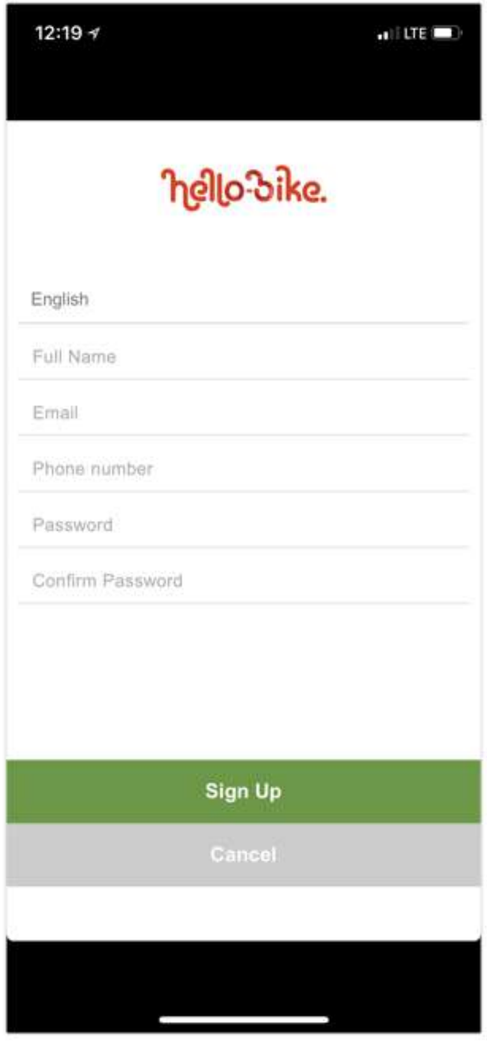
MAP



SPLASH SCREEN

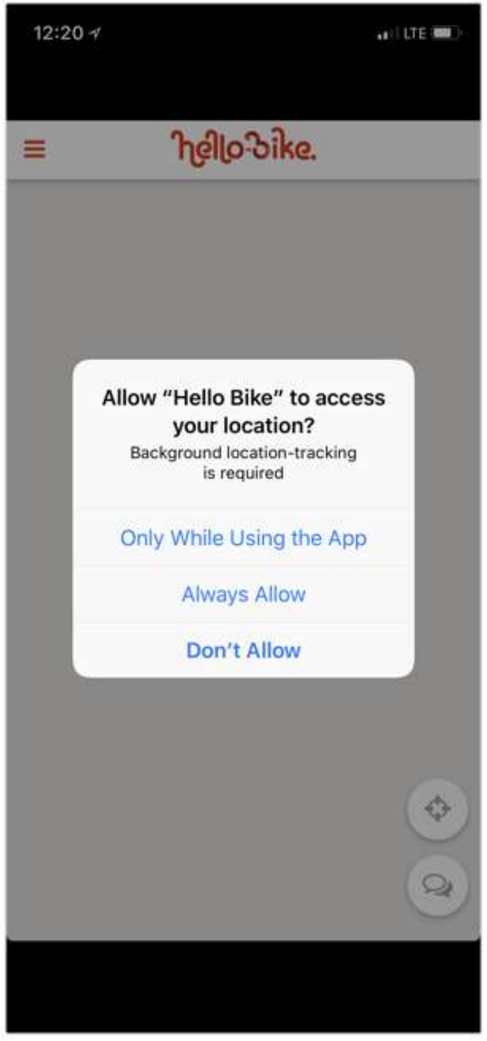


SIGN UP FORM

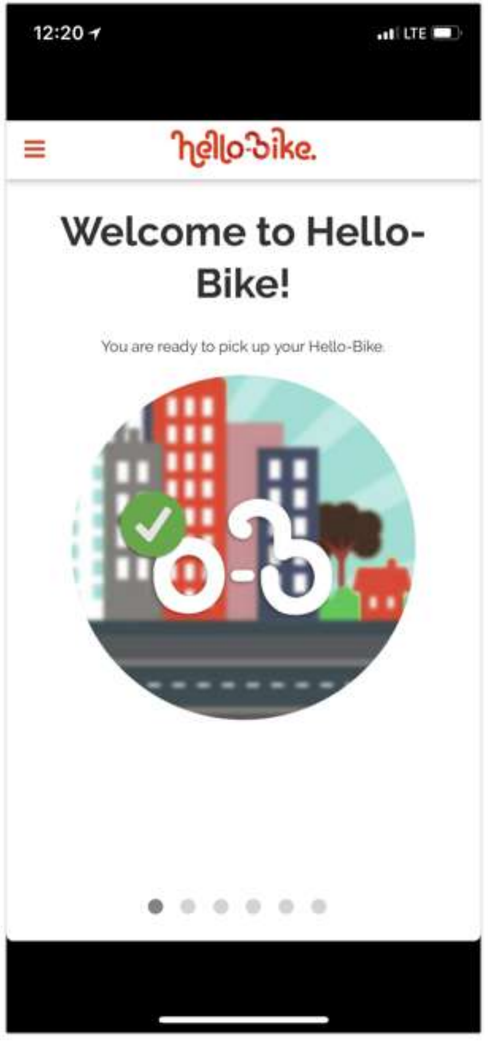


TERMS & CONDITIONS

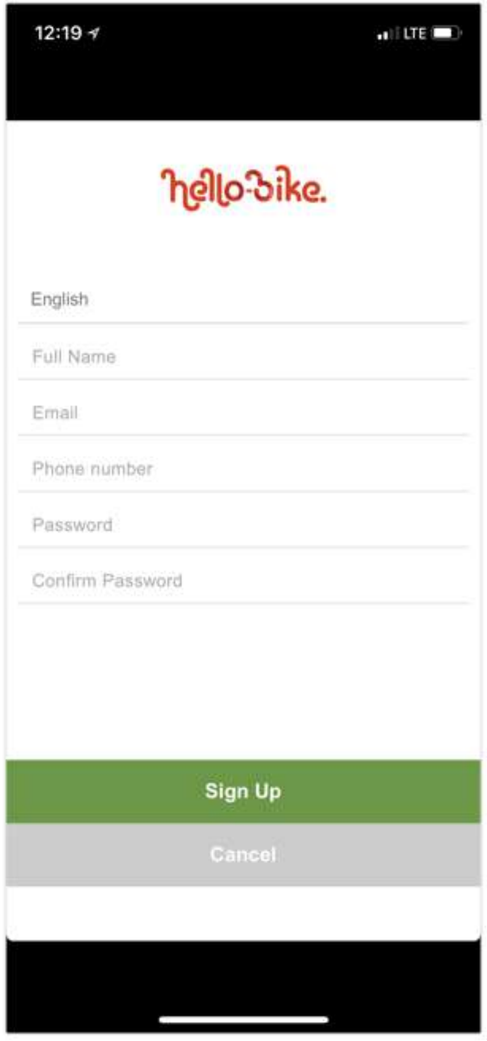
LOCATION PERMISSIONS



TUTORIAL

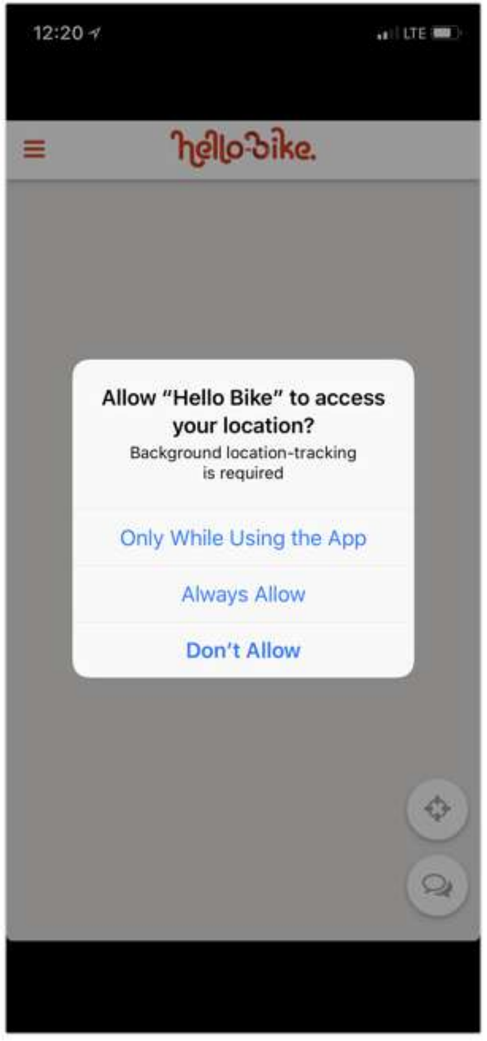


SIGN UP FORM

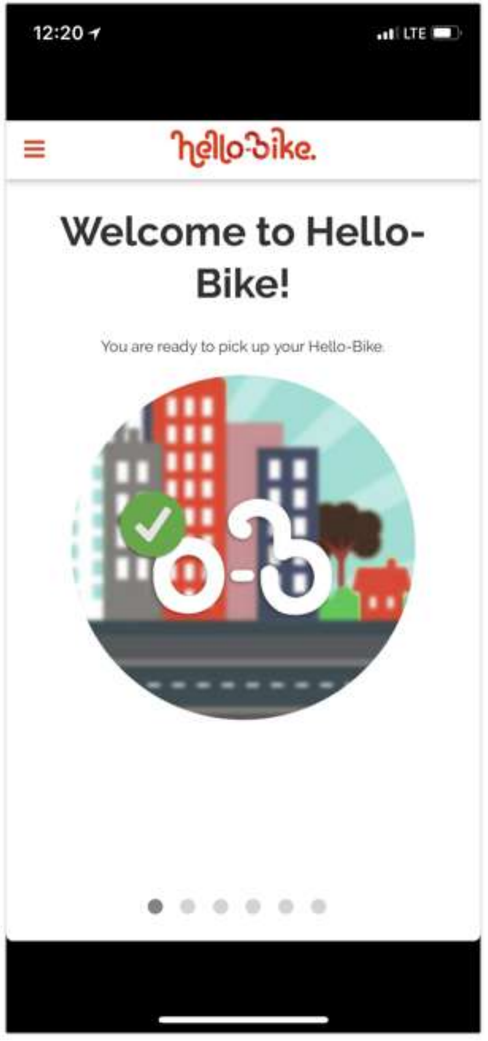


TERMS & CONDITIONS

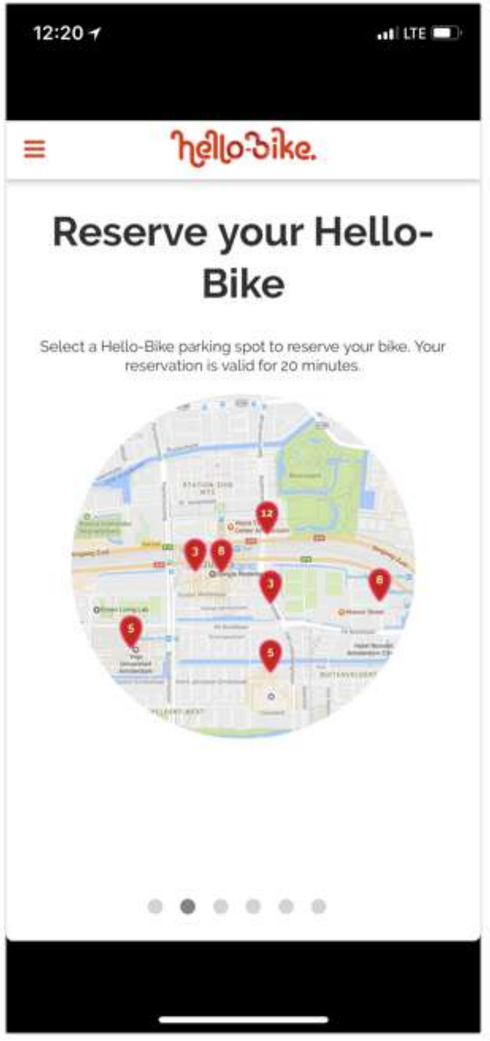
LOCATION PERMISSIONS



TUTORIAL



TUTORIAL



TUTORIAL

12:20 LTE

hello-bike.

Unlock with your phone

At the parking spot pick a bike, enter the **four digit bike number** in the app and tap the **unlock** button.

TUTORIAL

12:21 LTE

hello-bike.

Lock & unlock: anyplace, anytime!

First tap the **lock** button in the app, then push down the lever to lock your bike. To continue your ride, just tap the **unlock** button again.

TUTORIAL

12:21 LTE

hello-bike.

End your ride

To end your ride, simply lock your bike at one of our parking spots and tap **end ride**. You can find all our parking spots in the app.

TUTORIAL

12:21 LTE

hello-bike.

Enjoy Hello-Bike!

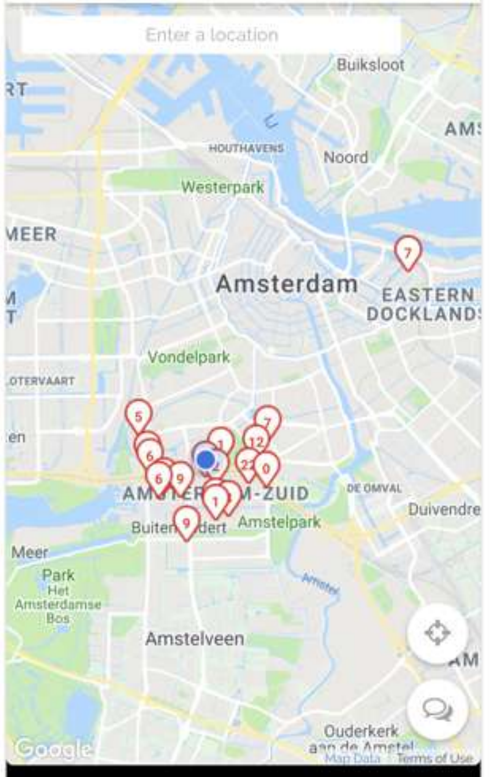
Let us know what you think! #hellobike

Close

MAP

12:21 LTE

hello-bike.



Designing Onboarding

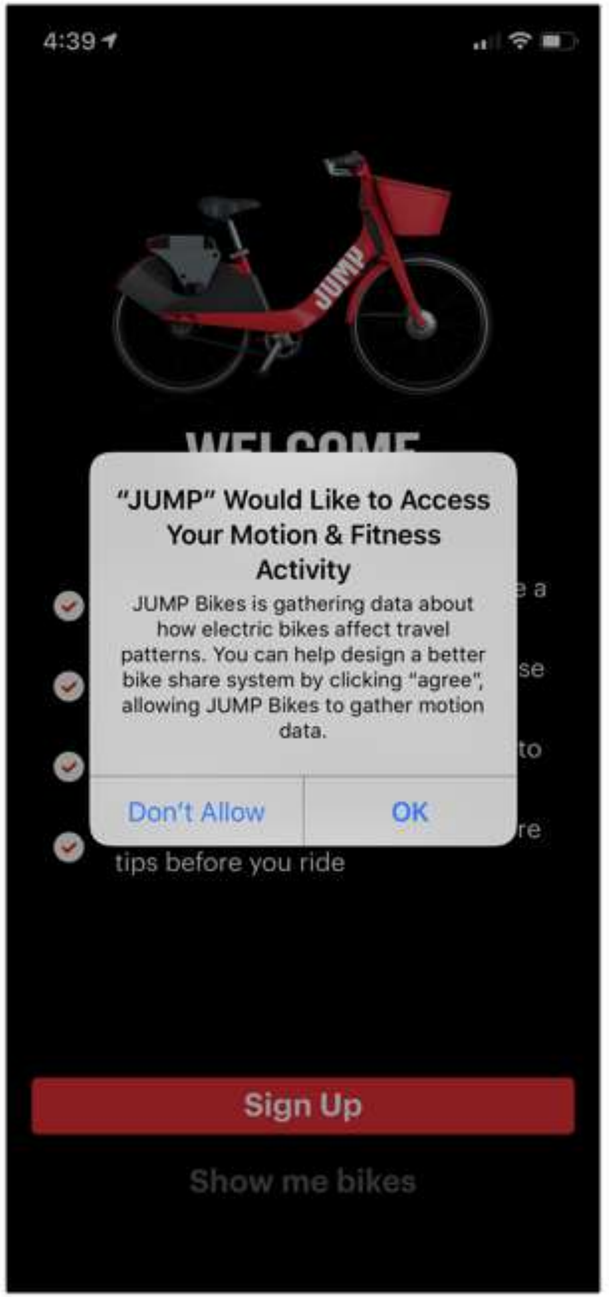
> While convenient, *design patterns* are no substitute for designing with your customers' goals in of mind. With onboarding, we need to set expectations appropriately, so potential customers don't end up in disappointment or frustration.

Luke Wroblewski, "Mobile On-Boarding Design", https://www.lukew.com/ff/entry.asp?1995

