# KRISHNAN VIJAYARAGHAVAN

## USER EXPERIENCE DESIGNER

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# about me

## who am i?

A passionate UX Designer who designs products that are functional, beautiful and easy to use.

## my experience

With more than 3 years of work experience as a UX Designer working for internationally renowned clients like Nokia and AXA Insurance, I have created wireframes, UI mockups, developed front-end solutions using HTML/CSS, whilst supporting the entire process with UX analysis and usability tests. I have also worked as a freelance UX Designer where I worked with start-ups for whom I designed and developed user-friendly and graphically rich websites.

## my education

I have a strong educational background in both technical and design fields, holding degrees from highly reputed universities where I created challenging UX and interaction design based projects. I have done research work on many UX based topics and I have been selected as one of the emerging talent in the field of digital art, design and media production

## what makes me unique?

My educational background in the fields of technology and design gives me the advantage to bridge UX teams with developers. My technical background helps me to comprehend and predict technical challenges and limitations during UX prototyping and I have the knowledge to provide solutions for them as well.

# UX PORTFOLIO

01 LETS GO HOME

# 01 LETS GO HOME

## what is it?

'Let's Go Home' is a mobile app that uses geolocation services to provide a safe journey for kids walking back home after school. In an event where they enter (or interact with) a crime or traffic sensitive zone, the app alerts the child to change their path and take an alternative route. The app can also be used by parents for monitoring and supervising their kids journey.

## who is it for?

The target audience for the app are Primary School Children (ages 9-11) who generally walk back home alone from school and for their Parents. The app we developed is tailored for parents residing within Elephant & Castle, London.

## why is it needed?

In the past 30 months there have been 300 people killed, seriously injured or slightly injured on the roads around Elephant & Castle and the roads are becoming death traps for school children. We needed to create an app that could provide a safe journey for the kids walking back home after school.

## 01 LETS GO HOME

### Project Members:

Anna Seulbi Lee: UI & Graphics Designer
Ban Li: Project Manager & UX Analyst
Krishnan Vijayaraghavan: Prototype Developer & UX Analyst

### Time Period:

45 days (December 2012 to January 2013).

### Tools Used:

**Wireframing:** Balsamiq
**Prototype:** HTML5, jQuery, Google Maps API

○ RESEARCH

## User Research:

Since it was hard to do research on our user group and we were on running on a tight deadline, we decided to do a quantitative study on their habits. We made a survey form containing 8 carefully selected questions and it was given to 30 parents. 24 parents got back to us with their feedback and the results are given below:

| NO | QUESTION | MAJORITY | YES | NO | NA | INFO |
|----|----------|----------|-----|-----|-----|------|
| 1 | How old is your child? | | | | | 9-11,10-9,11-4 |
| 2 | Does your child go back home from school alone? | NO | 7 | 17 | 0 | |
| 3 | Would you like to train them to go back home from school alone? | YES | 15 | 7 | 2 | |
| 4 | Would you like to use a mobile app that will enable your child to have a safe journey from school to home? | YES | 18 | 4 | 2 | |
| 5 | Do they have a smart phone? | NO | 8 | 16 | 0 | |
| 6 | If the answer to Q5 is YES, then which smart phone are they using? | BB | | | 16 | BB-4, SS-2,HTC-1,IP4-1 |
| 7 | If the answer to Q5 is NO, then would you buy them a smart phone which will have safety feature for children? | YES | 11 | 5 | 8 | OUT OF 16 |
| 8 | What would be the budget that you would spend on buying a smart phone for your child? | | | | | £65 AVERAGE |

## Research Conclusion:

1. Majority of the parents want to train their children to go back home alone after school.
2. The children do not own mobile phones, but they would buy them one with a price point of at least £65, if it provides a safety feature for the children.

## REQUIREMENTS

## App Objectives:

After conducting the survey's we defined the following objectives for Let's Go Home:

1. There will be two versions of Let's Go Home. The Parent app will be used for monitoring and provide supervision of the child walking back home alone.

2. For the Children's app, we need to create an engaging (e.g. a game) and educational experience so that they can be trained to walk alone safely avoiding crime zones and be aware of road safety.

3. The app for the children should not endanger them from phone snatchers and also distract the child in traffic sensitive areas where they have to be very observant.

# 01 LETS GO HOME

PROCESS FLOW

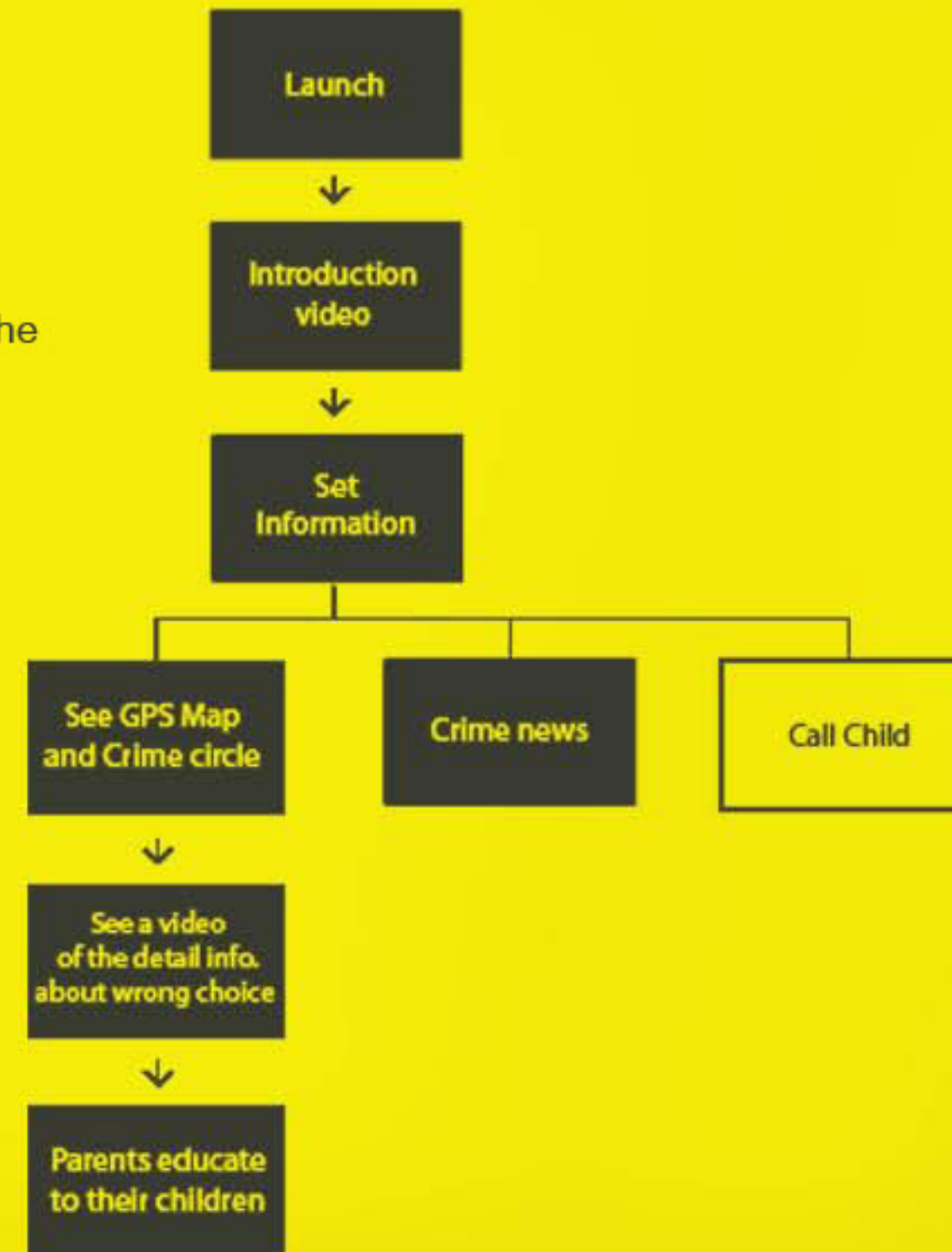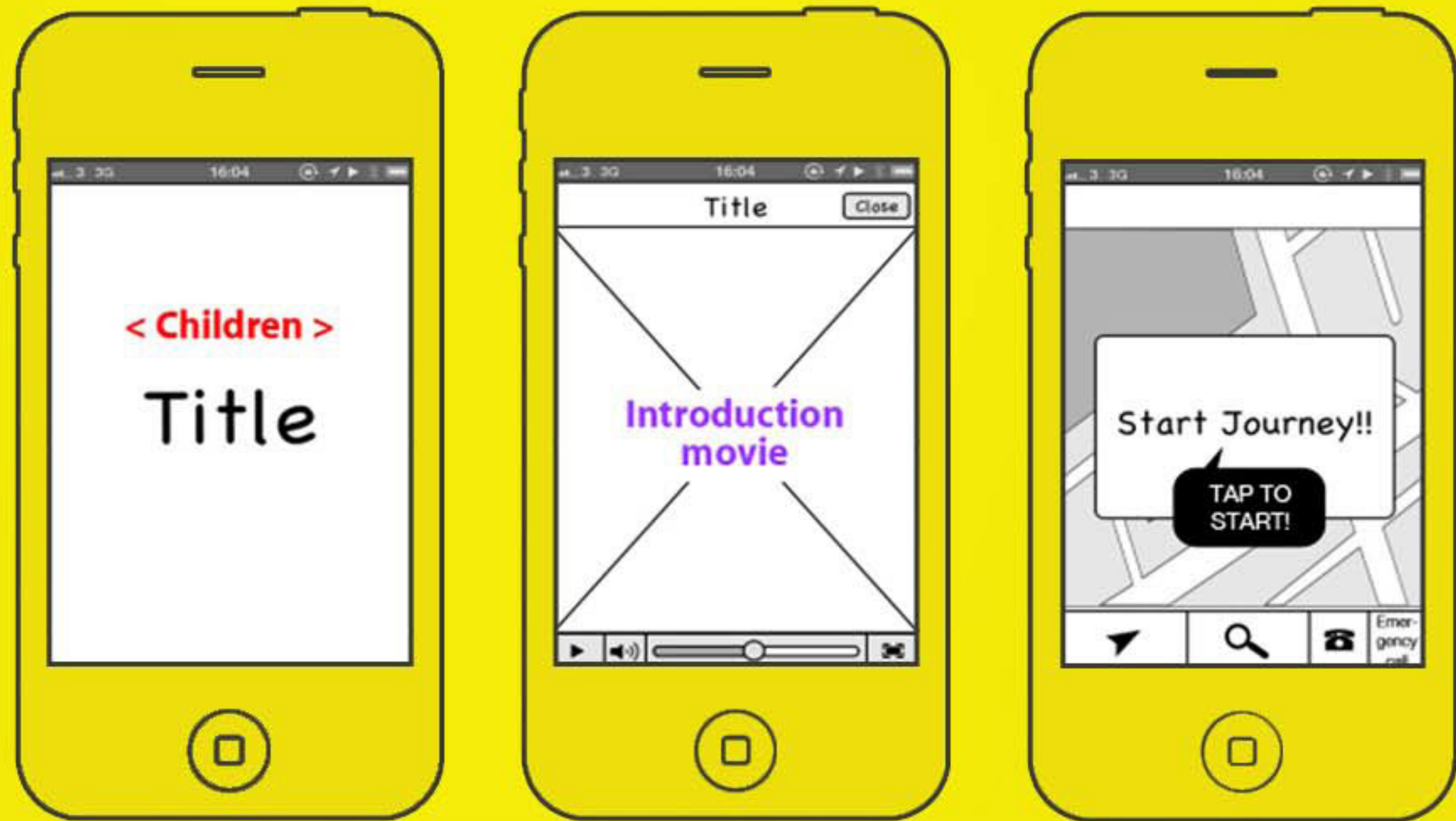Process Flow Diagram for the Kids version of the app.

Launch → Introduction video → Start Journey

Keep going the right way

Record way

Cheer them up with voice

End the journey

Give the result of journey to parents

See the score

Check the ranking of the score

Wrong way

Traffic area

Get a quiz

Getting info with movie clip

Answer question

Incorrect and losing point

Try again

Correct and getting point

Cheer them up with voice

Call from Parent

Crime area

Message to move away

Change route

LETS GO HOME

- PROCESS FLOW

Process Flow Diagram for the
Parents version of the app.

Launch

↓

Introduction
video

↓

Set
Information

See GPS Map
and Crime circle

Crime news

Call Child

↓

See a video
of the detail info.
about wrong choice

↓

Parents educate
to their children

# 01 LETS GO HOME

WIREFRAMING

< Children >

Title

Title    Close

Introduction movie

Start Journey!!

TAP TO START!

Emergency call

Wireframes for the Kids version of Let's Go Home.

# 01 LETS GO HOME

WIREFRAMING



Wireframes for the Kids version of Let's Go Home.

# 01 LETS GO HOME

WIREFRAMING



Wireframes for the Kids version of Let's Go Home.

# 01 LETS GO HOME

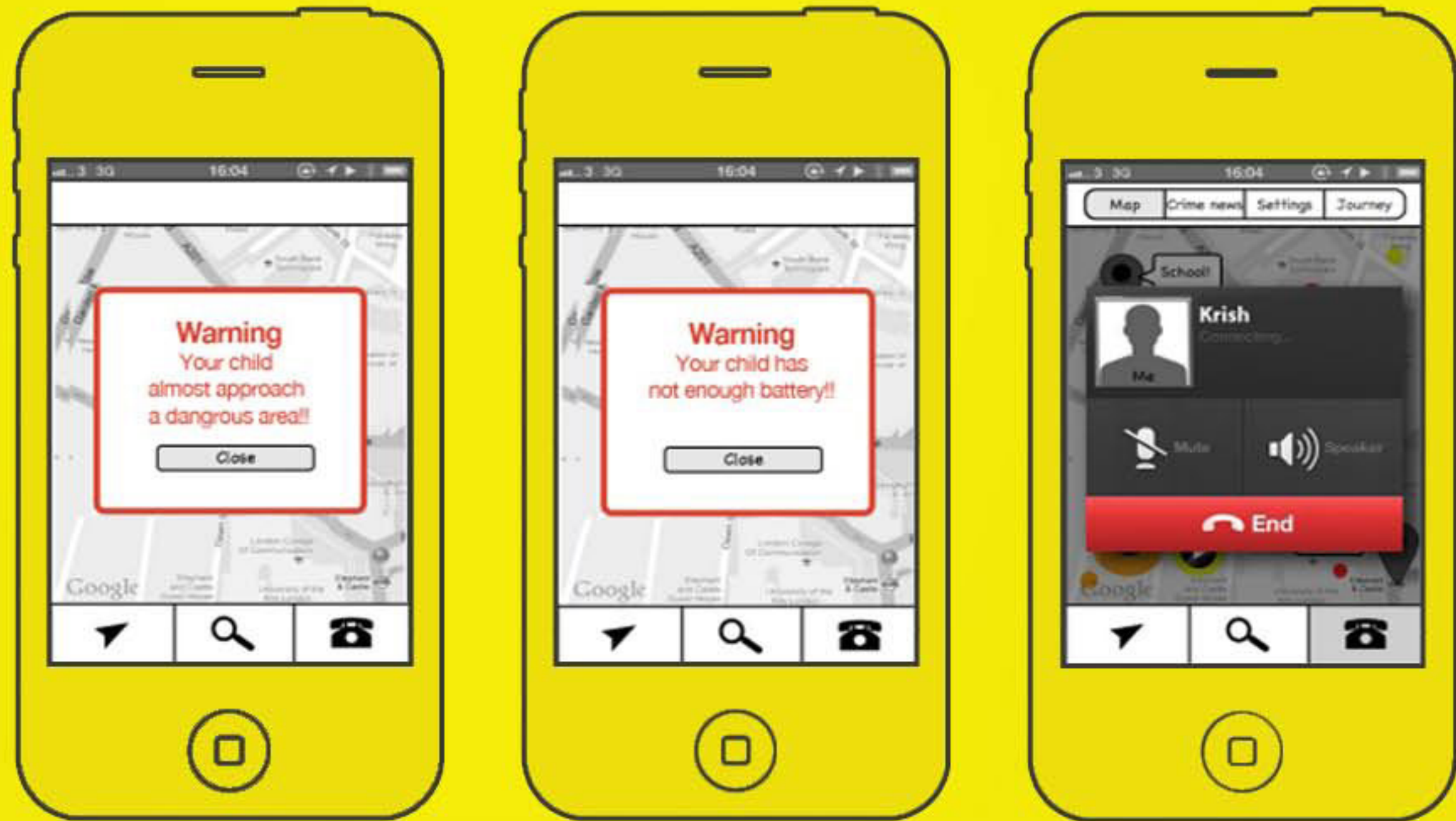WIREFRAMING

Wireframes for the Kids version of Let's Go Home.

