DESIGNING FOR THE DIGITAL ECOSYSTEM

Cornell Tech 2016

Heather Luipold

Adam Katz

Matt Delbridge

CLASS 3: DIGITAL DESIGN BASICS

WE COVERED DESIGN BASICS

WHAT IS
DIGITAL DESIGN?

DIGITAL DESIGN

A BIRD'S EYE VIEW

USER EXPERIENCE → WIREFRAME → VISUAL DESIGN → PROTOTYPE → USER TESTING → REITERATE / SHIP IT

FIRST A BRIEF HISTORY OF DIGITAL DESIGN

Control Panel   THE G.U.I.

Calculator

1/17/00   22:32:50
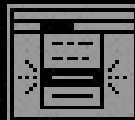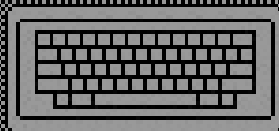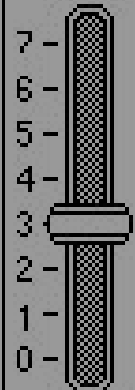
0 1 2 3
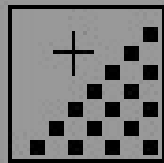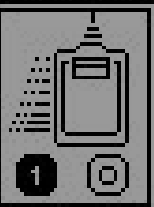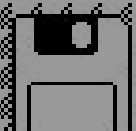
System Disk

Guided Tour

0

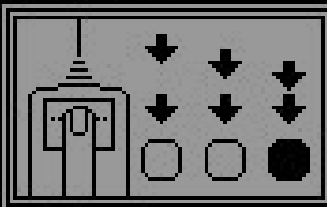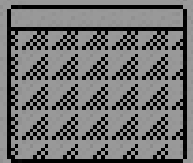| C | E | = | * |
7	8	9	/
4	5	6	-
1	2	3	
0	.	+	

0 1 2 3 4

0 1 2 3 4

1 2 3

7 -
6 -
5 -
4 -
3 -
2 -
1 -
0 -

1
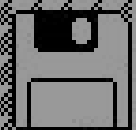
Key Caps

Puzzle

2	5	10	14
1	13	8	15
3		4	7

` 1 2 3 4 5 6 7 8 9 0 - =

q w e r t y u i o p [ ] \
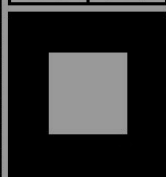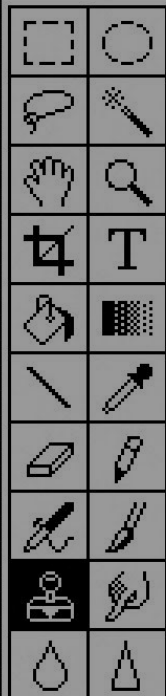
The quick brown fox jumps over a lazy dog.

The Architecture of Patterns

Paul Andersen David Salomon

Design by david carson

The Archit
The Architecture of Patt
Paul Andersen and David Salomo
Paul Andersen and David Salomon

NEW CANVASES (WEBSITES)

NEW SCREEN SIZES

INTERNET OF THINGS

nest

1 HOUR
70

WHAT ARE THE COMPONENTS OF DIGITAL DESIGN

UX + UI

UX + UI

USER EXPERIENCE   **USER INTERFACE**

The Difference Between UX and UI by Ed Lea

PRODUCT

All of the puzzle pieces that exist to the user. (GUI)
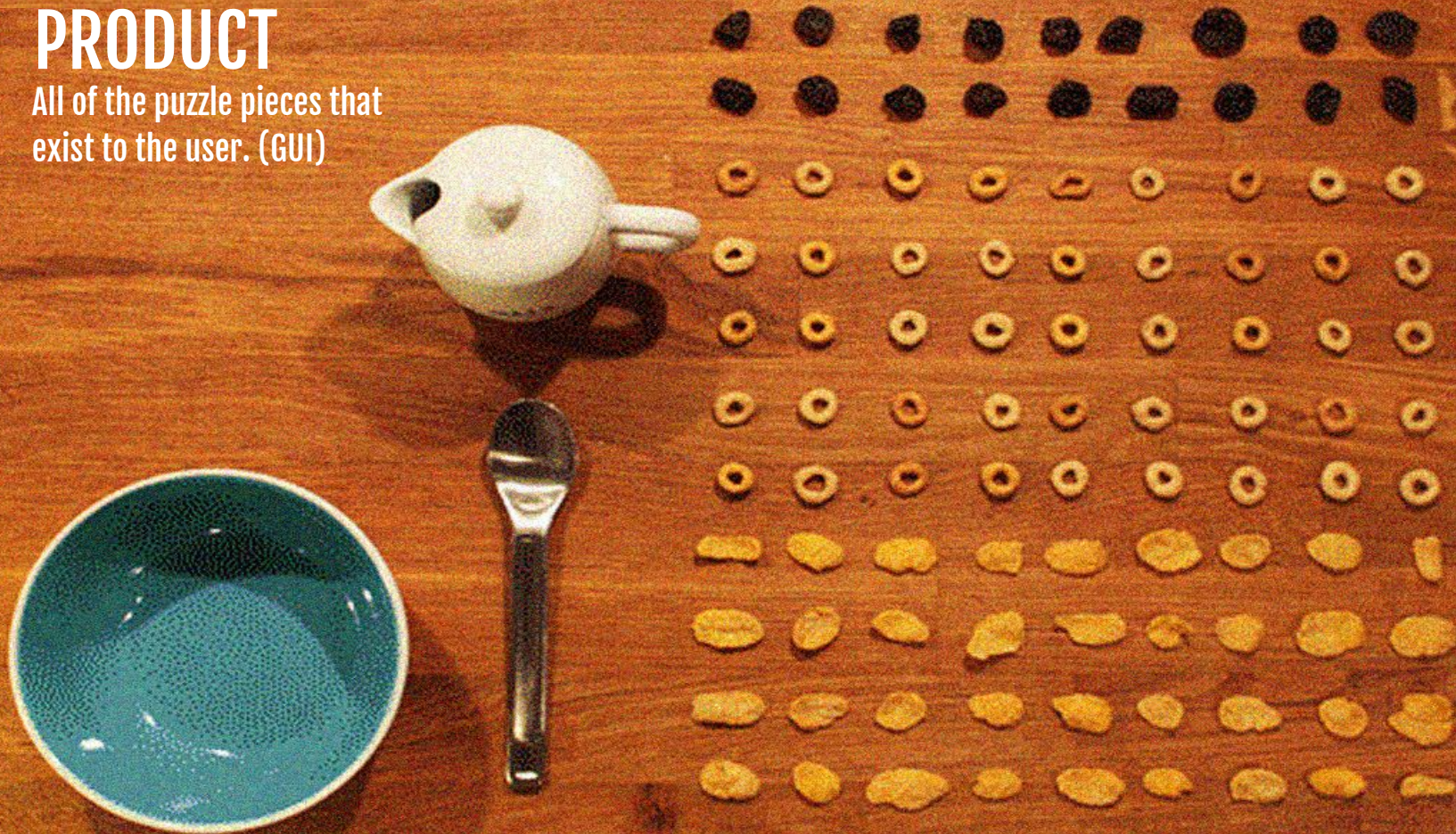
USER EXPERIENCE (UX)

The whole puzzle, ready to consume.

USER INTERFACE (UI)

The puzzle piece(s) that the user
needs to get the job done.

SO TO REPEAT

PRODUCT

All of the puzzle pieces that
exist to the user. (GUI)

USER EXPERIENCE (UX)

The whole puzzle, ready to consume.

from Your location

to Oficiul Poştal Bucureşti 82

Getting you from A - B

USER INTERFACE (UI)

The puzzle piece(s) that the user needs to get the job done.

PRODUCT
All of the puzzle pieces that
exist to the user. (GUI)

USER EXPERIENCE (UX)
The whole puzzle, ready to consume.

Where are you going?

Finding you a place to stay

USER INTERFACE (UI)

The puzzle piece(s) that the user
needs to get the job done.
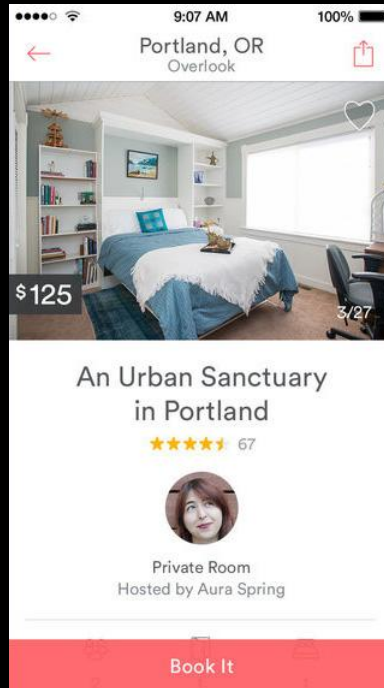
ONE MORE TIME

PRODUCT

All of the puzzle pieces that
exist to the user. (GUI)

USER EXPERIENCE (UX)

The whole puzzle, ready to consume.

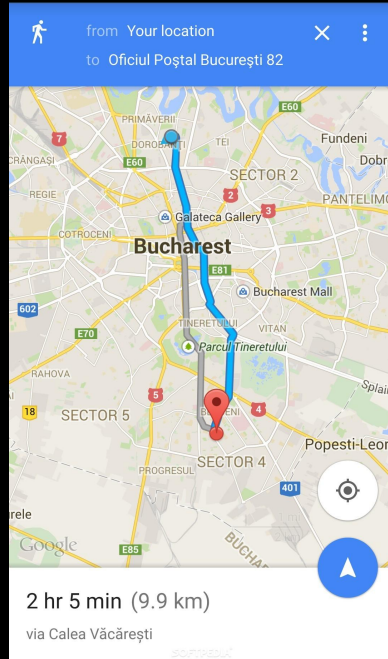Project management through messaging.
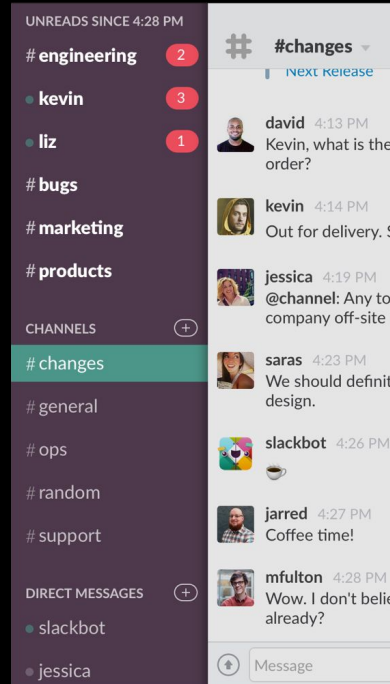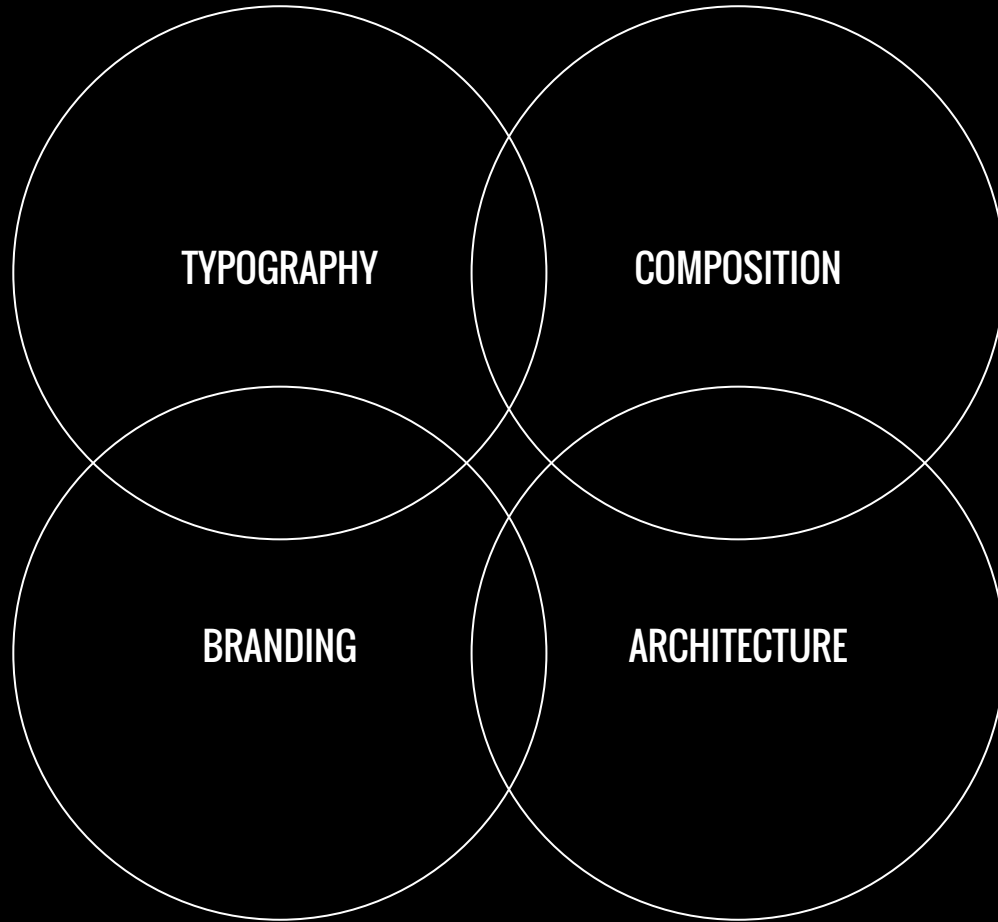
USER INTERFACE (UI)