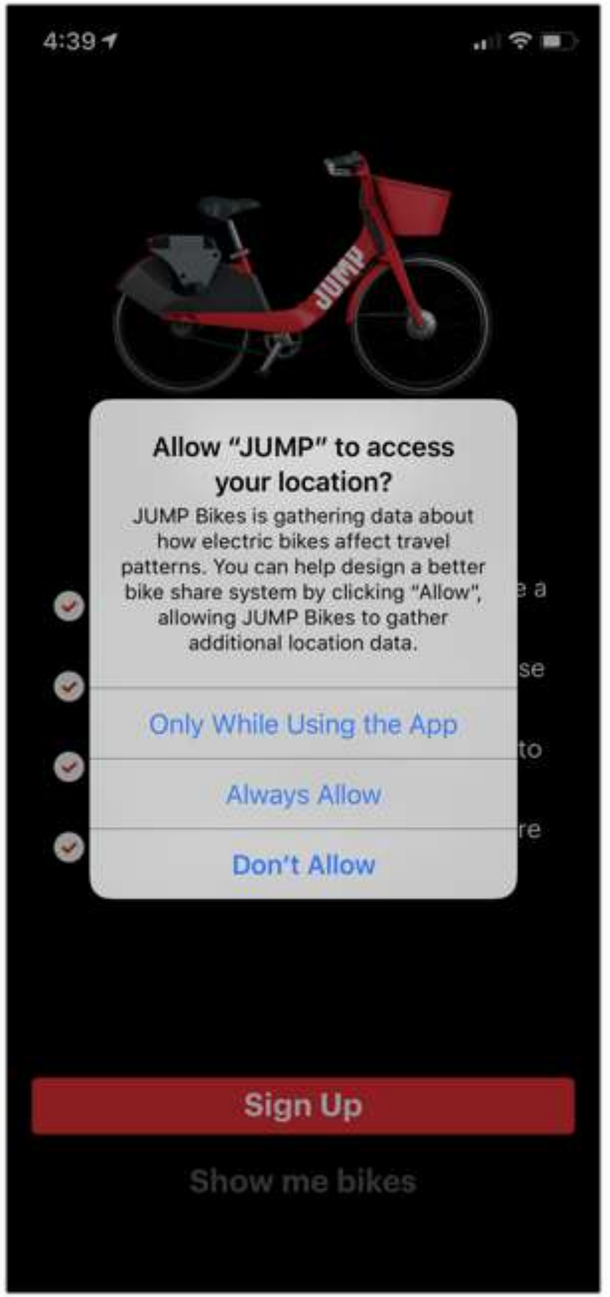
START SCREEN

SAFETY TIPS

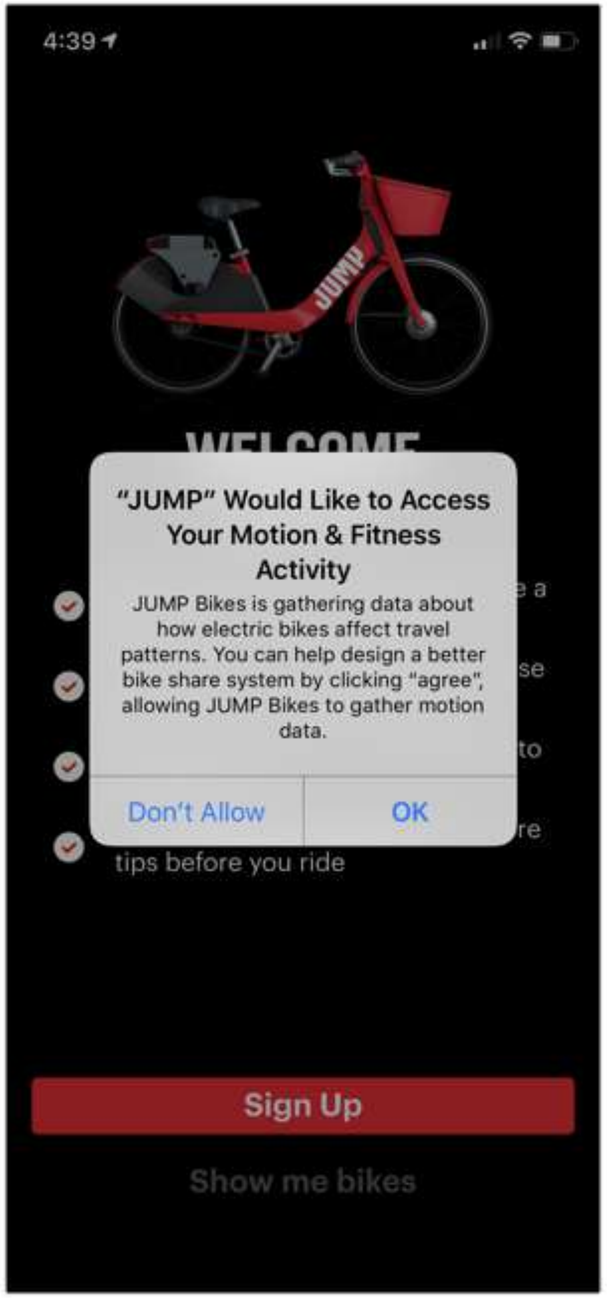
MOTION PERMISSIONS



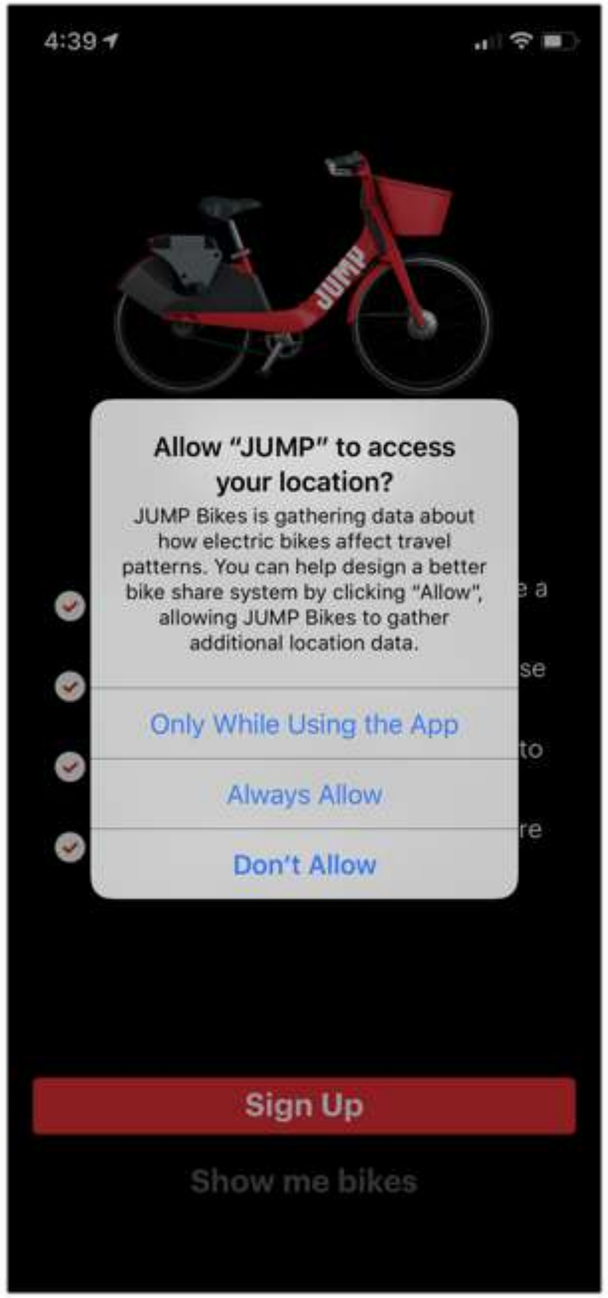
LOCATION PERMISSIONS



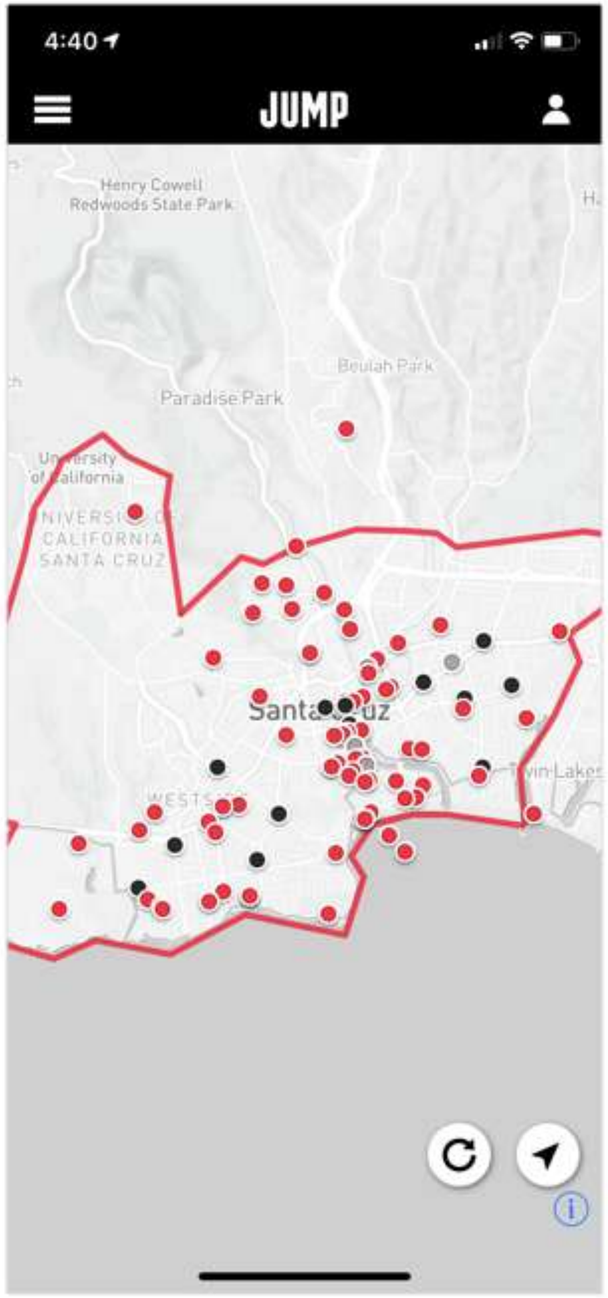
MOTION PERMISSIONS



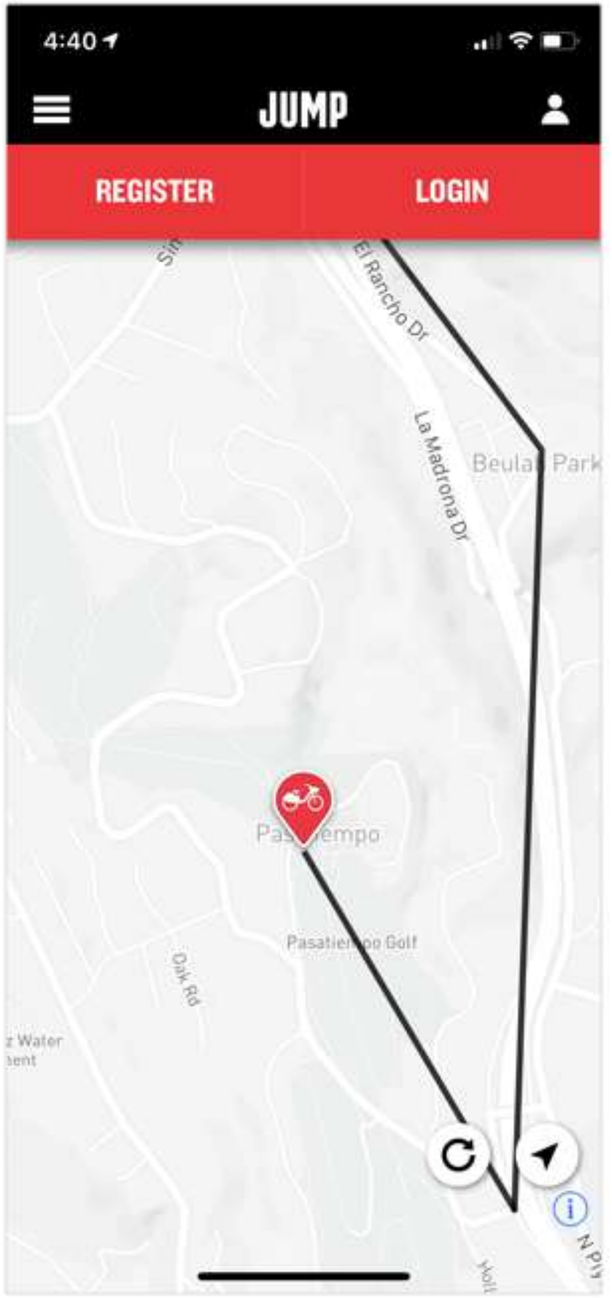
LOCATION PERMISSIONS



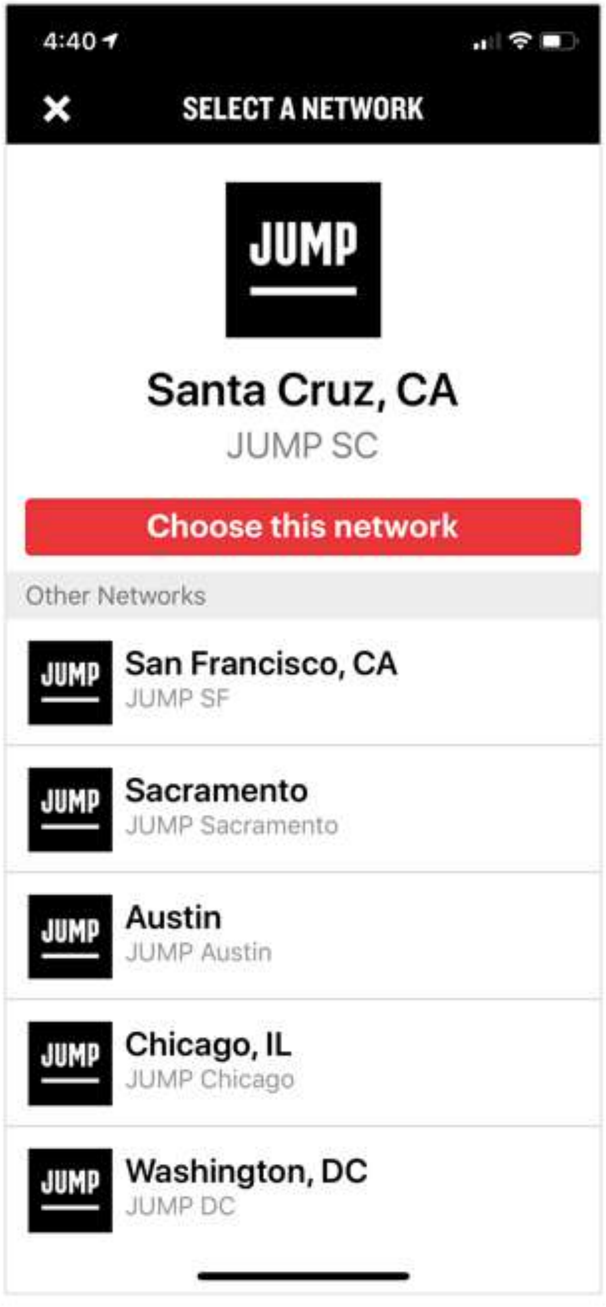
MAP



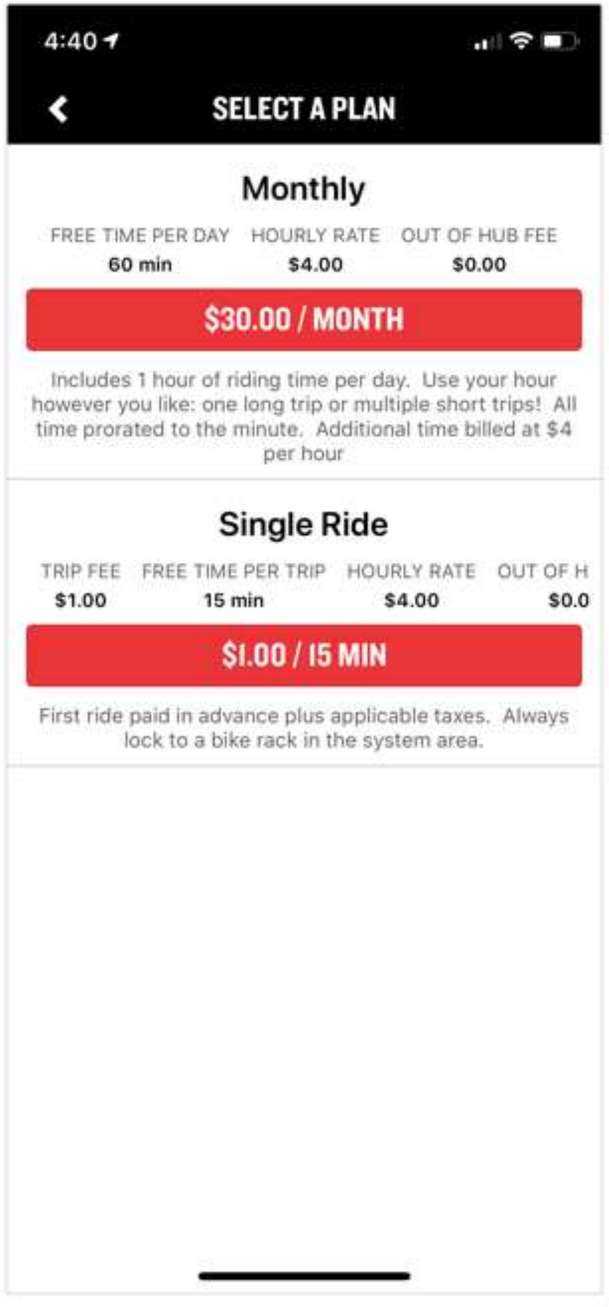
SIGN-UP PROMPT



SELECT NETWORK



SELECT PLAN



ENTER NAME

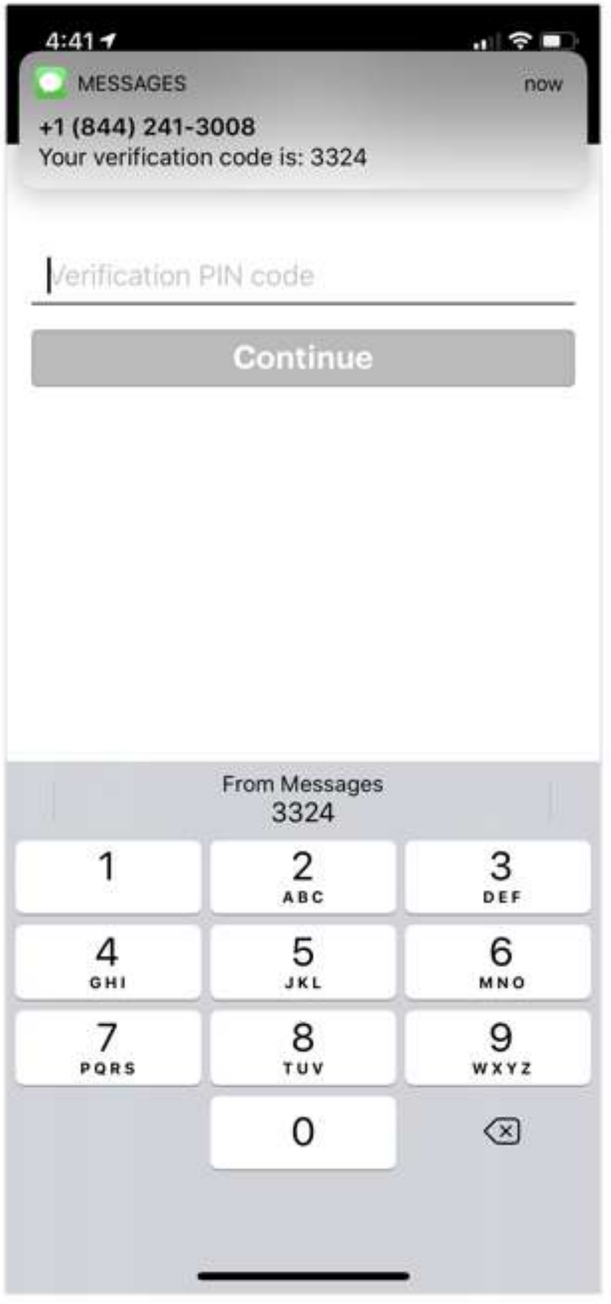
ENTER EMAIL

ENTER NAME

ENTER EMAIL

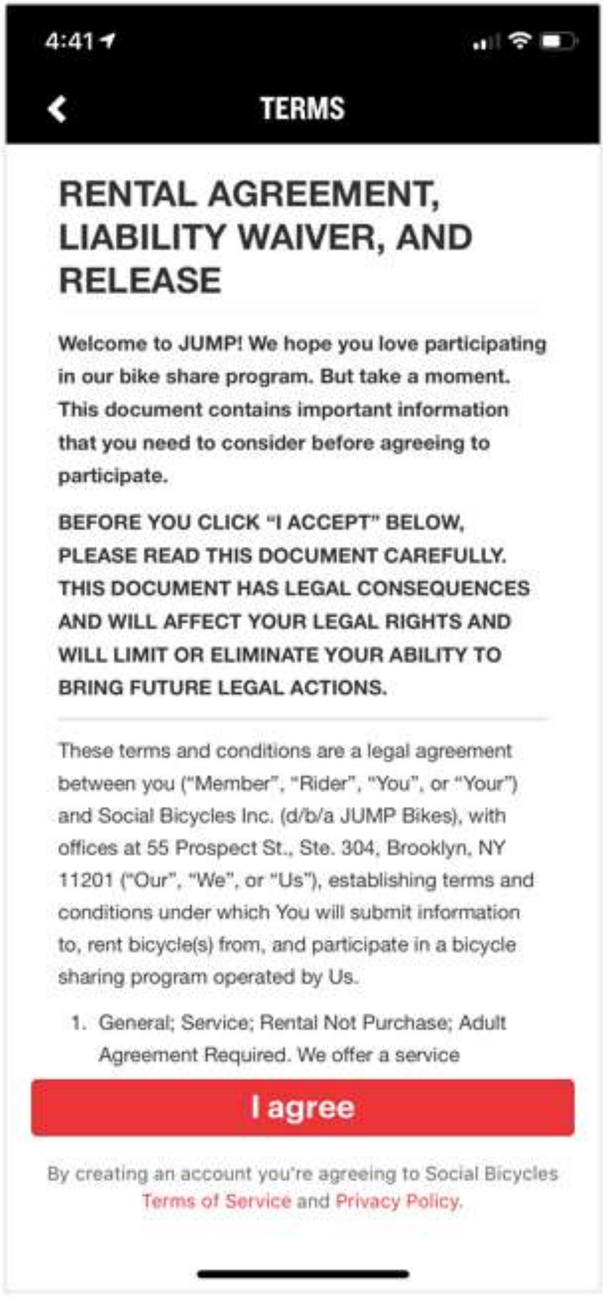
ENTER PHONE

PHONE VERIFICATION

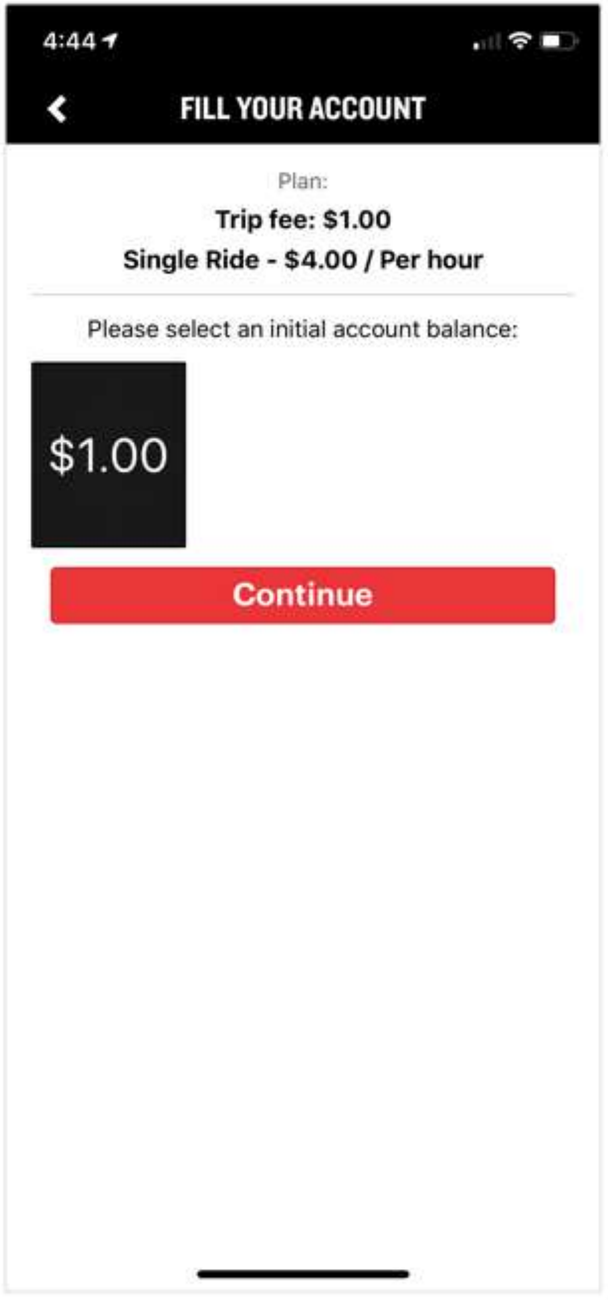


CREATE PASSWORD

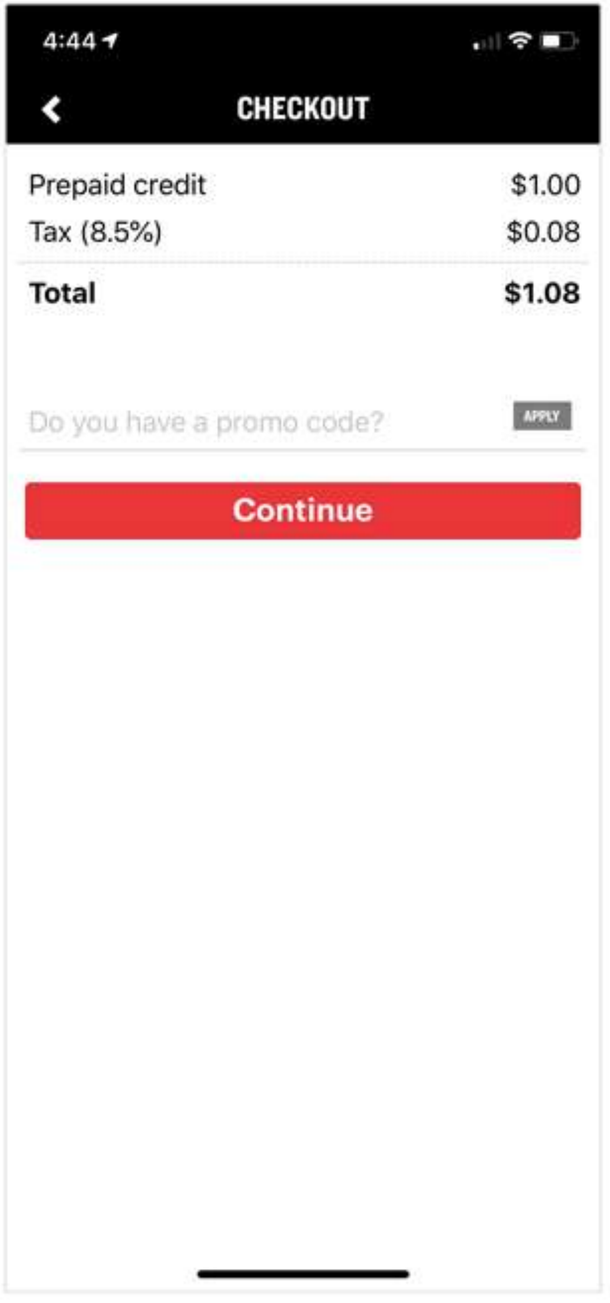
TERMS & CONDITIONS



ADD TO CART



CHECKOUT



Lessons Learned

> We need to make sure that our customers always feel like they are *making progress* toward their goals, not company's goals. Desktop paradigms often aren't a great fit for mobile.

Luke Wroblewski, "Mobile On-Boarding Design", https://www.lukew.com/ff/entry.asp?1995

SPLASH SCREEN

4:49

SPIN

TUTORIAL

4:50

A smart bikeshare.

Scan to unlock and ride. Park anywhere responsible. Lock to end your ride.

Login with Facebook

Ride Now

TUTORIAL

4:50

P

Park anywhere.

Just remember to lock up after your ride.

Login with Facebook

Ride Now

TUTORIAL

4:50

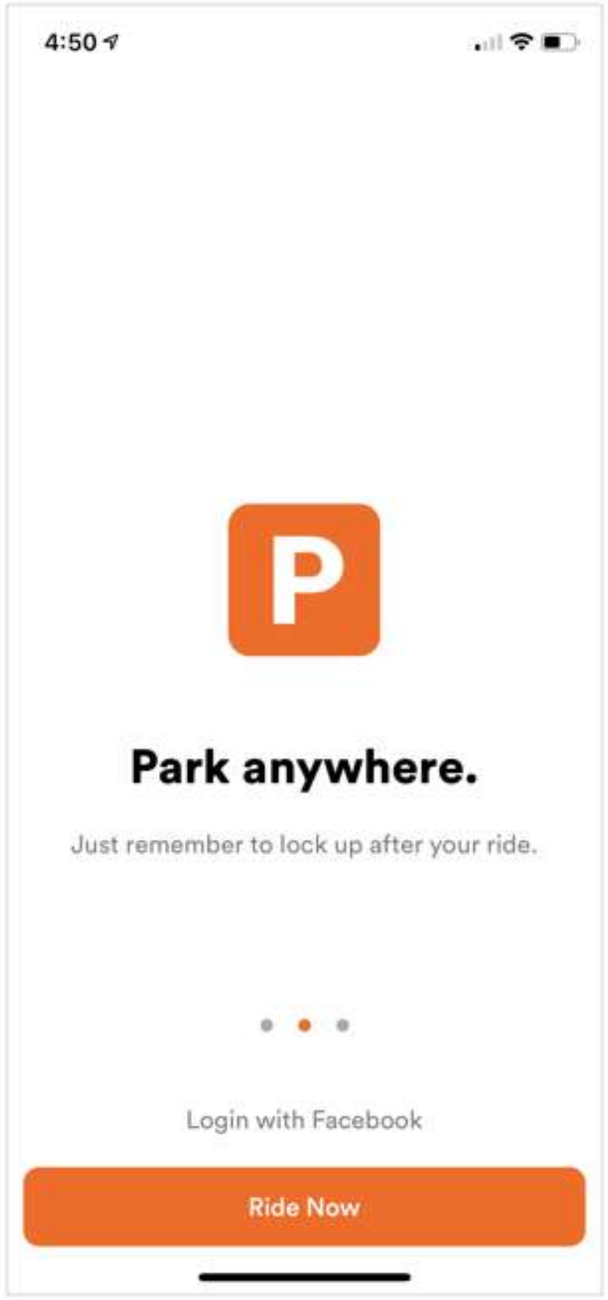
Scan to ride.

Scan the QR code on the front or the back to unlock and ride.