# 01 LETS GO HOME
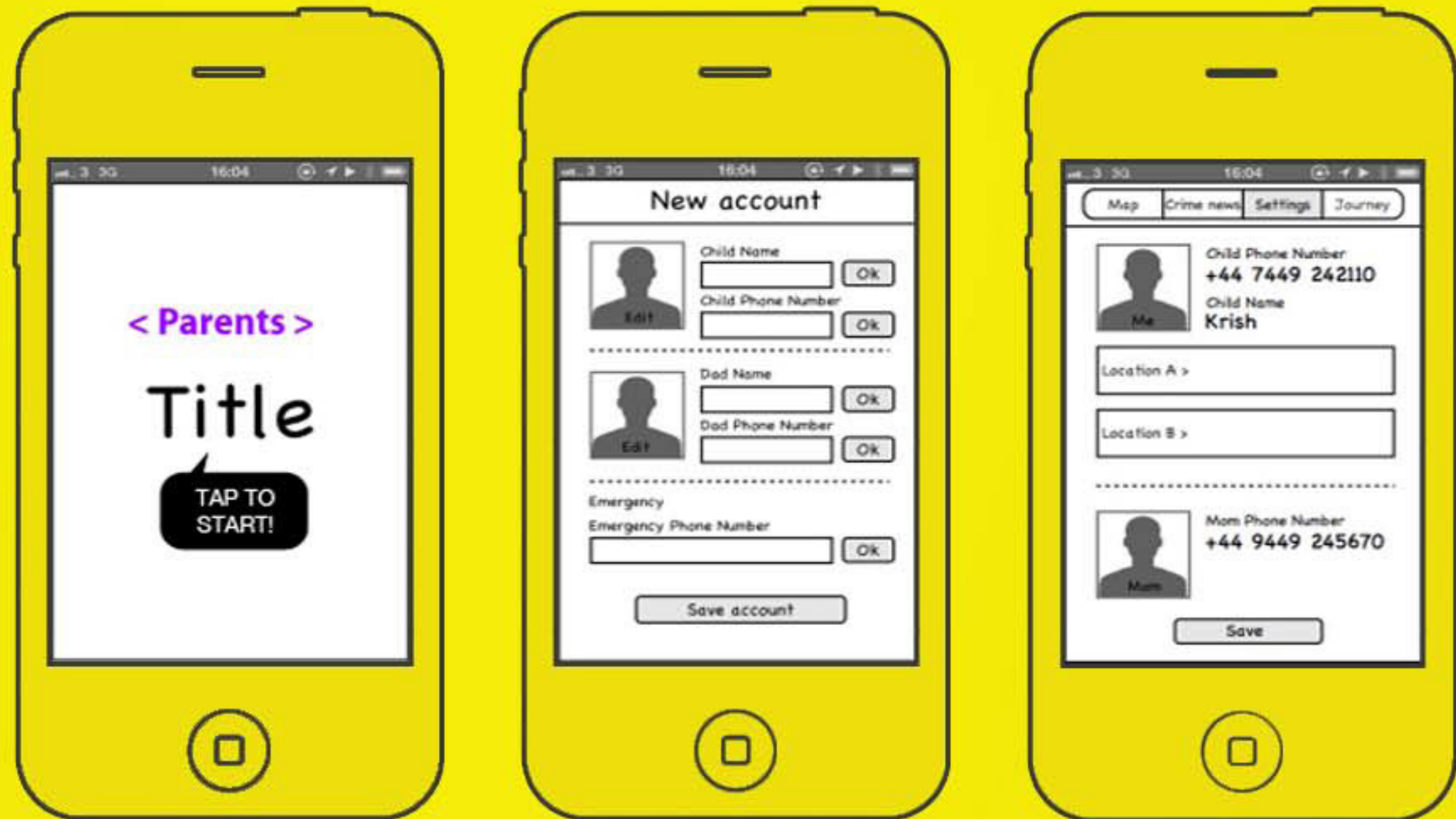
WIREFRAMING



Wireframes for the Parent version of Let's Go Home.

# 01 LETS GO HOME

WIREFRAMING
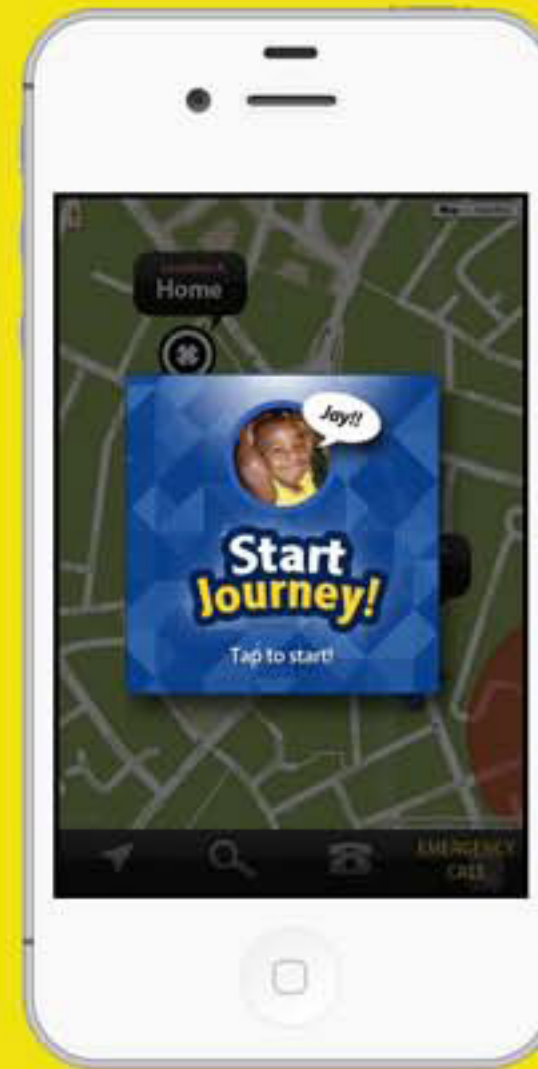


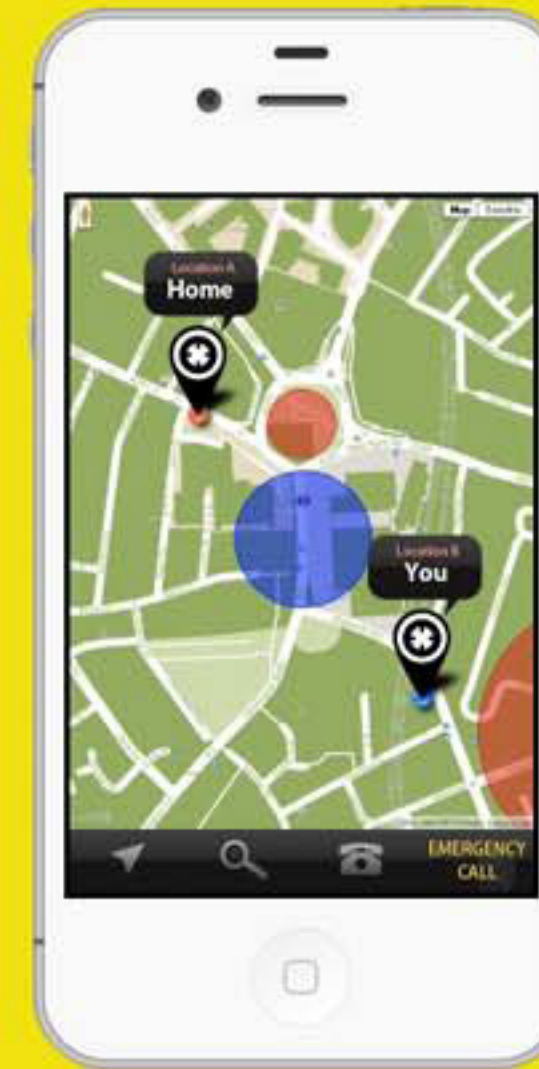Wireframes for the Parent version of Let's Go Home.

# 01 LETS GO HOME

**WIREFRAMING**

Wireframes for the Parent version of Let's Go Home.
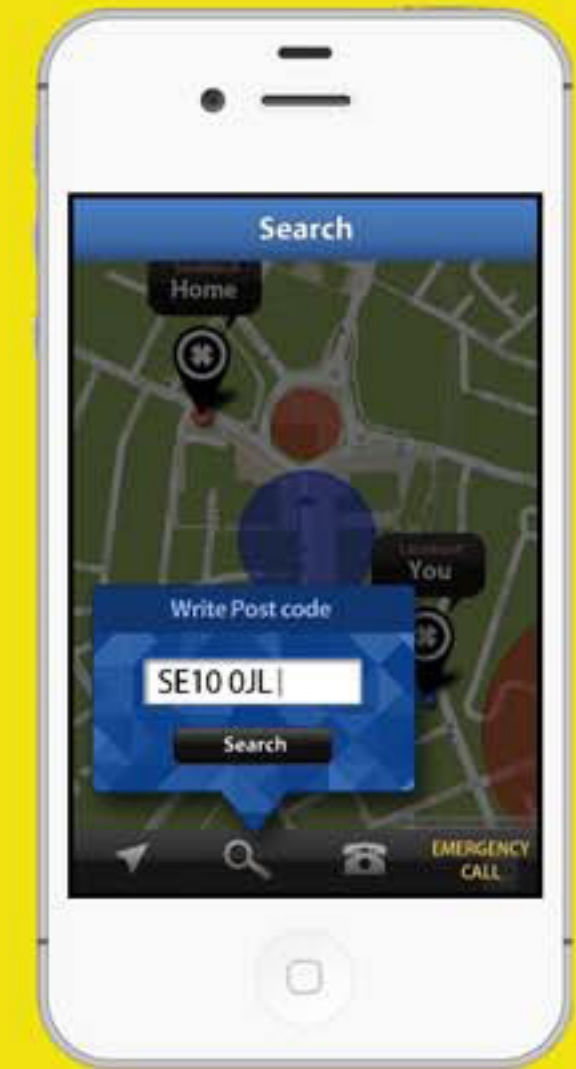
# 01 LETS GO HOME