The puzzle piece(s) that the user
needs to get the job done.

UI = VISUAL DESIGN
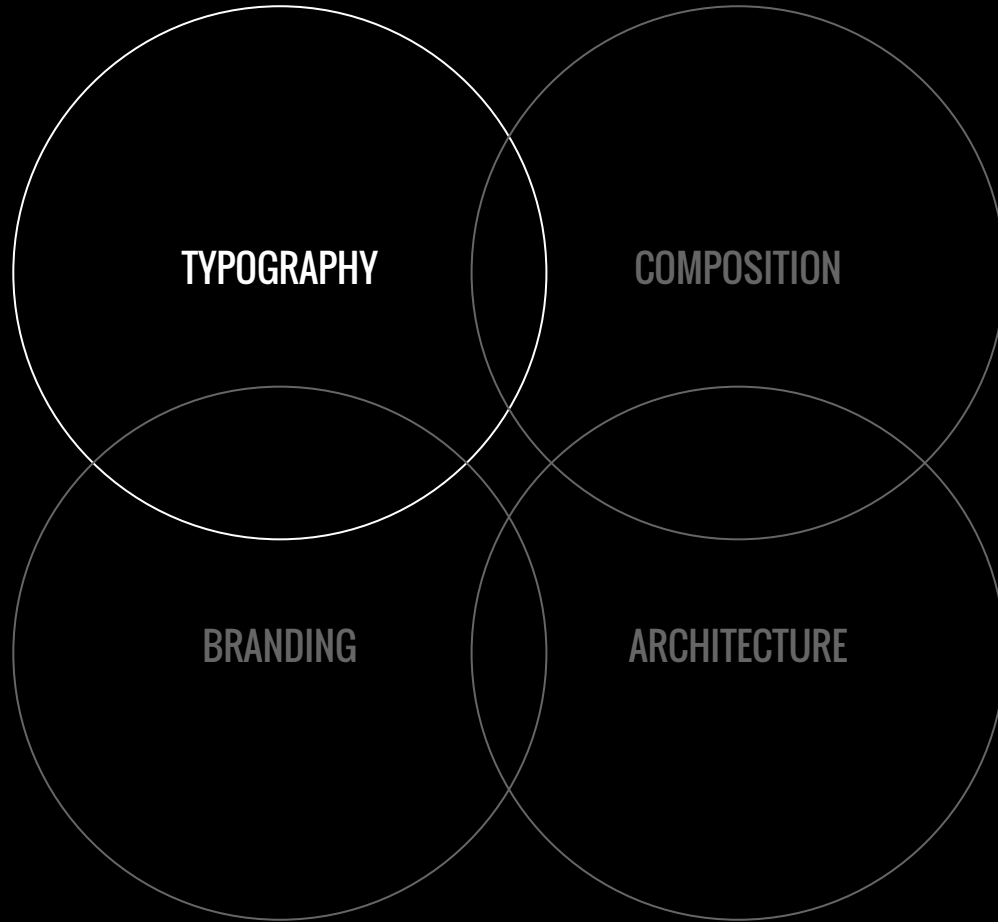
DIGITAL DESIGN TYPOGRAPHY
OPERATES UNDER A FEW RULES

TYPE SHOULD BE SIMPLE AND READABLE.

MOST LIKELY A GEOMETRIC SANS-SERIF.

HAS TO WORK AT SMALL SIZES.

ONE TYPEFACE WITH MULTIPLE WEIGHTS SHOULD BE PLENTY.

CSS

Elements

Heading 1
`<h1></h1>`

Heading 2
`<h2></h2>`

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna rud exercitation ullamco laboris nisi ut aliquip.

Body Paragraph
`<p></p>`

Ordered List
`<ol>`
`<li></li>`
`</ol>`

Unordered List
`<ul>`
`<li></li>`
`</ul>`

1. Lorem ipsum
2. Dolor sit amet
3. Consectetur
4. Ad minim quis

- Lorem ipsum
- Dolor sit amet
- Consectetur
- Ad minim quis

Link
`a:link`

LINK HERE

Font

Properties

```
h1 {
    line-height:normal;
}
```

Font

Properties

1.15 x font size

```
h1 {
    line-height:1.15;
}
```

Font

Properties

```
h1 {
    padding:0;
    align:left;
}
```

Font

Properties

```
h1 {
    padding:30px 30px 30px 30px;
}
```

Font Properties

```
h1 {
    font-style:normal;
    font-weight:bold;
}
```

Font Properties

```
h1 {
    font-style:normal;
    font-weight:normal;
}
```

Font Properties

```
h1 {
    font-style:italic;
    font-weight:bold;
}
```

Font Properties

```
h1 {
    font-style:italic;
    font-weight:normal;
}
```

Font Properties

```
h1 {
    font-family: Helvetica,
    Arial, sans-serif;
}
```

Font Properties

```
h1 {
    font-family: Helvetica,
    Arial, sans-serif;
}
```

Font Properties

```
h1 {
    font-family: Helvetica,
    Arial, sans-serif;
}
```

Font Properties

```
h1 {
    font-size:0.5em;
}
```

Text Properties

```
h1 {
    text-align:left;
}
```

Text Properties

```
h1 {
    text-decoration:underline;
}
```

text properties

```
h1 {
    text-transform:lowercase;
}
```

T e x t P r o p e r t i e s

```
h1 {
    letter-spacing:50px;
}
```

THE GOOD

ART.SY

THE BAD

SEAMLESS

TYPOGRAPHY

COMPOSITION

BRANDING

ARCHITECTURE
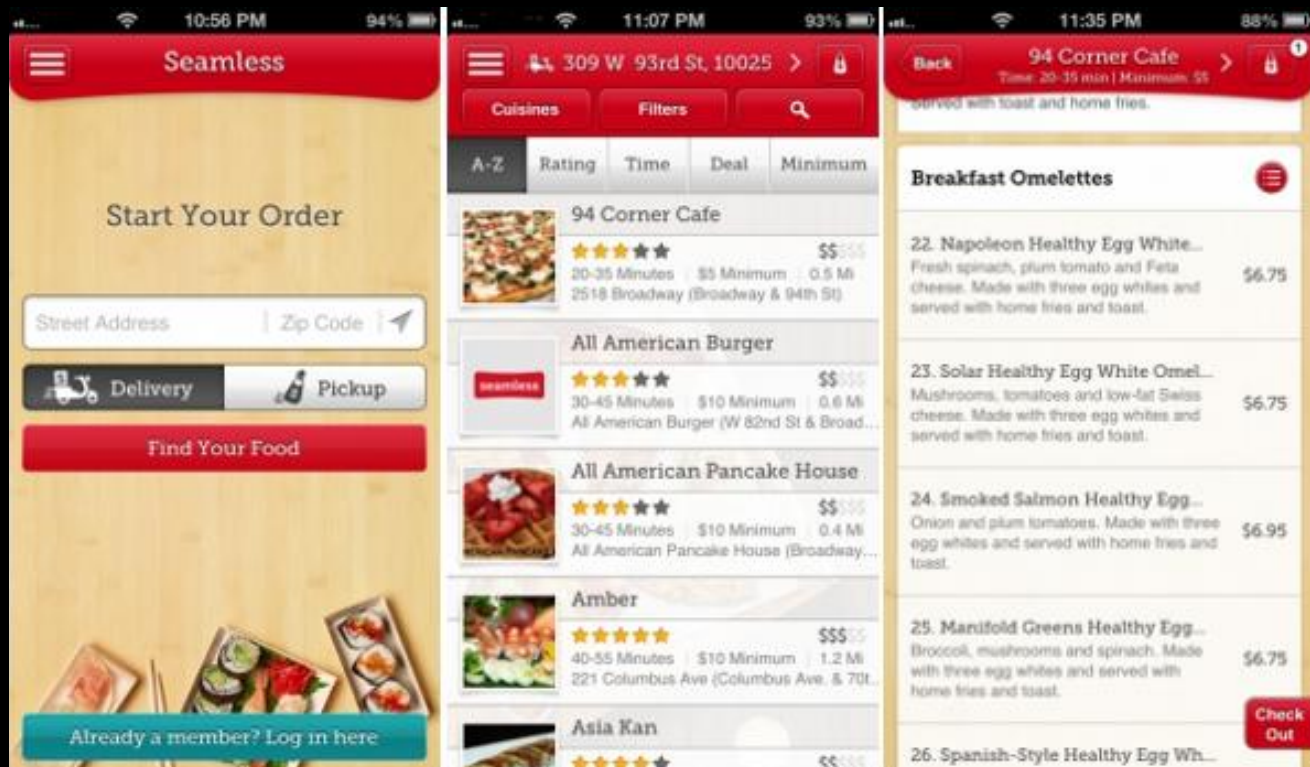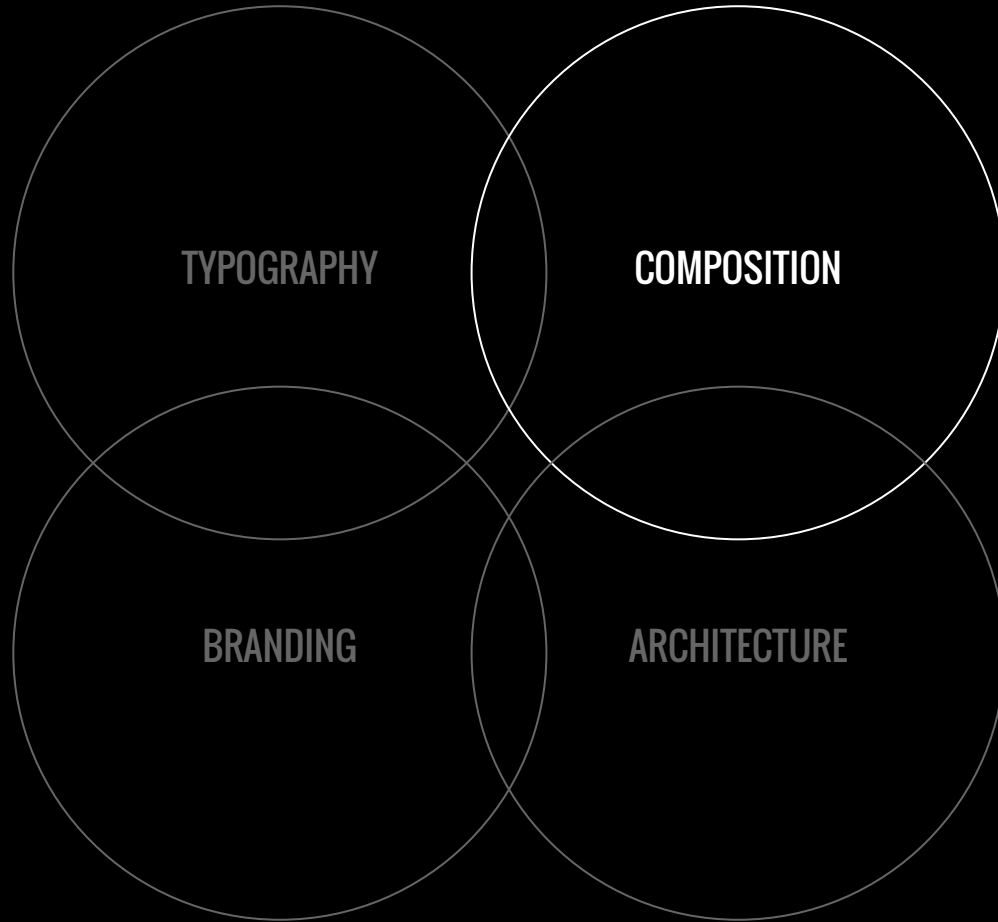
ALWAYS USE A GRID