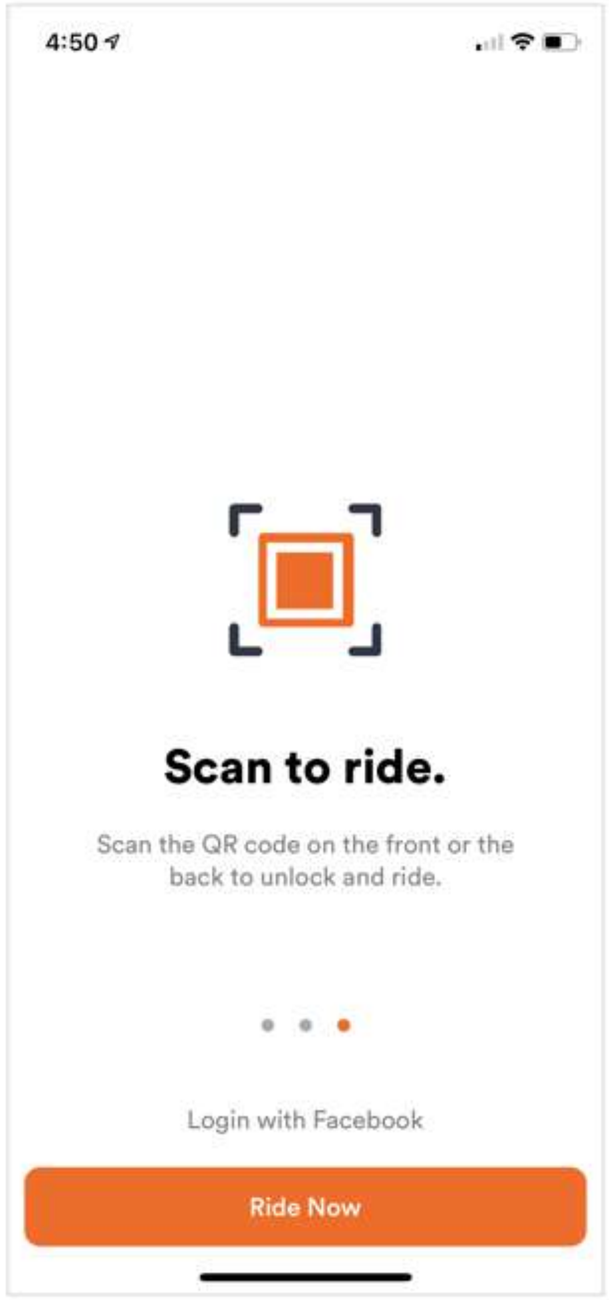
Login with Facebook

Ride Now

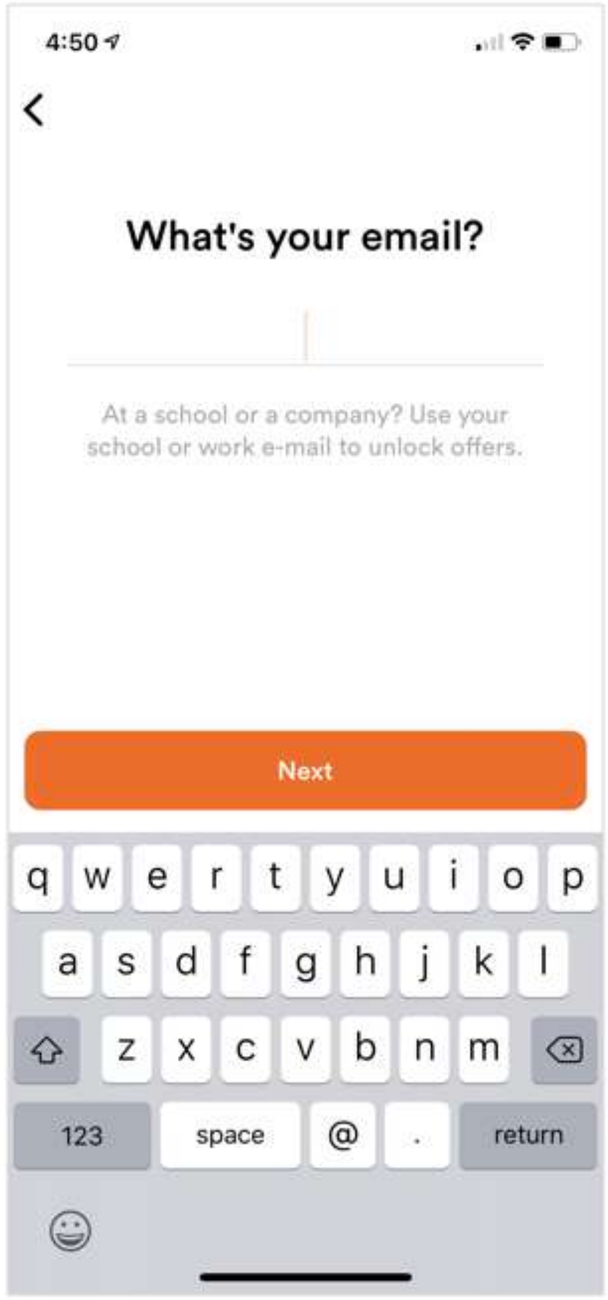
TUTORIAL



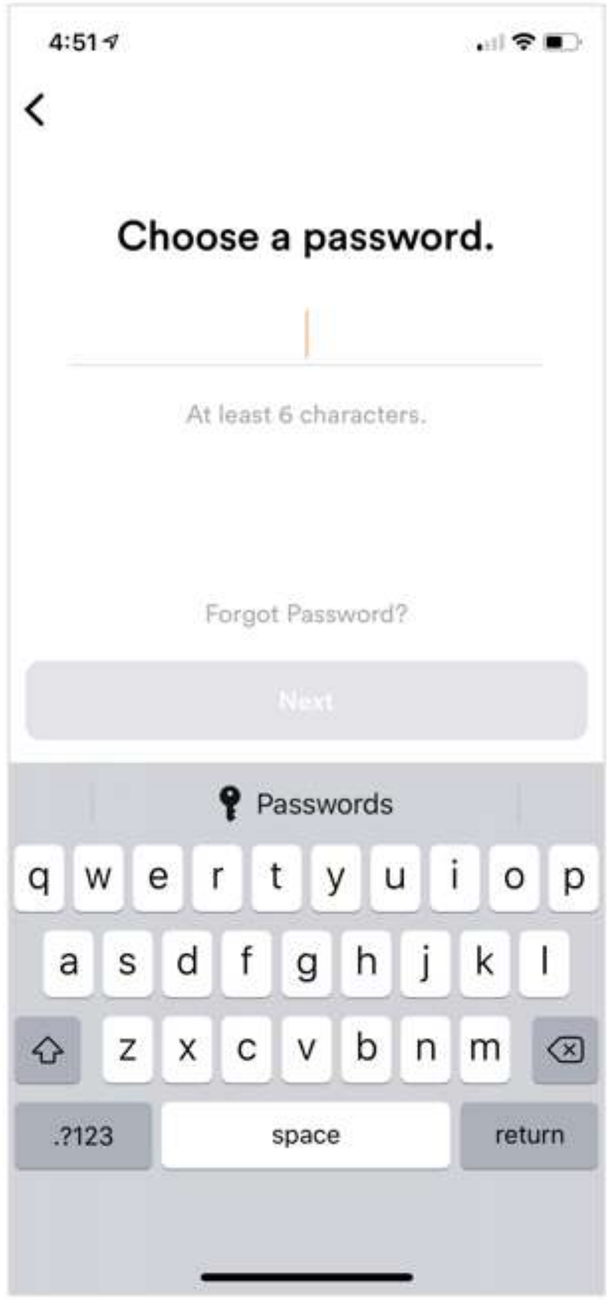
TUTORIAL



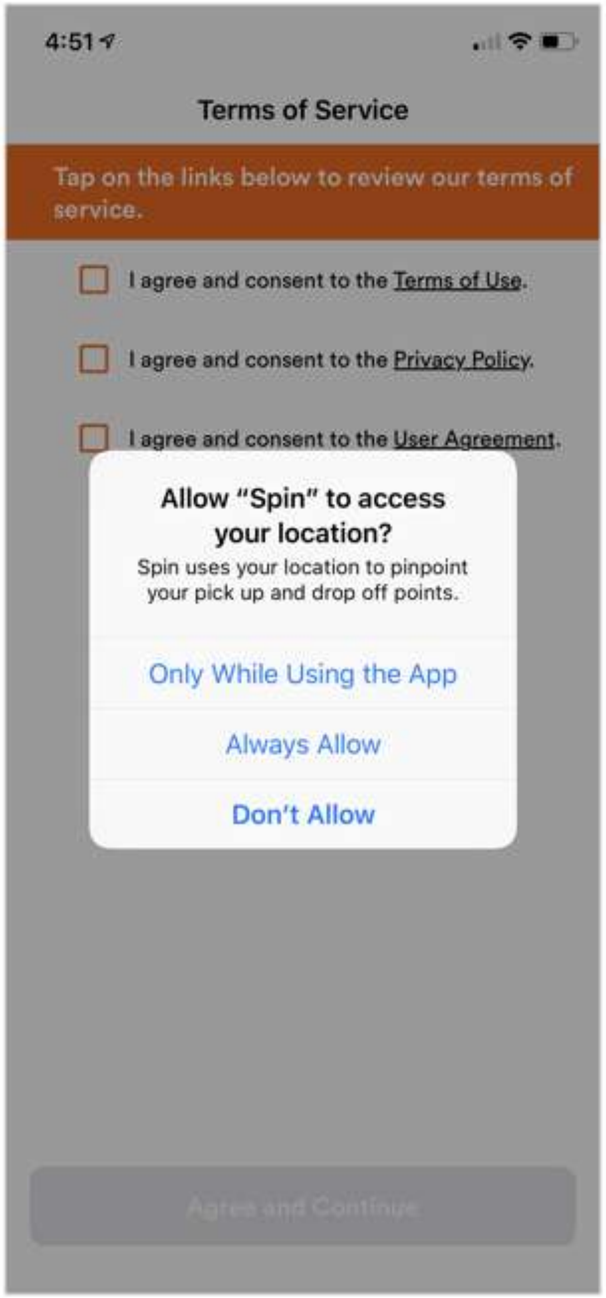
ENTER EMAIL



CREATE PASSWORD

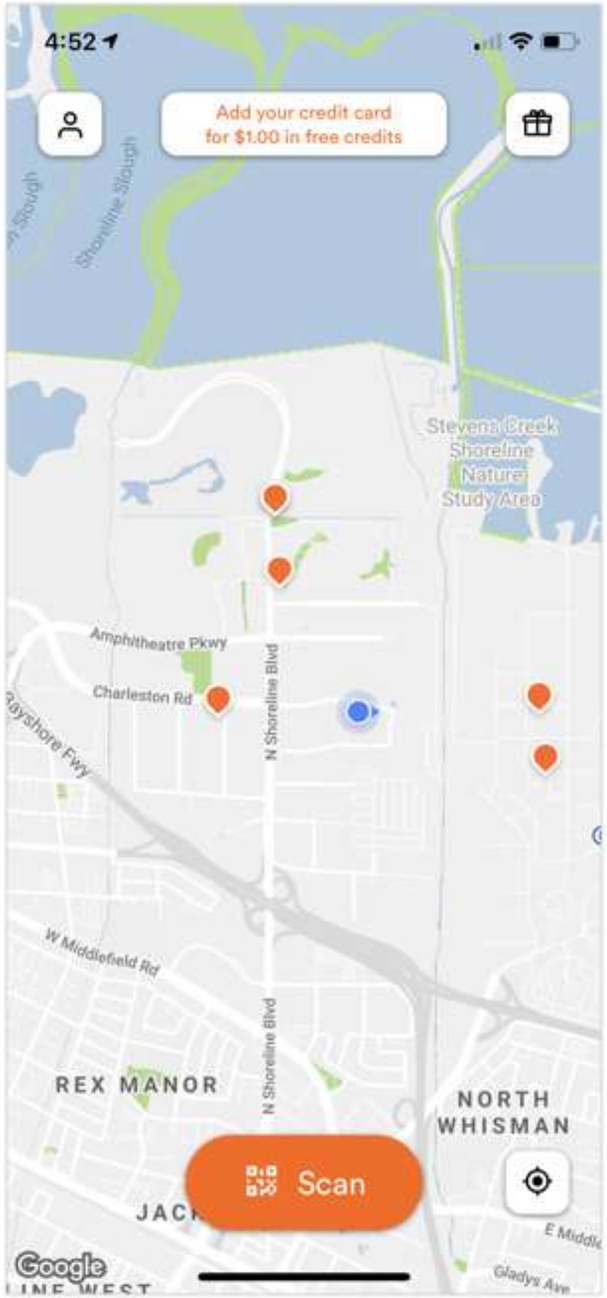


LOCATION PERMISSIONS

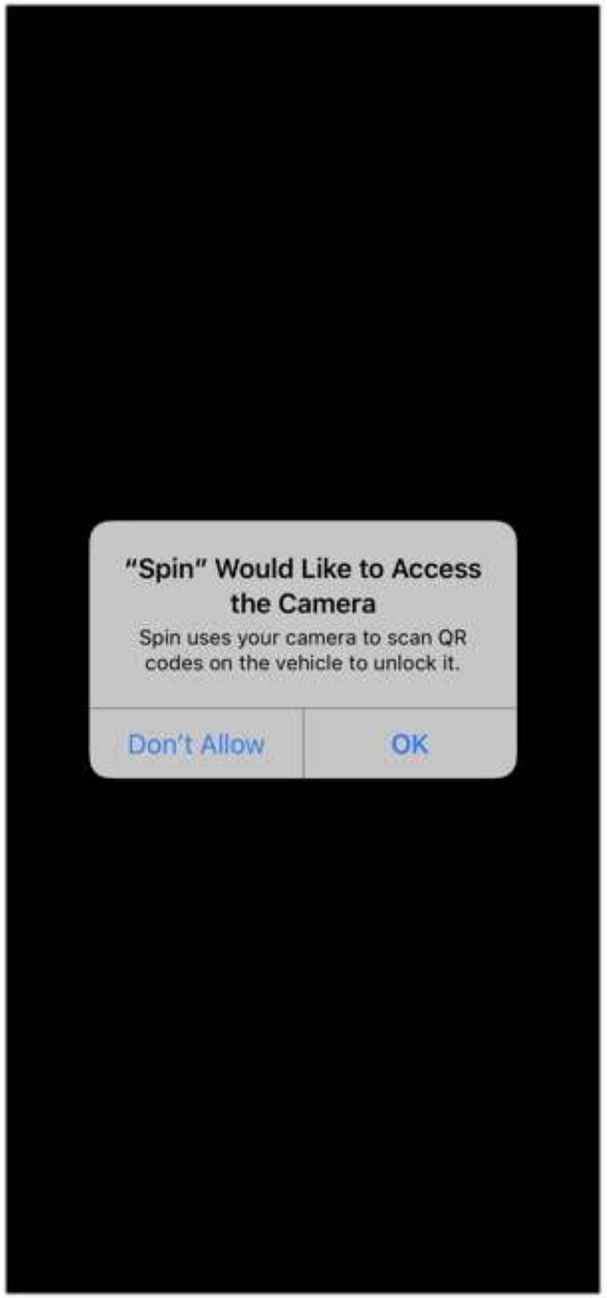


CHECK OFF TERMS

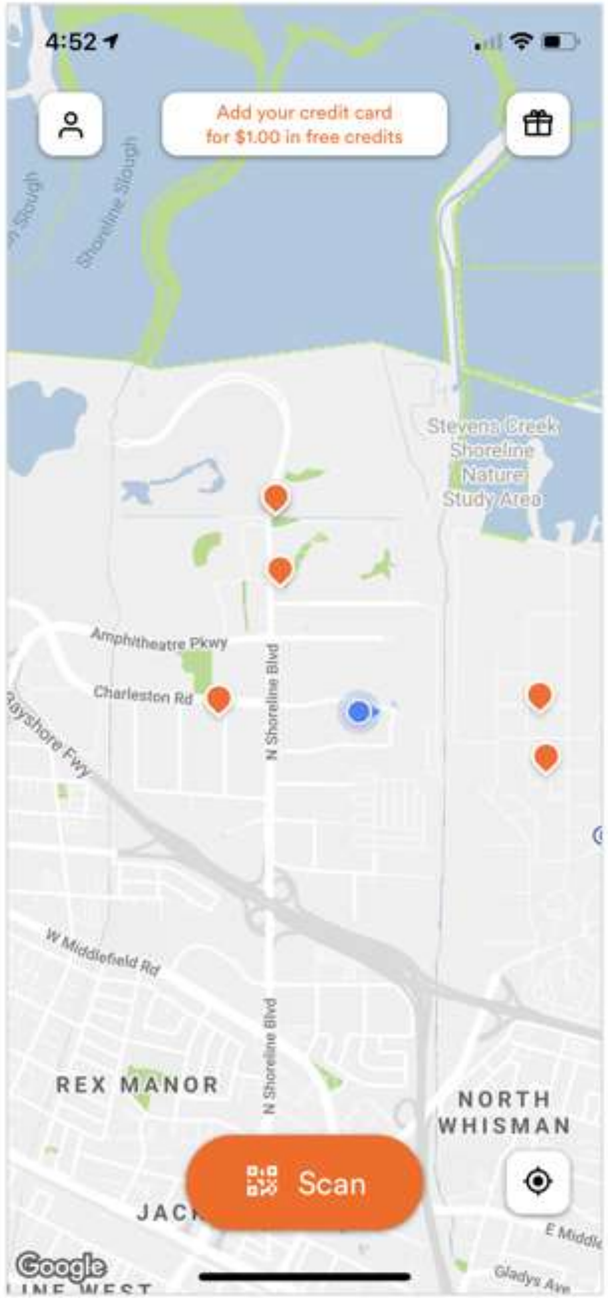
MAP



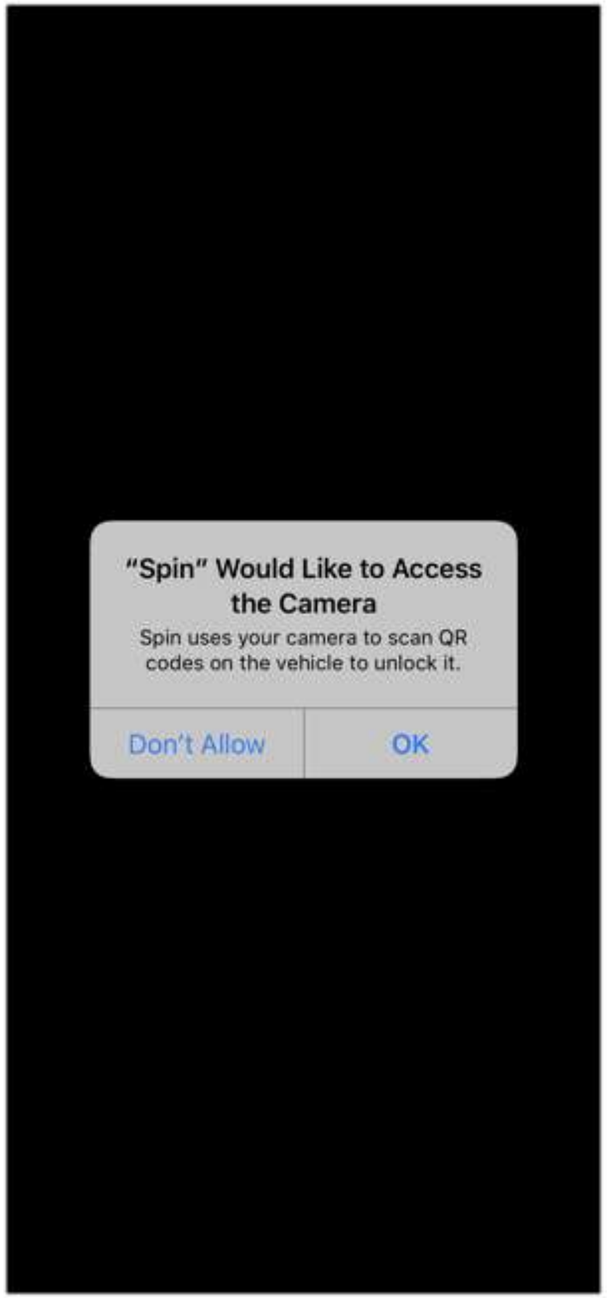
CAMERA PERMISSIONS



MAP

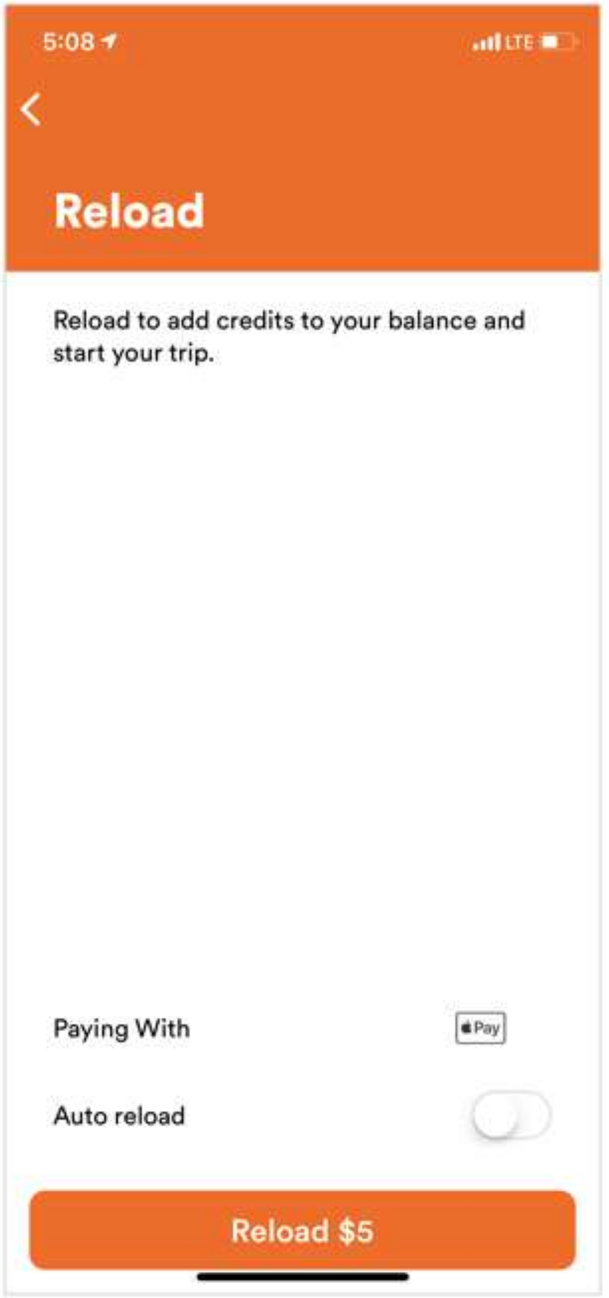


CAMERA PERMISSIONS

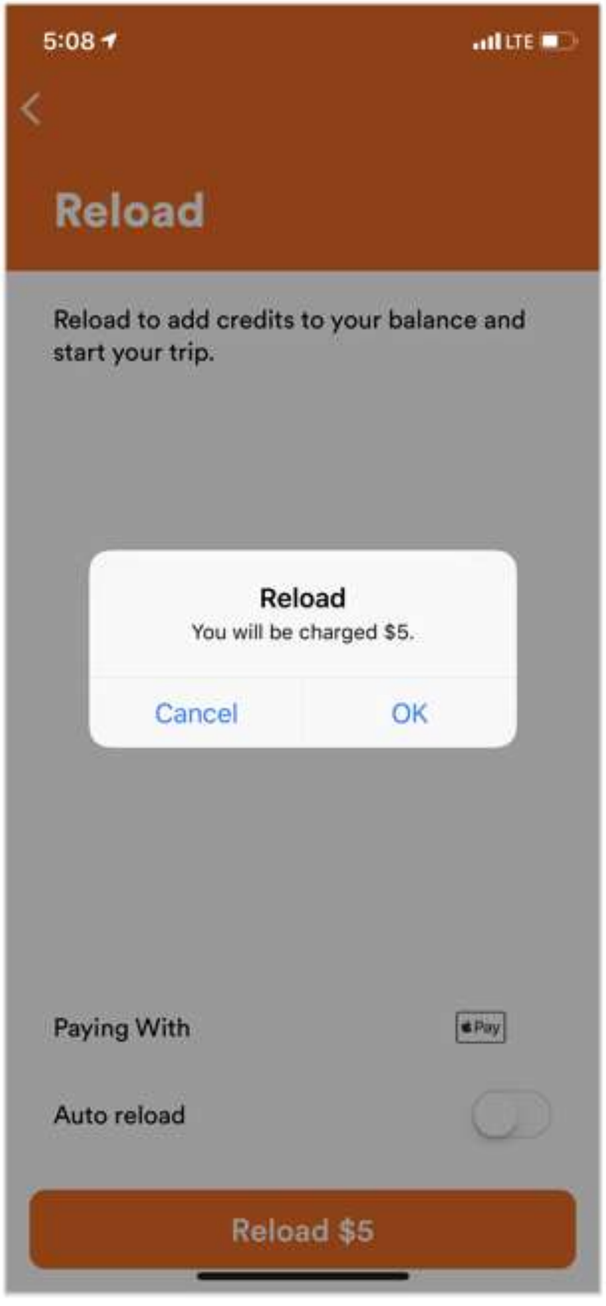


SCAN

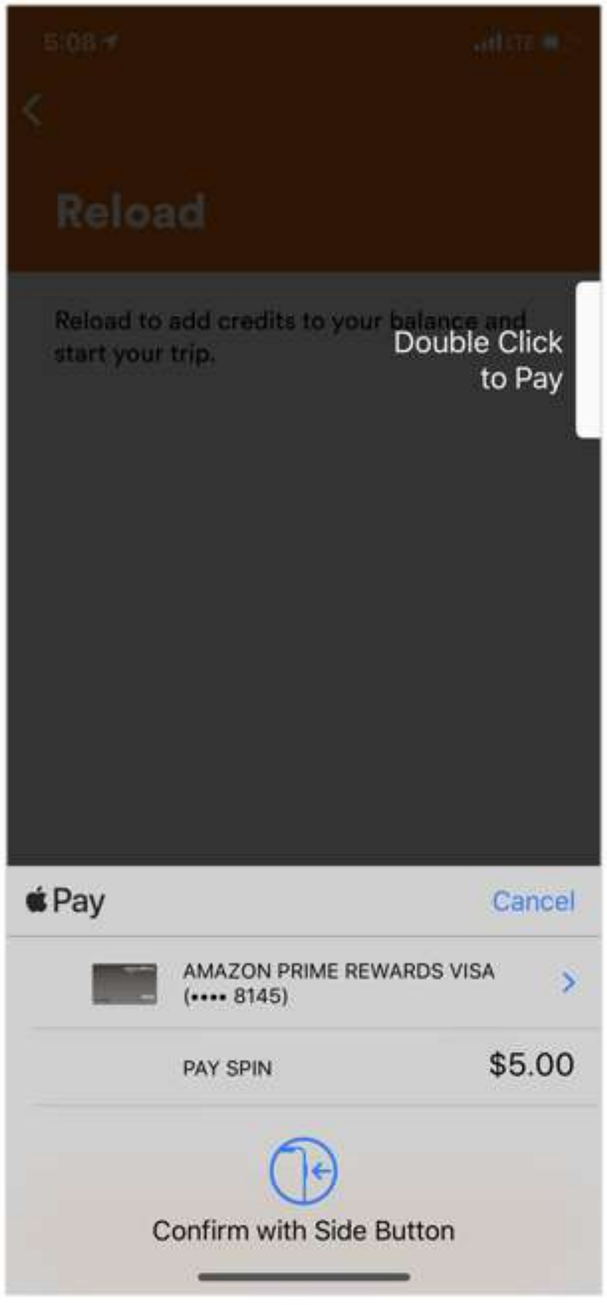
RELOAD ACCOUNT



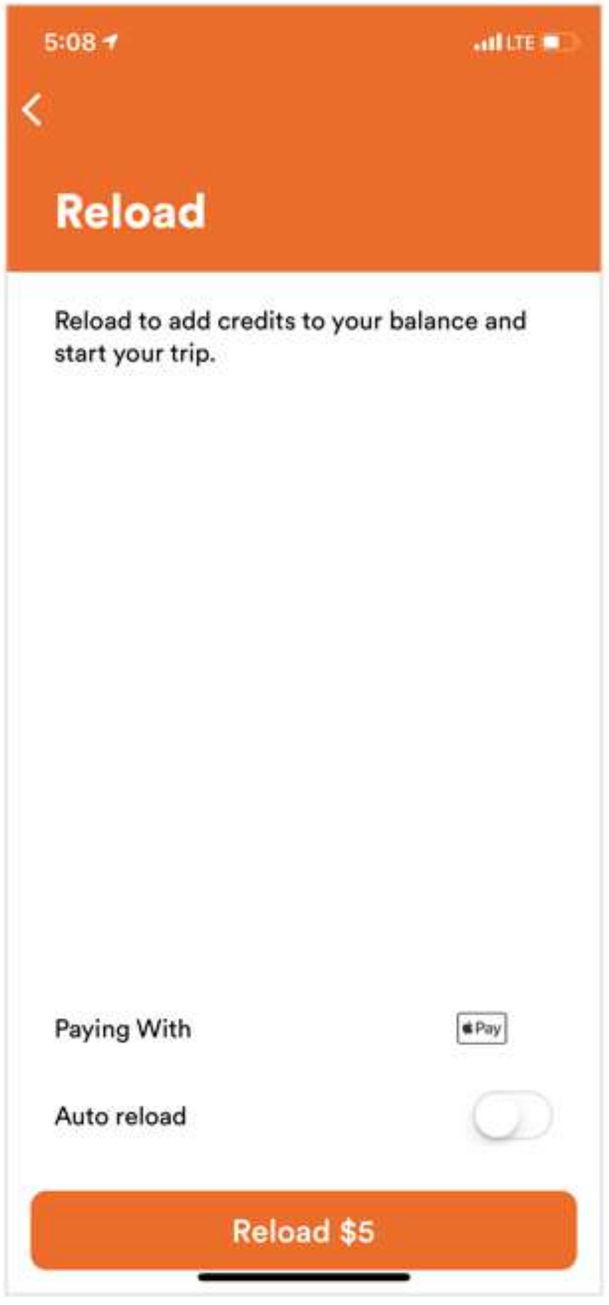
RELOAD CONFIRMATION



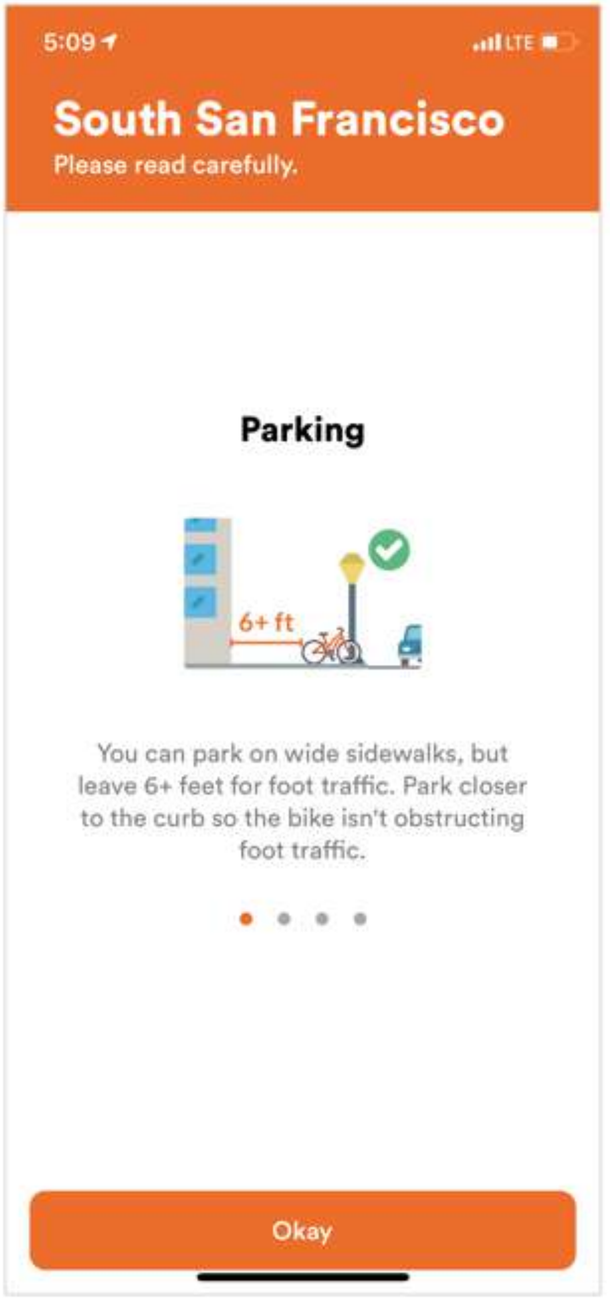
PAYMENT PERMISSIONS



RELOAD ACCOUNT



TUTORIAL



RELOAD ACCOUNT

5:08 LTE

Reload

Reload to add credits to your balance and start your trip.

Paying With Pay

Auto reload

Reload $5

TUTORIAL

5:09 LTE

South San Francisco

Please read carefully.

Parking

You can park on wide sidewalks, but leave 6+ feet for foot traffic. Park closer to the curb so the bike isn't obstructing foot traffic.

Okay

TUTORIAL

5:09 LTE

South San Francisco

Please read carefully.

Parking

You can park at or near public bike racks.

Okay

TUTORIAL

5:09 LTE

South San Francisco

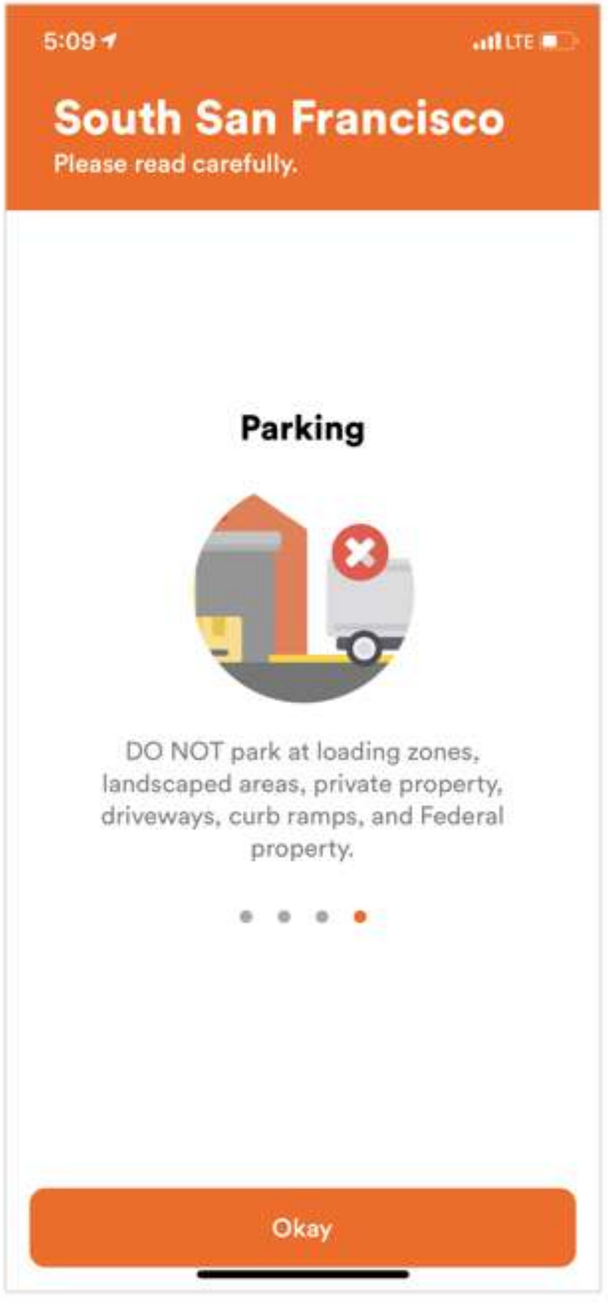
Please read carefully.

Parking

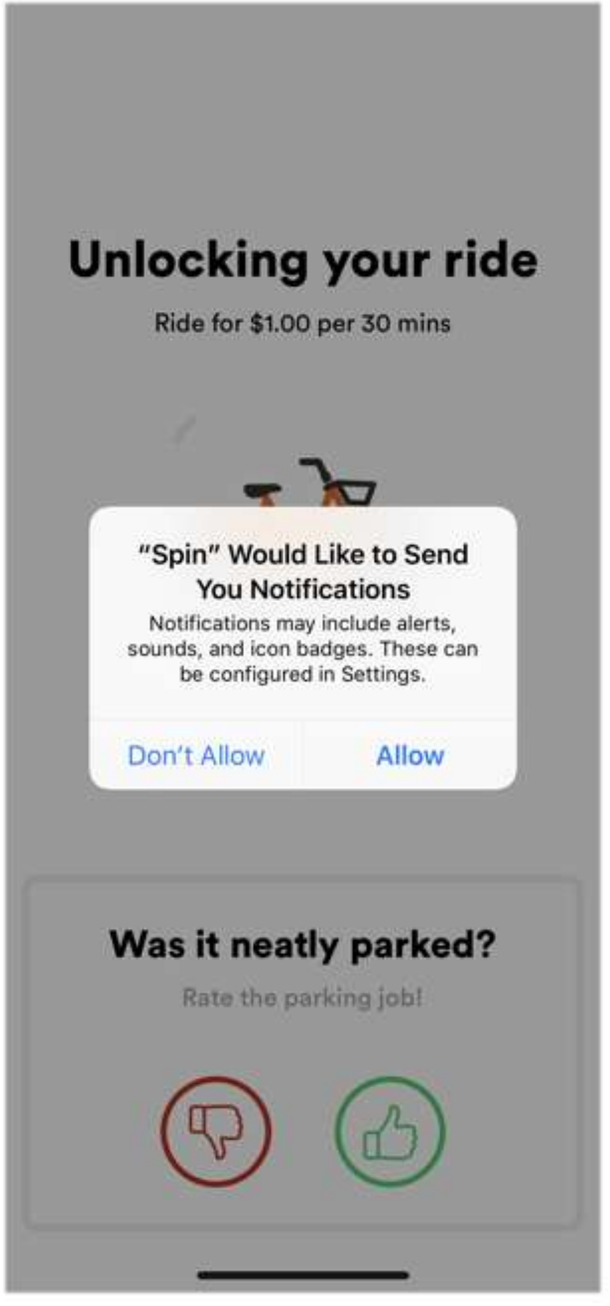
DO NOT park on sidewalk corners. DO NOT park at bus stops and benches.