USER INTERFACE
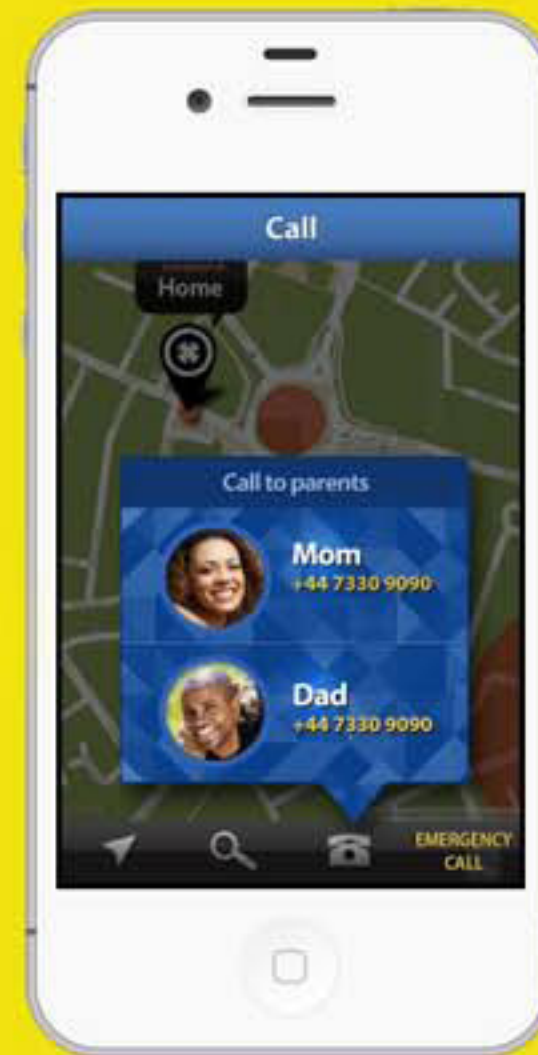


Title Screen

Journey Start

Map showing Markers & Zones

Search for Address
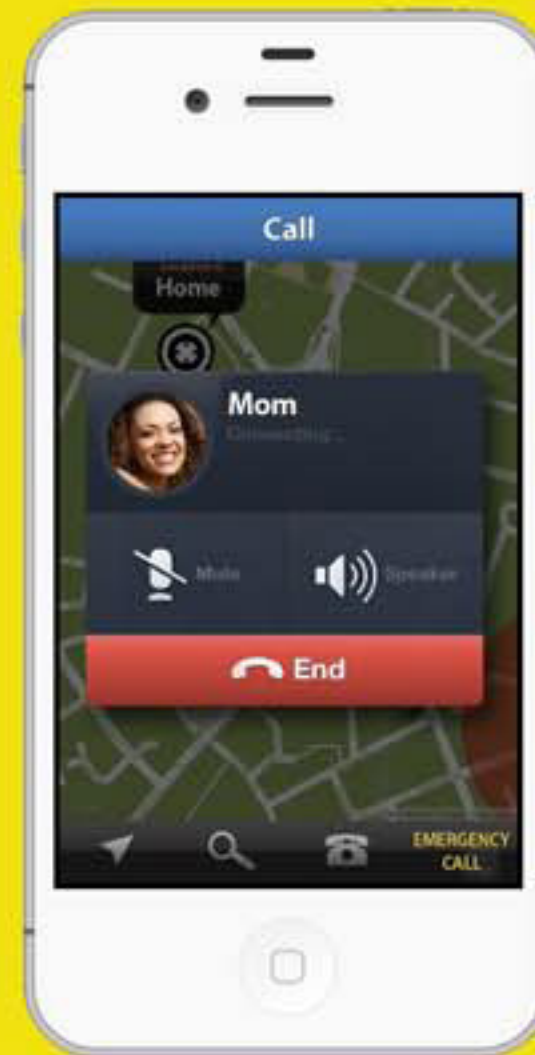
UI for the Kids version of Let's Go Home.
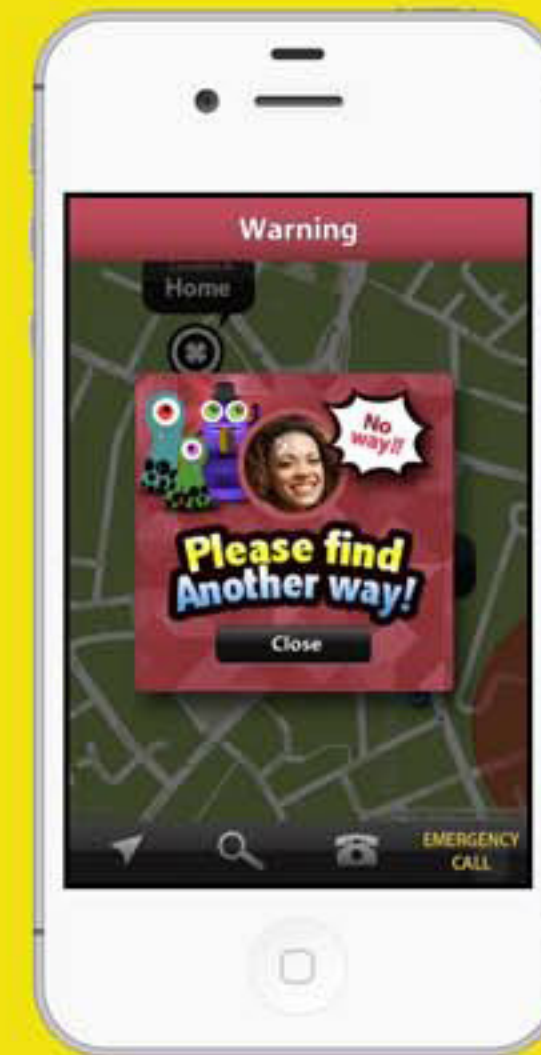
# 01 LETS GO HOME
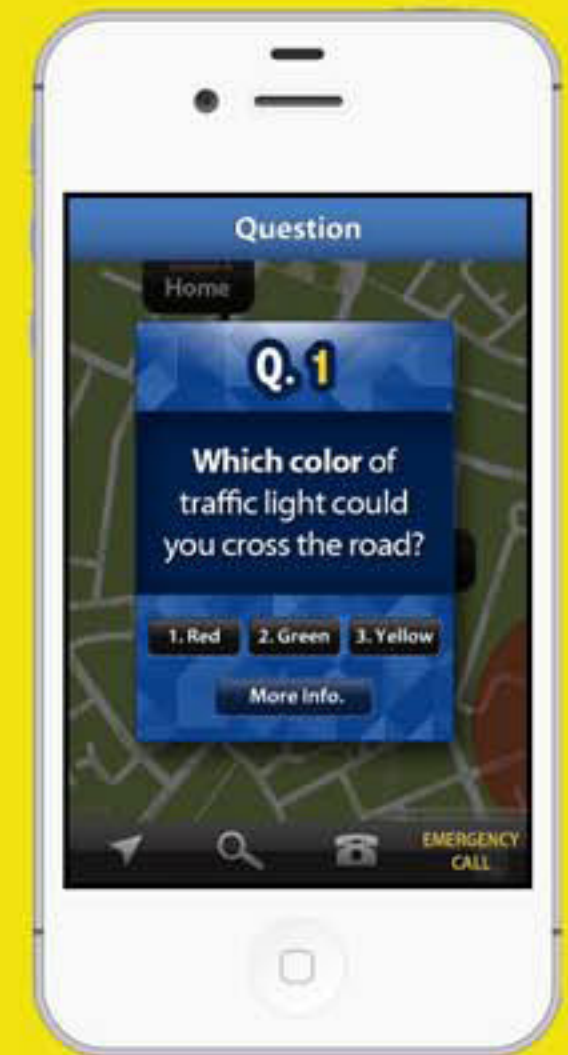


USER INTERFACE

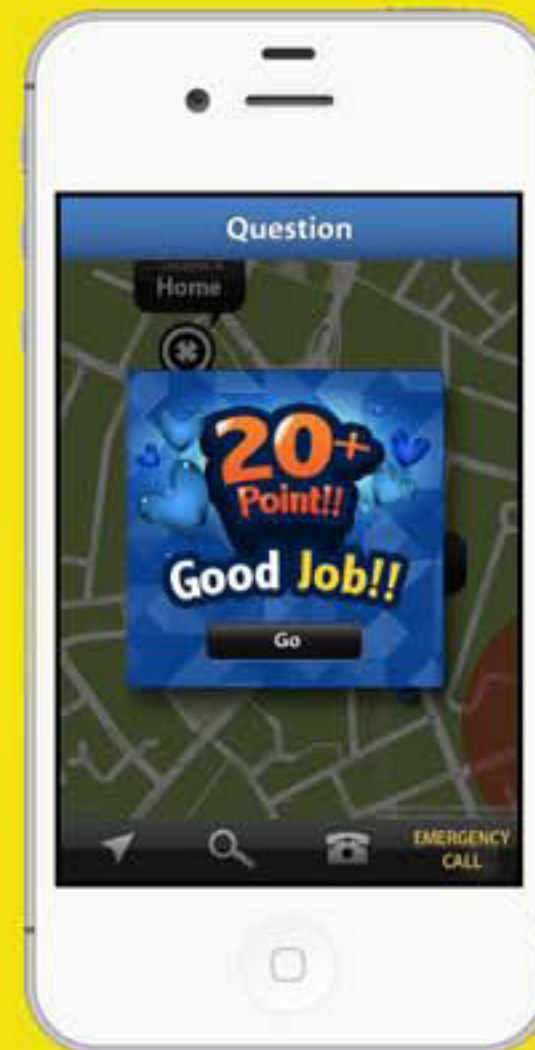Call Parents

Calling Mom

Crime Zone Warning

Traffic Zone Quiz
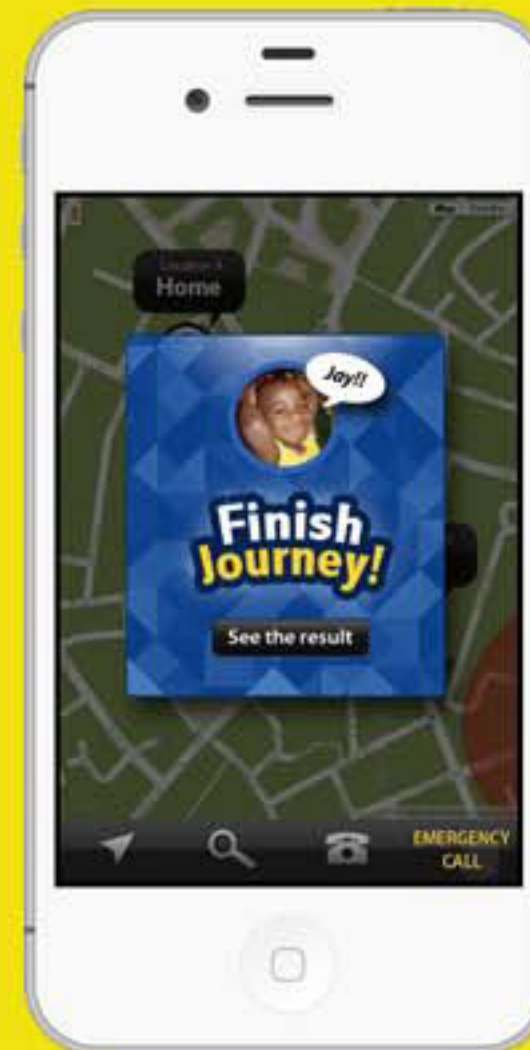
UI for the Kids version of Let's Go Home.
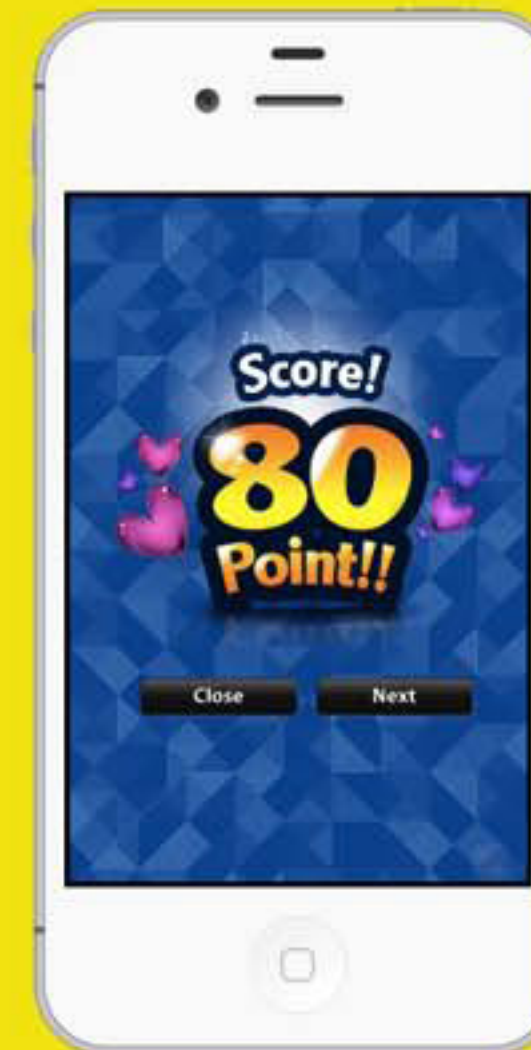
# 01 LETS GO HOME

USER INTERFACE

Correct Answer!

Journey Complete

Journey Score

Class Ranking

UI for the Kids version of Let's Go Home.

# 01 LETS GO HOME

## Paper Prototyping:

For our paper prototype test, we made cut outs of our wireframe prints, which were the having the same size of a smartphone screen. We used these cutouts and changed it as per the storyboard when our test user was giving inputs. The test results were used to make modifcations with the wireframes that we had developed.

## Usability Testing:

We conducted usability testing on kids and the analysis report of this test can be downloaded from the following link:
**www.krishnan.co.uk/demos/docs/letsgohome.docx**

## Prototype Demo:

Kids Version: **www.krishnan.co.uk/demos/KIDS/**
Parents Version: **www.krishnan.co.uk/demos/PARENTS**

02 CYCLE TO CYCLE

CYCLE TO CYCLE

## what is it?

Cycle to Cycle is a web app (mobile + desktop) developed for 56A Bike shop in London. It provides an online diagnosis tool that can help owners with basic bike repairs. The 56A Bike Workshop is a space for Do-It-Yourself repair shop that is run solely by volunteers, who provide free bike repairs and also teach the owners how to repair their bikes.

## who is it for?

The target audience for the app are bicycle owners who are capable of DIY repairs. The app is tailored mainly for people who visit the 56A Bike shop for DIY repairs.

## why is it needed?

The shop is encountering problems with limited space and number of volunteers, and they find it difficult to accommodate all their bike owners during peak hours. By providing an online diagnosis tool that can help owners with basic bike repairs, only necessary bike owners with major repairs need to come to the bike shop for help.

## Project Members:

Bona Lee: UI Designer
Mina Liu: Information Architect
Yaboi Wang: Project Manager
Krishnan Vijayaraghavan: Prototype Developer & UX Analyst

## Time Period:

20 days (April 2013 to May 2013).

## Tools Used:

**Wireframing:** Moqups
**Prototype:** HTML5, jQuery

# 02 CYCLE TO CYCLE

RESEARCH

### Research on 56A:

The 56A Bike Workshop is a space for Do-It-Yourself repair shop that is run solely by volunteers, who provide free bike repairs and also teach the owners how to repair their bikes. The bike shop is part of the 56A non-profit Collective, which consists of an Info-Shop selling radical books and Fare-Shares, a food co-op selling organic and whole foods. It is located at Crampton Street in Newington, London.

We interviewed some of the volunteers and learnt that, by helping and teaching bike owners about repairing their bikes, the shop is trying to promote a philosophy that doing-it-yourself is a way of having control over your life.

### Current Issues:

After talking to the volunteers, we learnt that the bike shop is facing the following issues:
1. Problems with limited space to accommodate all their bike owners during peak hours.
2. They are facing a shortage of skilled volunteers.
3. The public has little knowledge about the existence of this shop.

The lack of volunteers meant that the shop was only able to run for 4 days a week. This lead to a large number of customers coming in when the shop was open and it was challenging for the bike shop to accommodate all of them in the small space. With a limited number of facilities and budget the bike shop was not able to manage these issues that they have. We felt that we may be able to provide a digital solution for them that could be sustainable and also economically viable for them, considering the fact that it is a volunteer run organization.