THE GRID IDEALLY IS FLEXIBLE FOR BOTH VERTICAL...

320PX

AND HORIZONTAL DISPLAYS

480PX

THESE GRIDS HAVE
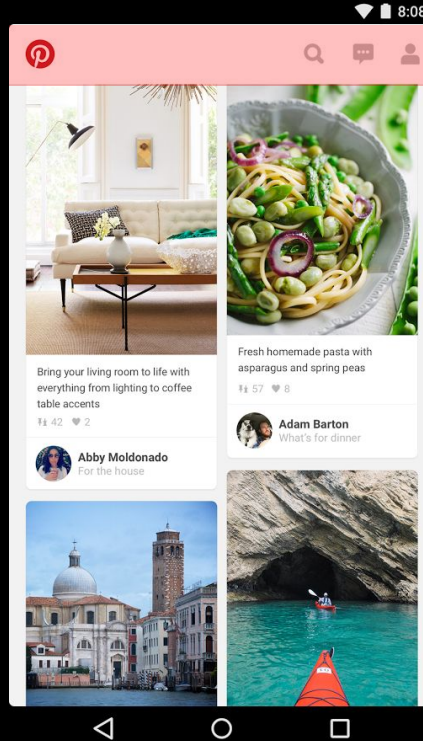
THESE GRIDS HAVE

Margins
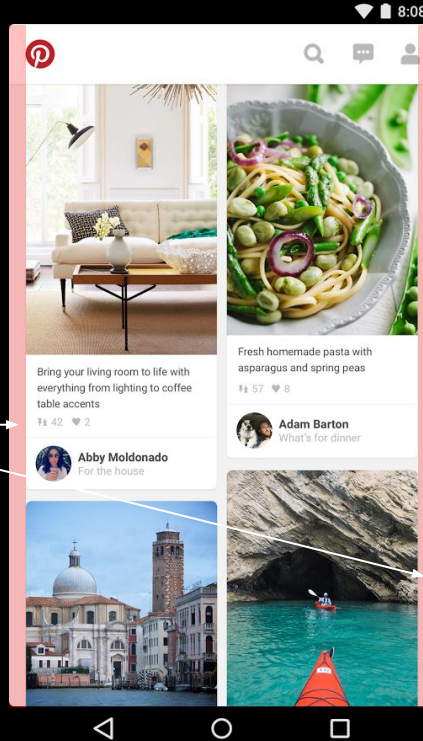
THESE GRIDS HAVE

Columns →
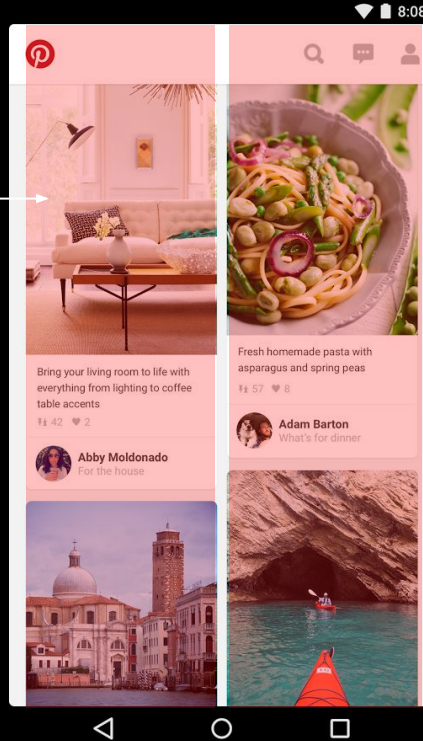
ROWS

Rows →
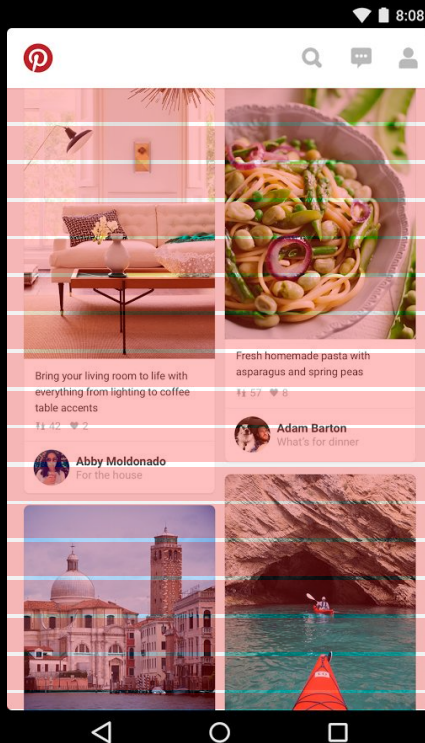
GUTTERS

Gutter
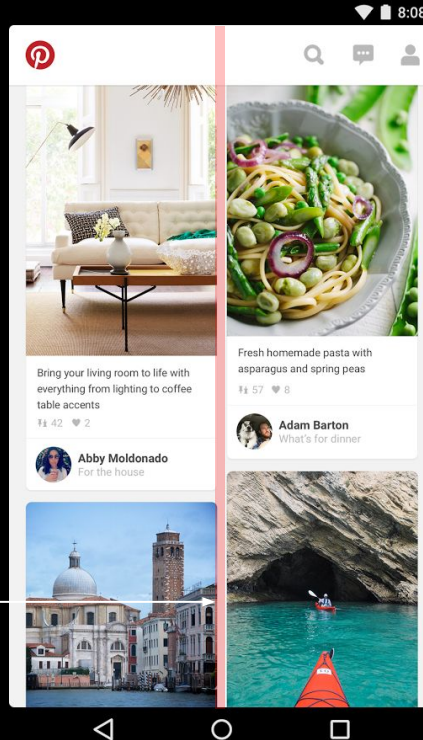
AND WHITE SPACE
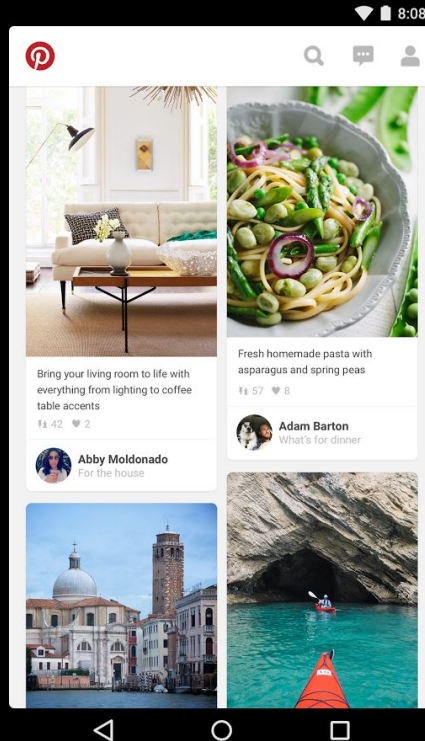
THE GOOD
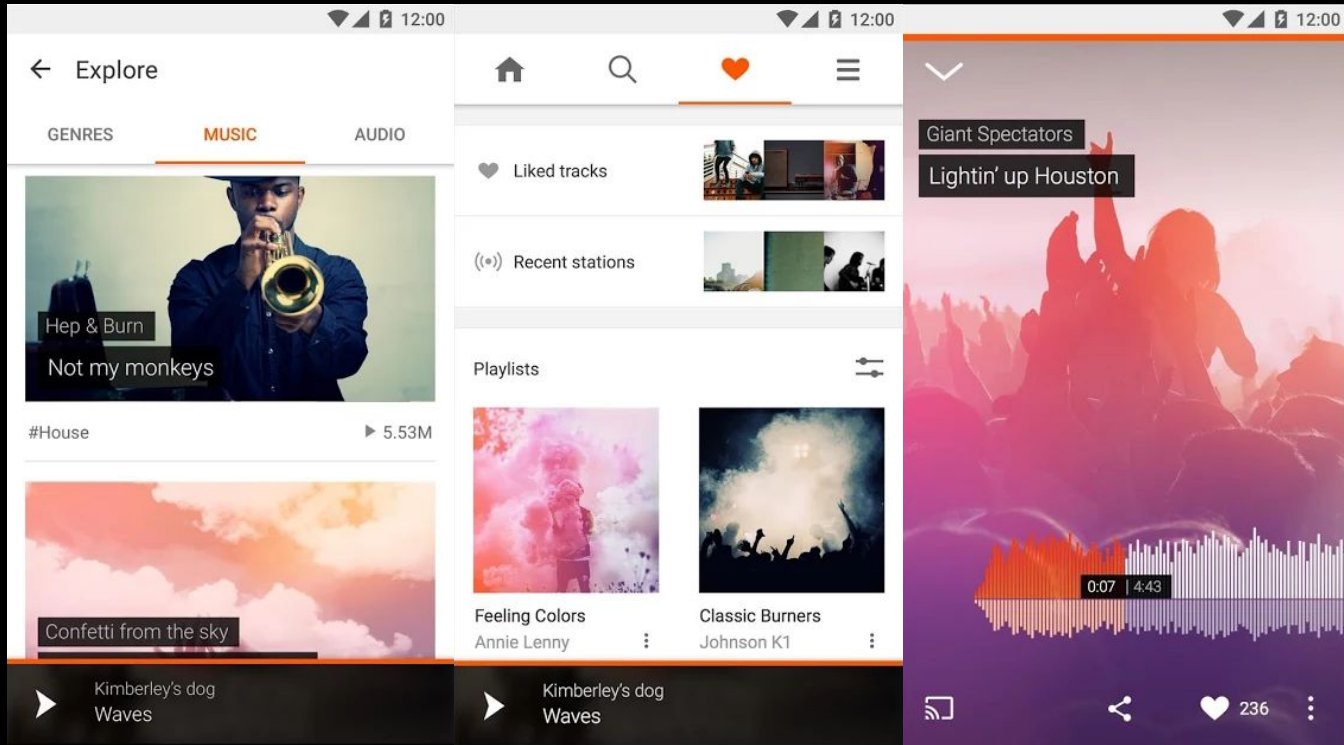
THE BAD

