Close-Proximity Location Using Beacons: *Who's Around*

Alexandre Laramée
Taylor Dotsikas

Andrea Ngo
Dan Crisan

Problem

- Locating persons of interest in confined space
- Close proximity inside ➝ GPS not useful
- Google Maps, Find My Friends
  - GPS required
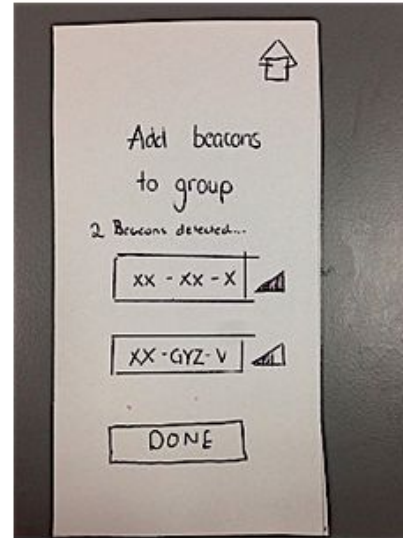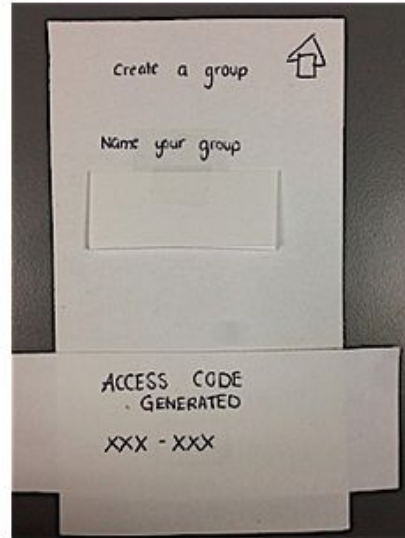 - Prior interaction with persons of interest

Objectives

- Simple and devoid of any extraneous features
- Does not require prior interaction between
  - Administrator (event organizer)
  - Locator
  - Person of interest
- Does not require person of interest to have a smartphone
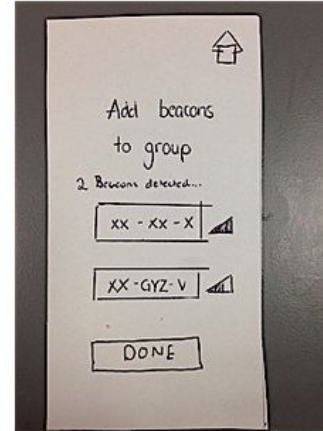- Does not use GPS

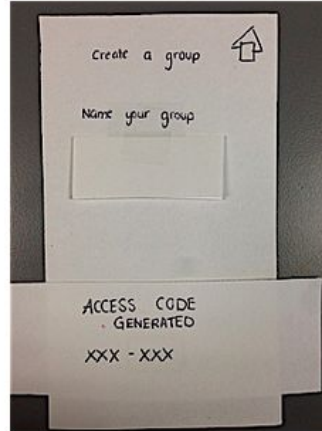# Low-Fidelity Prototype 1
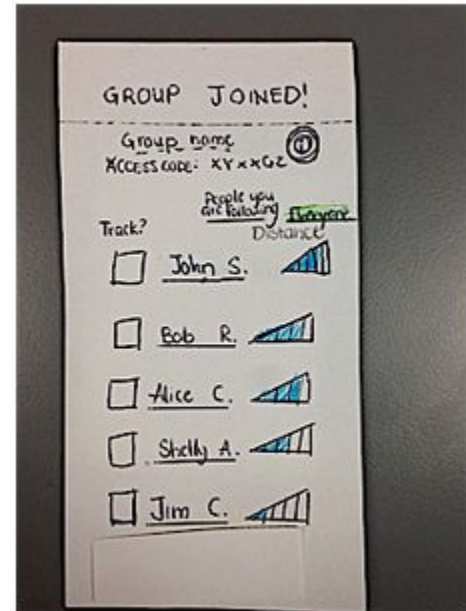
Low-Fidelity Prototype 1

Low-Fidelity Prototype 2

Low-Fidelity Prototype 2
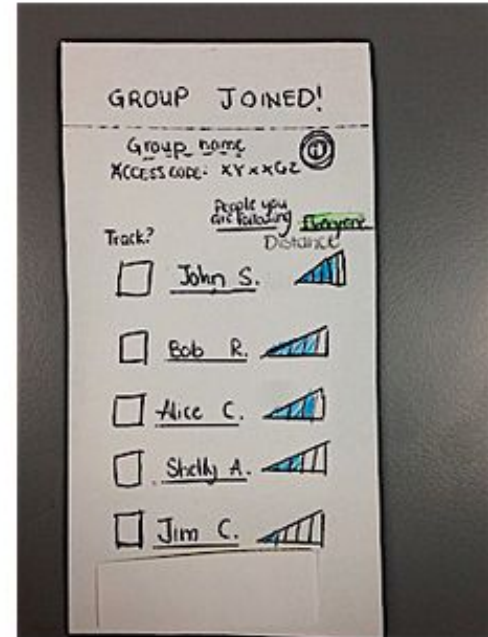
High-Fidelity Prototype