● REQUIREMENTS

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## App Objectives:

After conducting interviews with the volunteers and customers at 56A, we defined the following objectives for Cycle To Cycle:

1. **Online diagnosis:** Bike, Tools and Repair

2. **Health Calculator:** Encourage more people to ride bikes

3. **Educate the public about their idea:** Self-reliance, Autonomy and Environmental Sustainability

The core purpose of the app is to take the pressure off the bike shop by reducing in-house repairs. The online diagnosis tool should be able to take care of minor bike repairs, where the user can repair their bike by watching selected video tutorials. This tool is emulating the technique of how an online medical diagnosis works for people. The user selects which part of their body that is having a problem, and the tool then shows a list of symptoms for that body part and it filters down to a final diagnosis.
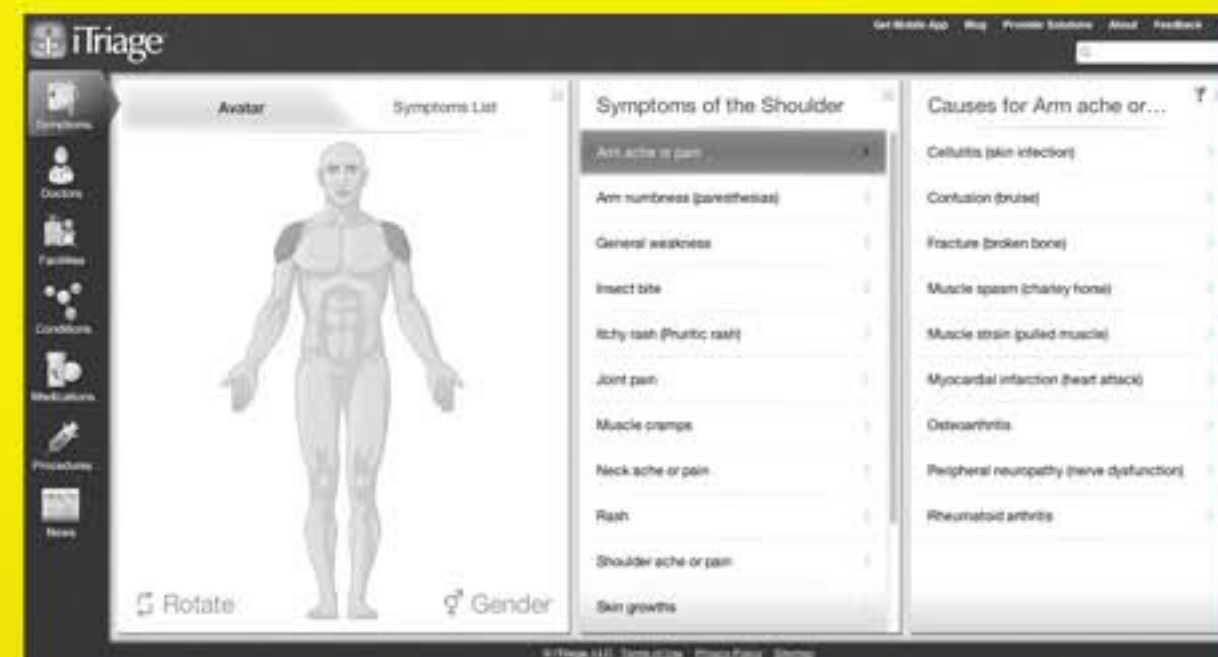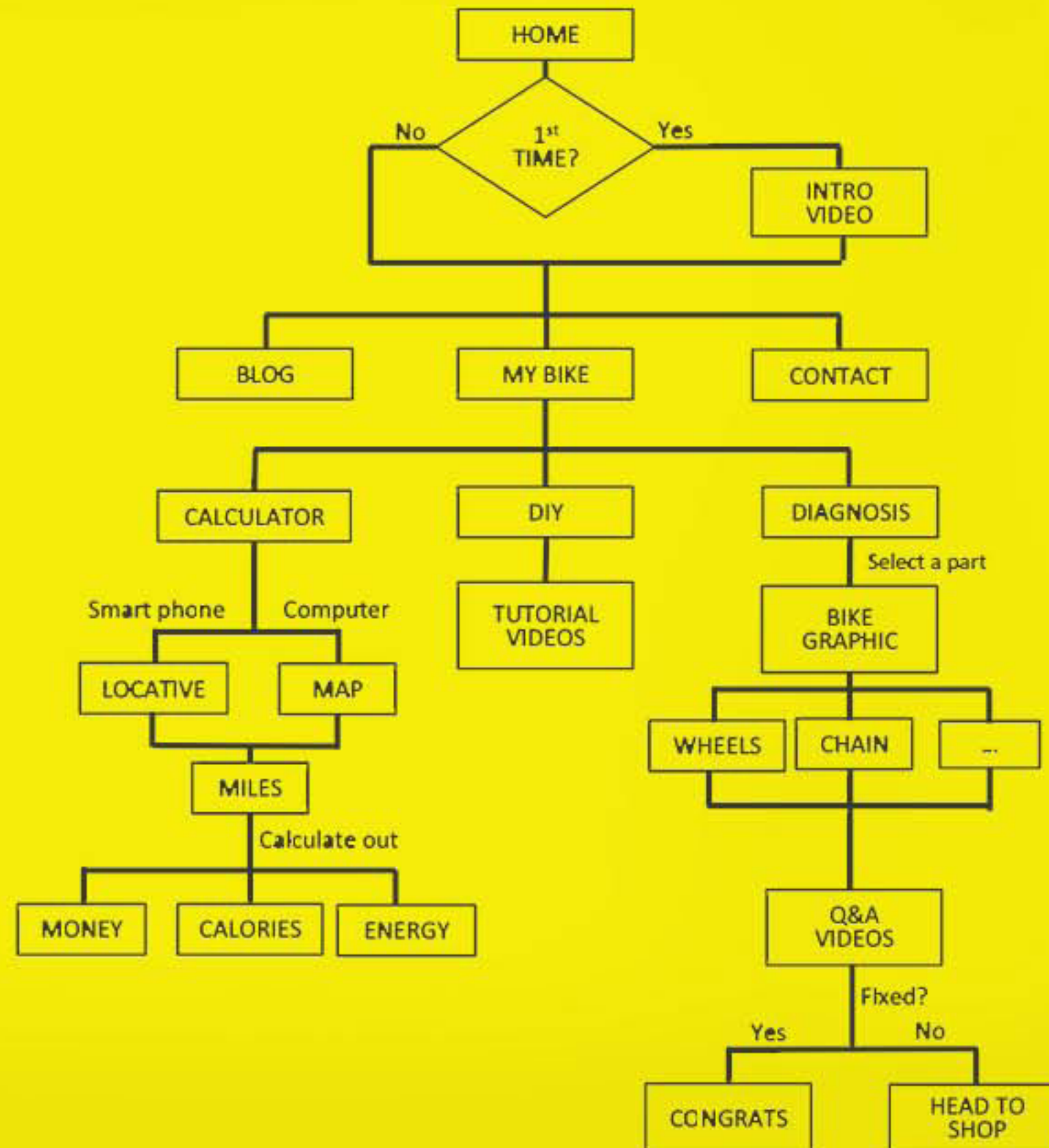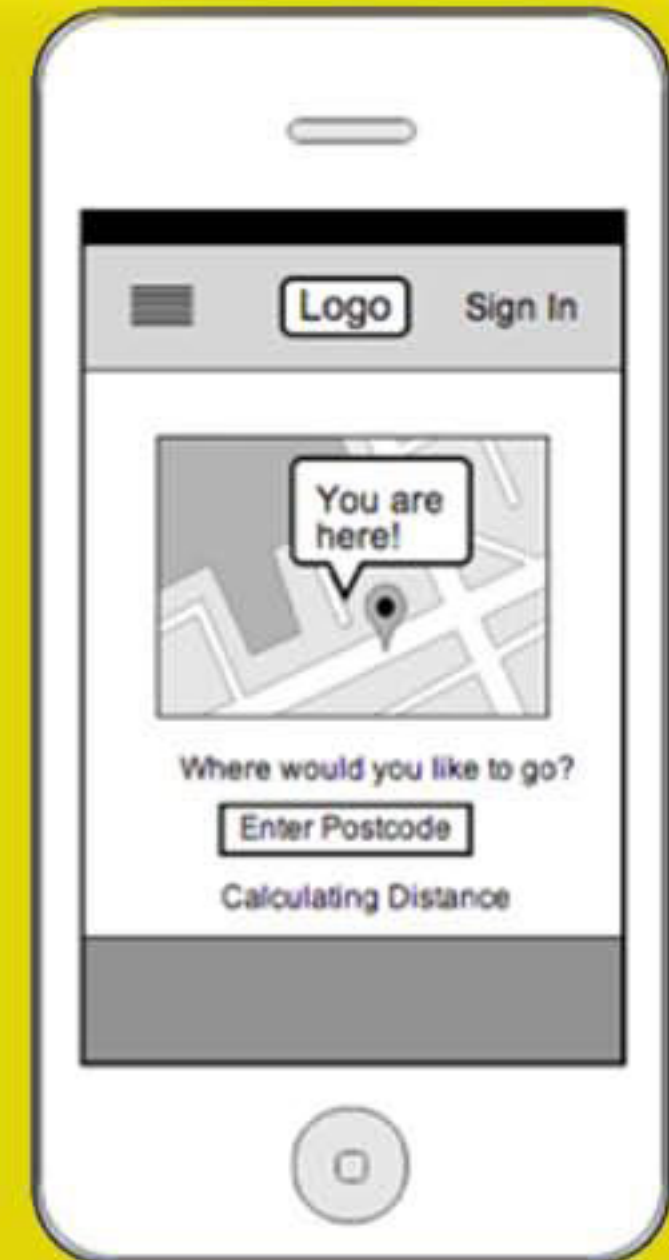
iTriage: An example of an online medical diagnosis tool

# 02 CYCLE TO CYCLE

WIREFRAMING



Home page with menu bar
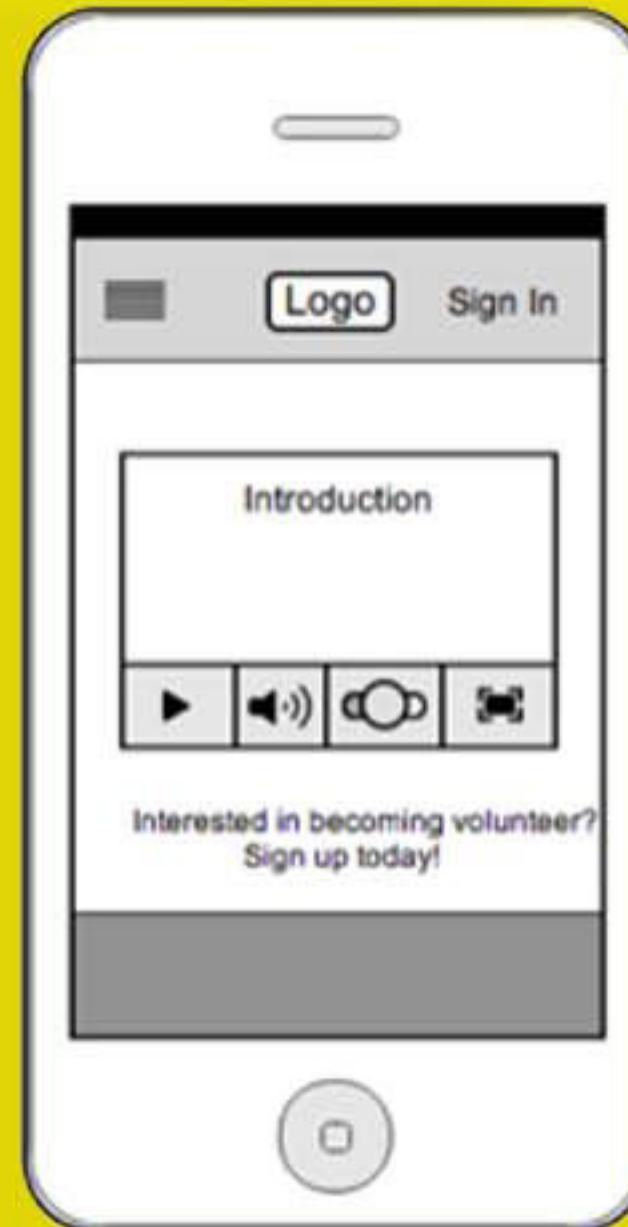
Calculator Page

HOME PAGE + CALCULATOR PAGE WIREFRAME FOR MOBILE VERSION

# 02 CYCLE TO CYCLE

WIREFRAMING

**Logo**  Sign In

Select

**Logo**  Sign In

Under Inflation

Over Inflation

Slippery                                    ▶

Object Stuck

Broken and Replace

Fix

**Logo**  Sign In

**New Tire Change**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed

**Directions** ⟶

Complete!
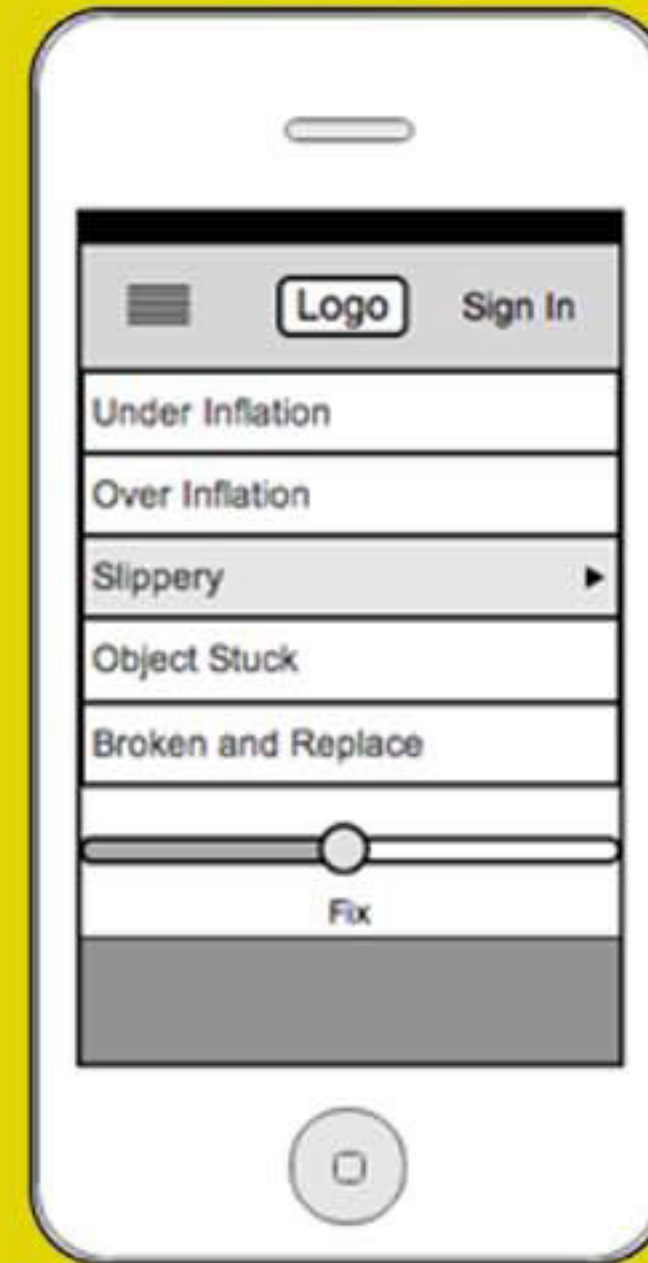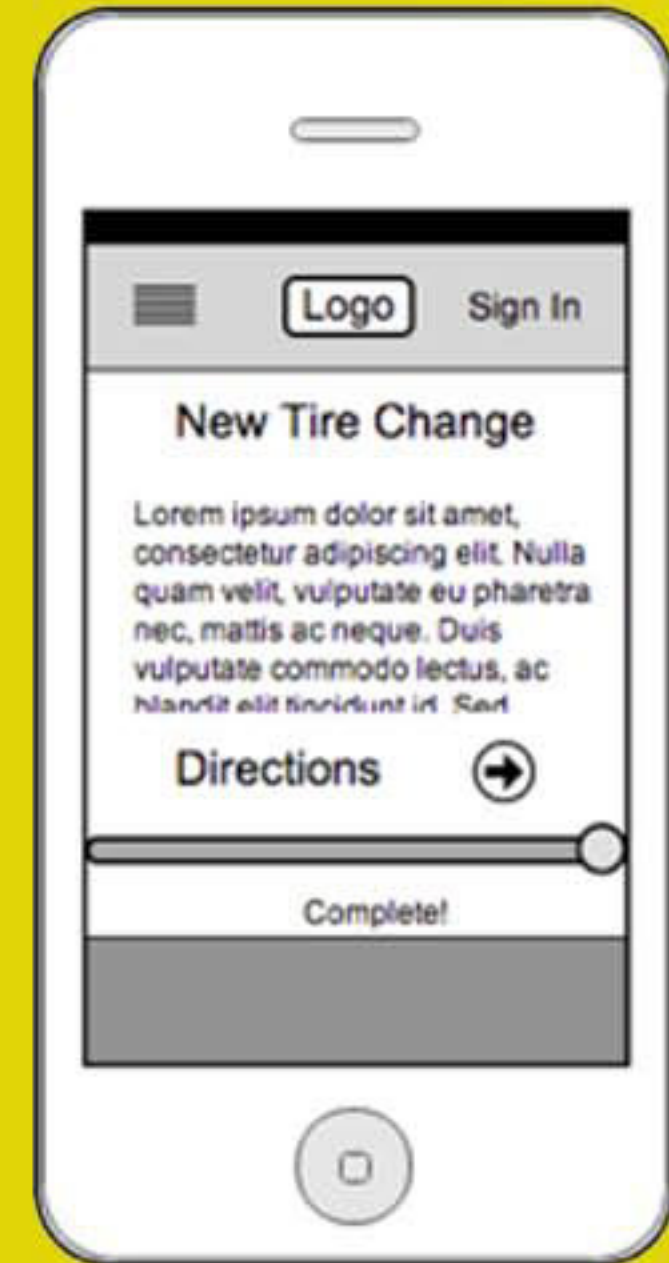
1ˢᵗ step               2ⁿᵈ step               3ʳᵈ step