Okay

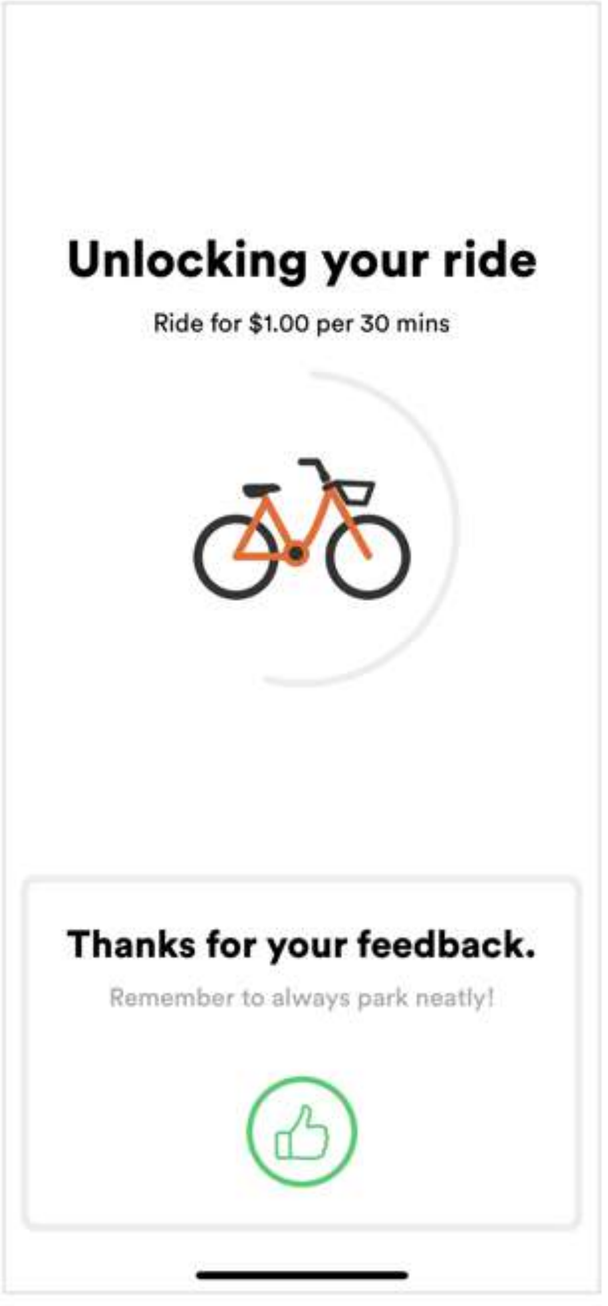
TUTORIAL



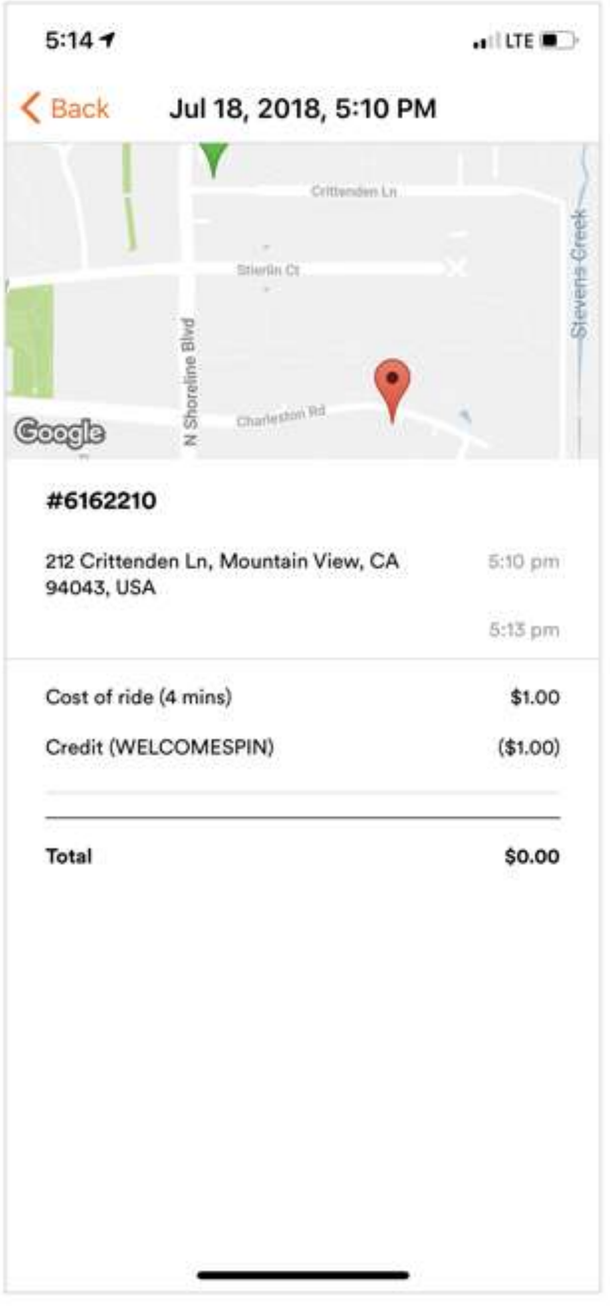
NOTIFICATION PERMISSIONS



RIDE



RIDE SUMMARY



The Fundamentals

Onboarding Task

01 — First ride is free.

02 — We need location and camera permission.

03 — We need some sort of authentication or log in.

04 — We need some sort of payment.

05 — We need consent to terms and conditions.

Lessons Learned

> When we surface information to customers is critical. Get users to your *core value* as soon as possible, but not sooner. It took 7 steps to scan the bike in front of user and 9 more steps before they could actually ride it.

Luke Wroblewski, “Mobile On-Boarding Design”, https://www.lukew.com/ff/entry.asp?1995

SPLASH SCREEN

TUTORIAL

The Fundamentals

Onboarding Task

01 – First ride is free.

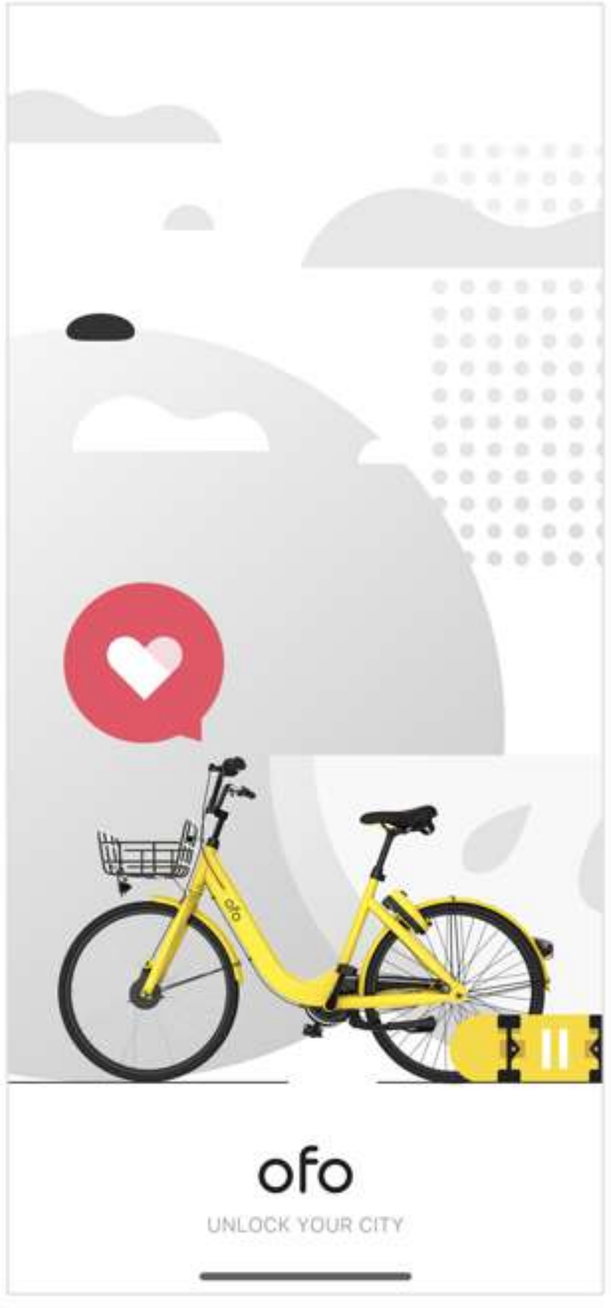
02 – We need location/camera permission.

03 – We need some sort of auth/log in.

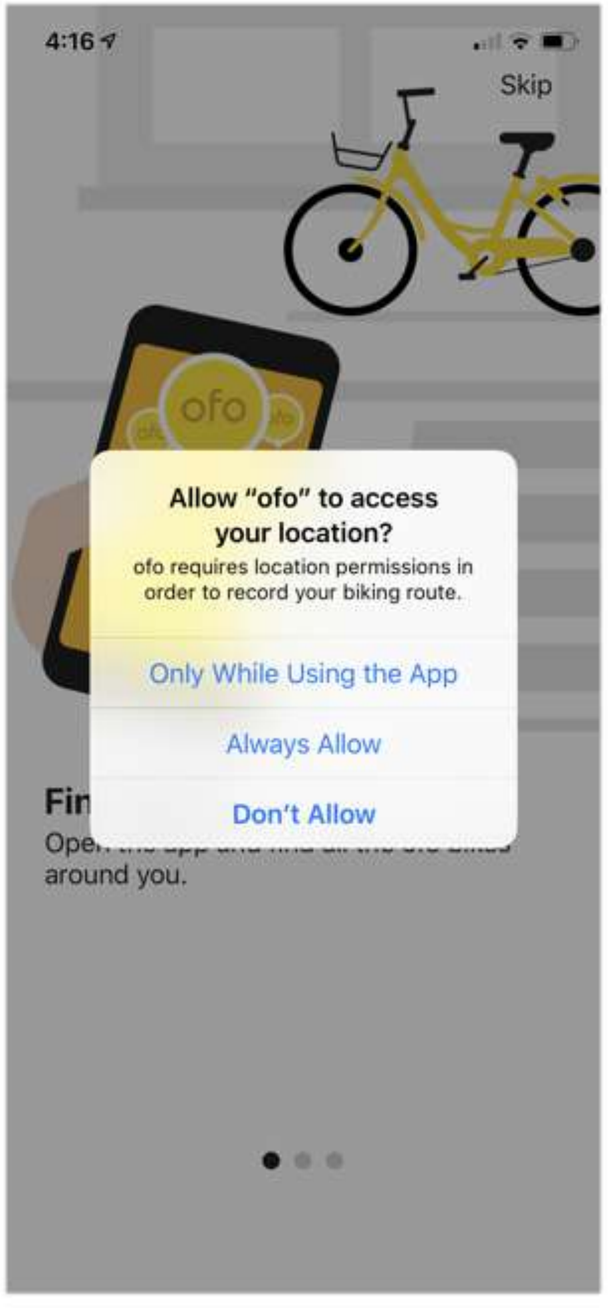
04 – We need some sort of payment.

05 – We need consent to terms/conditions.