- Removed radio buttons from start screen
    - Replaced with 2 buttons
- Removed "join group" authentication process
    - Irrelevant
    - Confused users
- Changed the localization interface
    - Beacons only give us signal strength, not heading
    - Removed the map

High-Fidelity Prototype

Video Demonstration

VIDEO HERE

Alpha Prototype

- Replaced "X" icon with "< Back"
- Changed background image to be more relevant
- Addressed size and terminology of organizer button
- Changed beacon selection interaction
  - Radio button removed
  - Each beacon becomes a button
- Removed "0 m" symbol
  - Users found confusing
  - Did not convey information

Alpha Prototype

Video Demonstration
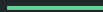
Beta Prototype

- Search field added
    - Many beacons ➜ confusing interface
    - Discoverability
- Pull down to refresh
    - Common behavior in smartphone UI
    - Removes a step
- Improved visual states of beacon detection
    - Better feedback to users

Empty State Feedback

Hey so I'm working on an Empty state for an app that detects Estimote Beacons and I have a feeling that something is missing. Any feedback / input ? Thank you !

Carrier 🔋   9:31 AM
< Back   What's around   🔍

No beacon detected :(

Grab a beacon and pull to refresh

👍 Like   💬 Comment   ➤ Share

3 people like this.

William Holley IV Unless the bg is monotone because it is an empty state page, change either the header or the content color.
Like · Reply · 9 hrs

Albert Martinez Feels a bit bare, are the signals animated, to show that it's looking

Albert Martinez Feels a bit bare, are the signals animated, to show that it's looking
Like · Reply · 👍 1 · 9 hrs

Matt Cooper I would lose the frowny face. It's cute, but it kind of says to the user "be sad/give up" rather than "try to move closer to a beacon"
Like · Reply · 👍 4 · 9 hrs

Daniel Sun I would set the statusbarstyle to be UIStatusBarStyleLightContent so that's it is white. Also consider capital casing your title. And I agree with Albert, make the waves animate.
Unlike · Reply · 👍 8 · 9 hrs

Dan Seider Here's a great article on blank states:
http://techcrunch.com/.../the-most-overlooked-aspect-of.../
Unlike · Reply · 👍 1 · 9 hrs · Edited

Jason Marmon Ditto on the animation and maybe make them lighter like a gray or white
Like · Reply · 👍 2 · 9 hrs

Pedro Björn a) The image doesn't convey "No beacon". It conveys "Beacon signal". Add common negative iconography and imagery.
A question mark ?
Transparency.... See More
Unlike · Reply · 👍 3 · 8 hrs · Edited

Kris Wan When I saw this, I imagined an iceberg bobbing in the ocean, rippling the surface
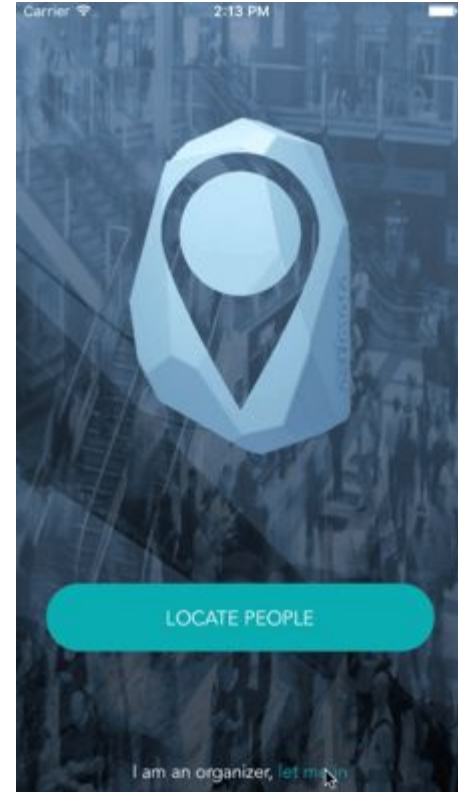
something you could visually elaborate on 🙂
Like · Reply · 8 hrs

Carrier 🔋   2:25 PM
< Back   **What's Around**   🔍

✕

It looks like there are no beacons around you...

Grab a beacon and pull to refresh

Possible Improvements

- Push notifications / vibration
- Refresh automatically
- Password for admin

Human Enhancement

- Helps you make connections with people who you want to meet at events
- Allows you to naturally walk up to them and introduce yourself
- Allows you to meet up with friends if you become separated

Questions & Demonstration