DIAGNOSIS PAGE WIREFRAME FOR MOBILE VERSION

# 02 CYCLE TO CYCLE

WIREFRAMING



HOME PAGE WIREFRAME FOR DESKTOP VERSION
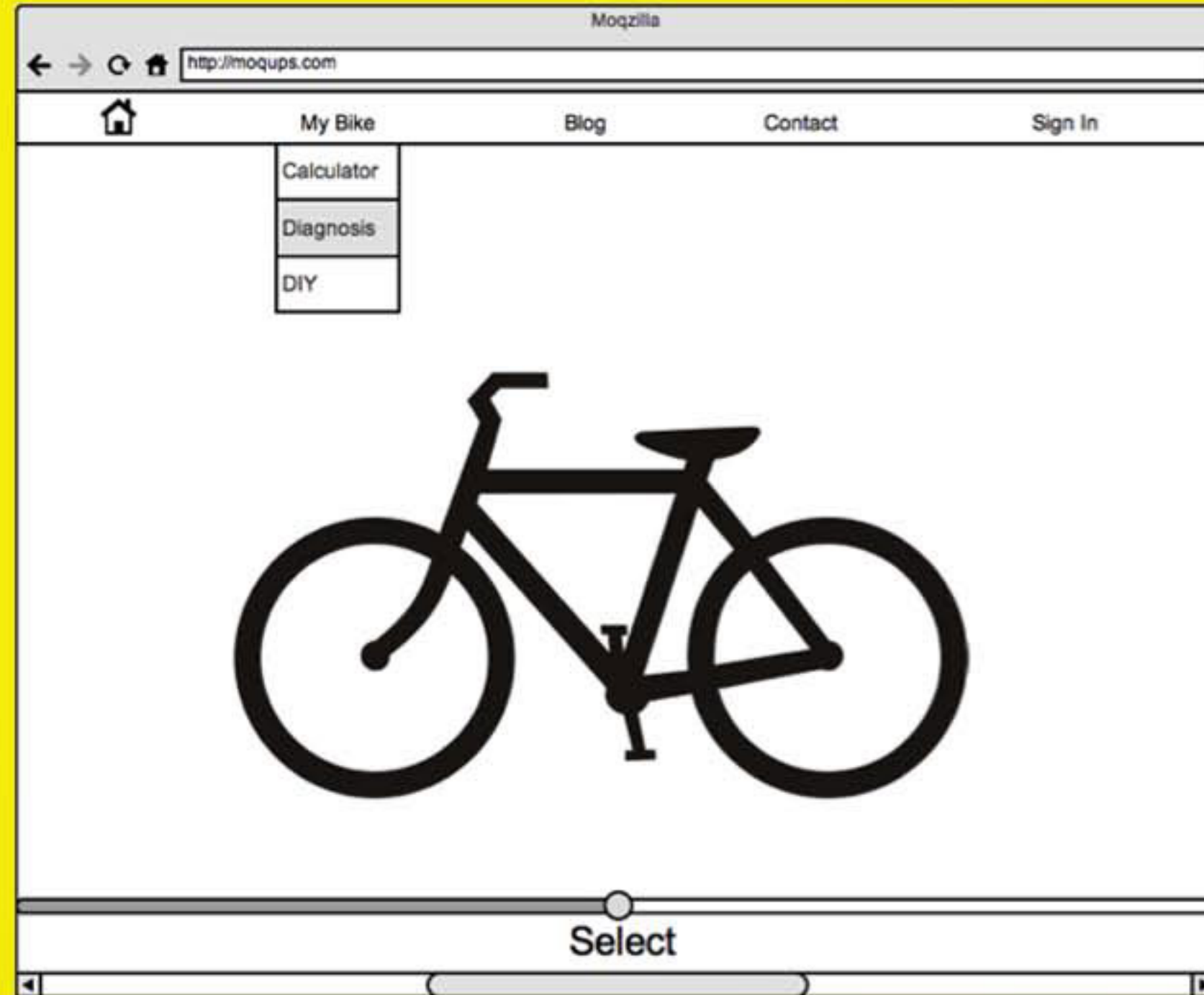
# 02 CYCLE TO CYCLE

◉ WIREFRAMING

○



DIAGNOSIS PAGE WIREFRAME FOR DESKTOP VERSION

## 02 CYCLE TO CYCLE

WIREFRAMING

DIAGNOSIS PAGE WIREFRAME FOR DESKTOP VERSION

# 02 CYCLE TO CYCLE

- WIREFRAMING



Moqzilla

http://moqups.com

| My Bike | Blog | Contact | Sign In |

Distance Total is 53 m, Travel time is 15 min.

You would lose around 1080 calories!

Select to see what else you have saved.

Calories ▼
Money
Energy ►

Submit
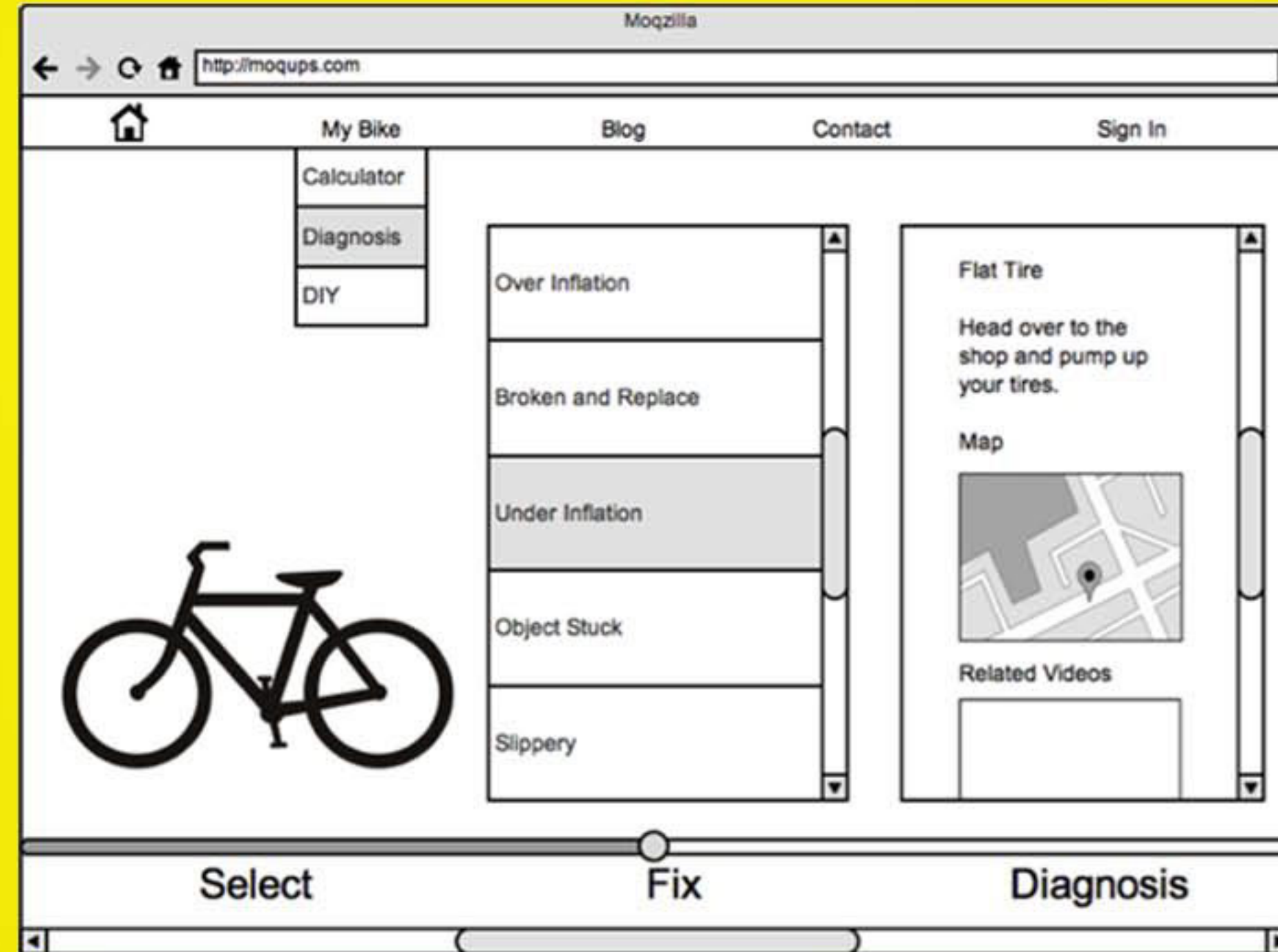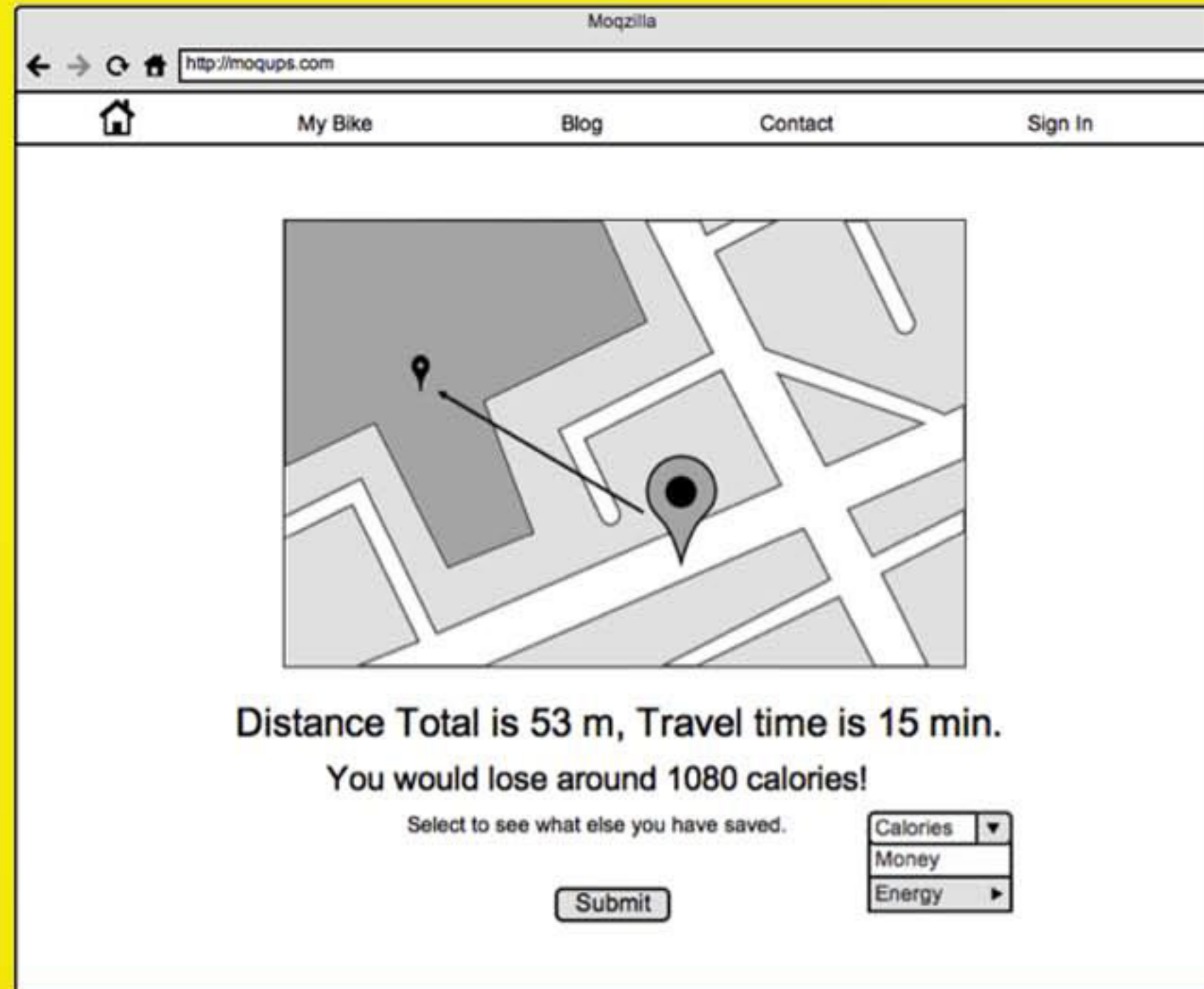
CALCULATOR PAGE WIREFRAME FOR DESKTOP VERSION