LEOPARD MUSIC PLAYER

TYPOGRAPHY

COMPOSITION

BRANDING

ARCHITECTURE
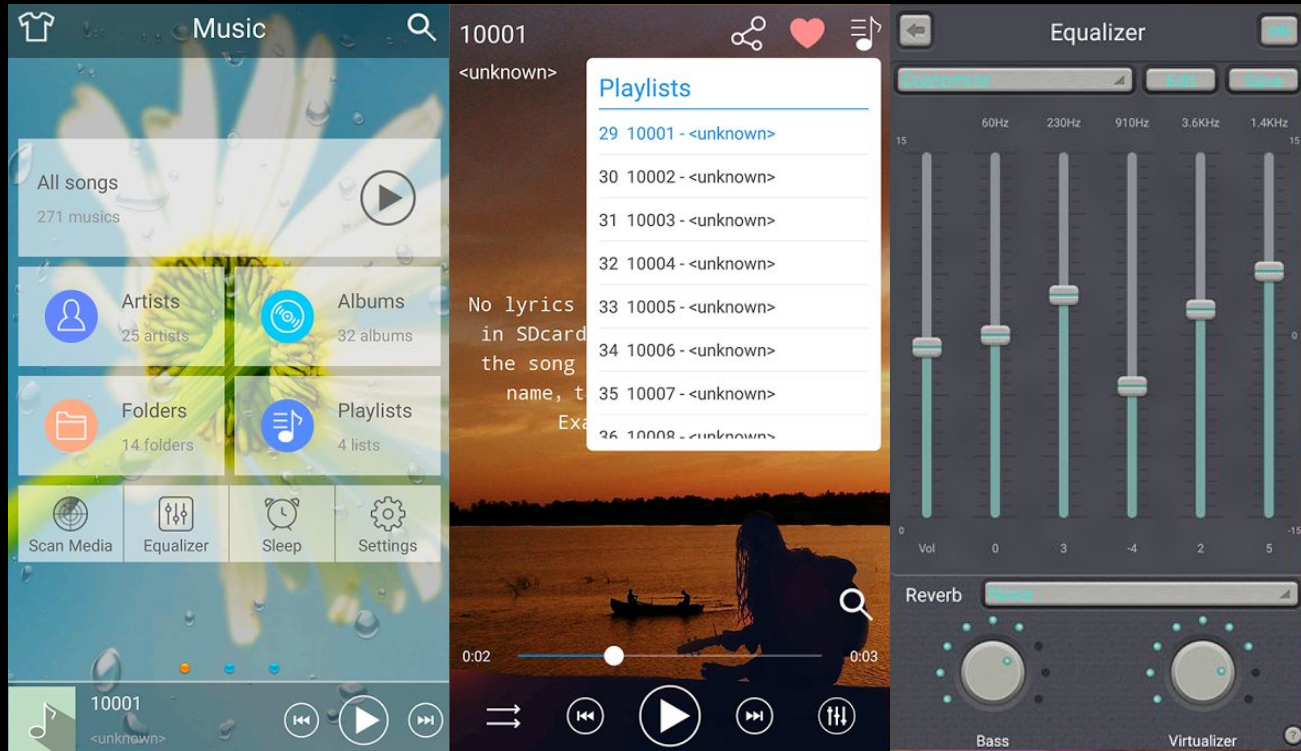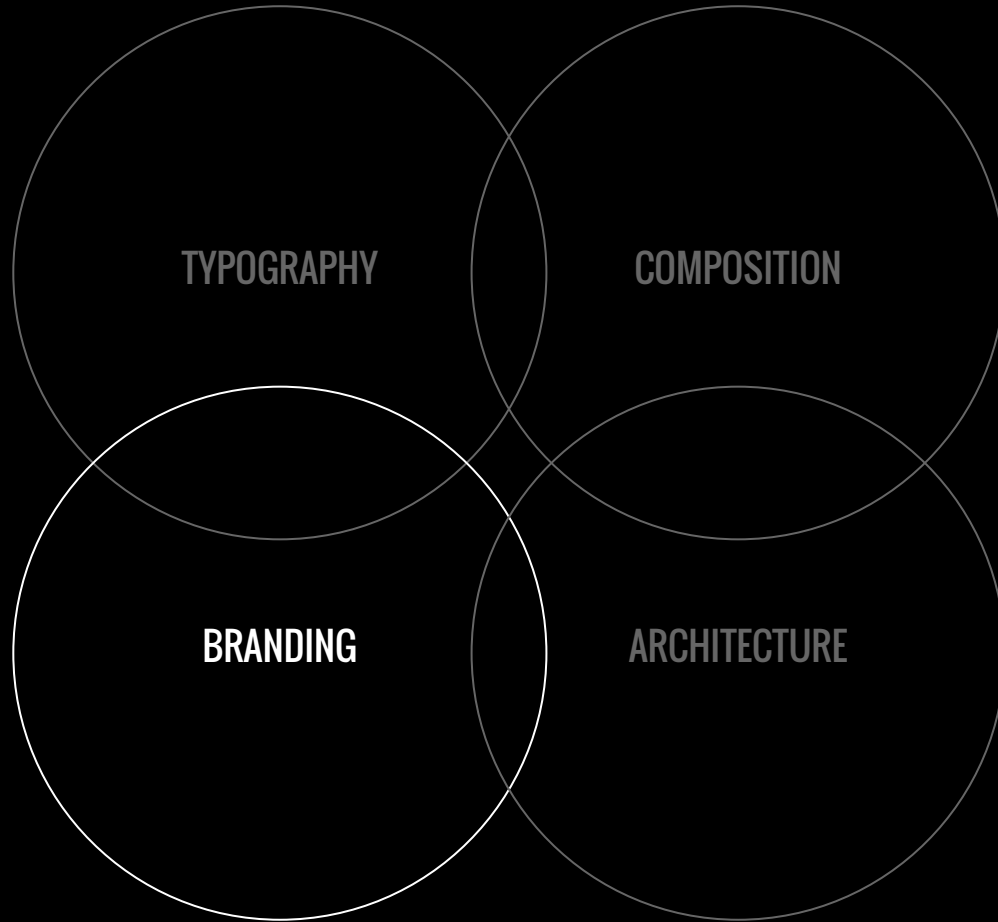
BRANDING IS COMPRISED OF:

LOGO / IDENTITY SYSTEM + **TYPOGRAPHY** + **COLOR PALETTE** + **WRITING / ATTITUDE** + **CONSISTENCY**
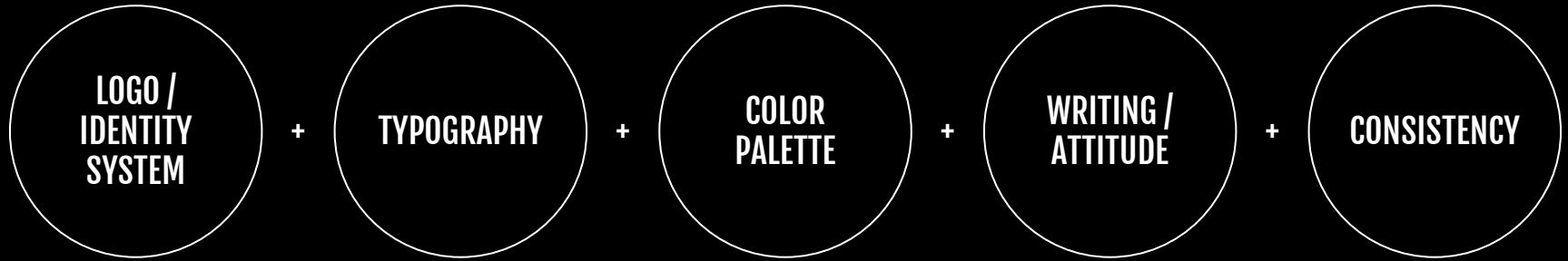
THE LOGO SHOULD BE READABLE,
SCALABLE, SIMPLE AND EVER-PRESENT

SCALABLE

The logo should be able to shrink down to tiny sizes and screens.

SIMPLE

The logo should be able to be reproduced in black and white and in icon.

EVER-PRESENT

The logo should be on every screen it can be and remain the same proportion.

THE GOOD

THE BAD
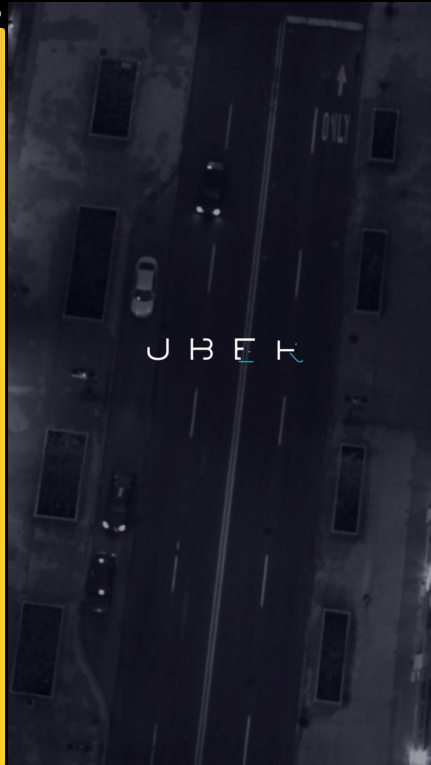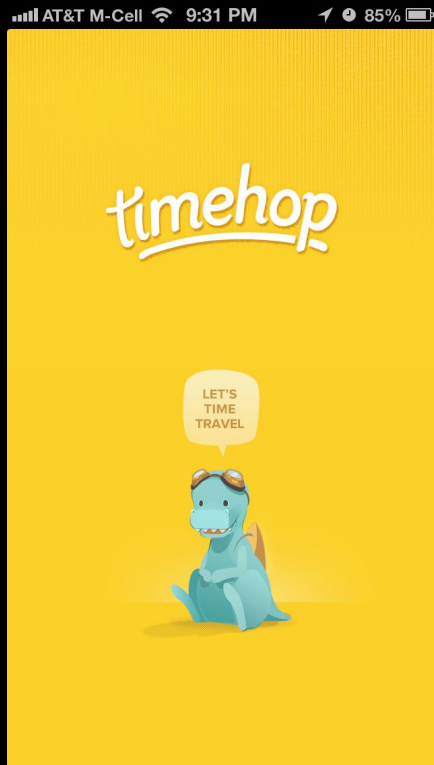
LOGIN SCREENS

LOGIN SCREENS

Don't forget about me, the keyboard!

WARM WELCOME

Three smartphone onboarding screens:

Screen 1 (chat interface):
Back to App Store — 8:09 AM — 100%

Hey there.

Thanks for trying our new app! It's a conversation about the news—sort of like texting.

We send you messages, and you can respond below 👇 by tapping the buttons that appear.