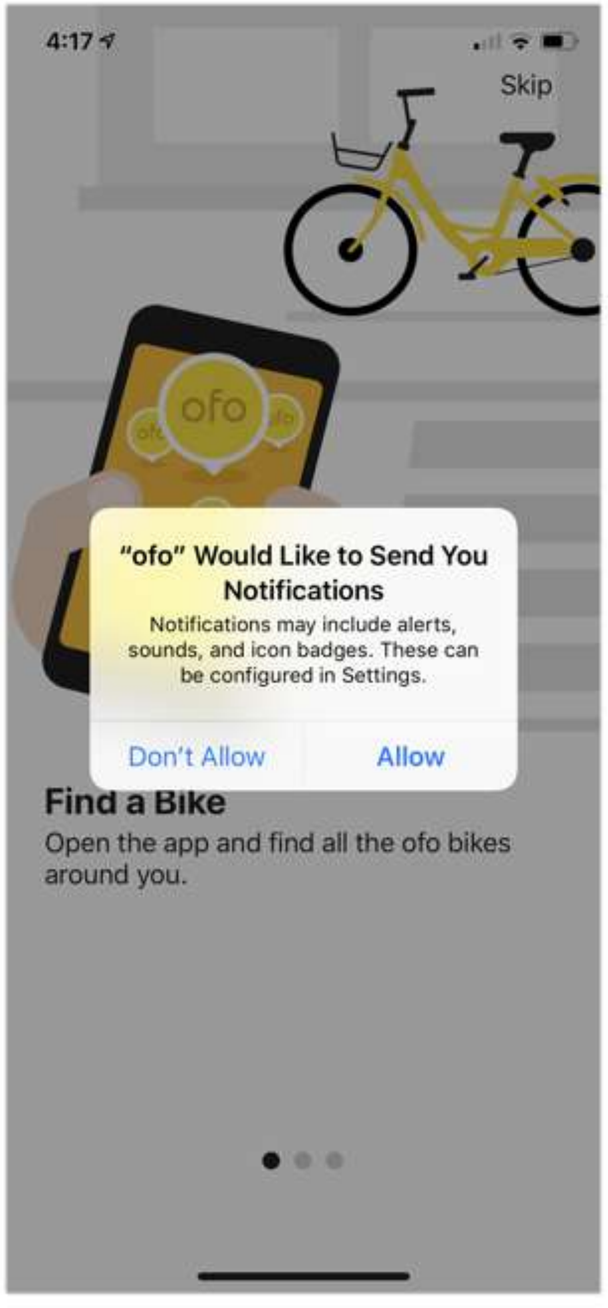
START SCREEN



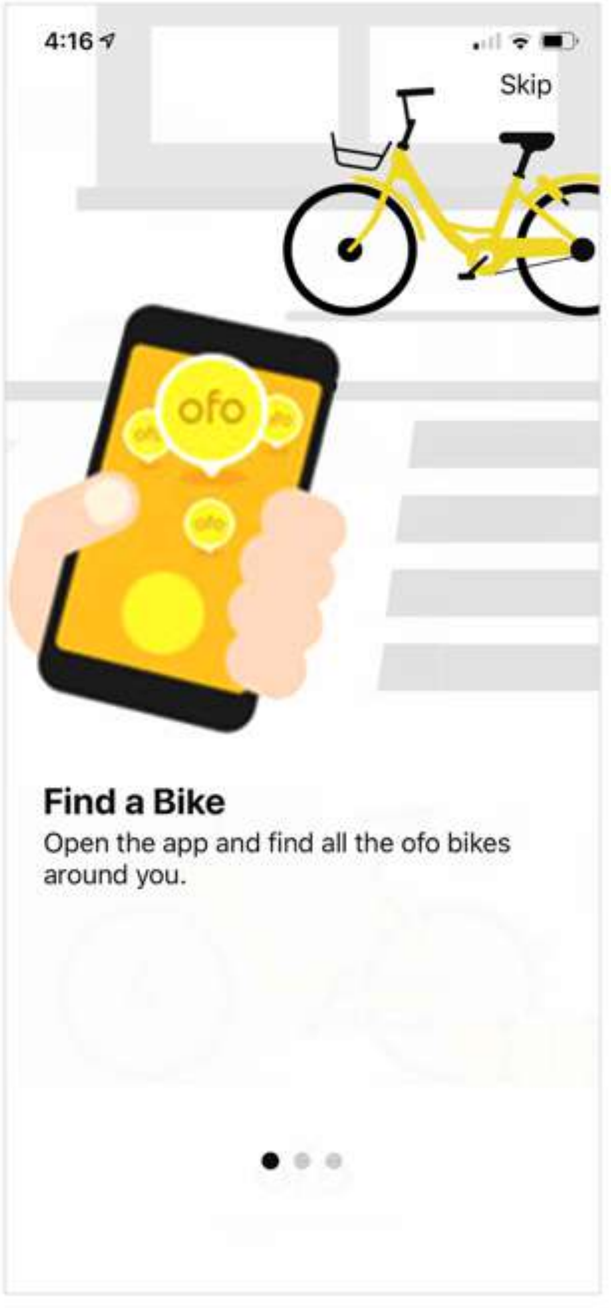
LOCATION PERMISSIONS



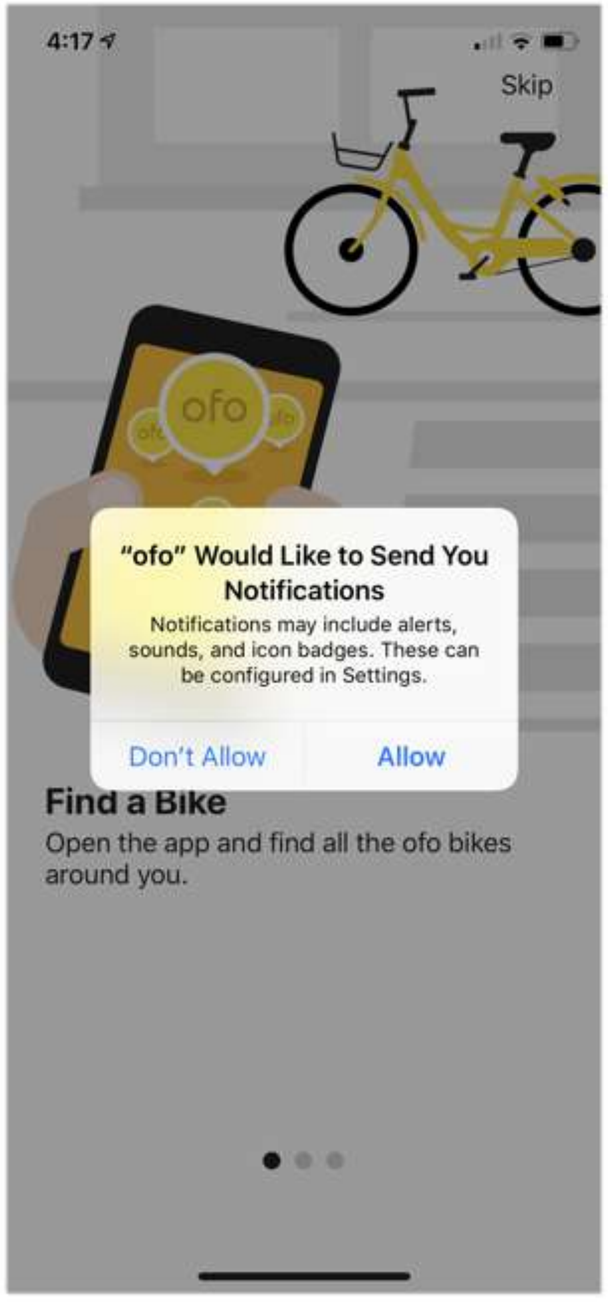
NOTIFICATION PERMISSIONS



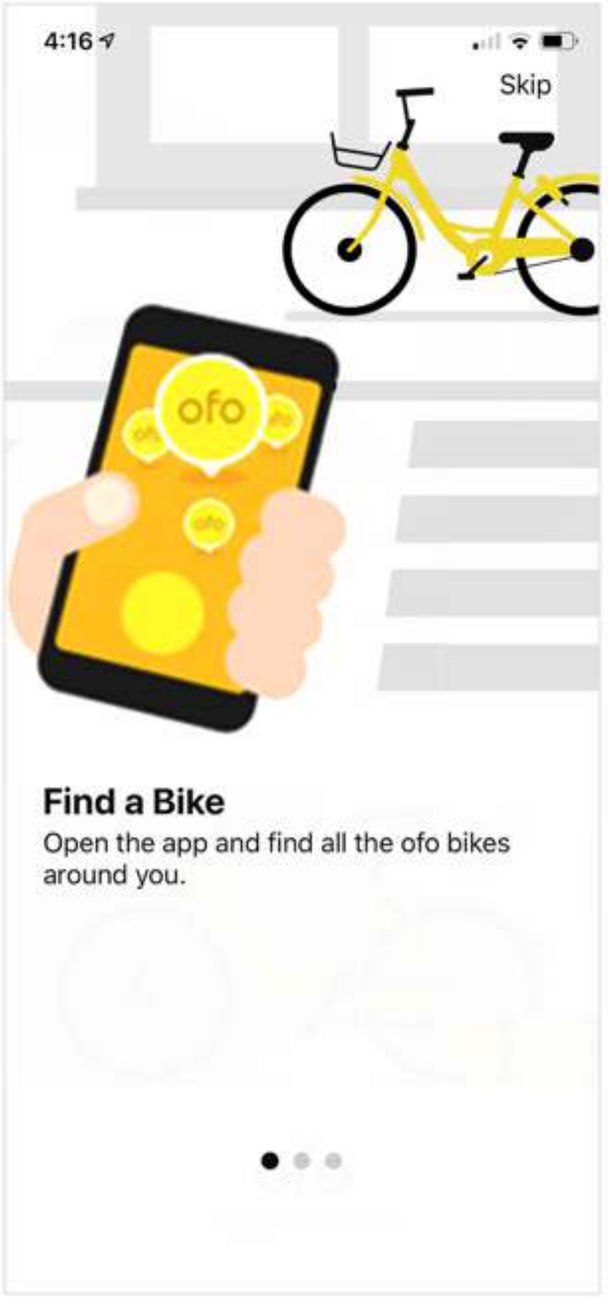
TUTORIAL



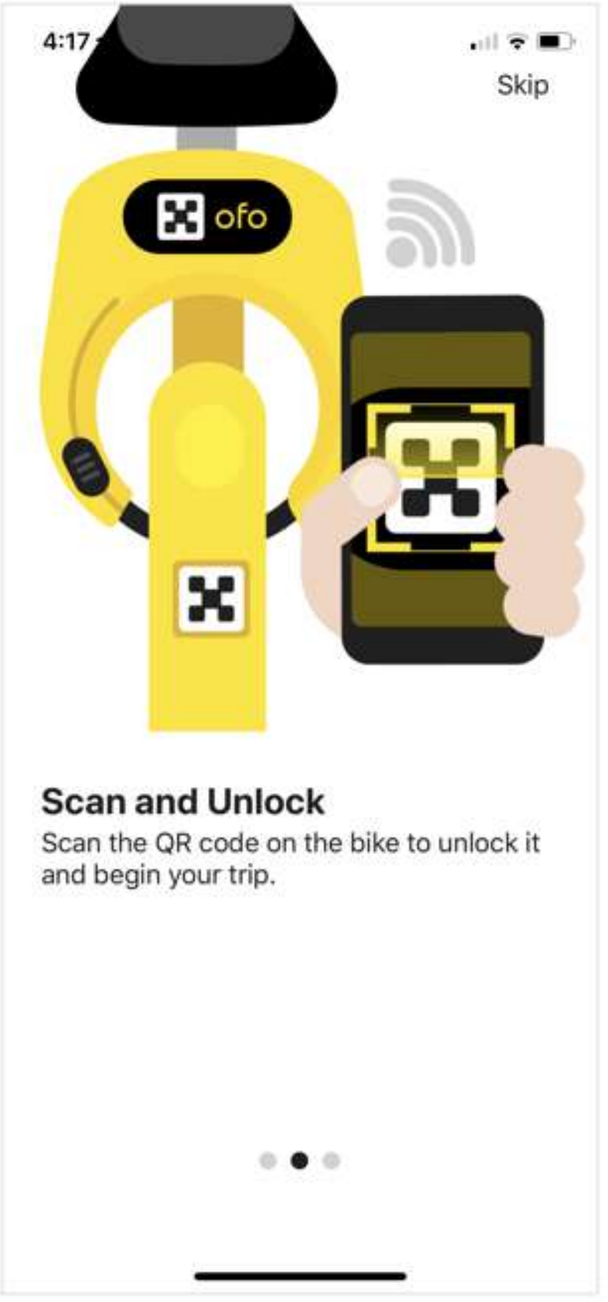
NOTIFICATION PERMISSIONS



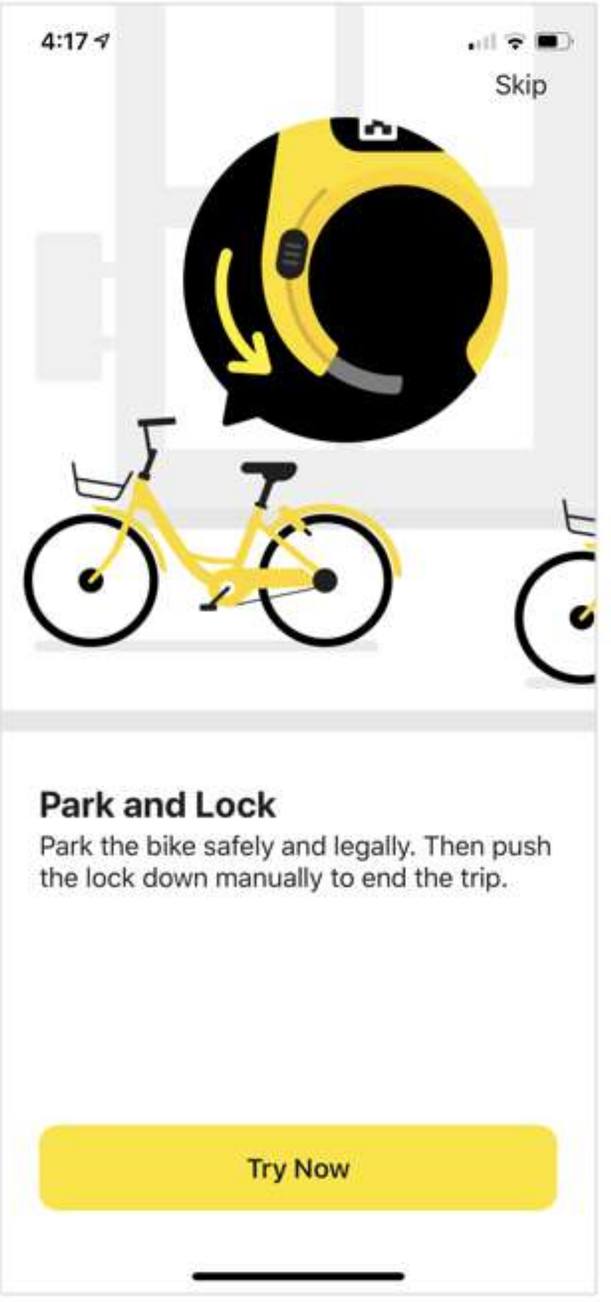
TUTORIAL



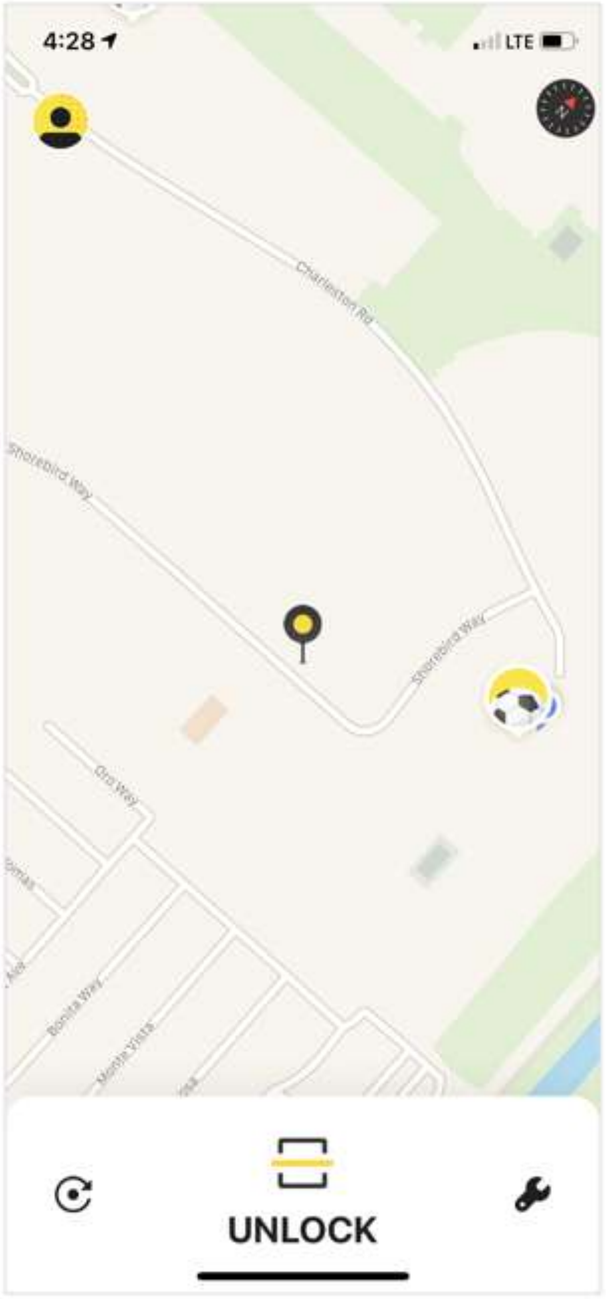
TUTORIAL



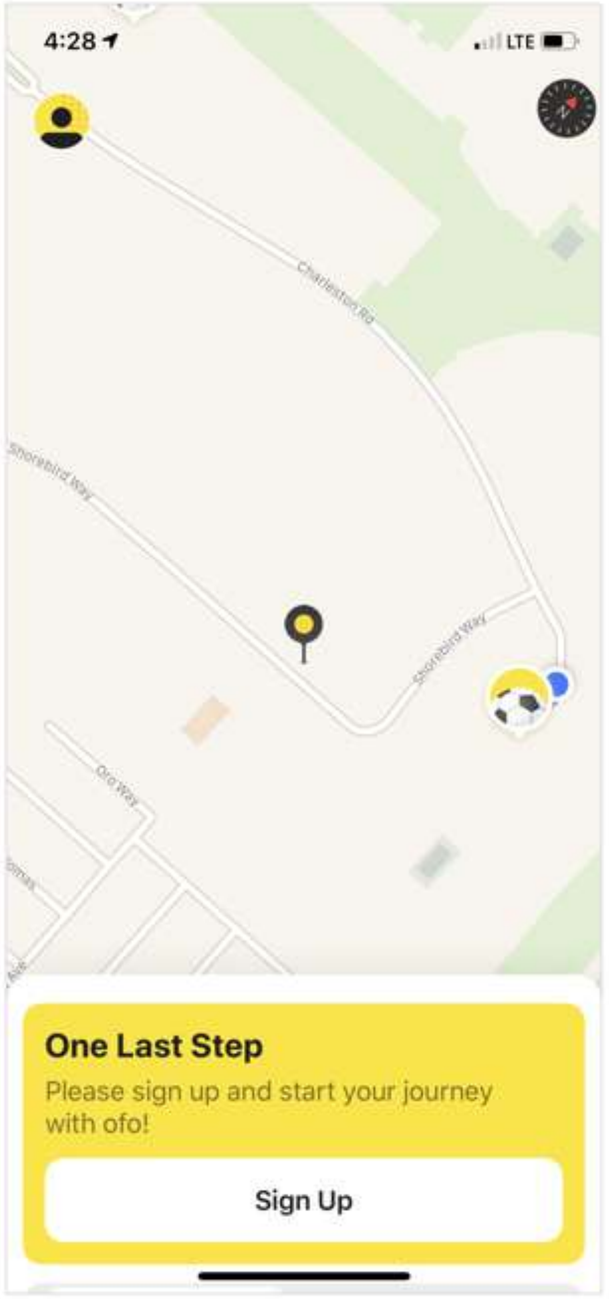
TUTORIAL



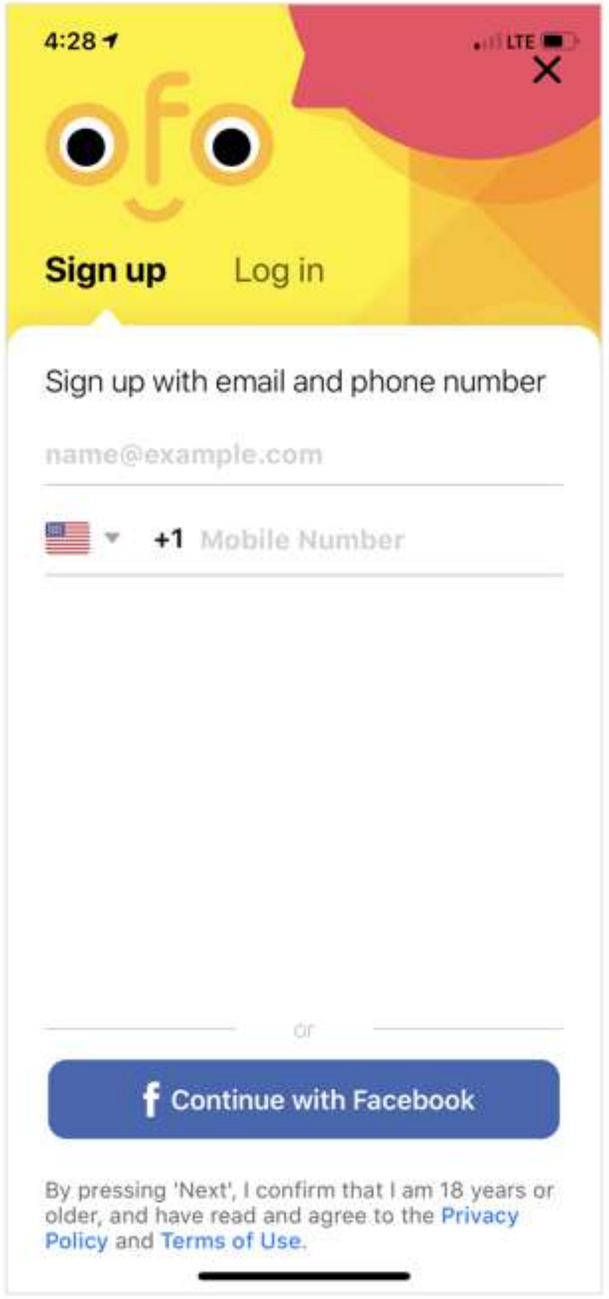
MAP



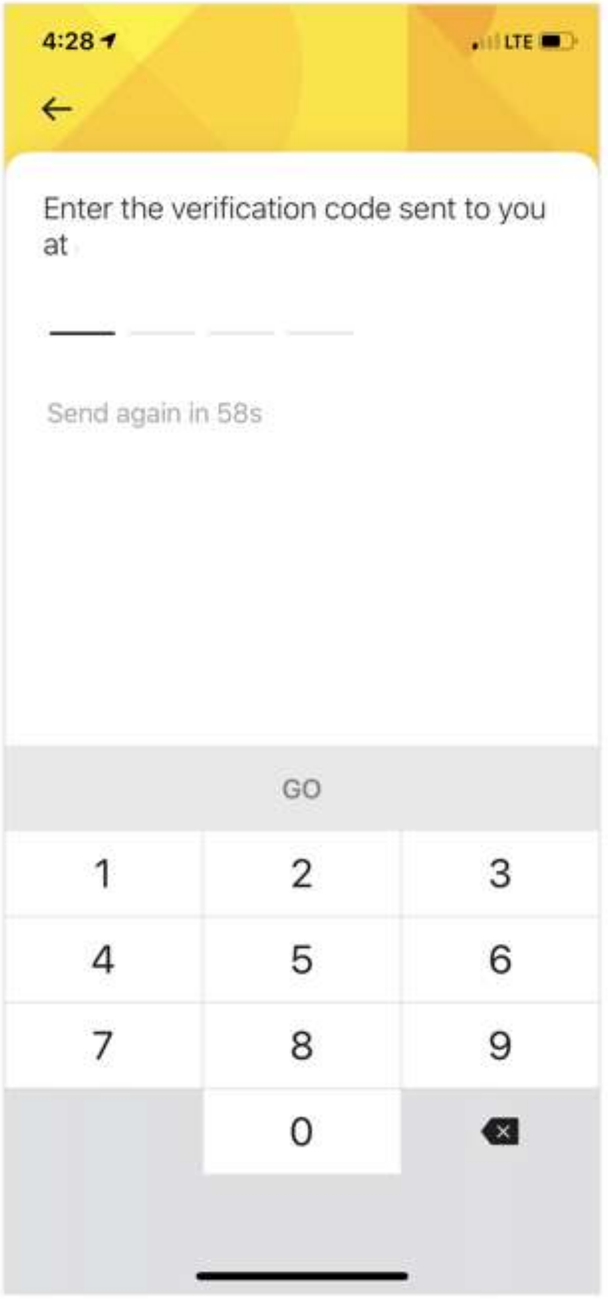
SIGN-UP PROMPT



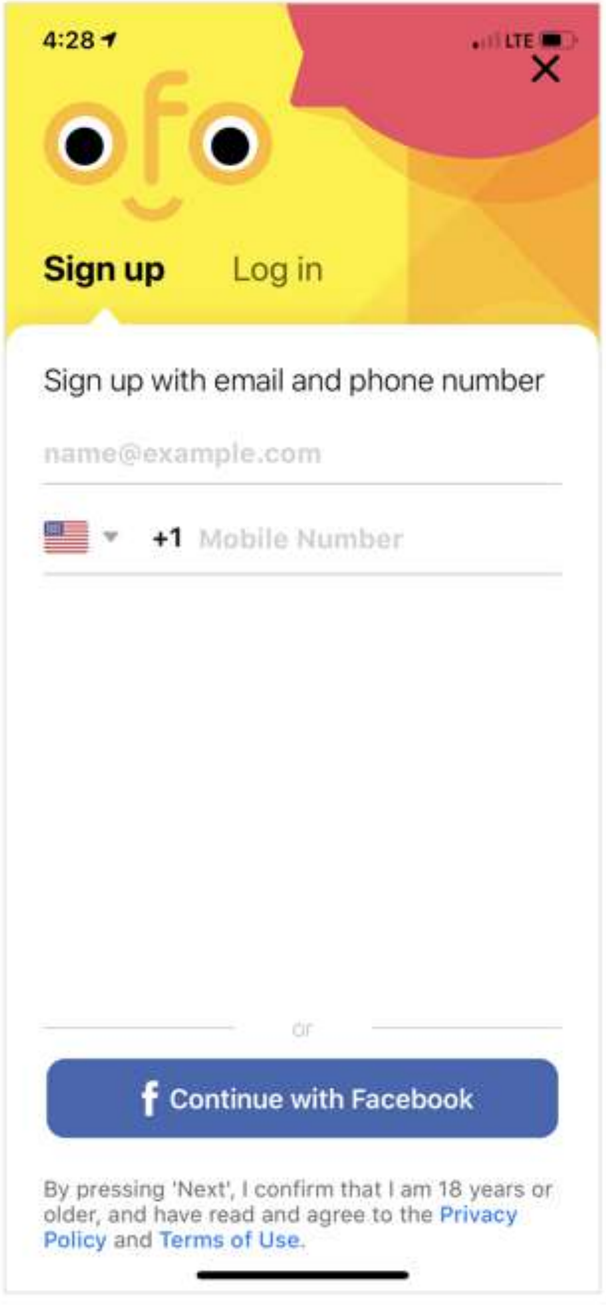
SIGN-UP



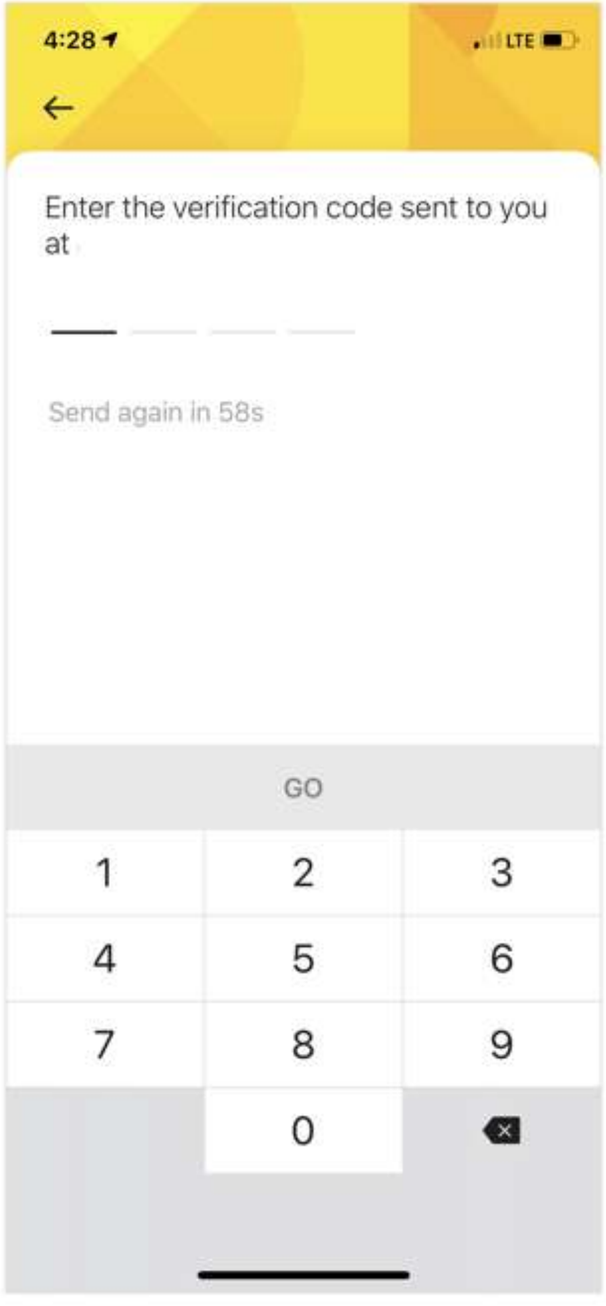
PHONE VERIFICATION



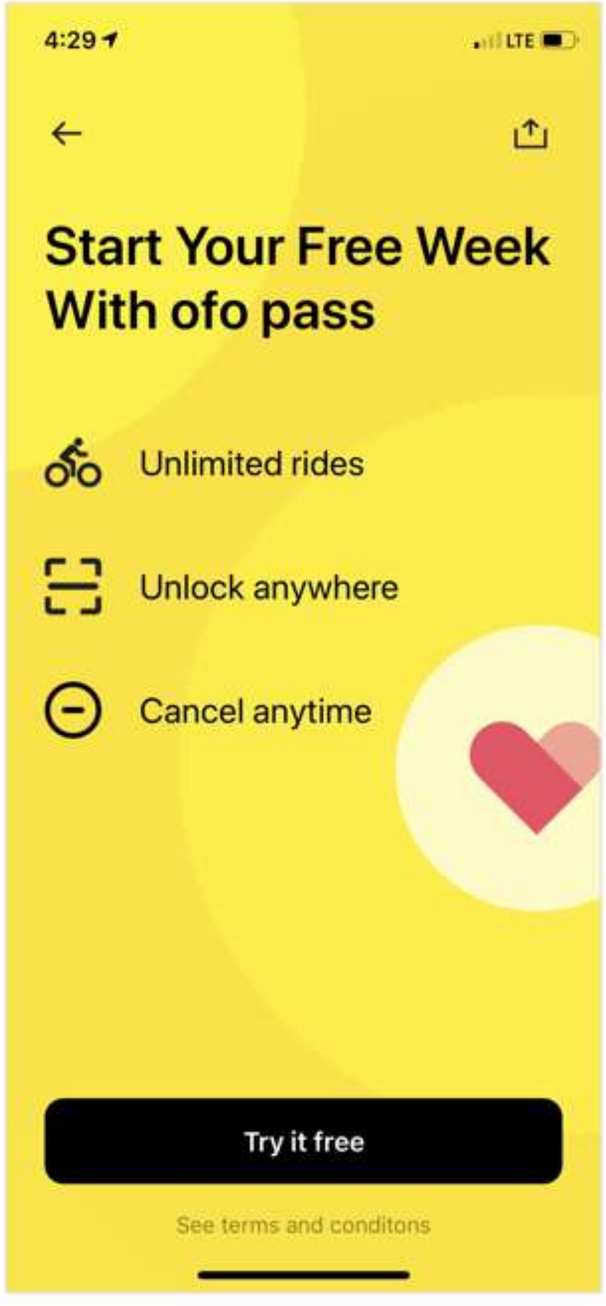
SIGN-UP



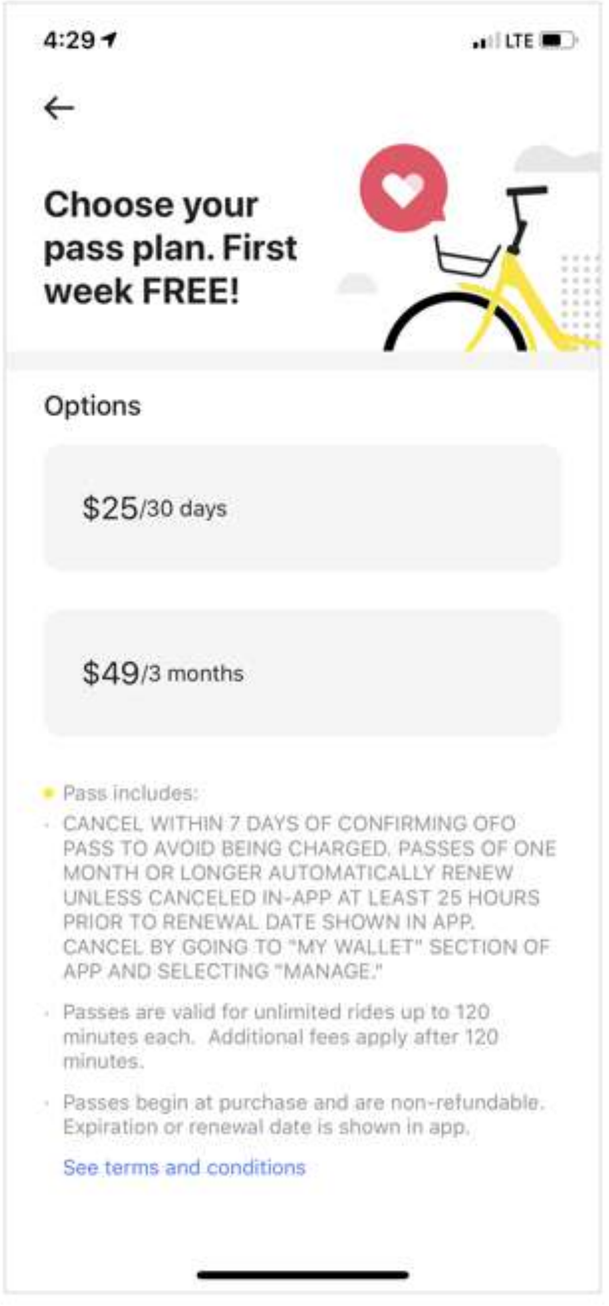
PHONE VERIFICATION



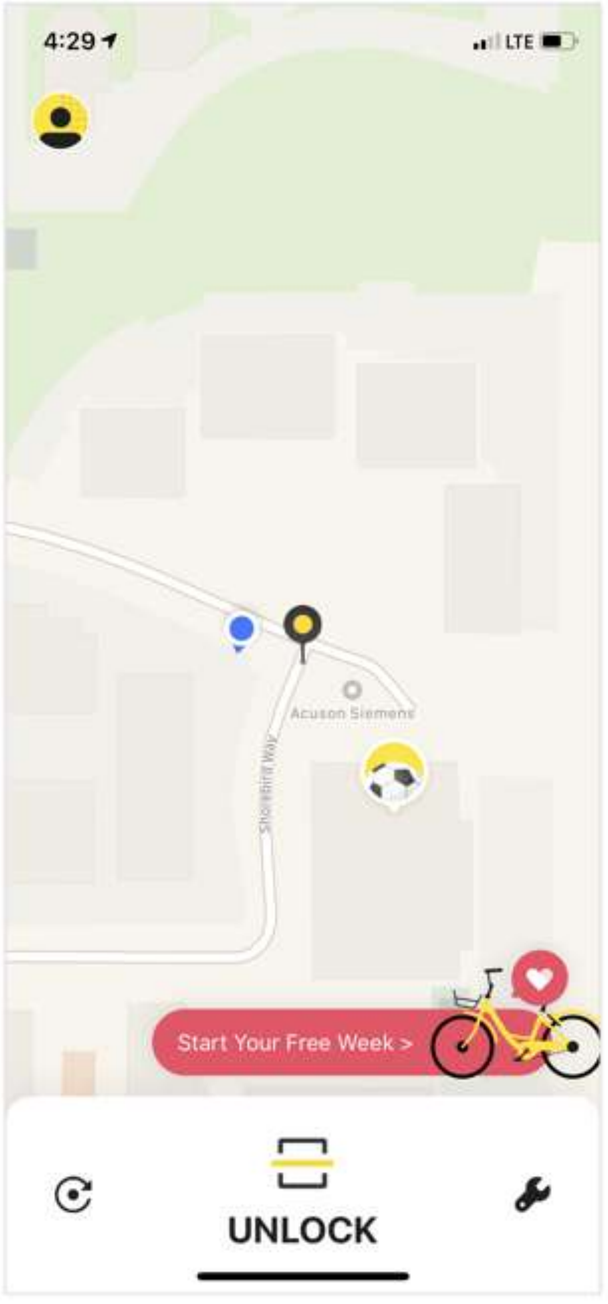
SUBSCRIPTION PROMO



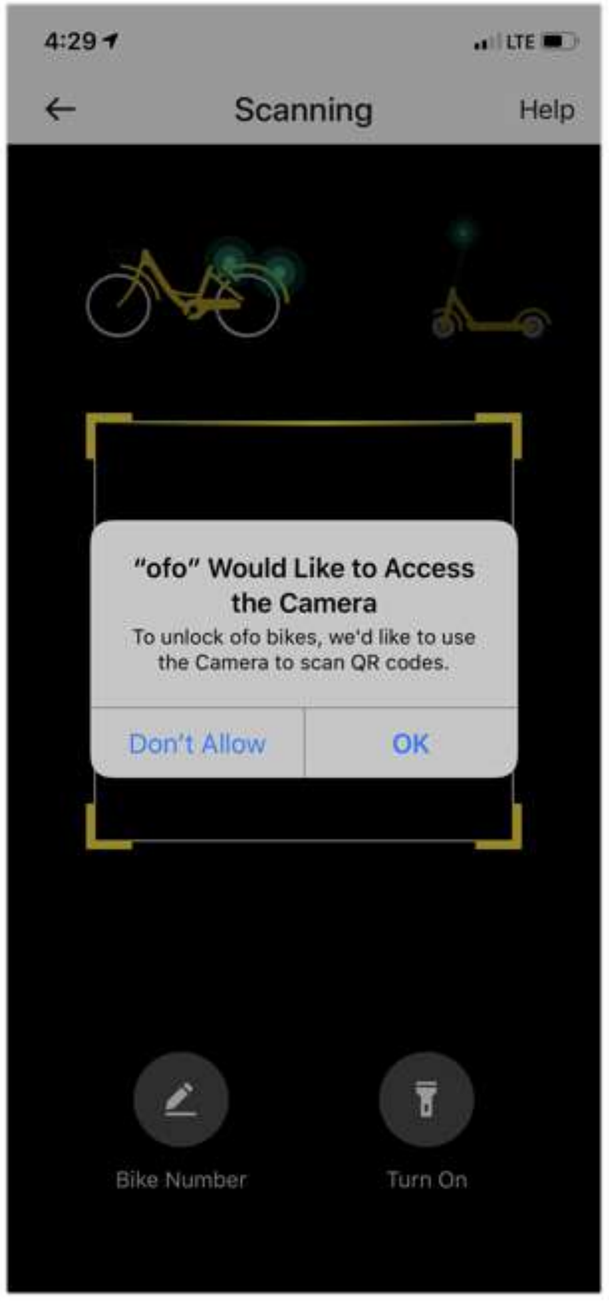
SUBSCRIPTION PLANS



MAP

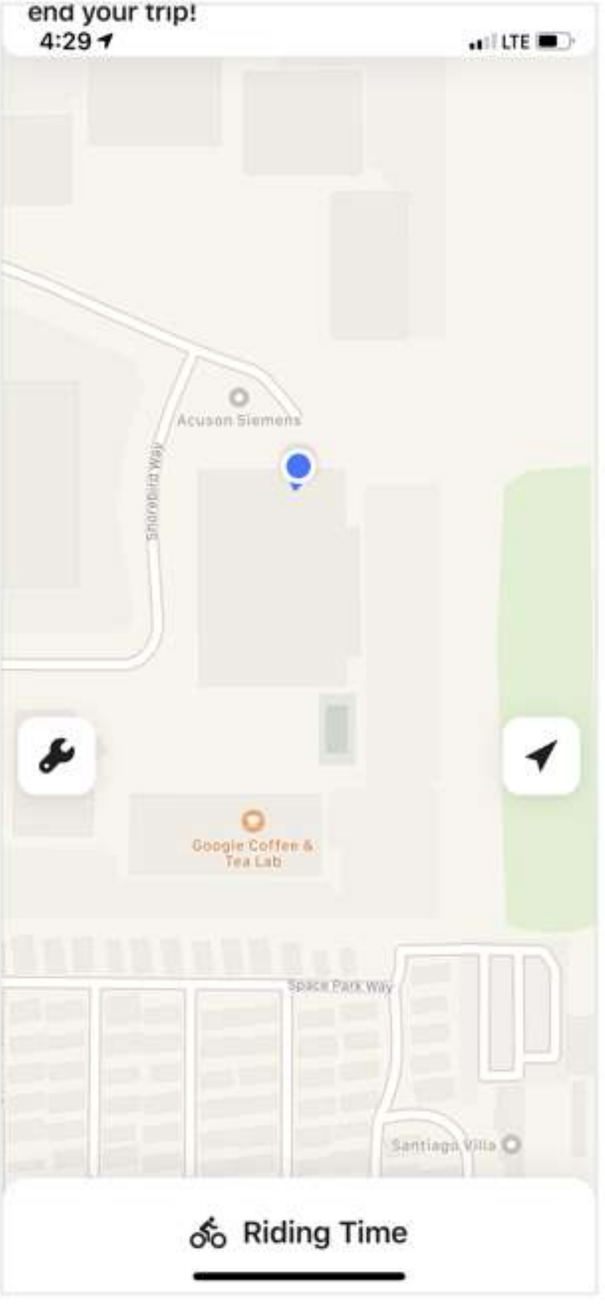


CAMERA PERMISSIONS



SCAN

RIDE



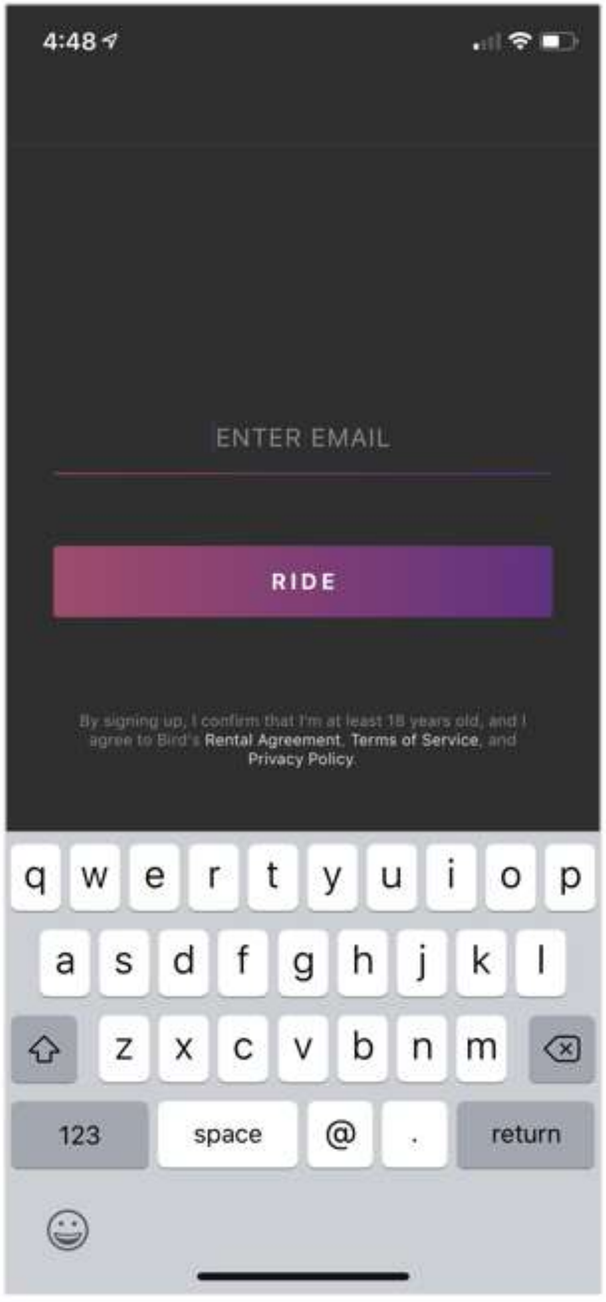
Lessons Learned

> Think mobile. Istead of multiple step sign-up forms, a *2-step-phone verification* process can establish someone's account much quicker by using what mobile devices do well.