**02** CYCLE TO CYCLE

◎ USER INTERFACE

Cover page
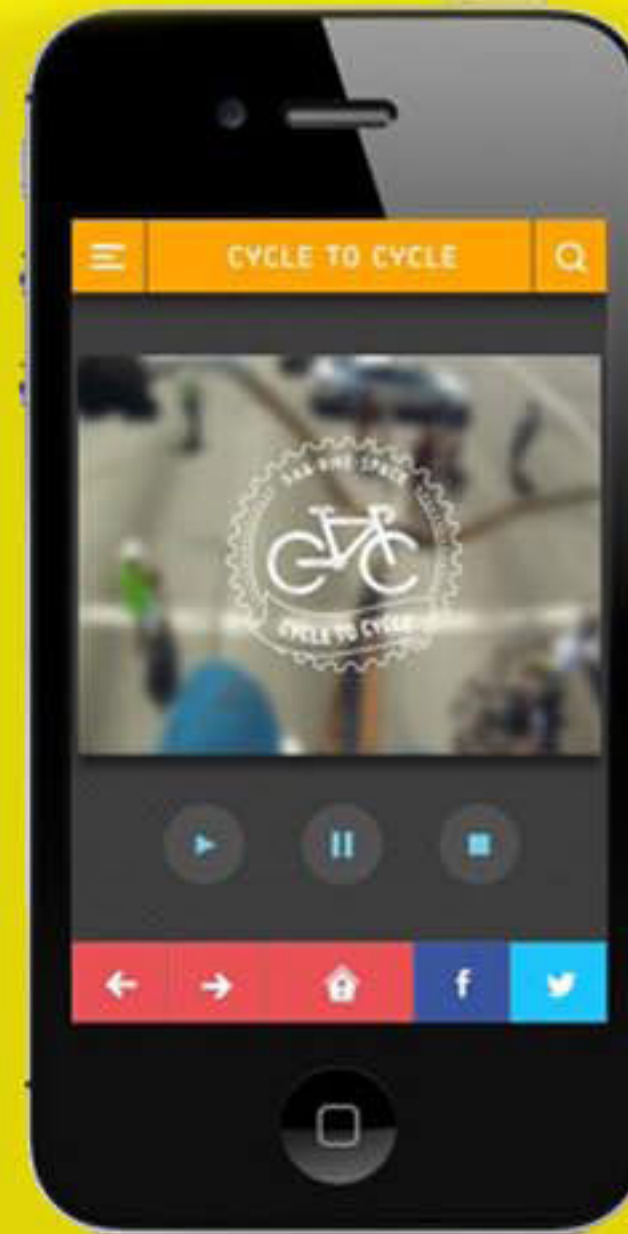
Introduction
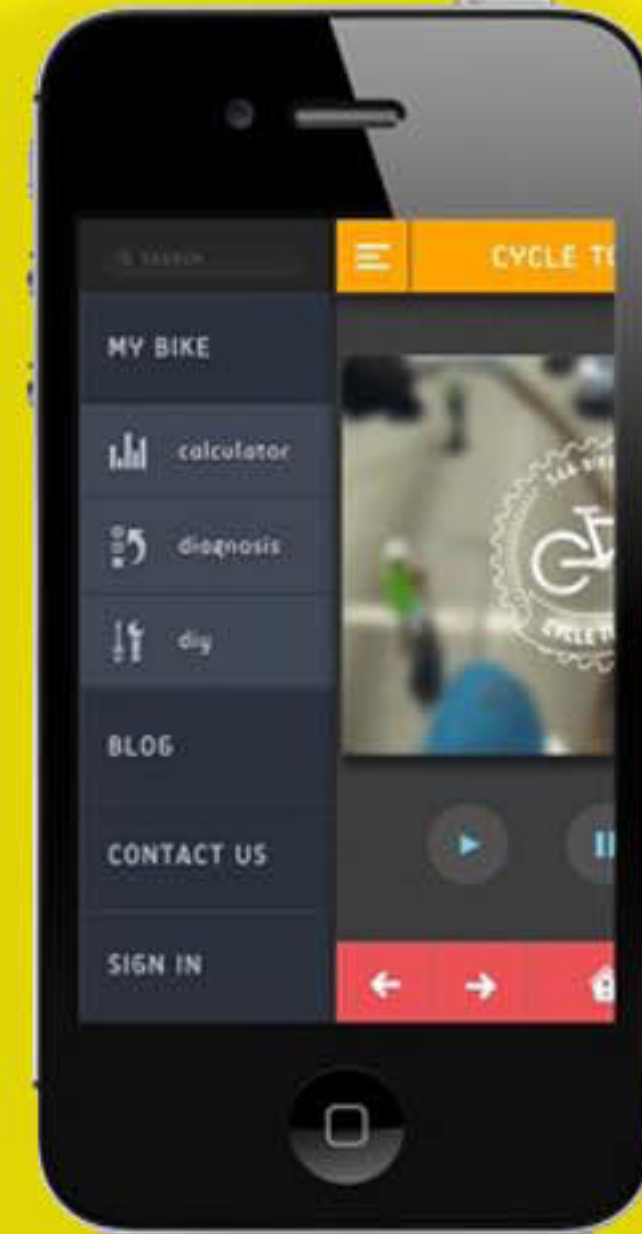
Menu

MOBILE UI FOR HOME PAGE + MENU

# 02 CYCLE TO CYCLE

## USER INTERFACE
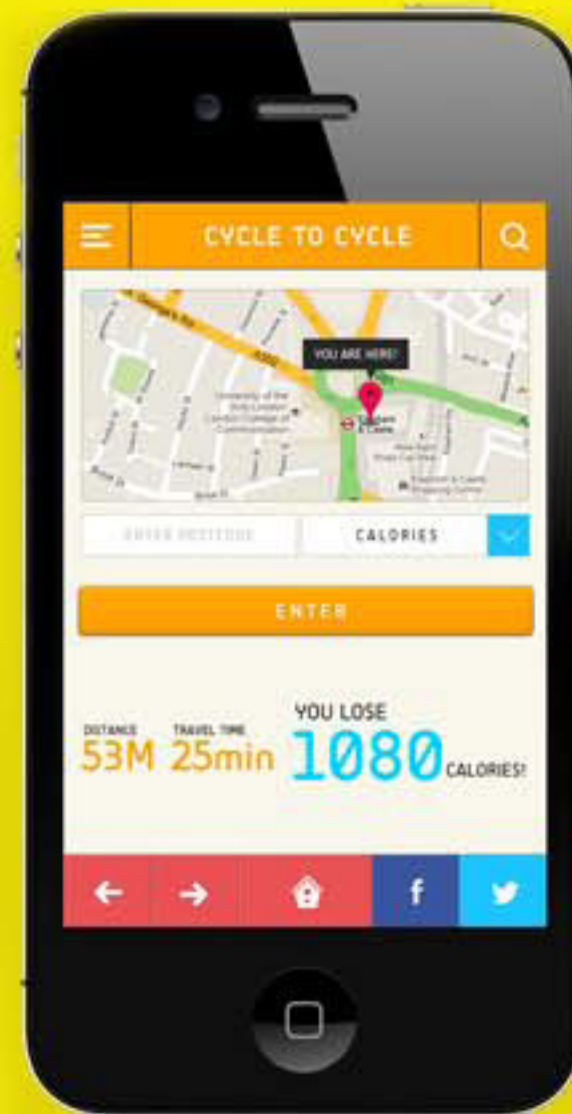
MY BIKE > Calculator

MY BIKE > Diagnosis
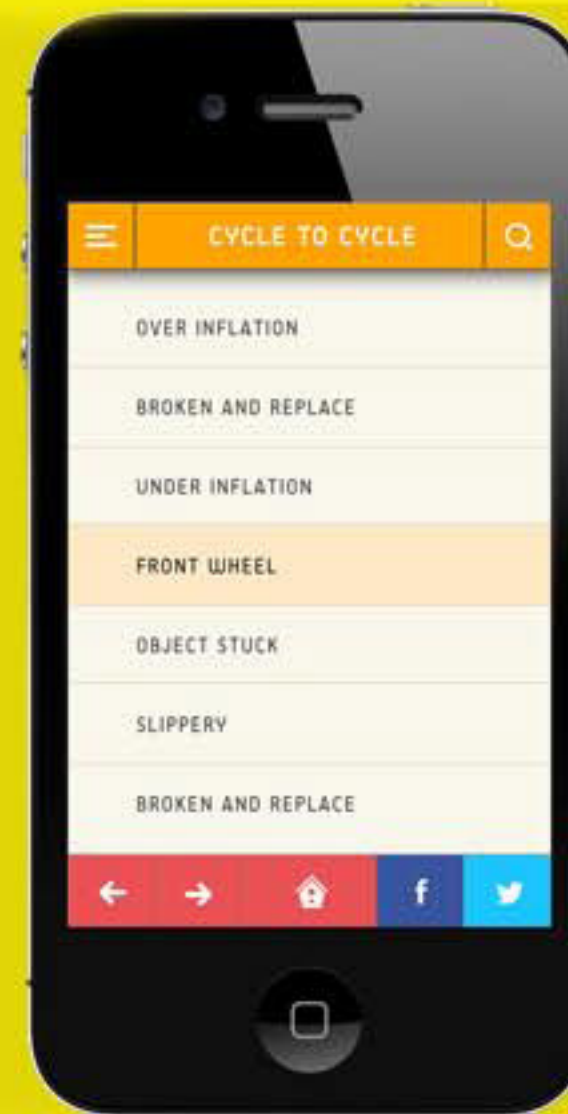
MY BIKE > Diagnosis 1
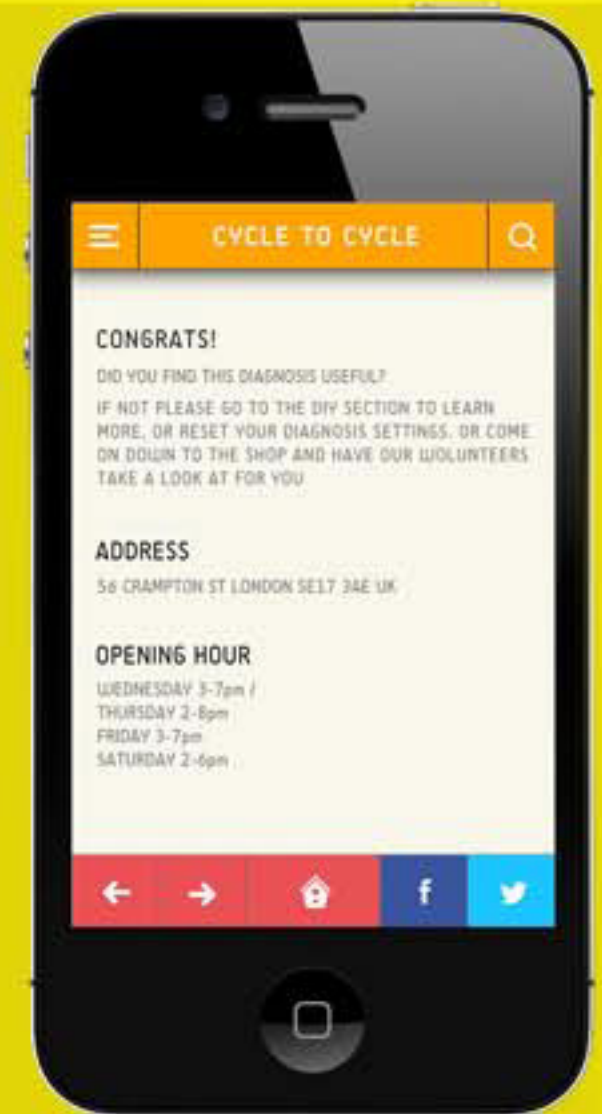
MY BIKE > Diagnosis 2

MOBILE UI FOR CALCULATOR PAGE + DIANOSIS PAGE

# 02 CYCLE TO CYCLE

USER INTERFACE

MY BIKE > Diagnosis 3

MY BIKE > DIY
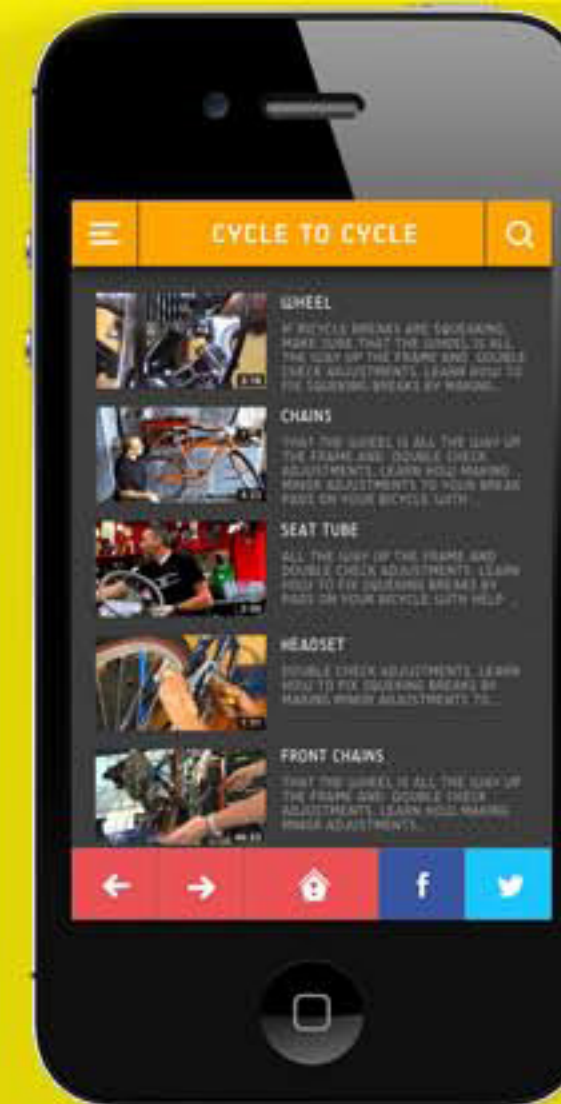
MY BIKE > DIY 1

Contact us

MOBILE UI FOR CALCULATOR PAGE + DIANOSIS PAGE

# 02 CYCLE TO CYCLE

## USER INTERFACE

DESKTOP UI FOR HOME PAGE

# 02 CYCLE TO CYCLE
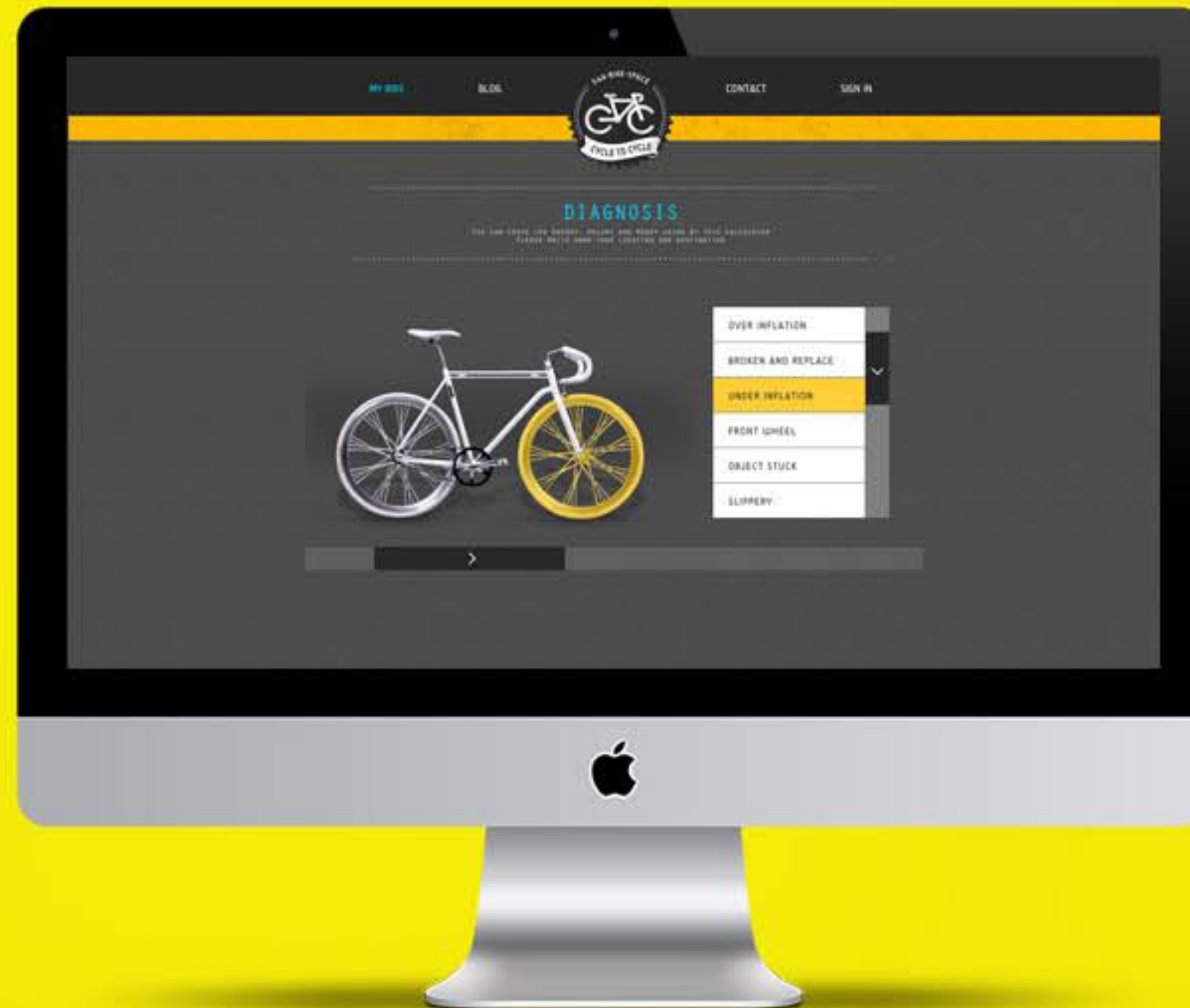
**USER INTERFACE**

DESKTOP UI FOR DIAGNOSIS PAGE

**02** CYCLE TO CYCLE

**Prototype Demo:**

Desktop Version: **www.krishnan.co.uk/demos/cycle**
Mobile Version: **www.krishnan.co.uk/demos/cycle/mob**