Like this?
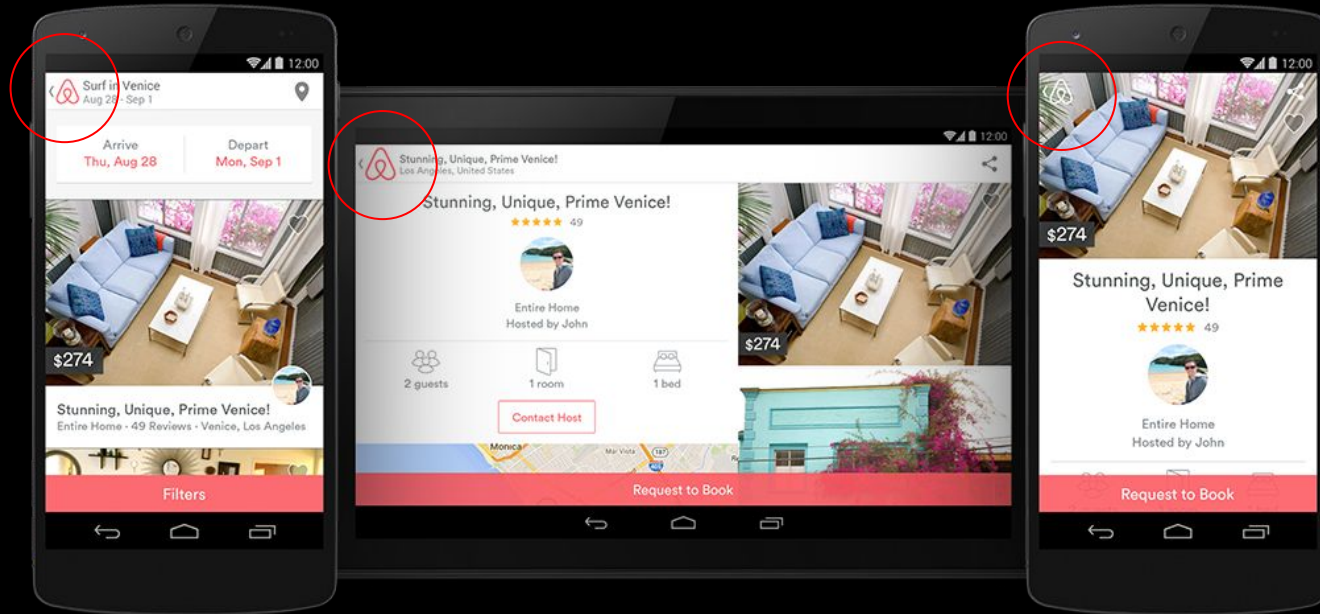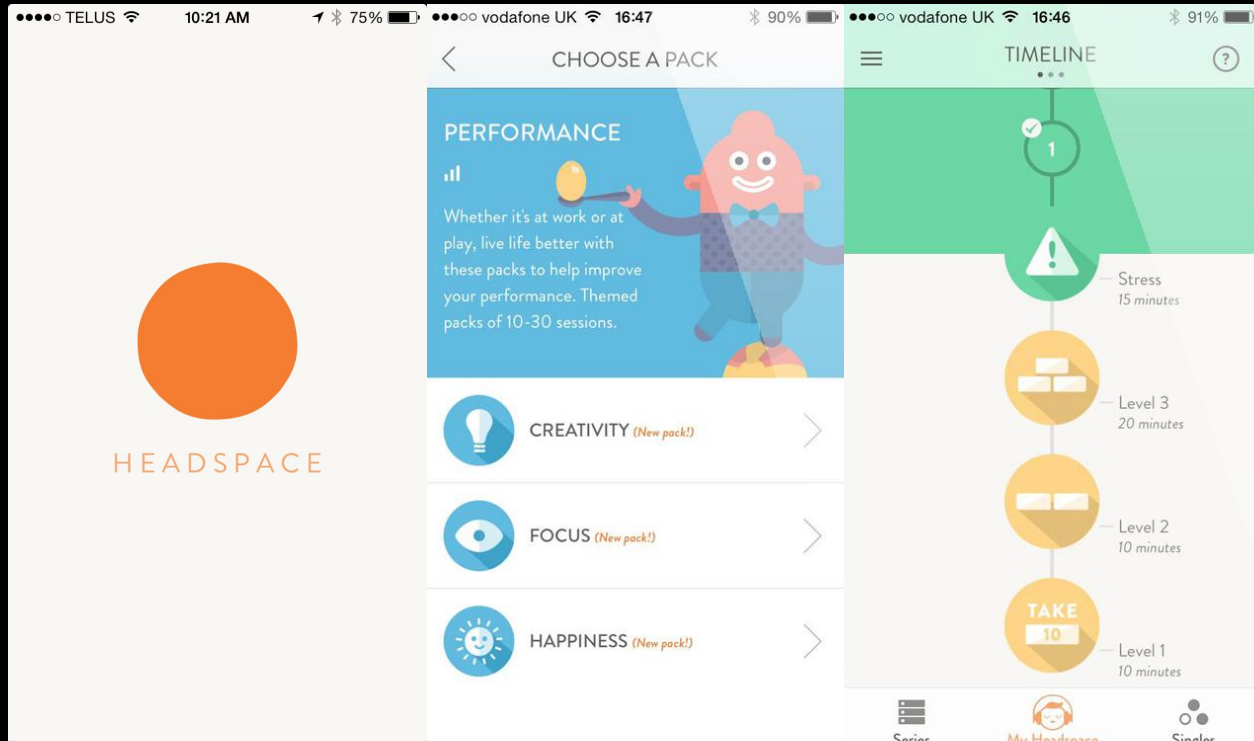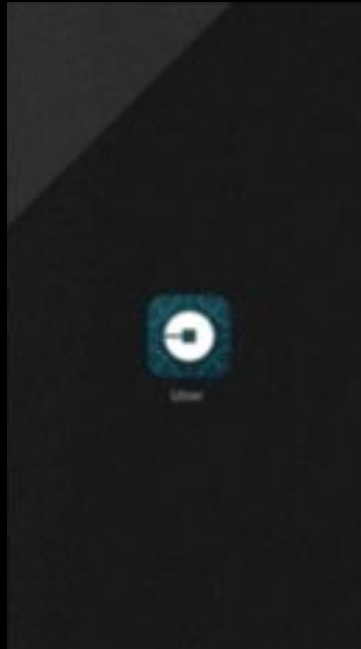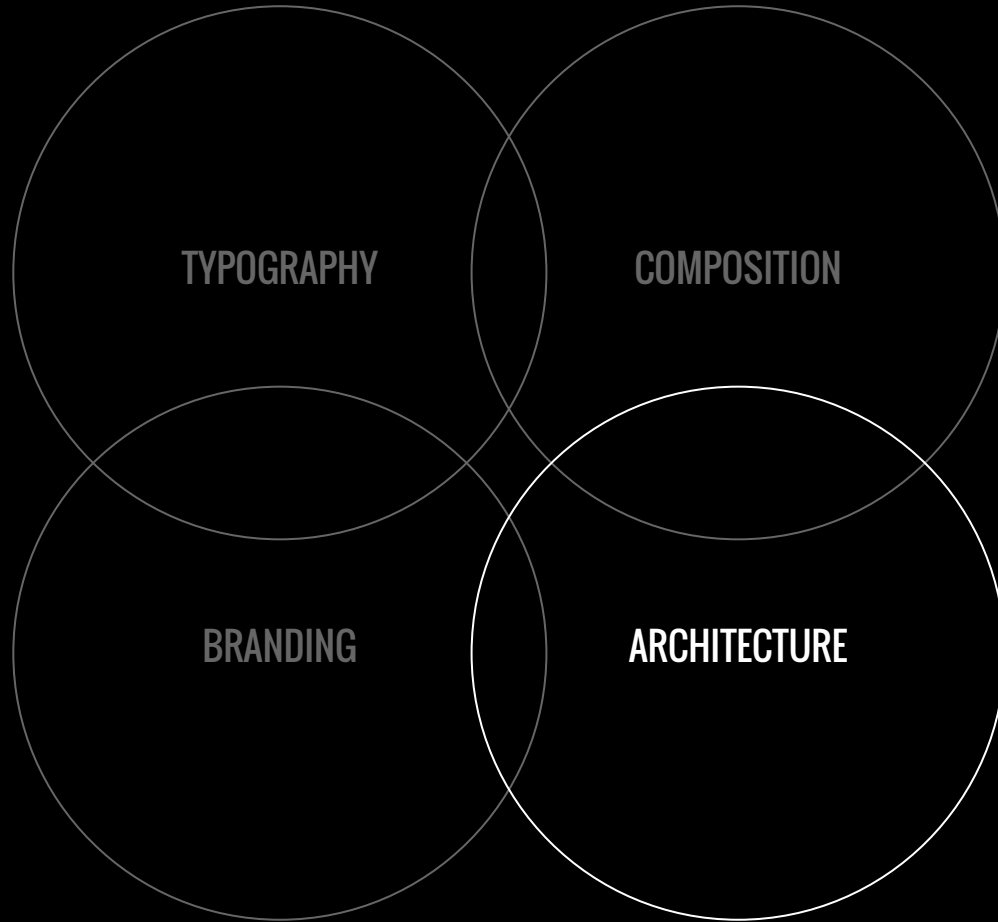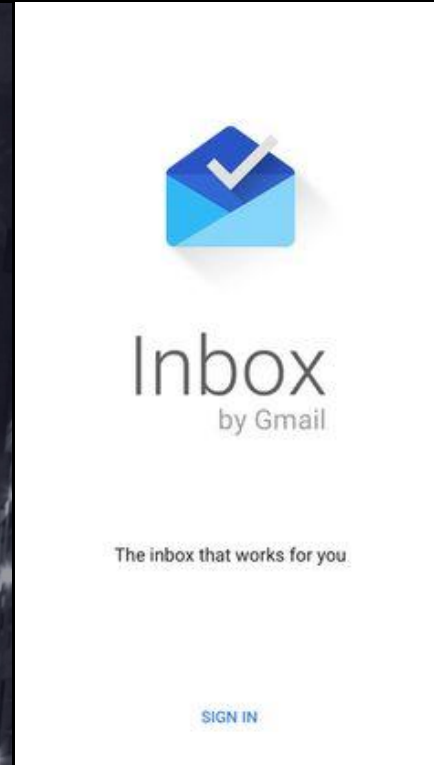
Yep, like that! Nice.

Open the app whenever you want, and we'll give you the most important and interesting news from around the global economy.

We can also send you notifications. They're fun, customizable, and won't even buzz your phone most of the time. Is that OK?

Yes, sounds good. 👍

Screen 2 (blue):
All your photos

GET STARTED

Google Photos supports face matching technology Learn more

Screen 3 (orange):
Bouygues — 10:18 — 100%

PROGRESS

Check out the Help screen for more info

Here you can track your stats, progress and current run streaks.