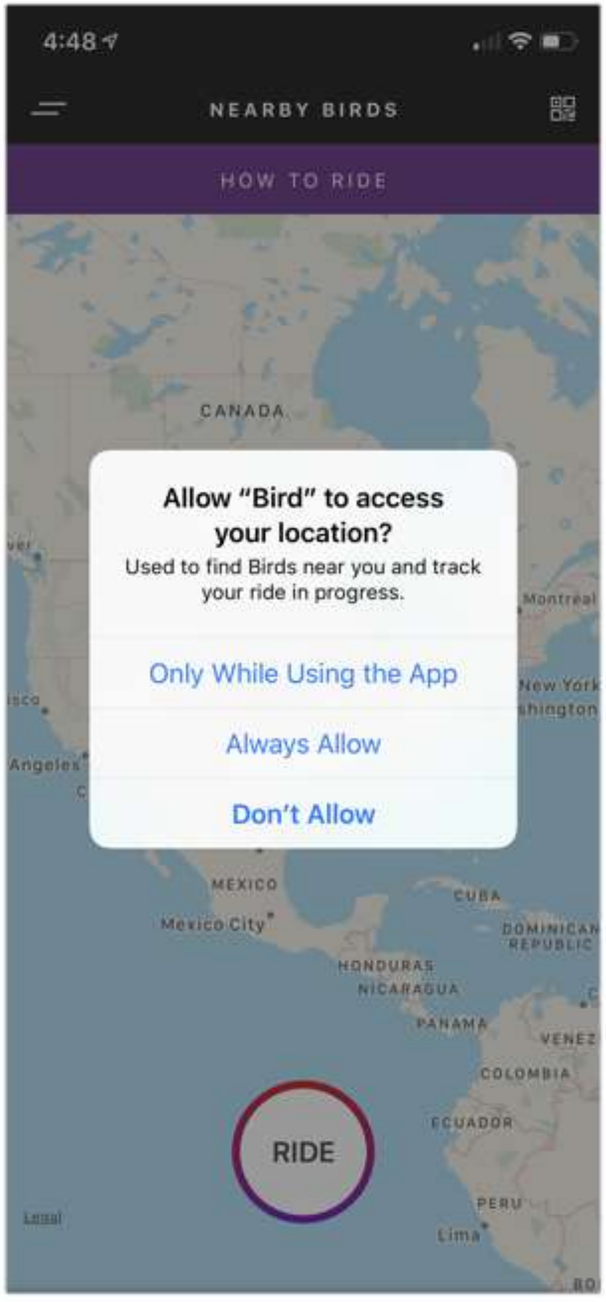
Luke Wroblewski, "Mobile On-Boarding Design", https://www.lukew.com/ff/entry.asp?1995

SPLASH SCREEN

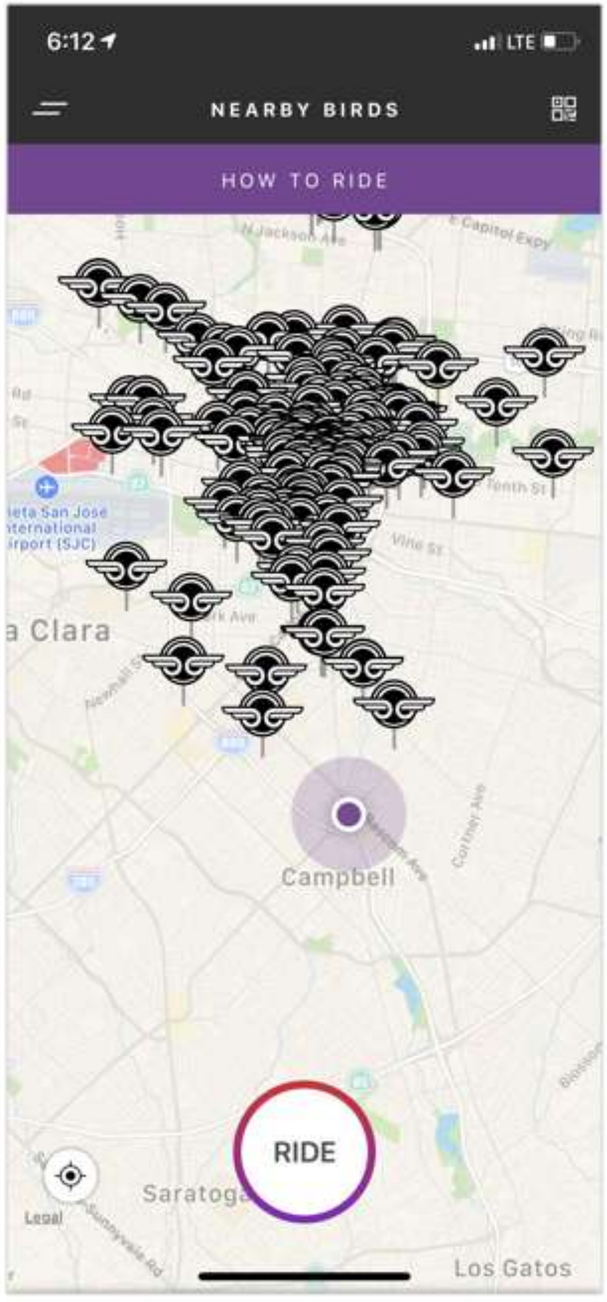
ENTER EMAIL



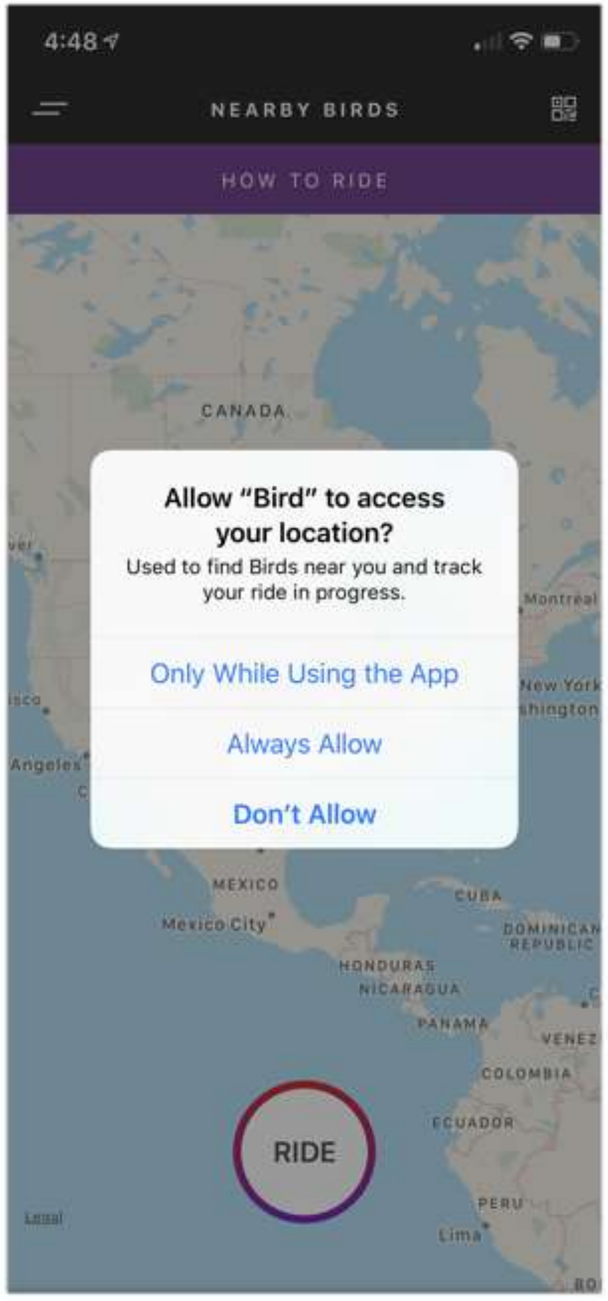
LOCATION PERMISSIONS



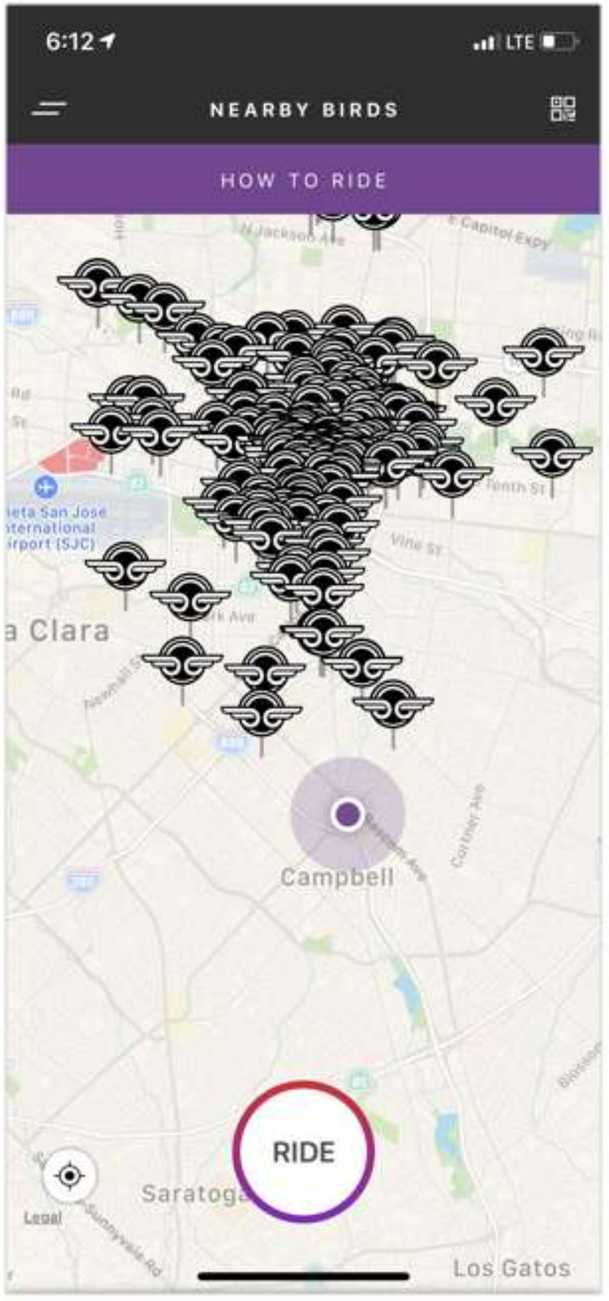
MAP



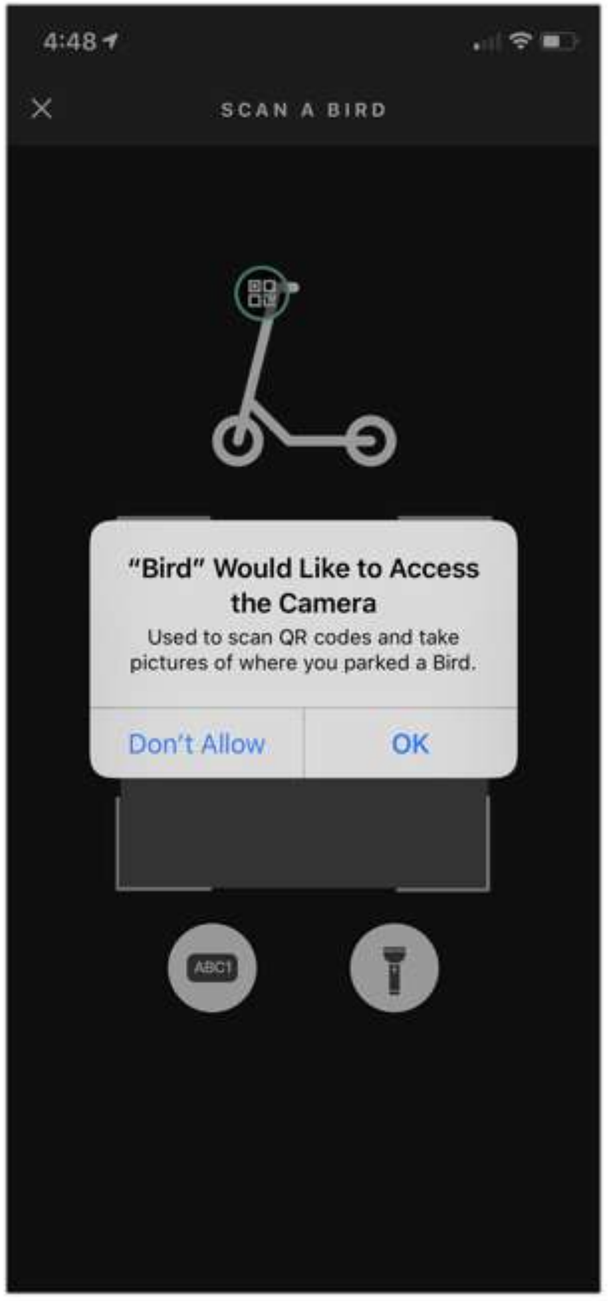
LOCATION PERMISSIONS



MAP

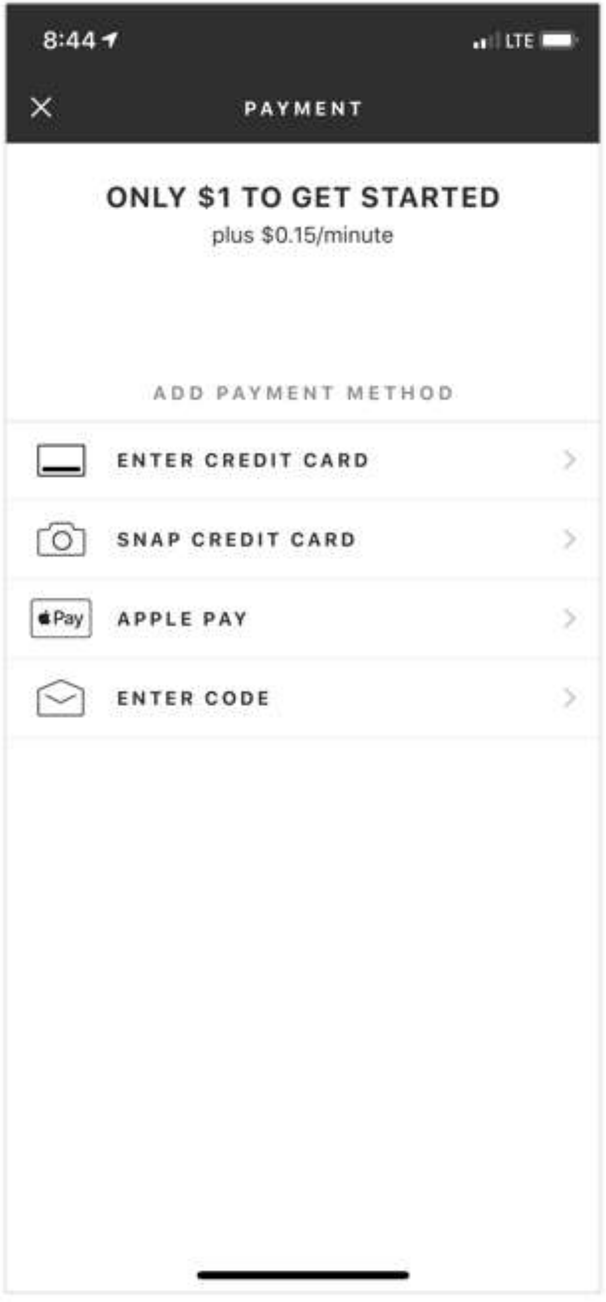


CAMERA PERMISSIONS

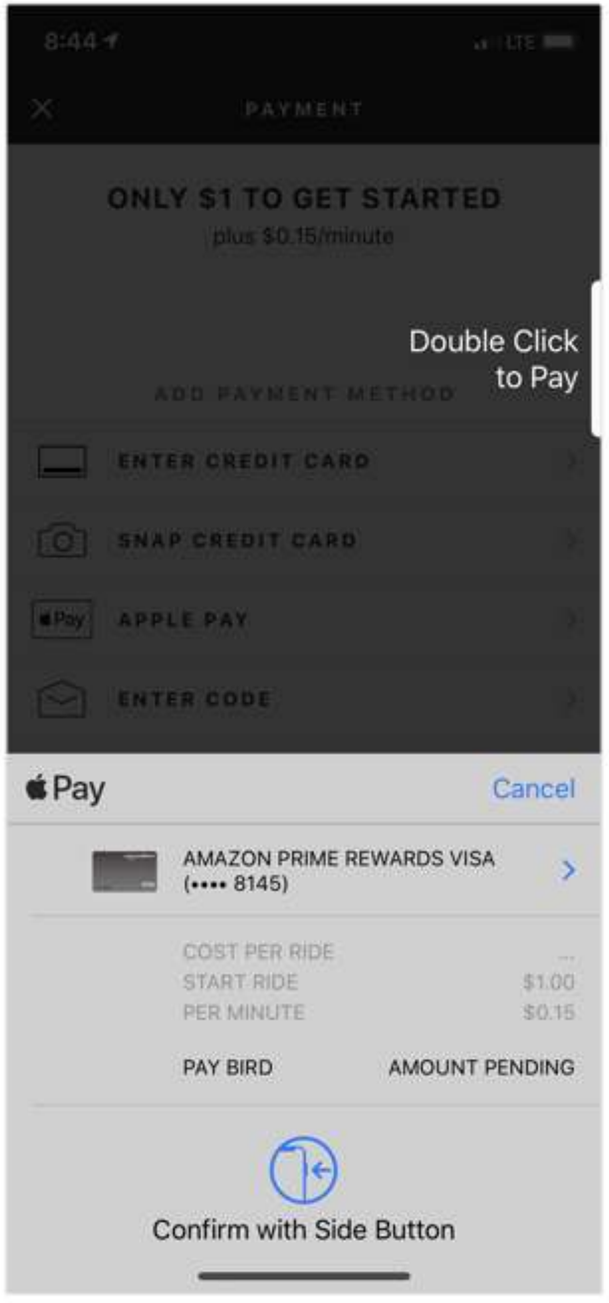


SCAN

PAYMENT OPTIONS

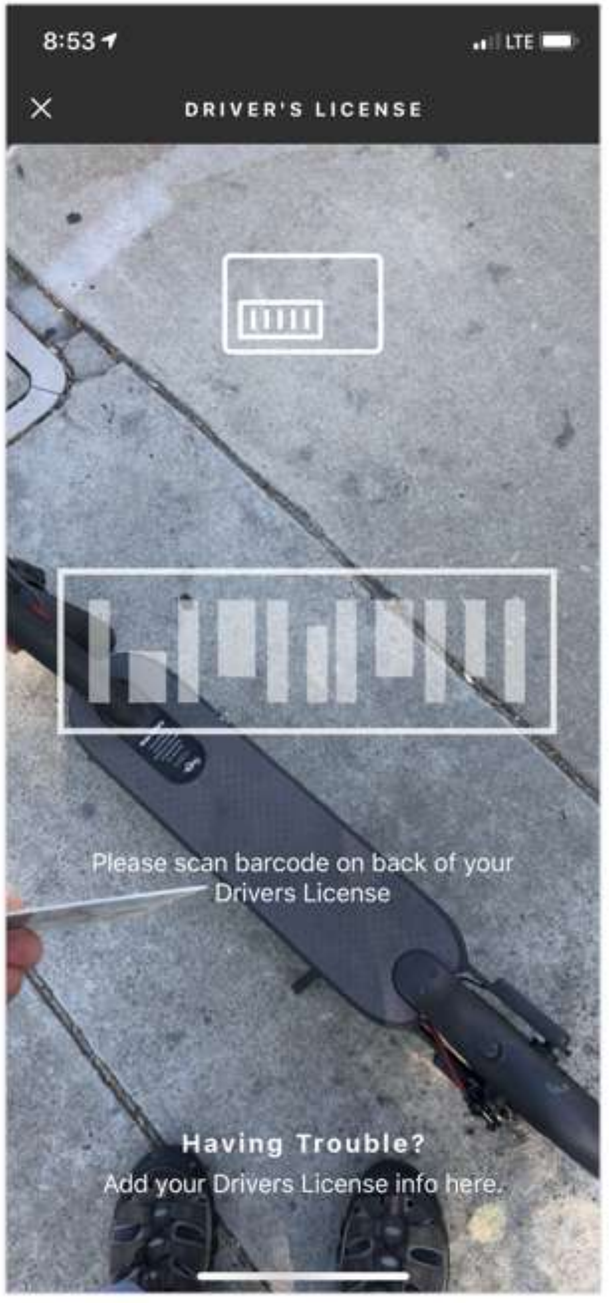


PAYMENT PERMISSIONS



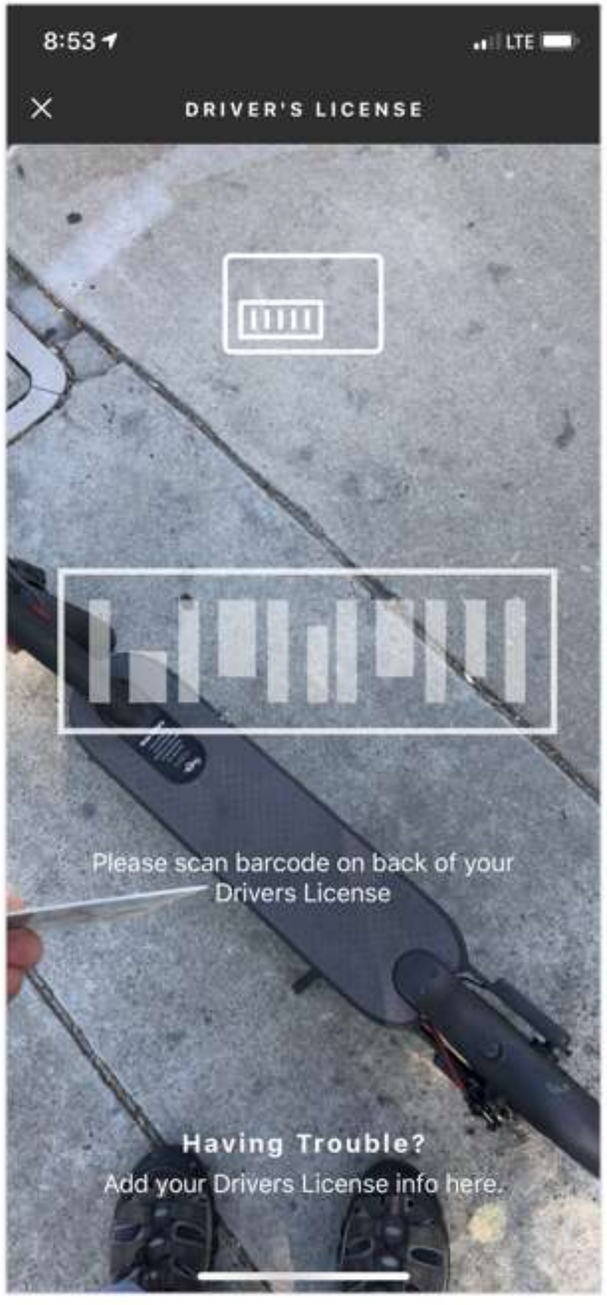
SCAN DRIVER'S LICENSE

SCAN DRIVER'S LICENSE

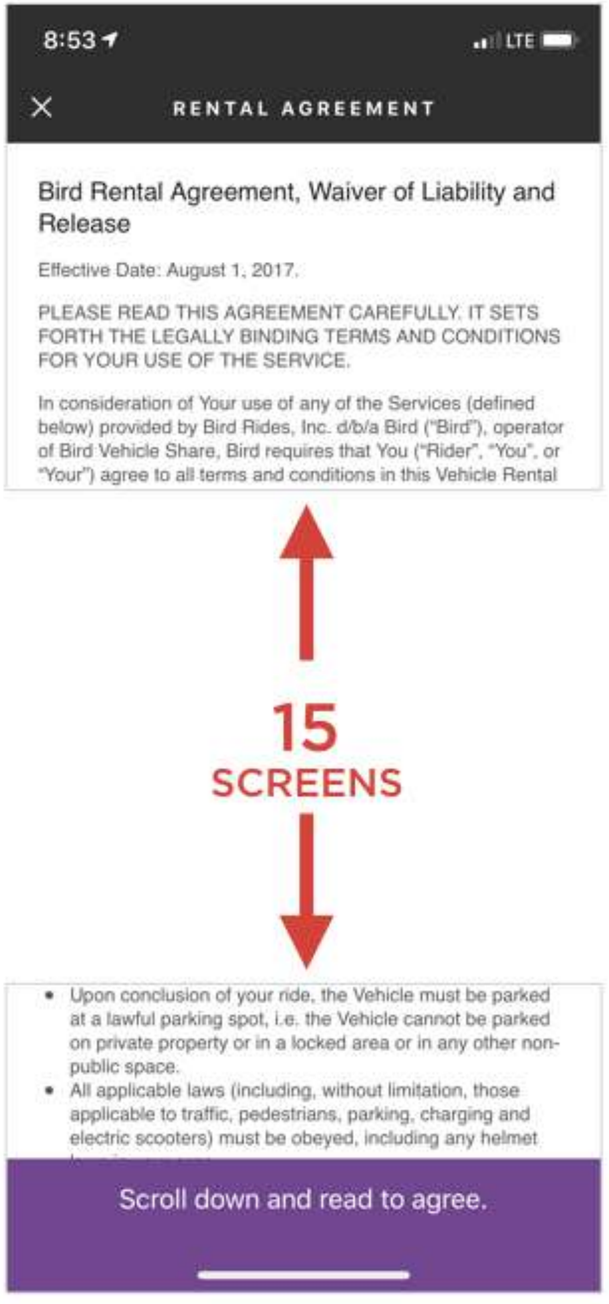


SCAN DRIVER'S LICENSE

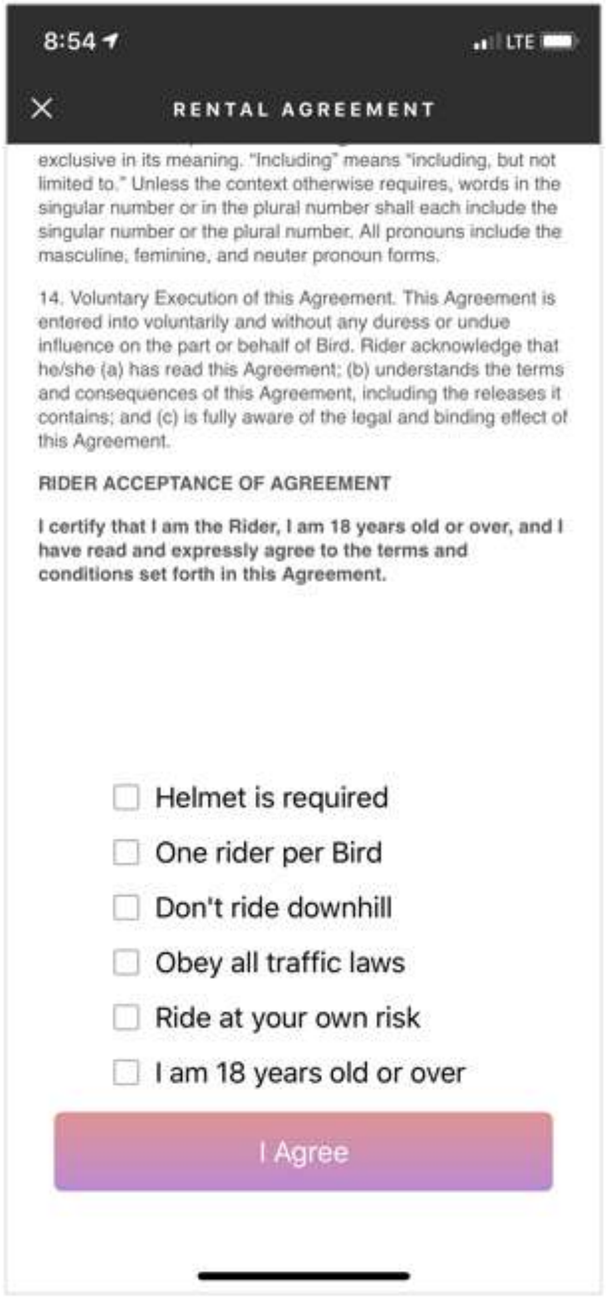
SCAN DRIVER'S LICENSE



TERMS & CONDITIONS

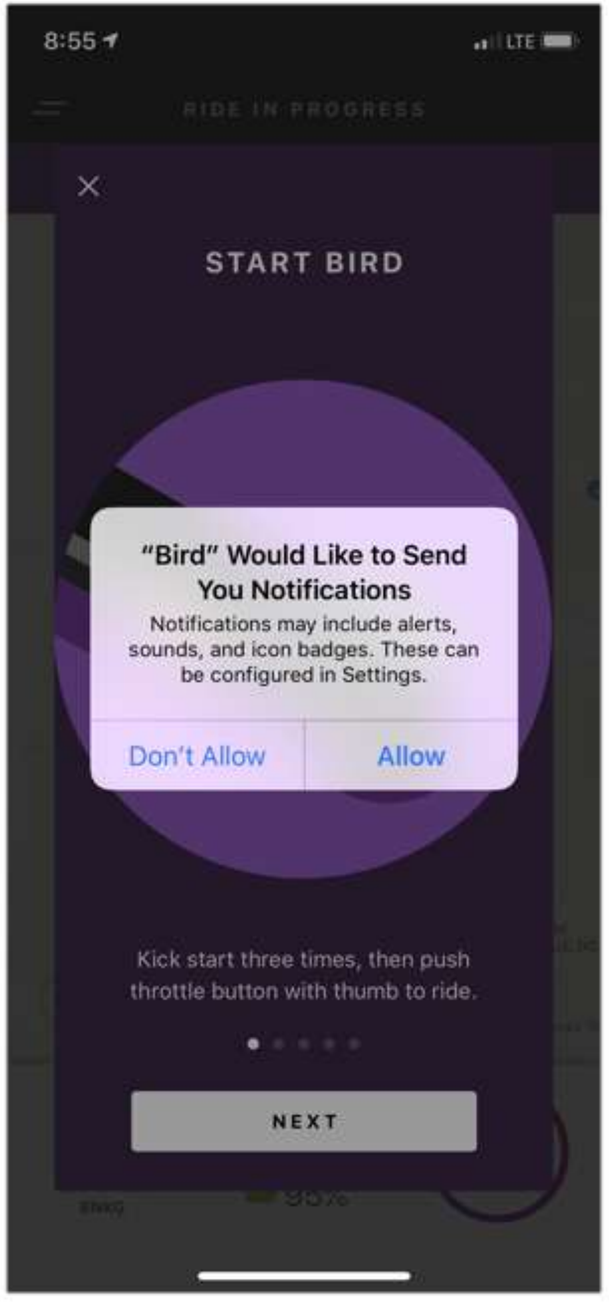


CHECK OFF TERMS



SCAN

NOTIFICATION PERMISSIONS



TUTORIAL

TUTORIAL

TUTORIAL

8:55 LTE

RIDE IN PROGRESS

START BIRD

Kick start three times, then push throttle button with thumb to ride.