03 ACCESS:MAC OS UI

# 03 ACCESS:MAC OS UI

### what is it?

Access is a User Interface prototype for the Mac OS X that uses a 'Magazine' as the visual metaphor, instead of the traditional desktop interface that was created in the 1980's modelling an office environment. The 'Desktop' metaphor isn't appropriate for most of the current users who don't necessarily use their Mac's for traditional office work and can't relate to concepts such as files and folders which underlie the 'Desktop' metaphor.

### who is it for?

The target audience for the Access are Magazine Publishers and the version we developed was tailered for students as well.

### why is it needed?

Access provides a more organized and systematic way of maintaining a user's life on a system and it is based on "semantically meaningful activities" of the users. This easy to use custom made UI for Magazine Publishers empowers them to utilze the power of the desktop with better access to their tools, news and other activities and at the same time, allows non-tech savvy users to engage more the with desktop.

# 03 ACCESS:MAC OS UI

## Project Members:

Wanxiao Tian: Information Architect
Nadia Ahdout: Usability Analyst
Mina Liu: Interaction Designer
Krishnan Vijayaraghavan: Prototype Developer & UX Analyst

## Time Period:

30 days (October 2012 to November 2012).

## Tools Used:

**Wireframing:** Omnigraffle
**Prototype:** HTML5, jQuery

◉ RESEARCH
○
○
○
○

## User Research:

Most of the publishers are still wary of the digital era of publishing and instead of embracing it, they are fearful of it. With this, we analyzed if the current OS X interface was to be blamed. We noticed that there were several glaring issues with it. The desktop interface is not activity based nor is it helping publishing users in anyway, especially the novice. We spoke to the Magazine Publishing students and they found it as a really difficult system to learn, and it was not tuned for any of their activities, such as content creation, management, marketing etc.

We decided that we should develop a system than can bridge the glaring gap that they have with the digital era and learn to embrace it. By constructing an interface tuned for them, we could make them realize that the soul of publishing is still the same and all that has changed is its medium.

REQUIREMENTS

## Requirements:

During the course of our User Research we have understood that the users were using their portable devices to do most of their tasks. Their desktop was now used for specific purposes only and were facing several issues with it:

1. **Content Management:** They described that they found it difficult to manage the large number files on their desktop. They did not want navigate deep into folders to find their files. We saw that they were placing most of their files on the desktop itself and it was time consuming to find a file.

2. **App Management:** All Apps were kept in one folder and they found it cumbersome to find their apps from this folder. They also found it very difficult to switch between apps.

3. **Social Media:** They were finding it difficult to maintain all their social networks within the browser. They were telling us that they would be having more than 20 tabs open in one window and most of them were social networking sites.

It is very evident that the current desktop is not delivering a productive environment for its users.
We decided to use a "Magazine" as a metaphor, which is a more organized and systematic way of maintaining the user's life on a system. This system will be based on semantically meaningful activities of the users and use an activity-based model for the interface.

# 03 ACCESS:MAC OS UI

SITE MAP

**HOME SCEEN**

## FINDER

### MUSIC

ALBUMS
ARTISTS
GENRES
SONGS

### PHOTOS

PERSONAL
EVENTS
MAGAZINE

### READING

ARTICLES
STUDY
BOOKS
JOURNALS

### VIDEOS

## BROWSER

### SOCIAL

FACEBOOK
TWITTER
GOOGLE+
MYSPACE

### BROWSER

## APP MANAGEMENT

### GRAPHICS

INDESIGN
ILLUSTRATOR
FIREWORKS
PIXLMATOR

### PHOTO

PHOTOSHOP
EVENTS
MAGAZINE

### WEB

DREAMWEAVER
SUBLIME
TEXT WRANGLER
FREEWAY

## ORGANISER

### CALENDAR

### REMINDERS

### NOTIFICATION

## NEWS

### TECH

GIZMODO
TECHCRUNCH
VERGE
MASHABLE

### WORLD

BBC
FOX
MSNBC

### SPORTS

SPORTSTAR

## LEARNING CENTER

### ANNOUNCEMENTS

### CONNECT

### DEADLINES

### FORUM

### TUTORIALS

### BLACKBOARD

# 03 ACCESS:MAC OS UI

WIREFRAMING

NEWS

BROWSER

TOOLS & APPS

FINDER

LEARNING CENTER

REMINDERS

ORGANISER

SETTINGS

SEARCH

HOME SCREEN

# 03 ACCESS:MAC OS UI

WIREFRAMING



| | NEWS SOURCE 1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NEWS CATEGORY 1 | | | | | | | | |
| NEWS CATEGORY 2 | NEWS ITEM 1 | NEWS ITEM 2 | NEWS ITEM 3 | NEWS ITEM 4 | NEWS ITEM 5 | NEWS ITEM 6 | NEWS ITEM 6 | NEWS ITEM 7 |
| NEWS CATEGORY 2 | | | | | | | | |
| + | | | | | | | | |

SEARCH

NEWS SOURCE 2

NEWS ITEM 1  NEWS ITEM 2  NEWS ITEM 3  NEWS ITEM 4  NEWS ITEM 5  NEWS ITEM 6  NEWS ITEM 6  NEWS ITEM 7

NEWS SOURCE 3

NEWS ITEM 1  NEWS ITEM 2  NEWS ITEM 3  NEWS ITEM 4  NEWS ITEM 5  NEWS ITEM 6  NEWS ITEM 6  NEWS ITEM 7

+ ADD NEWS SOURCE

NEWS SECTION

# 03 ACCESS:MAC OS UI

WIREFRAMING



| | |
|---|---|
| SAFARI | ADDRESS BAR |
| GMAIL | |
| OUTLOOK | |
| FACEBOOK | |
| TWITTER | Safari can't find the server (?) |
| GOOGLE + | Safari can't open the page "http://sddtovs.com/" because Safari can't find the |
| SKYPE | server "sddtovs.com". |
| + | |

SEARCH

BROWSING SCREEN

ACCESS:MAC OS UI

WIREFRAMING

SEARCH

| | |
|---|---|
| GRAPHICS > | INDESIGN > |
| PHOTO EDITING > | FIREWORDS > |
| WEB DESIGN > | ILLUSTRATOR > |
| TYPOGRAPHY > | PIXLMATOR > |
| VIDEO EDITTING > | PHOTOSHOP > |
| OFFICE TOOLS > | + |
| APP STORE > | |
| + | |
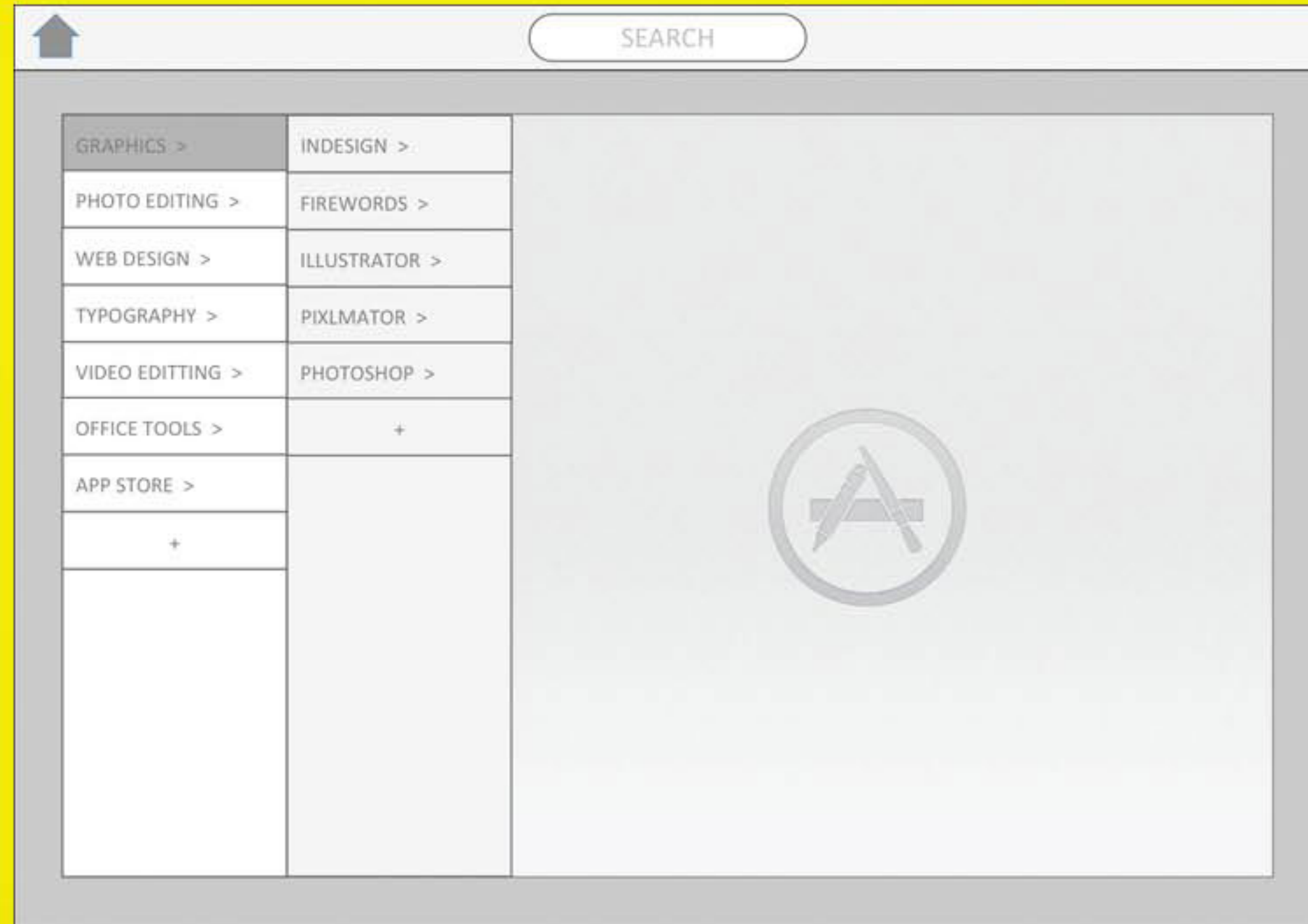
APPS & TOOLS SCREEN

# 03 ACCESS:MAC OS UI

WIREFRAMING

| MUSIC | PHOTOS | READING |
|-------|--------|---------|
| ALBUMS > | PERSONAL > | ARTICLES > |
| ARTISTS > | EVENTS > | STUDY > |
| SONGS > | MAGAZINE > | MAGAZINES > |
| GENRE > | + | BOOKS > |
| + | | + |