Average duration — 0
Total time meditating — 0 Minutes
Number of headspaces meditating now — 3697

NAVIGATION
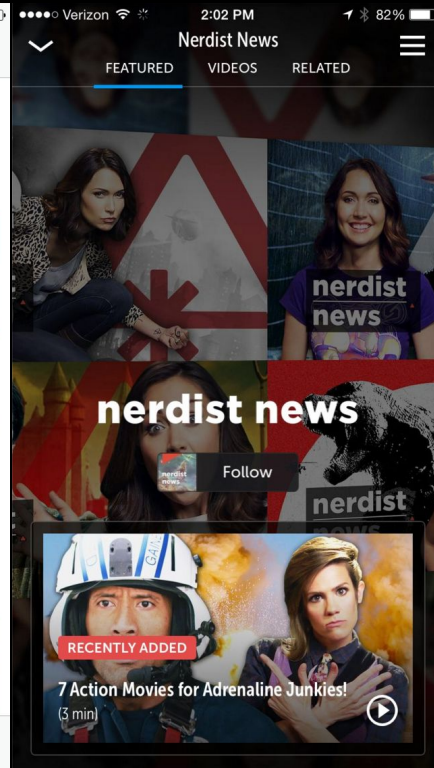
Bottom Buttons   Top Tabs   Overlays   Hamburger Icon
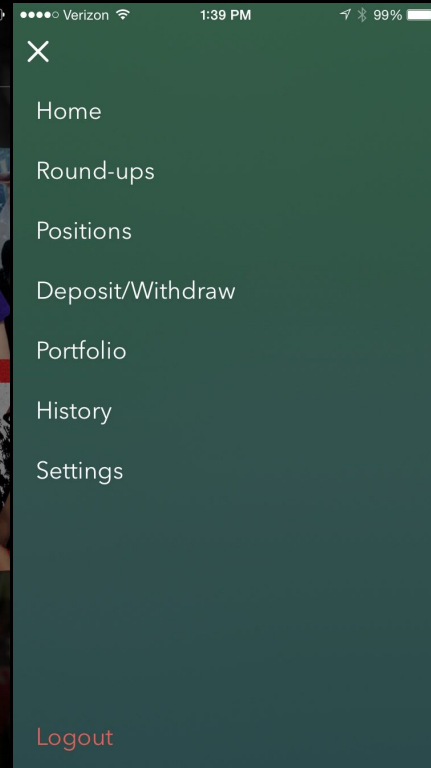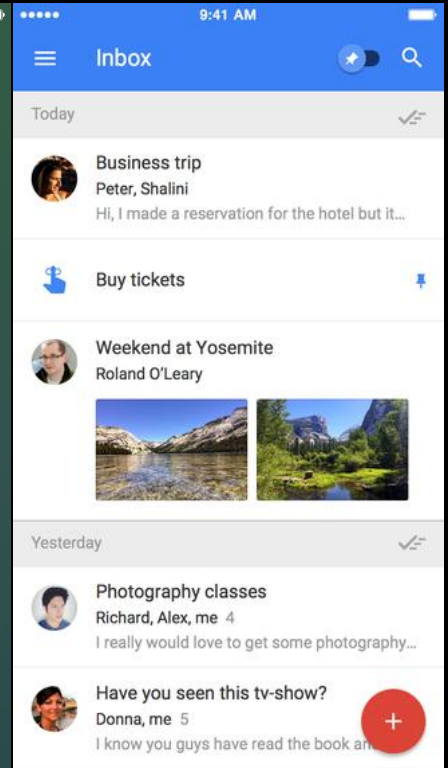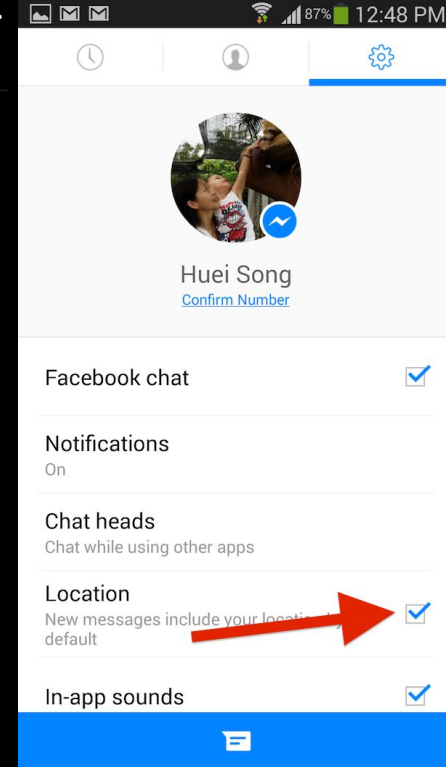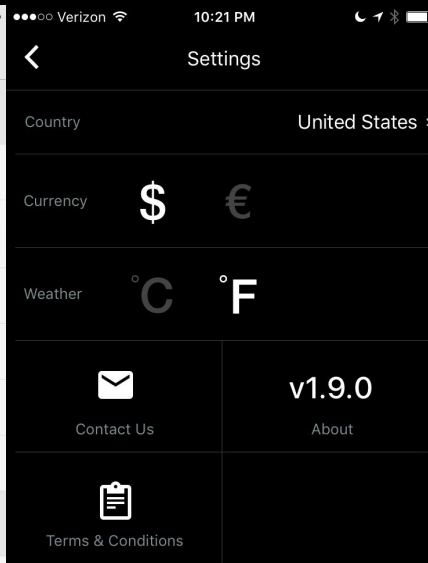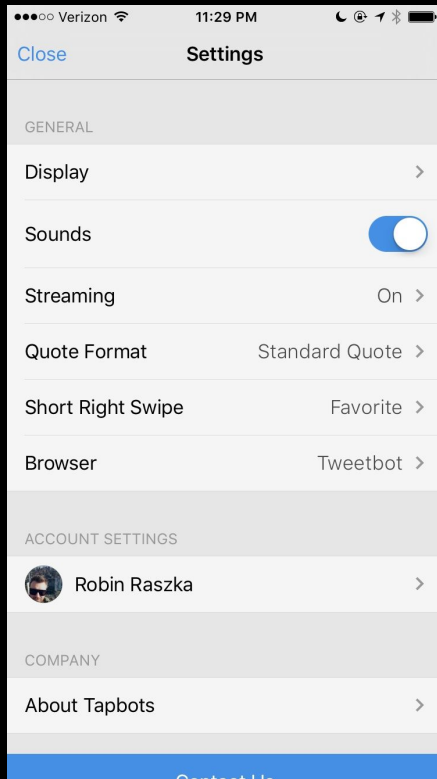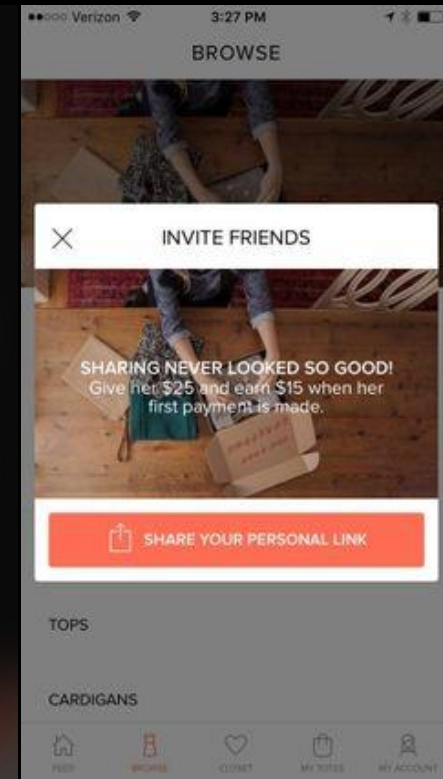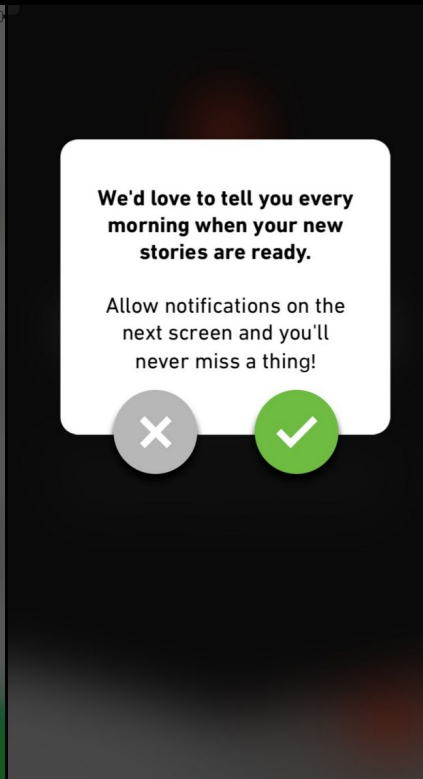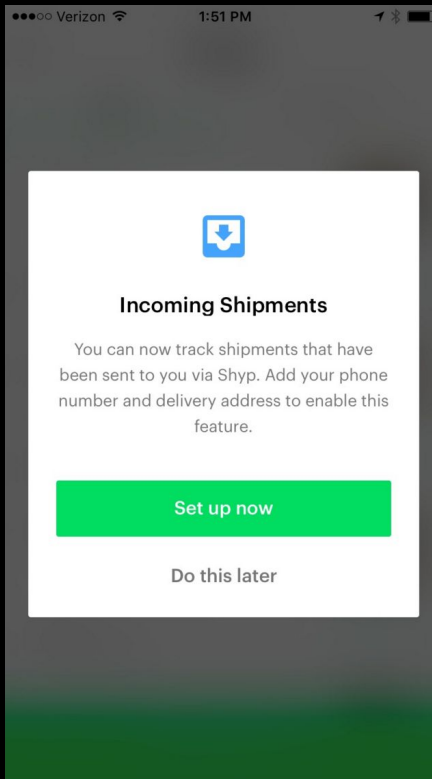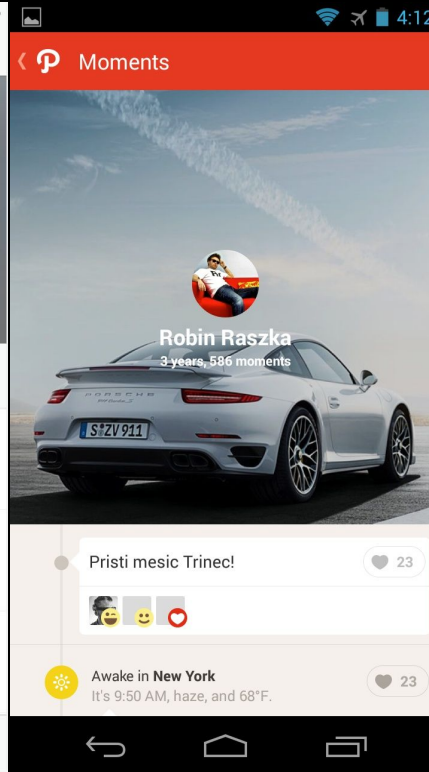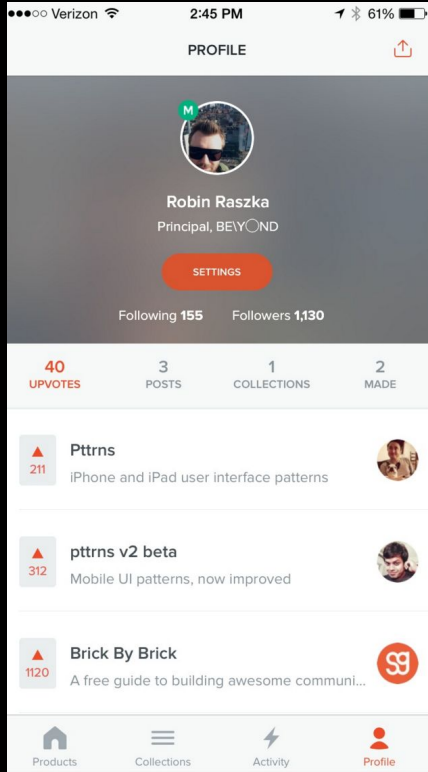
LISTS
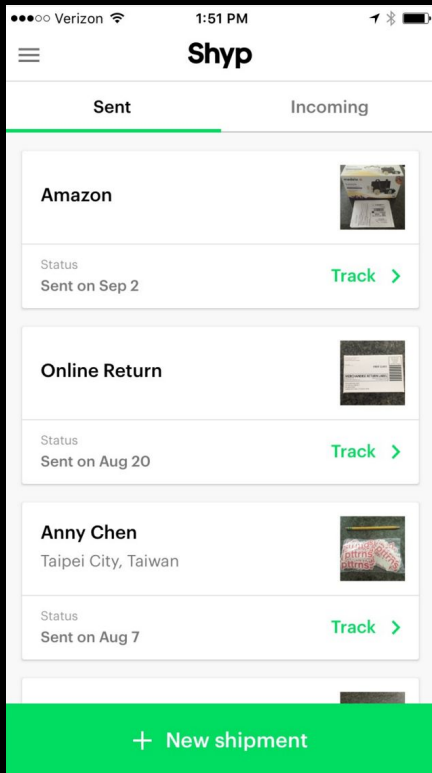
Stacked Events