NEXT

TUTORIAL

8:55 LTE

RIDE IN PROGRESS

WHERE TO RIDE

Ride in bike lanes when available, and avoid pedestrians on sidewalk.

NEXT

TUTORIAL

8:55 LTE

RIDE IN PROGRESS

BRAKES

Squeeze brake with left hand to slow down.

NEXT

TUTORIAL

8:55 LTE

RIDE IN PROGRESS

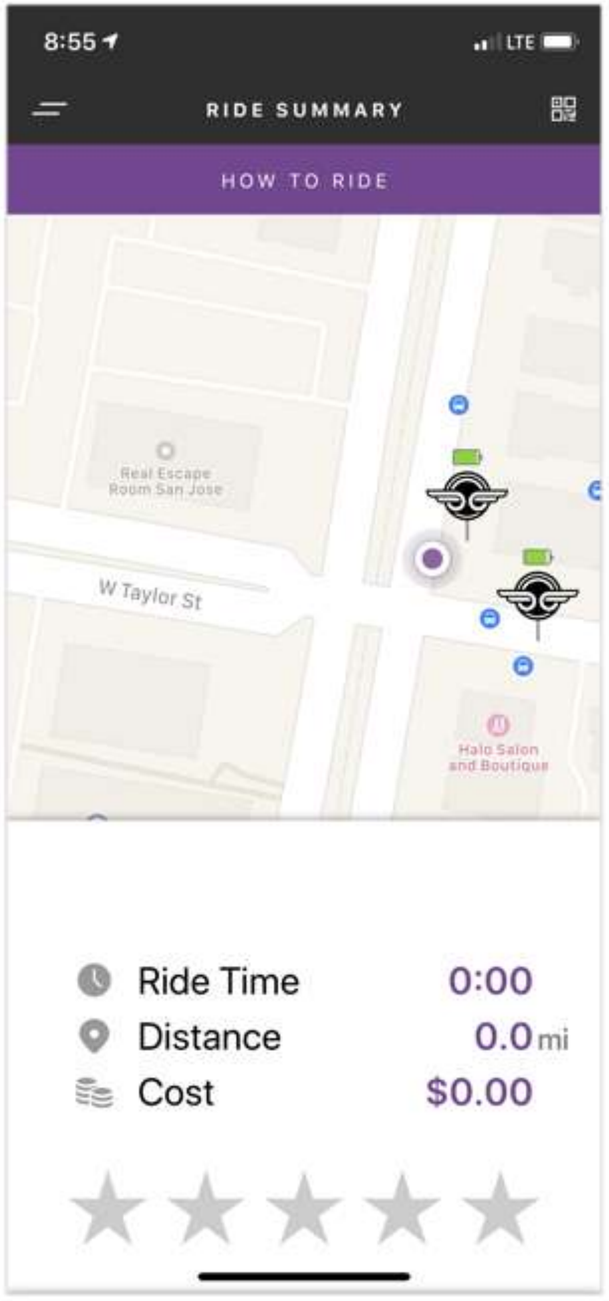
SAFE RIDING

Bring your own helmet to stay safe while you ride.

NEXT

TUTORIAL

RIDE

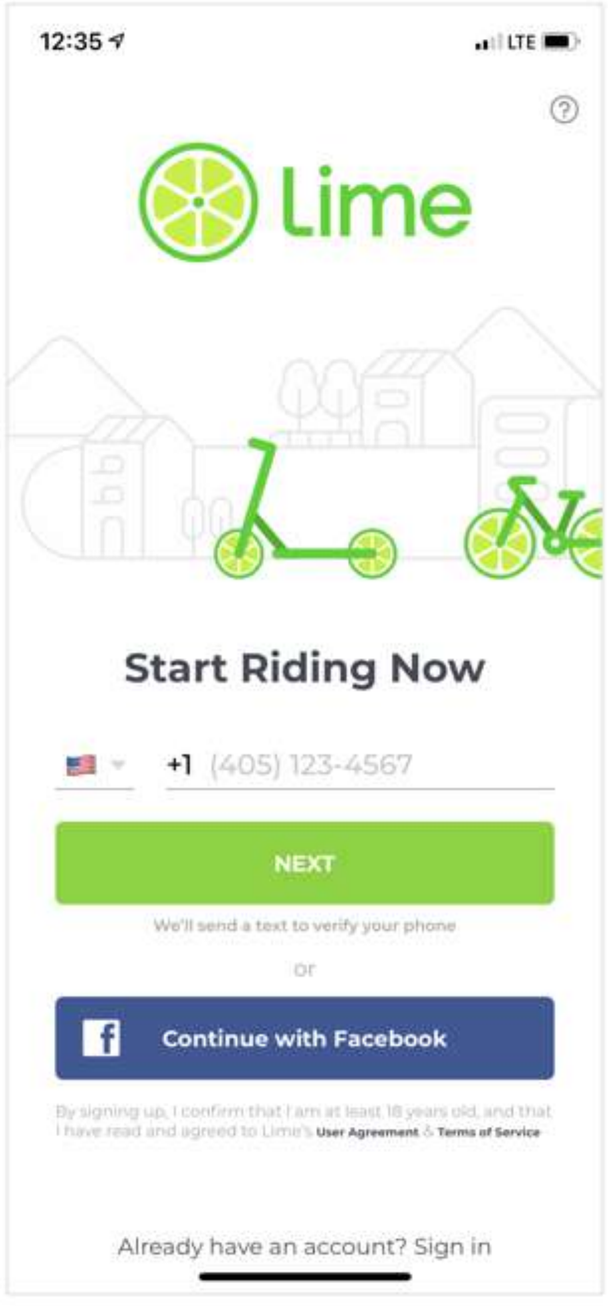


Lessons Learned

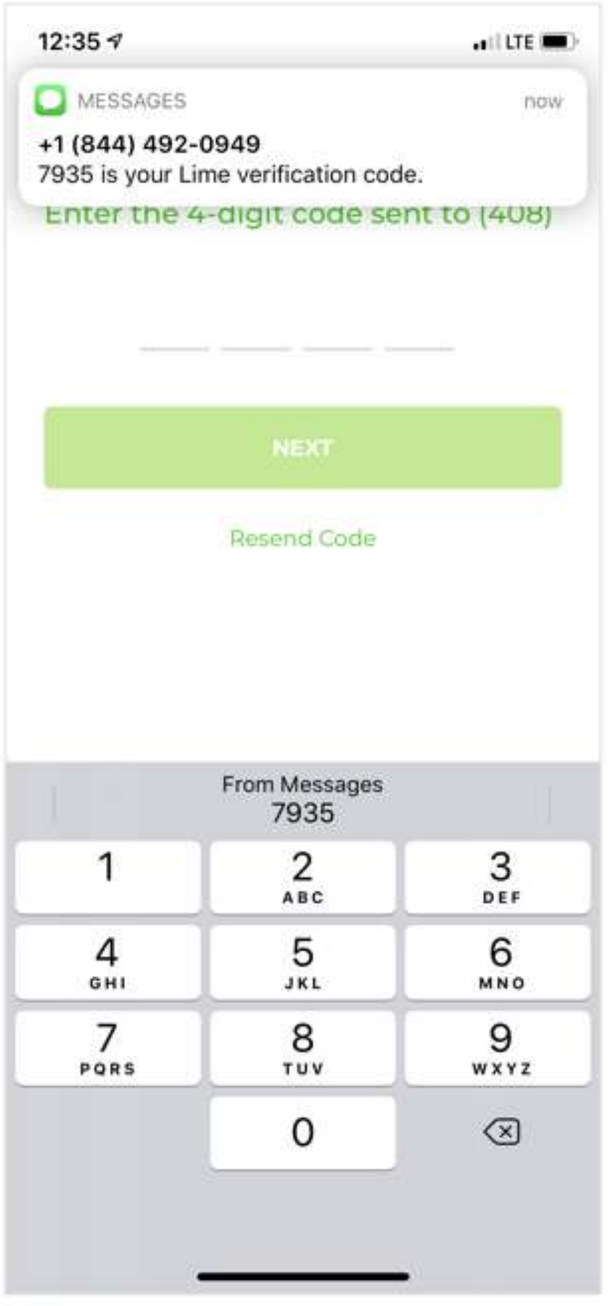
> Rules and regulations do exist but mobile on-boarding flows shouldn’t be driven by them. When asking for *personal information,* explain why you need it. Balance legal requirements and customer experience.

Luke Wroblewski, “Mobile On-Boarding Design”, https://www.lukew.com/ff/entry.asp?1995