SEARCH

>
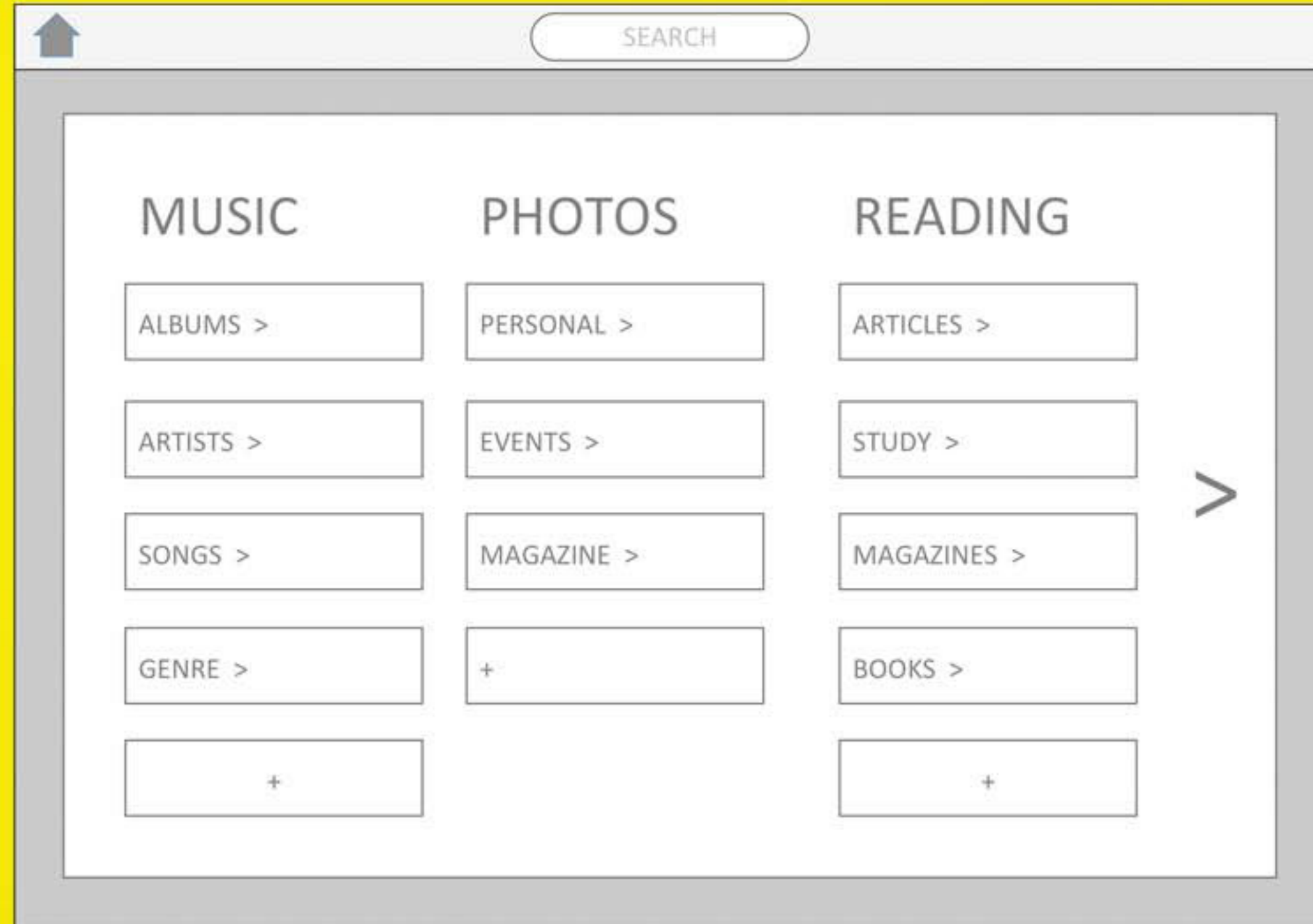
FINDER SCREEN

# 03 ACCESS:MAC OS UI

WIREFRAMING

**LEARNING CENTER**

SEARCH

ANNOUNCEMENTS

ANNOUNCEMENT 1
Description of announcement

ANNOUNCEMENT 2
Description of announcement

ANNOUNCEMENT 3
Description of announcement

ANNOUNCEMENT 4
Description of announcement

CONNECT

CHAT USER 1
CHAT USER 2
CHAT USER 3
CHAT USER 4
CHAT USER 5
CHAT USER 6

FORUM

DISCUSSION 1
Description of discussion

DISCUSSION 2
Description of discussion

DISCUSSION 3
Description of discussion

DEADLINES

DEADLINE 1

DEADLINE 2

DEADLINE 3

CHAT
CONVERSATION

TYPE MESSGE HERE

LEARNING CENTER SCREEN

# 03 ACCESS:MAC OS UI

USER INTERFACE



HOME SCREEN

# 03 ACCESS:MAC OS UI

USER INTERFACE

**MUSIC**
ARTISTS
ALBUMS
GENRES
SONGS

**PHOTOS**
PERSONAL
EVENTS
INSPIRATIONAL

**READING**
ARTICLES
STUDY
BOOKS
MAGAZINE
JOURNALS

**VIDEOS**
HOME
MUSIC VIDEOS
FILMS
FUNNY

FINDER SCREEN

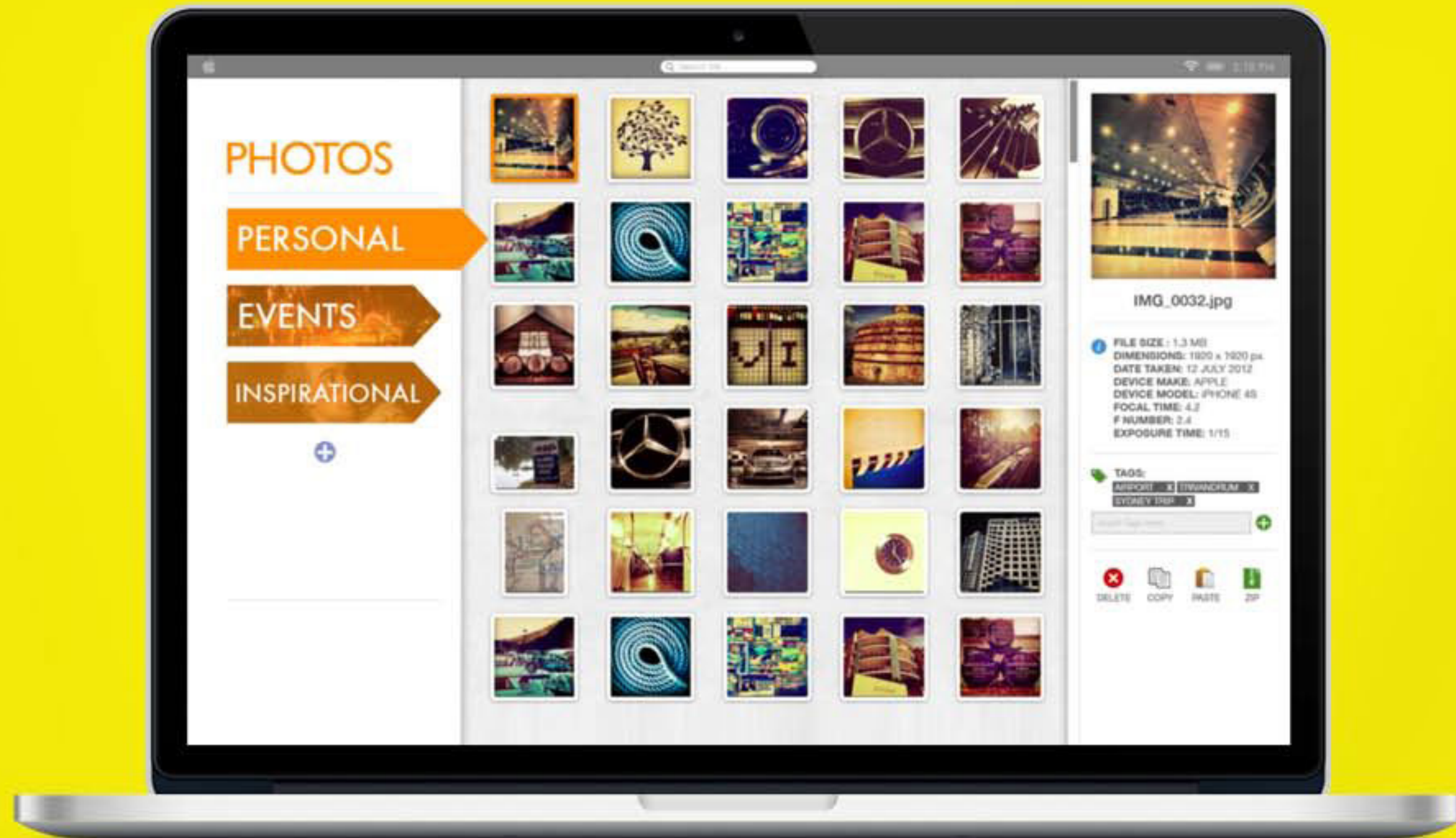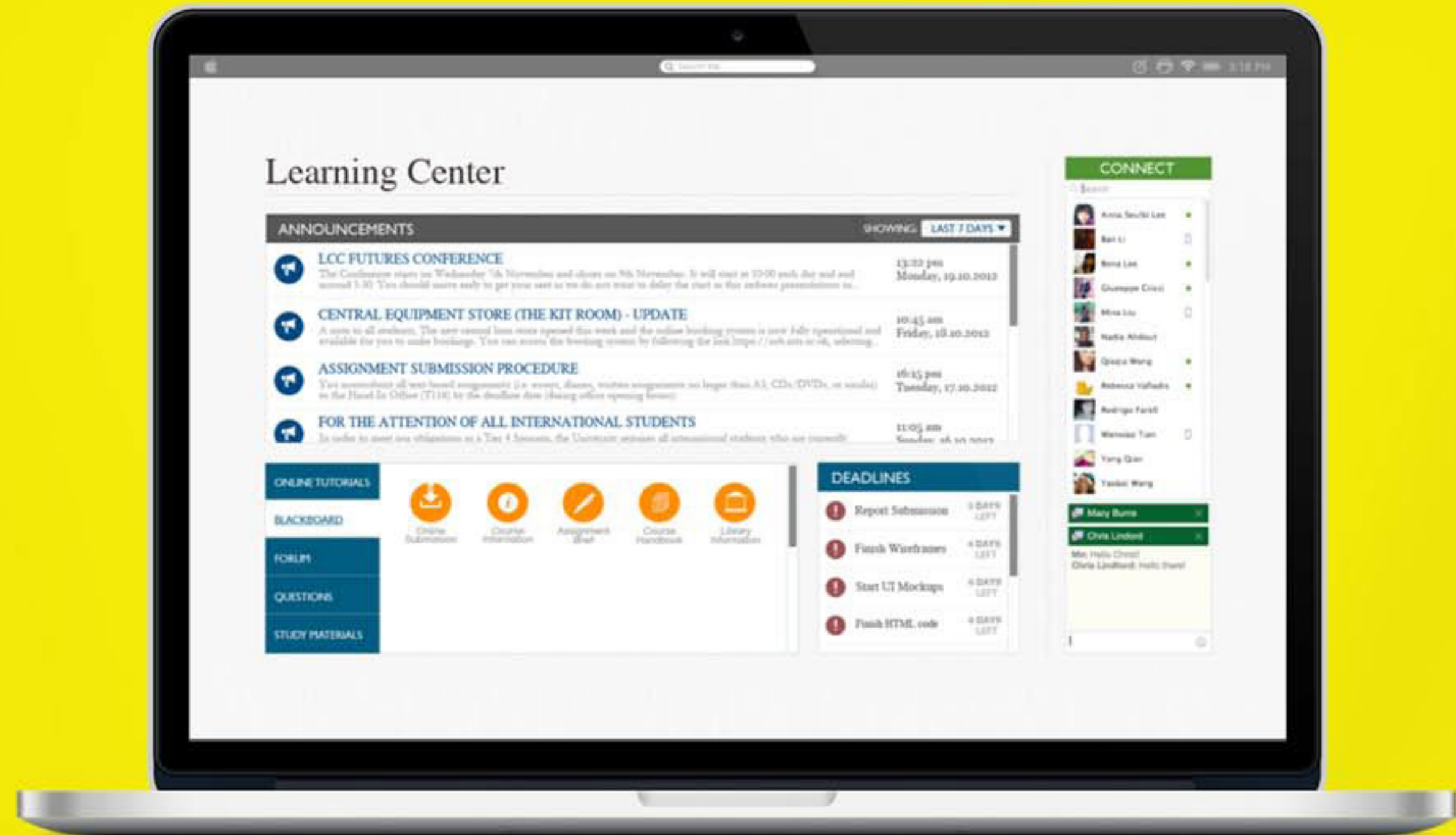**03** ACCESS:MAC OS UI

USER INTERFACE

PHOTO MANAGER

**03** ACCESS:MAC OS UI

○ USER INTERFACE
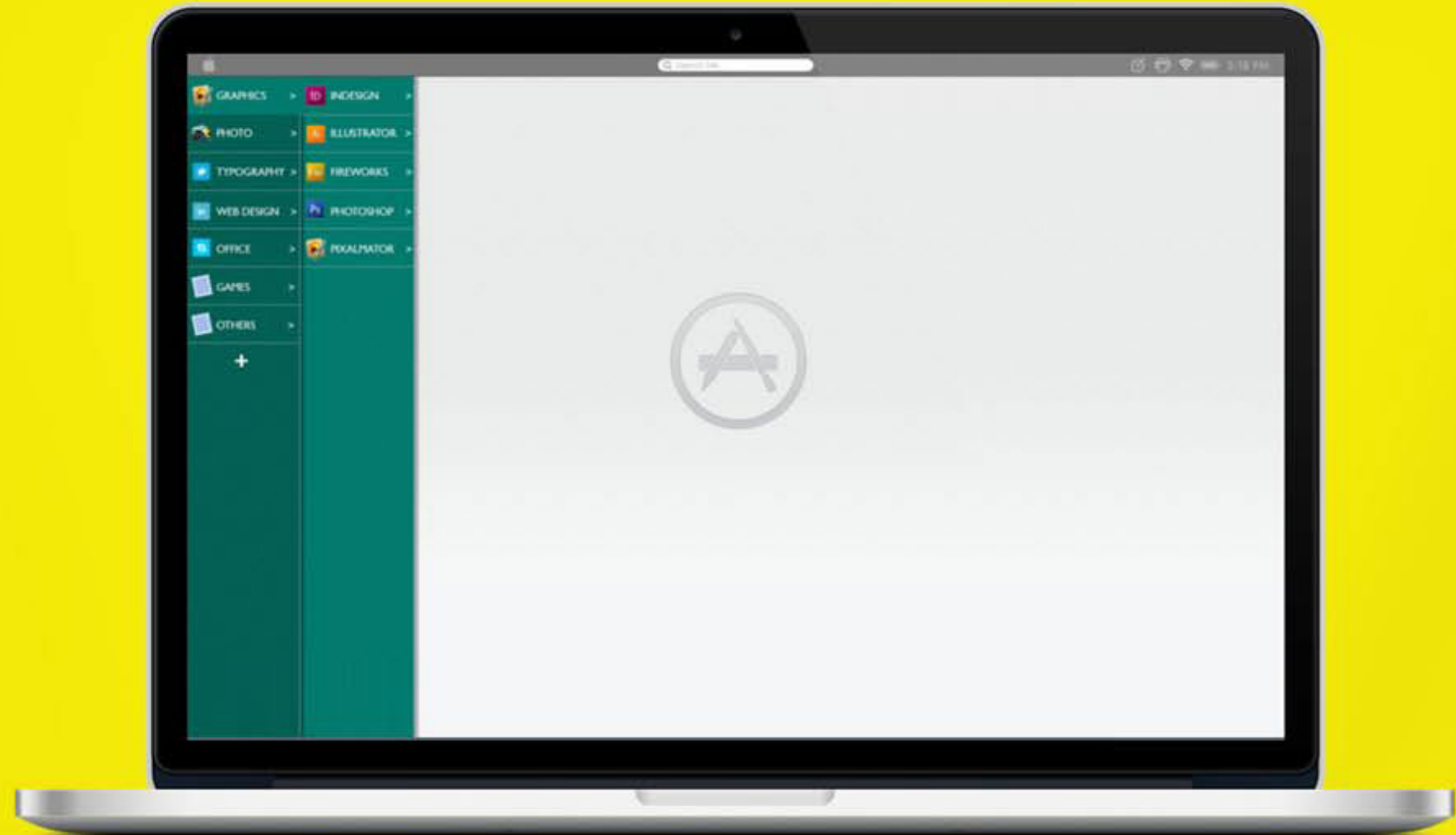


LEARNING CENTER SCREEN

# 03 ACCESS:MAC OS UI

USER INTERFACE



APP MANAGEMENT SCREEN

# 03 ACCESS:MAC OS UI



## USER INTERFACE

SOCIAL + BROWSING  SCREEN

# 03 ACCESS:MAC OS UI

## Prototype Demo:

Desktop Version: **www.krishnan.co.uk/demos/access/**

## Usability Testing:

We conducted usability testing on four of the course students and one Tutor. The test started with an introduction to the user, telling them what the test was meant for. They were also informed that the whole session was going to be recorded. They were then shown the landing page and asked a few questions about it. After that they were asked to perform the tasks by giving them a handout with all questions, and briefly explaining the tasks. As they were performing the tasks, we observed how they were using the system to accomplish each task.

The analysis report of this test can be downloaded from the following link: **www.krishnan.co.uk/demos/docs/access.docx**

FIN

THANK YOU

WWW.KRISHNAN.CO.UK