Horizontal Blocks

Grids

FEEDS

GRIDS

THE GOOD

INSTAGRAM

THE BAD

VSCO

SIGN IN

EXPLORE

LIBRARY

SHOP

UNEDITED

EDITED

SYNCED

ALL PHOTOS

DISPLAY SIZE
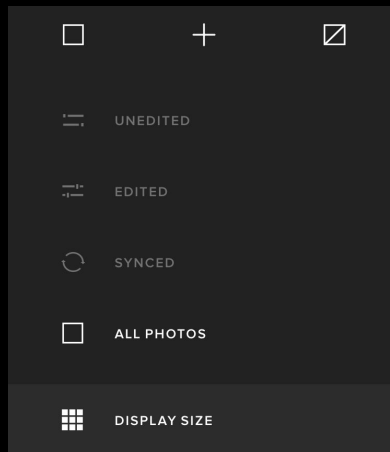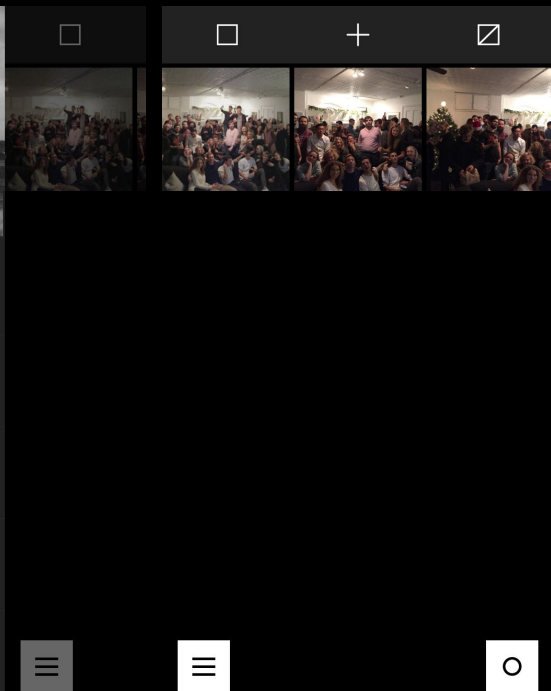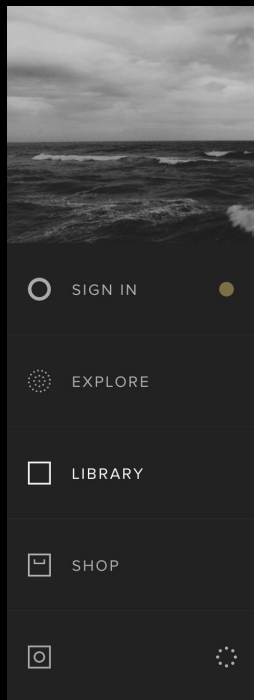
SO WHAT MAKES A SUCCESSFULLY DESIGNED APP?

BUTTONS

SUBMIT   CANCEL   COMPOSE   OK

+1   +1   +1

COLOR PALETTE

500	#F44336
600	#E53935
700	#D32F2F
800	#C62828
900	#B71C1C
A100	#FF8A80
A200	#FF5252
A400	#FF1744
A700	#D50000

500	#E91E63
600	#D81B60
700	#C2185B
800	#AD1457
900	#880E4F
A100	#FF80AB
A200	#FF4081
A400	#F50057
A700	#C51162

500	#9C27B0
600	#8E24AA
700	#7B1FA2
800	#6A1B9A
900	#4A148C
A100	#EA80FC
A200	#E040FB
A400	#D500F9
A700	#AA00FF

Deep Purple	
500	#673AB7
50	#EDE7F6
100	#D1C4E9
200	#B39DDB
300	#9575CD

Indigo	
500	#3F51B5
50	#E8EAF6
100	#C5CAE9
200	#9FA8DA
300	#7986CB

Blue	
500	#2196F3
50	#E3F2FD
100	#BBDEFB
200	#90CAF9
300	#64B5F6

IMAGERY
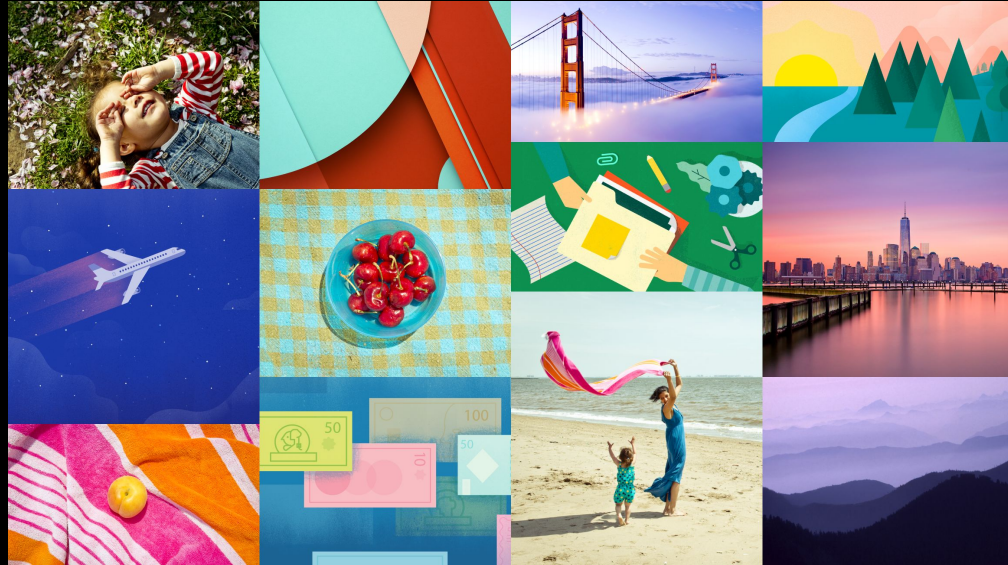
THESE ARE OFTEN PUT TOGETHER INTO UI TOOLKITS
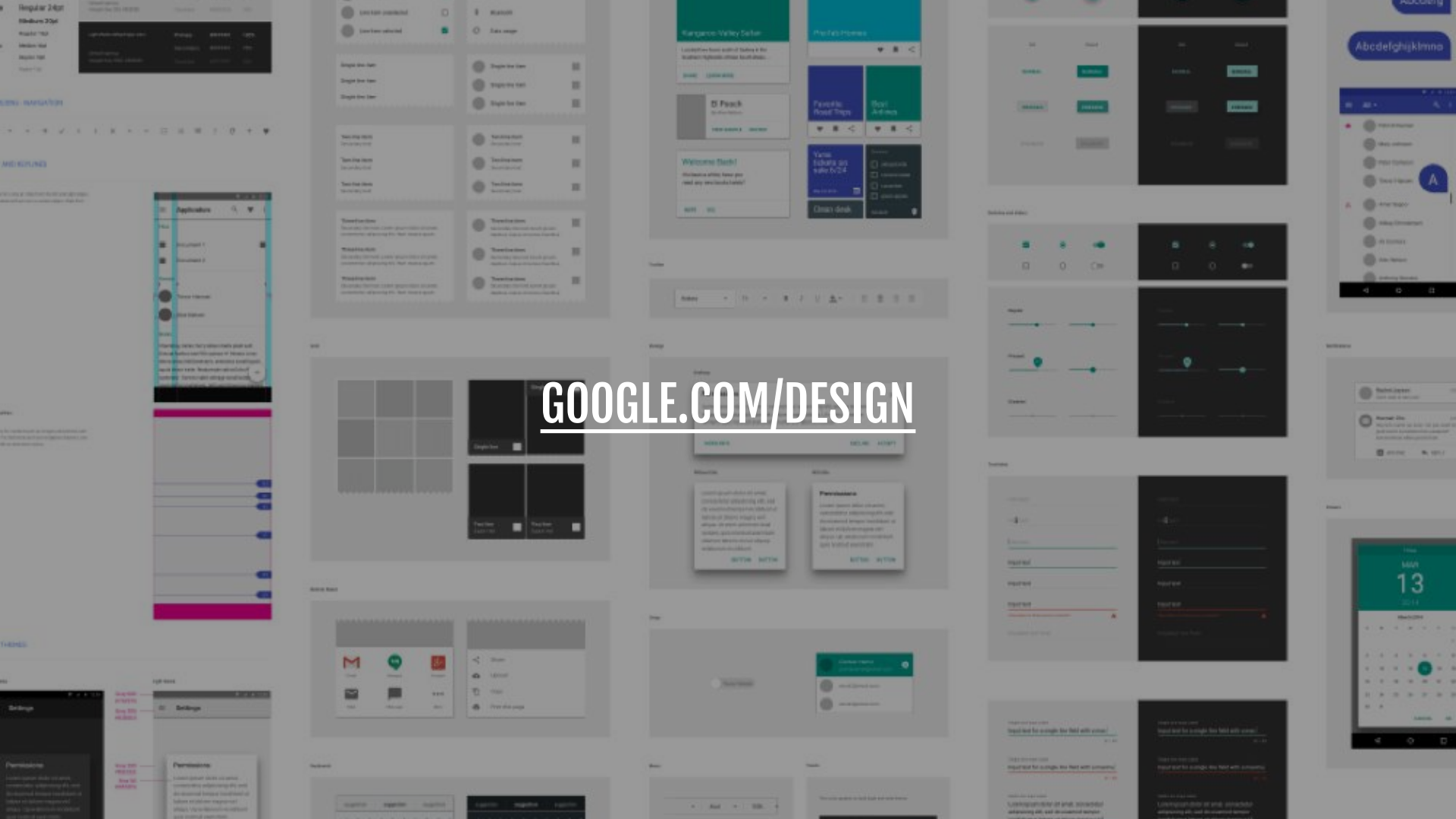
GOOGLE.COM/DESIGN

DISCUSSION:

WHAT APPS HAVE YOU USED LATELY THAT ARE DESIGNED AND BRANDED SUCCESSFULLY?

WHAT APPS HAVE YOU USED THAT AREN'T?

QUESTIONS?

APP DESIGN INSPIRATION

http://www.pttrns.com/

http://www.mobile-patterns.com/

http://inspired-ui.com/

https://www.cocoacontrols.com/

http://www.lovelyui.com/

http://androidux.com/

https://developer.yahoo.com/ypatterns/about/libraries.html

DESIGNER MEETUPS

Maker Club

Designer Meetups

Creative mornings

PRINCIPLES OF INTERACTION DESIGN

ALWAYS THINK ABOUT THE USER

PRINCIPLE 2

PRINCIPLE 3

PRINCIPLE 4

PRINCIPLE 5

USER EXPERIENCE

TOTAL USER EXPERIENCE OR THE 5 E'S

Considering the big(ger) picture

Whether it's a product or a service:

There's an experience **in the discovery**

There's an experience **in the purchase**

There's an experience **in the delivery**

There's an experience **in the use/service**

There's an experience **in the sharing**

THE 5 E'S

ENTER

Discover +
Commitment

→

ENTER

Out of box
experience

→

ENGAGE

First use

→

EXTEND

First month +
N^{TH} Month

→

EXIT

Last usage
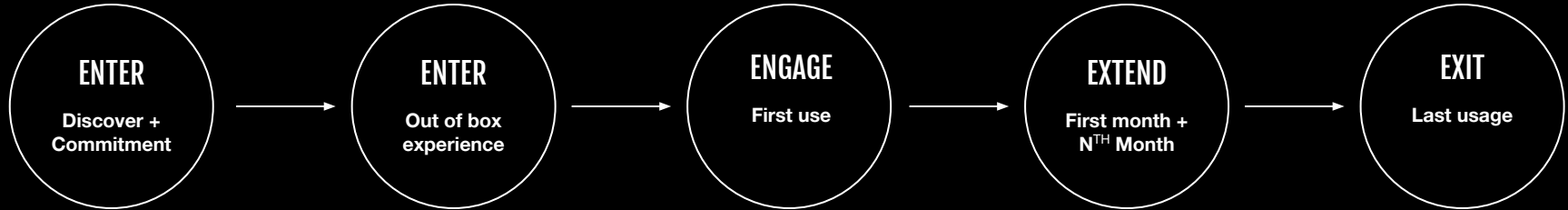
STEP 1
DEFINE THE ACTORS

STEP 2
MAP HOW THE ACTORS PLAY TO EACH OTHER

STEP 3
DEFINE "MAGIC MOMENTS"
HOW DOES THE BRAND MANIFEST IN THE STORY

EX. ACTORS

PARENTS

Use + manage usage of others

KIDS

Use with permission

ALLOWERS

Approve and allow use at a high level (e.g. politician)

IMAGINEERS

Imagine and design the good (e.g. Google)

MAKERS

Make the thing (e.g. Belkin)

RETAILERS

Put the thing in your hand (e.g. App Store)

Not all will be present in every experience.
But it's good practice to consider all to ensure full coverage.