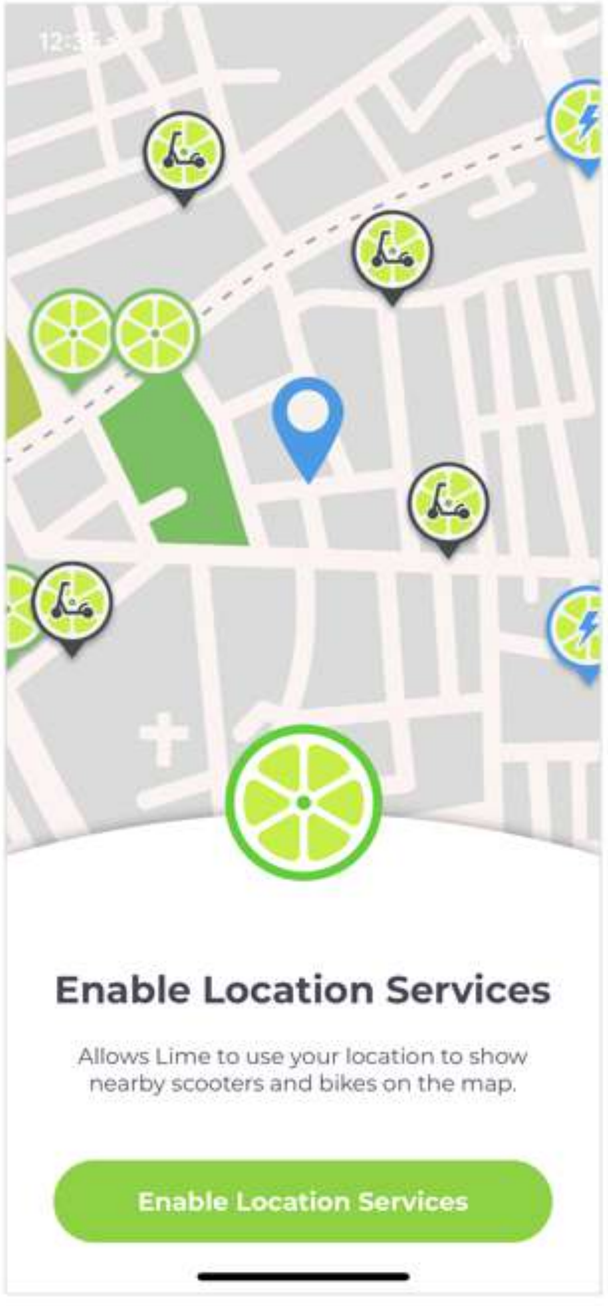
START SCREEN



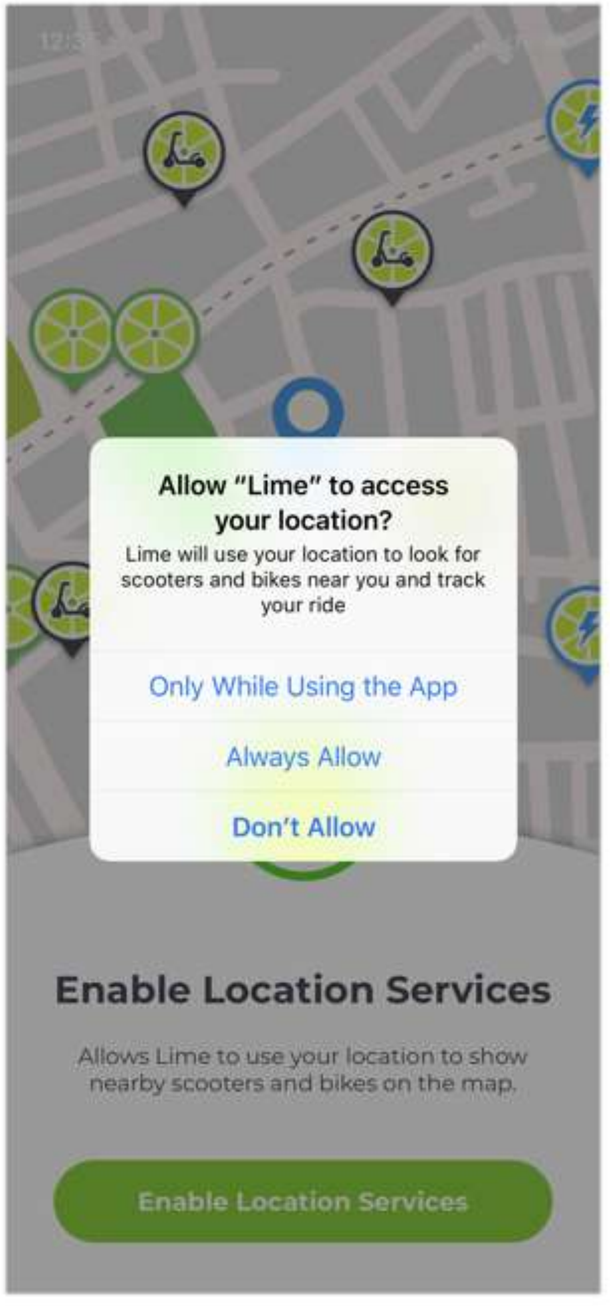
PHONE VERIFICATION



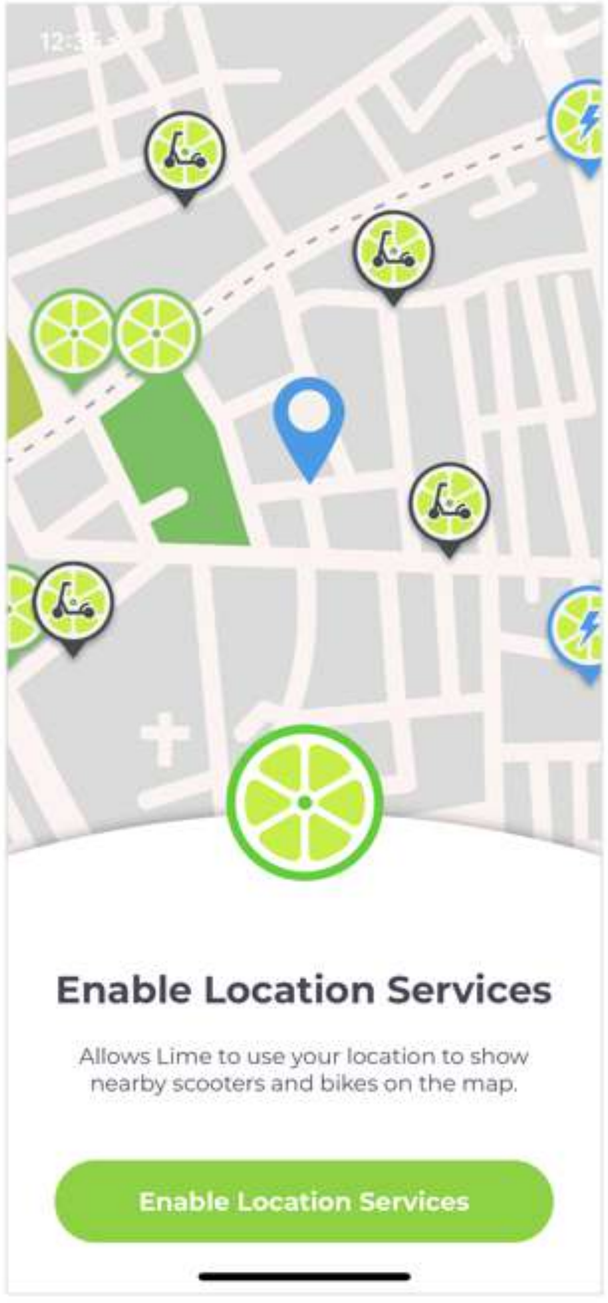
LOCATION PROMPT



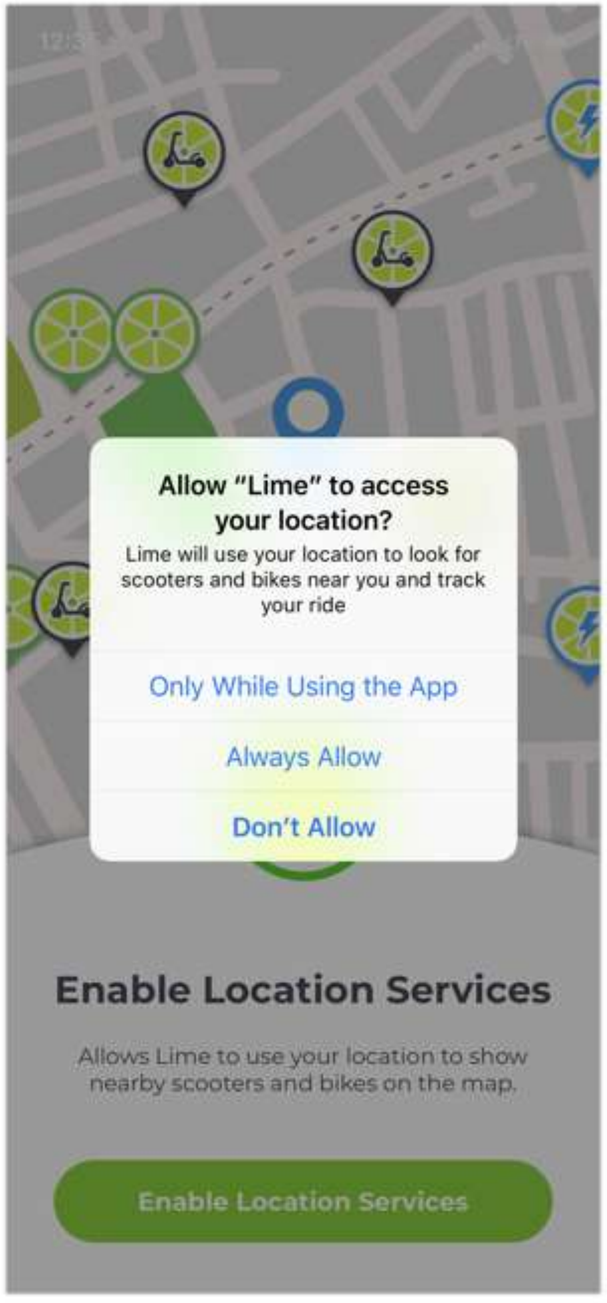
LOCATION PERMISSIONS



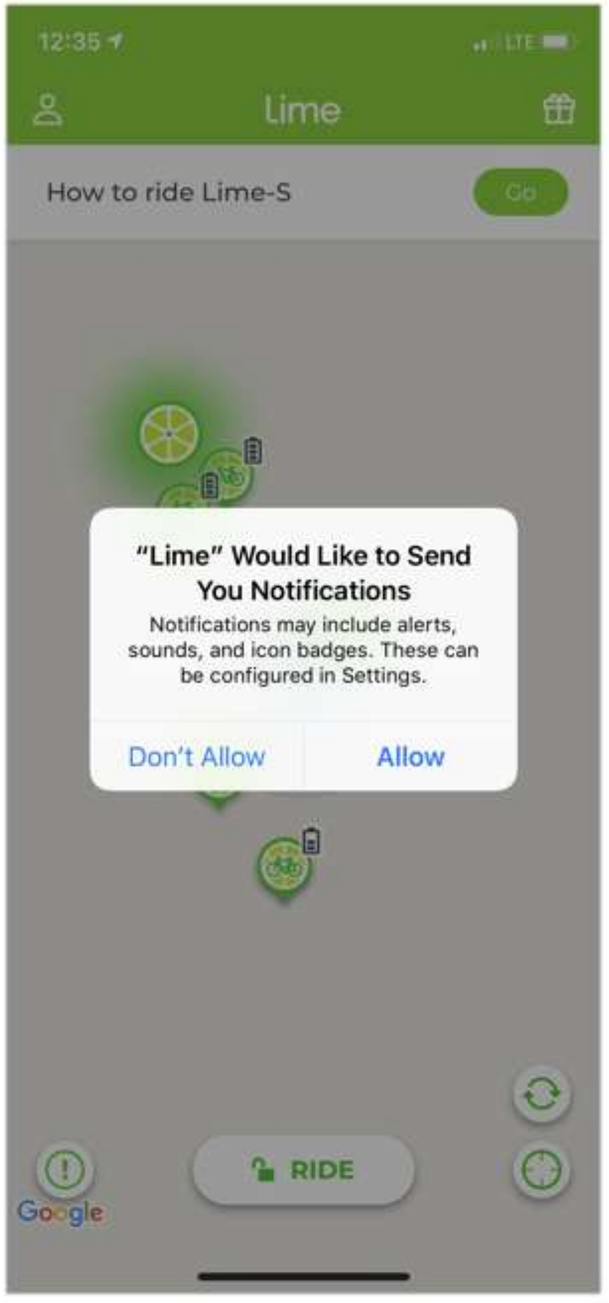
LOCATION PROMPT



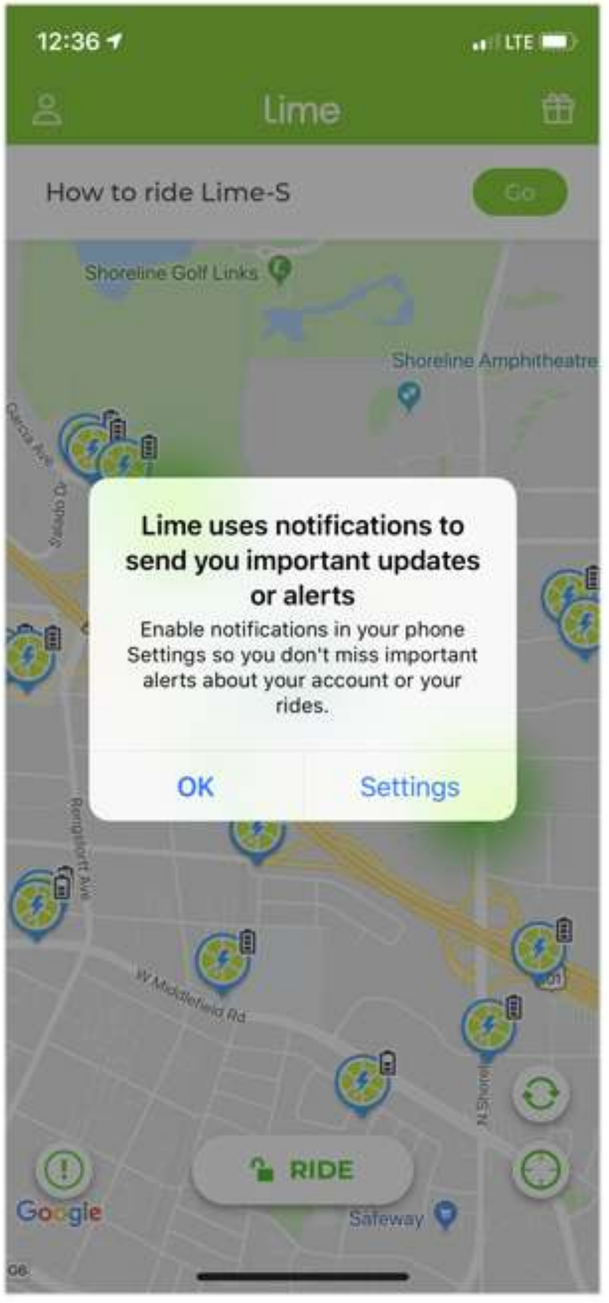
LOCATION PERMISSIONS



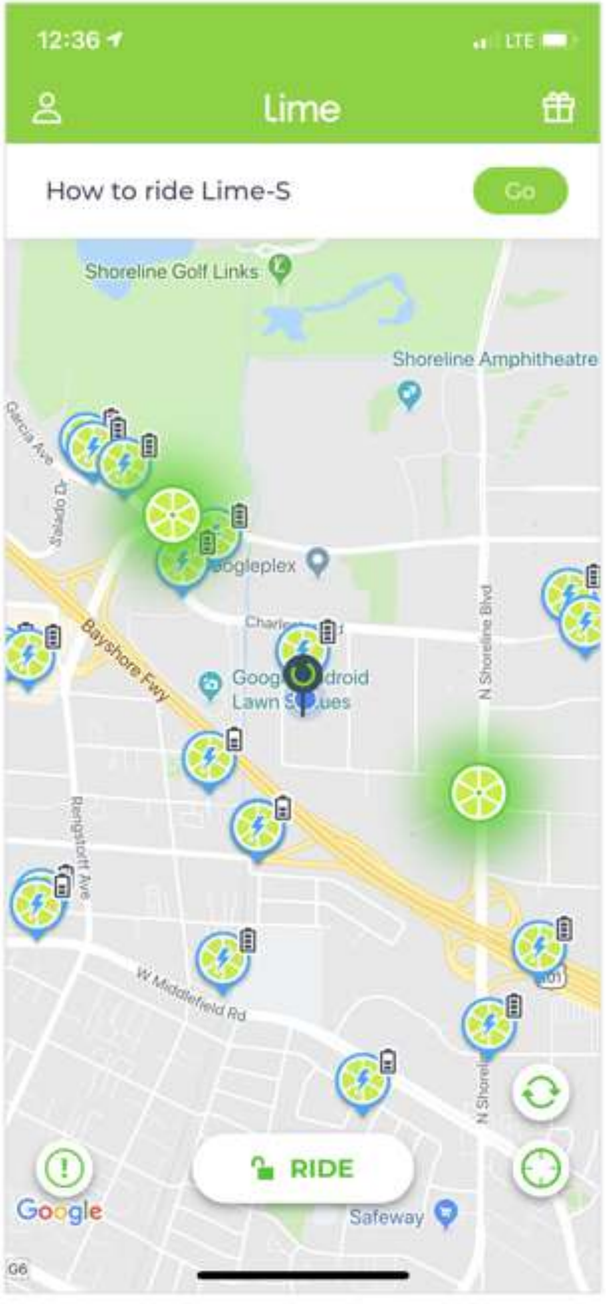
NOTIFICATIONS PROMPT



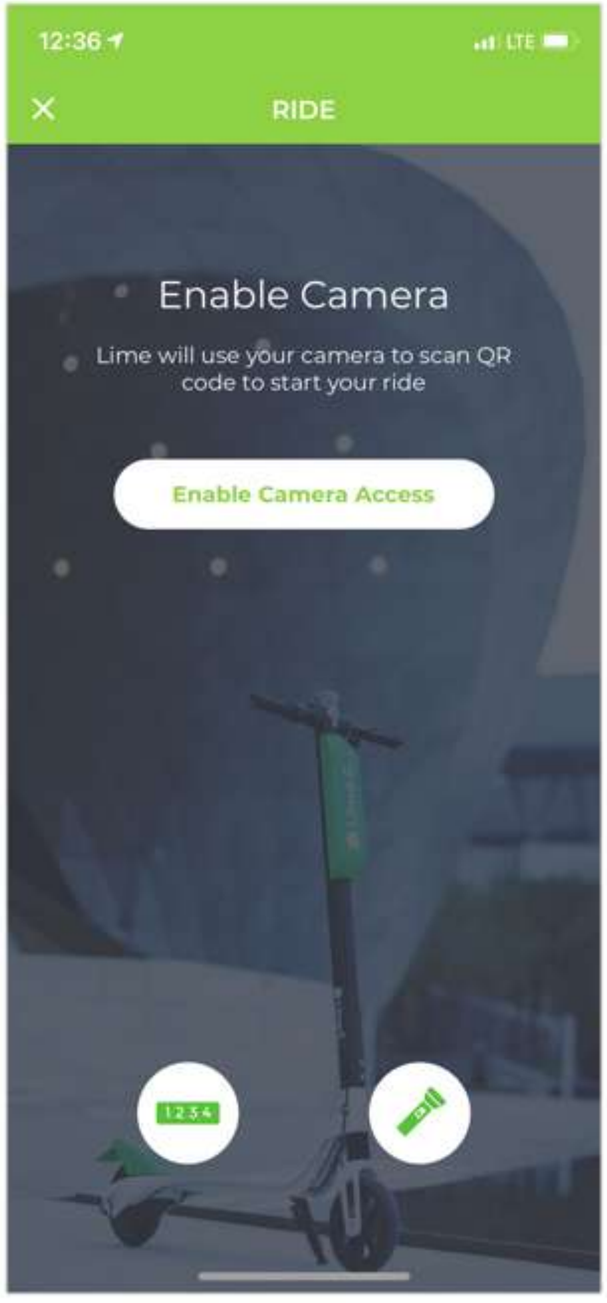
NOTIFICATIONS DIALOG



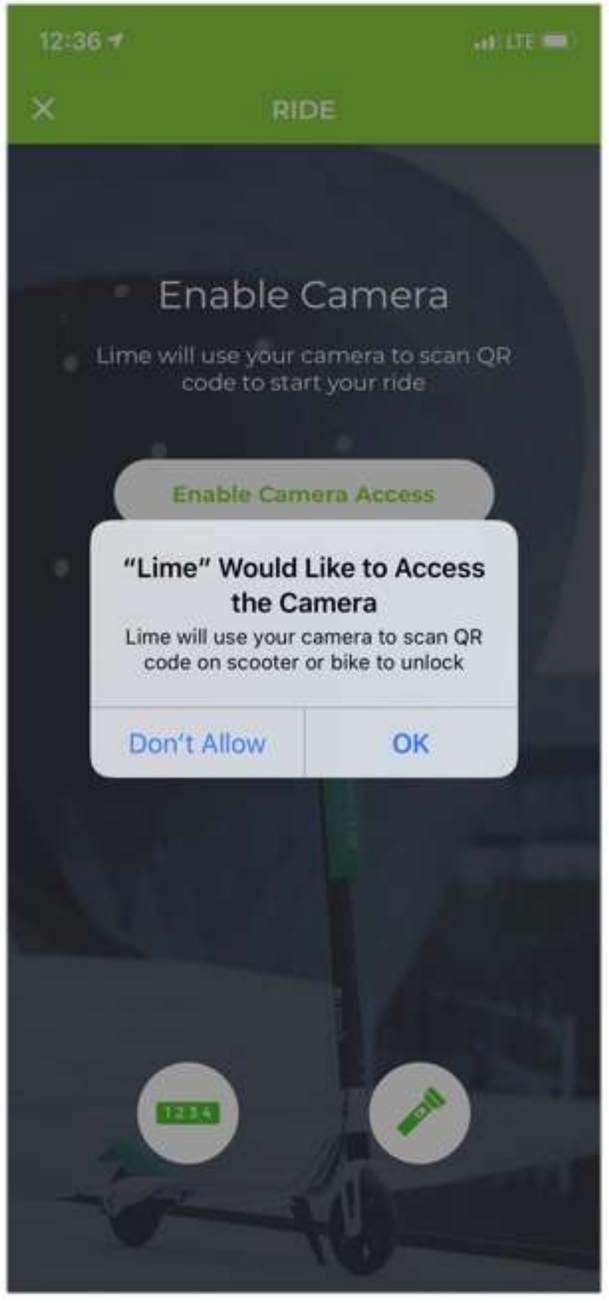
MAP



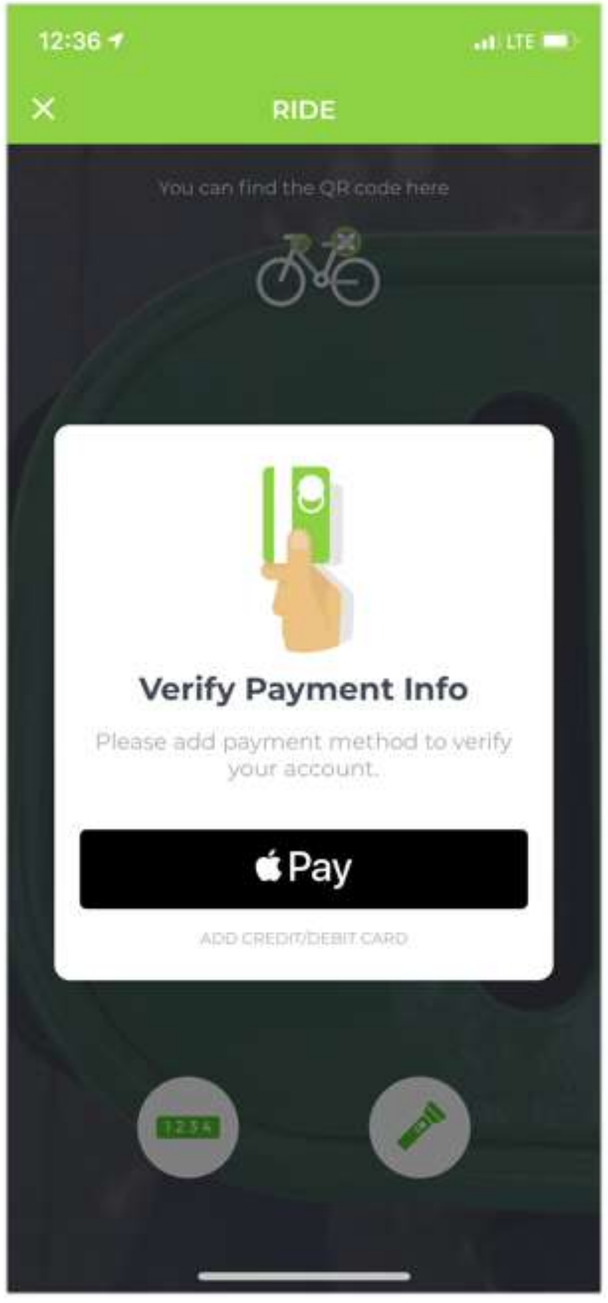
CAMERA PROMPT



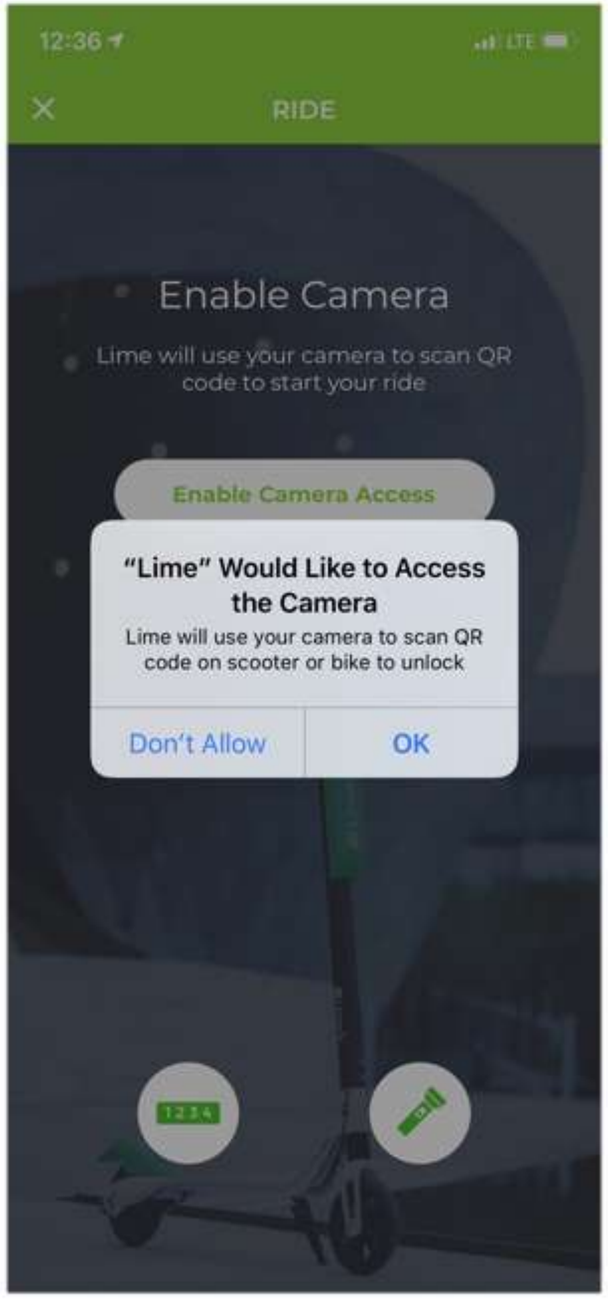
CAMERA PERMISSIONS



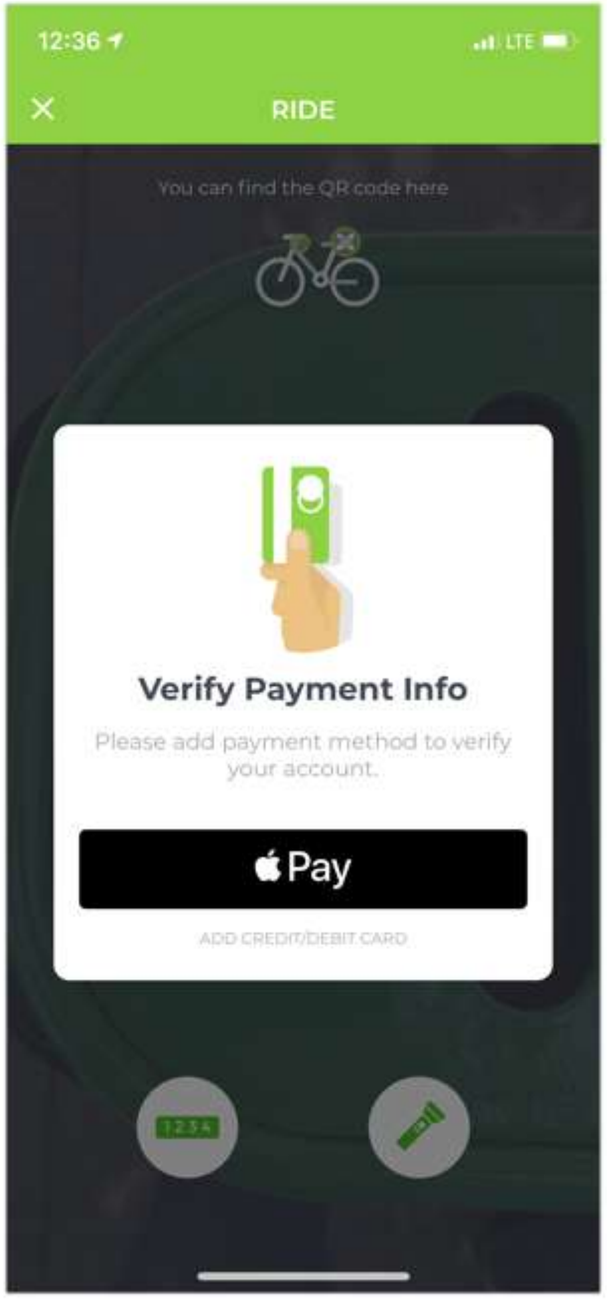
PAYMENT PROMPT



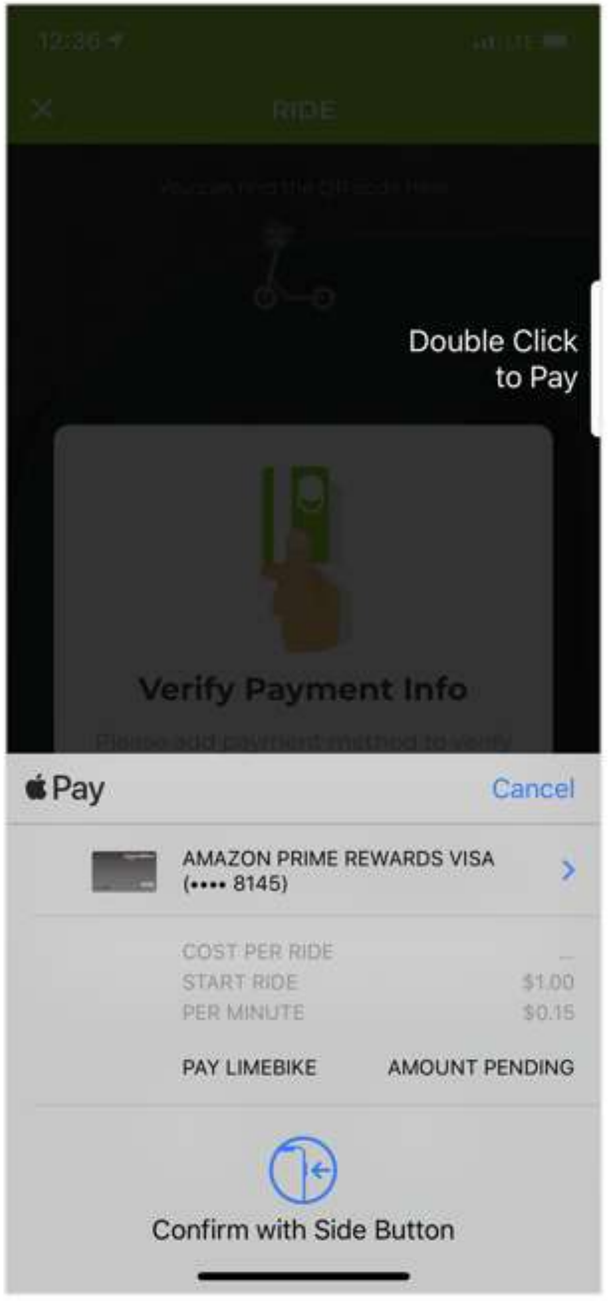
CAMERA PERMISSIONS



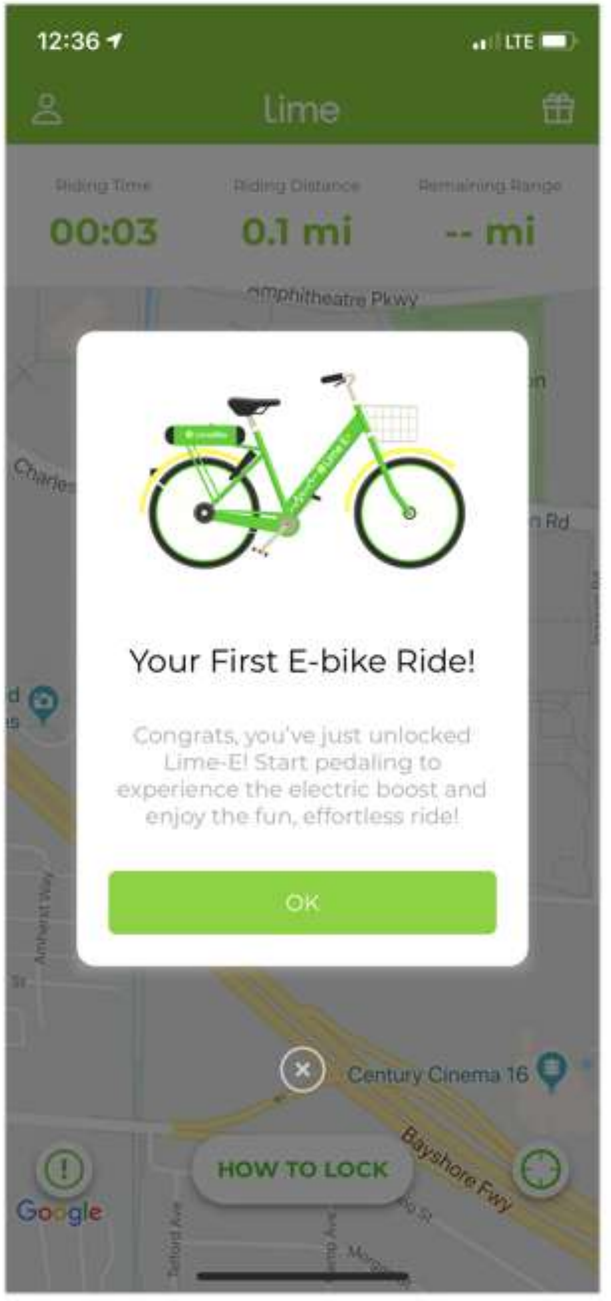
PAYMENT PROMPT



PAYMENT PERMISSIONS



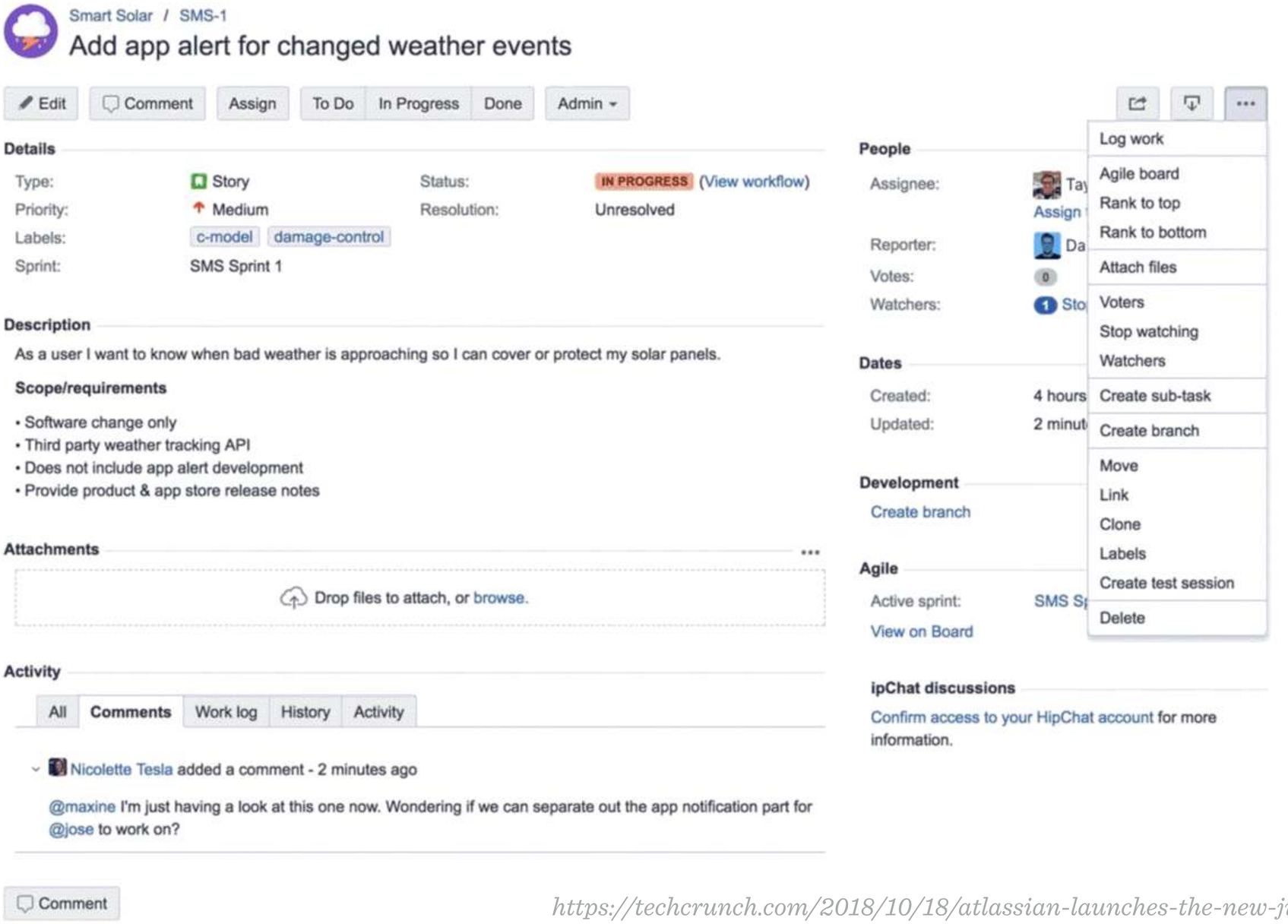
RIDE



Lessons Learned

> Put your customer's goals front and center in your mobile on-boarding process. It starts from the *first screen.* Lean into mobile-native solutions: phone verification, integrated payments, explain permissions..

Luke Wroblewski, "Mobile On-Boarding Design", https://www.lukew.com/ff/entry.asp?1995

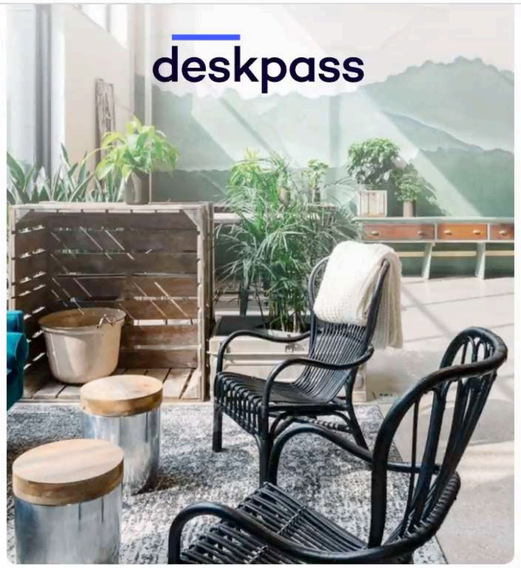


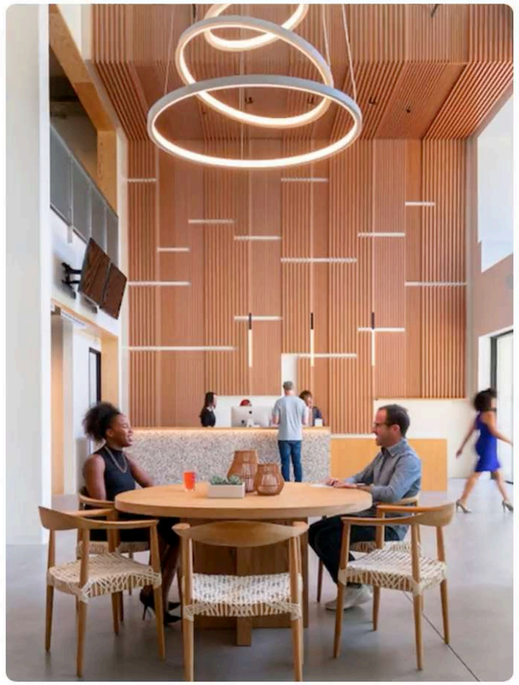
https://techcrunch.com/2018/10/18/atlassian-launches-the-new-jira-software-cloud/

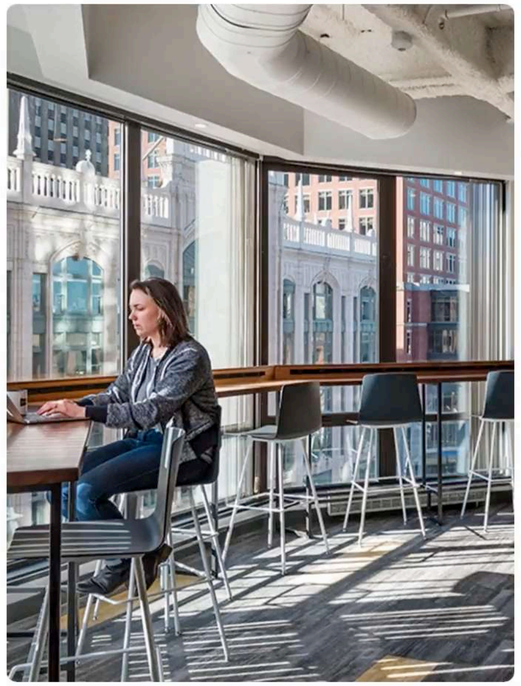
Coworking & Shared Offices |

deskpass.com

Paused







Find a Space | Find a Conference Room | Pricing | Teams NEW | Log In

Workspaces you'll love.

Instant access to 500+ nationwide coworking spaces for one monthly price.

Sign up for your free 30-day trial!

Email Address | Zip | Find Spaces Near Me

Need space for your team? Learn More ›

The Fundamentals

Onboarding Design Checklist

01 — What are “success moments” in our app?

02 — Are we focusing on “success moments” rather than features?

03 — Can we avoid intro tours, tooltips, wizards and slideshows?

04 — How many taps are required to accomplish first critical task?

05 — What different jobs does the product is hired for?

06 — What does success looks like for each of these jobs?

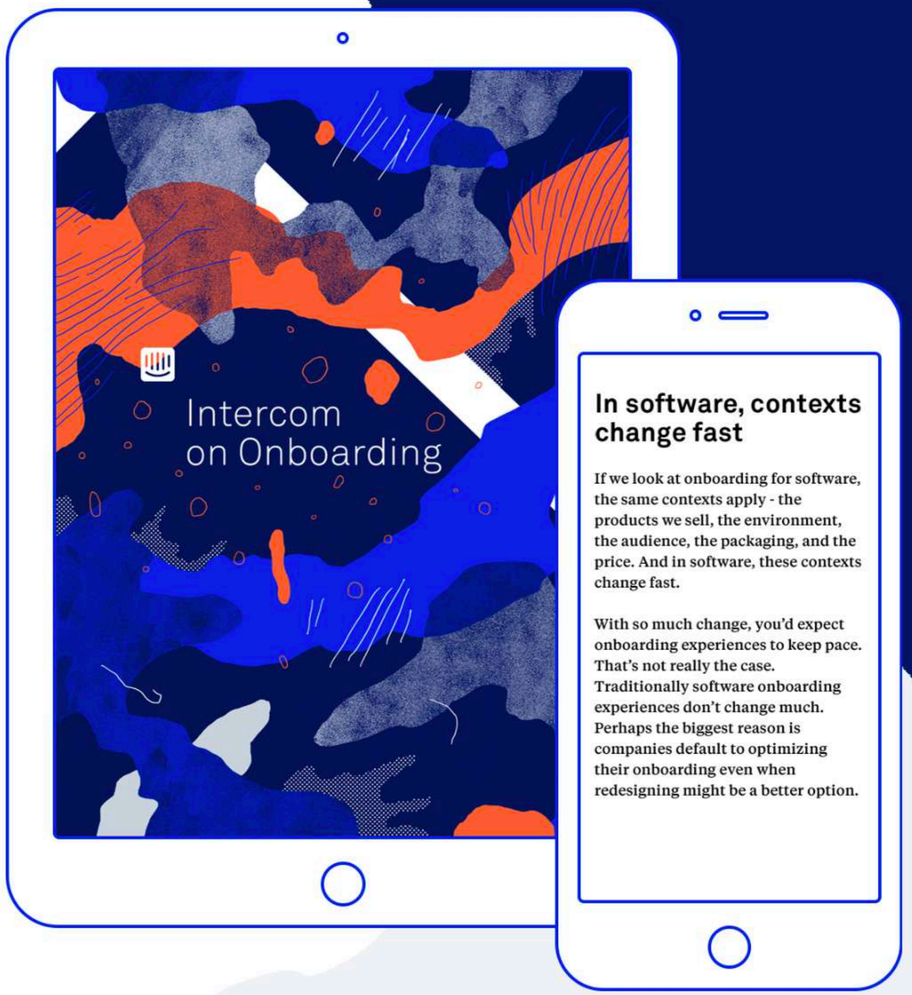
07 — What’s the minimal amount of data required to get there?

08 — When is the right timing to announce a particular feature?

09 — Do we use just-in-time education, gamification, empty states?

10 — Are we using progressive onboarding, creating account later?

11 — Reveal help when users actually need it, not when they don’t.



INTERCOM ON ONBOARDING

Onboarding isn't a metric, it's an outcome

"Onboarding means ensuring as many users as possible become successful ones. This book outlines time-tested thinking that will help your company do exactly that."

SAMUEL HULICK
FOUNDER, USERONBOARD

Read It Today

Intercom on Onboarding, *https://www.intercom.com/books/onboarding*

UserOnboard
Teardowns
Essays
Training
Contact
WordPress.com, 05/2018
How WordPress Onboards New Users
1 / 97
UserOnboard.com
How WordPress
Onboards New Users

Summary

01 – Identify key data input, and focus on it first.

02 – Drive towards small wins, not features.

03 – Avoid bolt-on tooltips, prefer integrated UI.

04 – Too much contrast is as bad as too little contrast.

05 – Account should be the method of last resort.

06 – Customize onboarding flow based on intent.

07 – Speed users up with just-in-time shortcuts/tips.

08 – Build up an early warning system for new users.

Smart Interface Design Patterns

Wrapping Up

Smart Interface Design Patterns

Wrapping Up

Summary

01 – With input, we think in solid, single entities.

02 – Our task is to map these entities in our web forms.

03 – Consider input budgets for your critical form inputs.

04 – Always prefer (large) buttons, toggles, sliders, autocomplete.

05 – Think about the right timing for input.

06 – Define reasonable input boundaries for each input.

07 – One-thing-per-page, top-aligned labels, single column-layout.

08 – Inline validation: use thresholds, reward early, punish late.

09 – Show actionable errors/errors summary above the input.

10 – 2-factor-auth and magic link work well. Fallback: email/pass.

smashingcat (23).png

Added by Ricardo G. on Aug 16 · 29 KB

12 comments Label...

smashingcat (22).png

Added by Ricardo G. on Aug 16 · 40 KB

12 comments Label...

smashingcat (21).png

Added by Ricardo G. on Aug 16 · 34 KB

12 comments Label...

smashingcat (20).png

Added by Ricardo G. on Aug 16 · 34 KB

12 comments Label...

smashingcat (19).png

Added by Ricardo G. on Aug 16 · 31 KB

12 comments Label...

smashingcat (18).png

Added by Ricardo G. on Aug 16 · 40 KB

12 comments Label...

smashingcat (11).png

Added by Ricardo G. on Aug 16 · 28 KB

12 comments Label...

smashingcat (10).png

Added by Ricardo G. on Aug 16 · 19 KB

8 comments Label...

smashingcat (9).png

Added by Ricardo G. on Aug 16 · 29 KB

10 comments Label...

smashingcat (8).png

Added by Ricardo G. on Aug 16 · 41 KB

smashingcat (7).png

Added by Ricardo G. on Aug 16 · 28 KB

smashingcat (6).png

Added by Ricardo G. on Aug 16 · 31 KB

Contact details

Meow! Thanks for being smashing.

Checklists: www.smashed.by/checklists
Twitter: @smashingmag
Books, Magazine: www.smashingmagazine.com
Workshops & Conferences: www.smashingconf.com
Compliled and curated by Vitaly Friedman, 2012–2020.