THEN TAKE EACH ACTOR THROUGH THE 5 E'S

5E'S: ENTICE

ENTICE		ENTER	ENGAGE	EXTEND		EXIT

PROFILES

DISCOVERY

COMMITMENT

OUT OF BOX EXPER.

FIRST USE

FIRST MONTH

NTH MONTH

LAST MONTH

Define all the actors.

How do they find out about your product?

What's the tipping point that makes the conversion from "I'm curious" to "I'm committed"?

Example: Advertising, social media, word of mouth.

Example: In-store experience, test drive, product review.

5E'S: ENTER

ENTICE			ENTER	ENGAGE	EXTEND		EXIT
PROFILES	DISCOVERY	COMMITMENT	OUT OF BOX EXPER.	FIRST USE	FIRST MONTH	NTH MONTH	LAST MONTH
Define all the actors.	How do they find out about your product?	What's the tipping point that makes the conversion from "I'm curious" to "I'm committed"?	What is the unboxing of the physical product like? If it's digital what's the warm welcome or the "welcome to the product" moment?				

Example: Advertising, social media, word of mouth.

Example: In-store experience, test drive, product review.

Example: App warm welcome, packaging quality, packaging that opens in order of setup.

5E'S: ENGAGE

ENTICE			ENTER	ENGAGE	EXTEND		EXIT
PROFILES	**DISCOVERY**	**COMMITMENT**	**OUT OF BOX EXPER.**	**FIRST USE**	**FIRST MONTH**	**NTH MONTH**	**LAST MONTH**
Define all the actors.	How do they find out about your product?	What's the tipping point that makes the conversion from "I'm curious" to "I'm committed"?	What is the unboxing of the physical product like? If it's digital what's the warm welcome or the "welcome to the product" moment?	How do you capitalize on maximum goodwill? It will never be shinier. Embed it in your user's' lifestyle.			
	Example: Advertising, social media, word of mouth.	**Example:** In-store experience, test drive, product review.	**Example:** App warm welcome, packaging quality, packaging that opens in order of setup.	**Example:** Instant gratification, moment of joy easter egg, simplicity.			

5E'S: EXTEND

ENTICE		ENTER	ENGAGE	EXTEND		EXIT
PROFILES	**DISCOVERY**	**COMMITMENT**	**OUT OF BOX EXPER.**	**FIRST USE**	**FIRST MONTH**	**NTH MONTH**	**LAST MONTH**

	ENTICE		ENTER	ENGAGE	EXTEND		EXIT
PROFILES	**DISCOVERY**	**COMMITMENT**	**OUT OF BOX EXPER.**	**FIRST USE**	**FIRST MONTH**	**NTH MONTH**	**LAST MONTH**
Define all the actors.	How do they find out about your product?	What's the tipping point that makes the conversion from "I'm curious" to "I'm committed"?	What is the unboxing of the physical product like? If it's digital what's the warm welcome or the "welcome to the product" moment?	How do you capitalize on maximum goodwill? It will never be shinier. Embed it in your user's' lifestyle.	How does it get even better with continual use? What moment only surfaces after repeated use?	What's better than better? How does it accrue value over time? How do you continuously optimize the experience?	

| | Example: Advertising, social media, word of mouth. | Example: In-store experience, test drive, product review. | Example: App warm welcome, packaging quality, packaging that opens in order of setup. | Example: Instant gratification, moment of joy easter egg, simplicity. | Example: Actionable analytics, more easter eggs, machine learning. | Example: Idiot-proof trouble-shooting and service, unlock rewards or bonuses, additional products/add ons. | |

5E'S: EXIT

	ENTICE		ENTER	ENGAGE	EXTEND		EXIT

PROFILES	DISCOVERY	COMMITMENT	OUT OF BOX EXPER.	FIRST USE	FIRST MONTH	NTH MONTH	LAST MONTH
Define all the actors.	How do they find out about your product?	What's the tipping point that makes the conversion from "I'm curious" to "I'm committed"?	What is the unboxing of the physical product like? If it's digital what's the warm welcome or the "welcome to the product" moment?	How do you capitalize on maximum goodwill? It will never be shinier. Embed it in your user's' lifestyle.	How does it get even better with continual use? What moment only surfaces after repeated use?	What's better than better? How does it accrue value over time? How do you continuously optimize the experience?	What happens when the user decides to leave the product? Do they have to? Can you get them to return to the product?
	Example: Advertising, social media, word of mouth.	**Example:** In-store experience, test drive, product review.	**Example:** App warm welcome, packaging quality, packaging that opens in order of setup.	**Example:** Instant gratification, moment of joy easter egg, simplicity.	**Example:** Actionable analytics, more easter eggs, machine learning.	**Example:** Idiot-proof trouble-shooting and service, unlock rewards or bonuses, additional products/add ons.	**Example:** No hassle returns, easy service termination, new product releases or updates.

FOR EXAMPLE

ENTICE

User sees
Google On sign
on the subway
platform

ENTICE

Decides to try it:
finds the network
and downloads the
Google On app

ENTER

Enjoys a great
Google On Wi-Fi
experience

ENGAGE

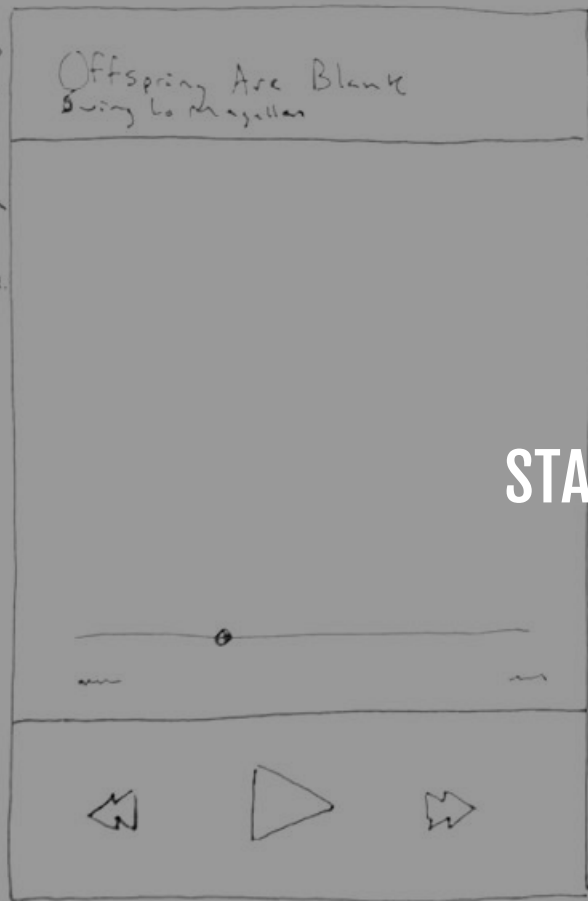Delighted to
see it actually
works *on* the
subway too...

EXTEND
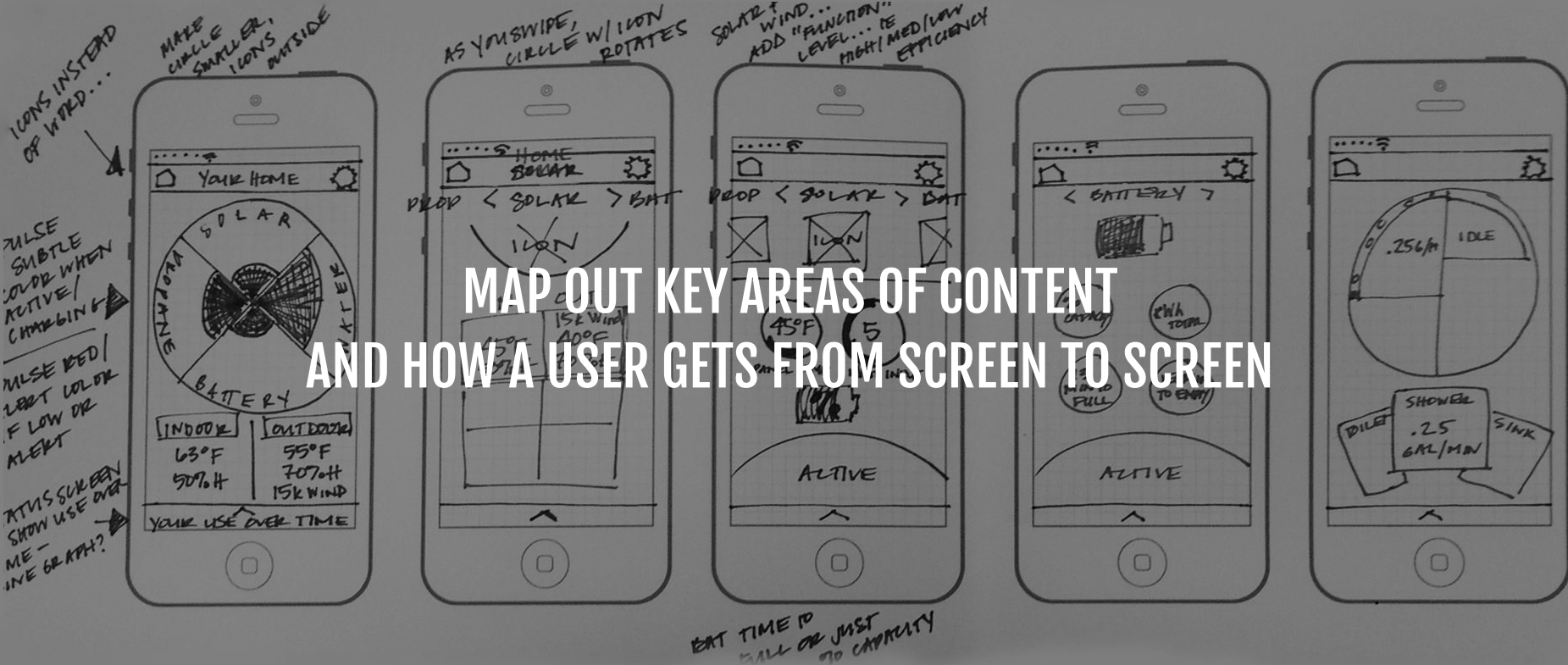
Decides to
bring it home -
and purchases a
new OnHub

WIREFRAMES

THINK OF A WIREFRAME AS THE SKELETON OF YOUR APP OR SITE

START LOOSE, START WITH A SKETCH

MAP OUT KEY AREAS OF CONTENT
AND HOW A USER GETS FROM SCREEN TO SCREEN

THEN MAKE IT DIGITAL BUT SIMPLE

LET'S MAKE A WIREFRAME