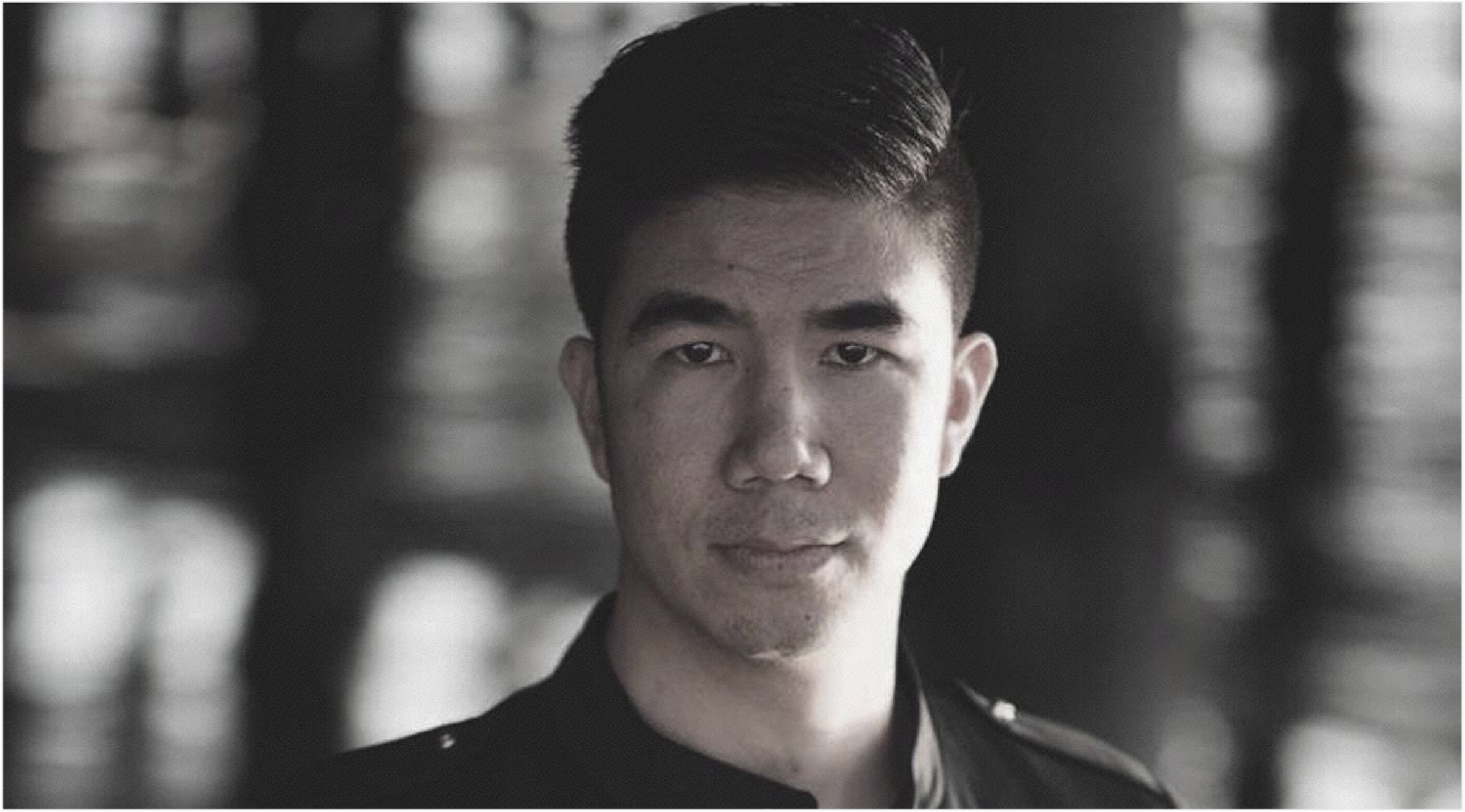

Matthew Chan

UX Design Portfolio

prepared for Terry Dobson

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Matthew Chan

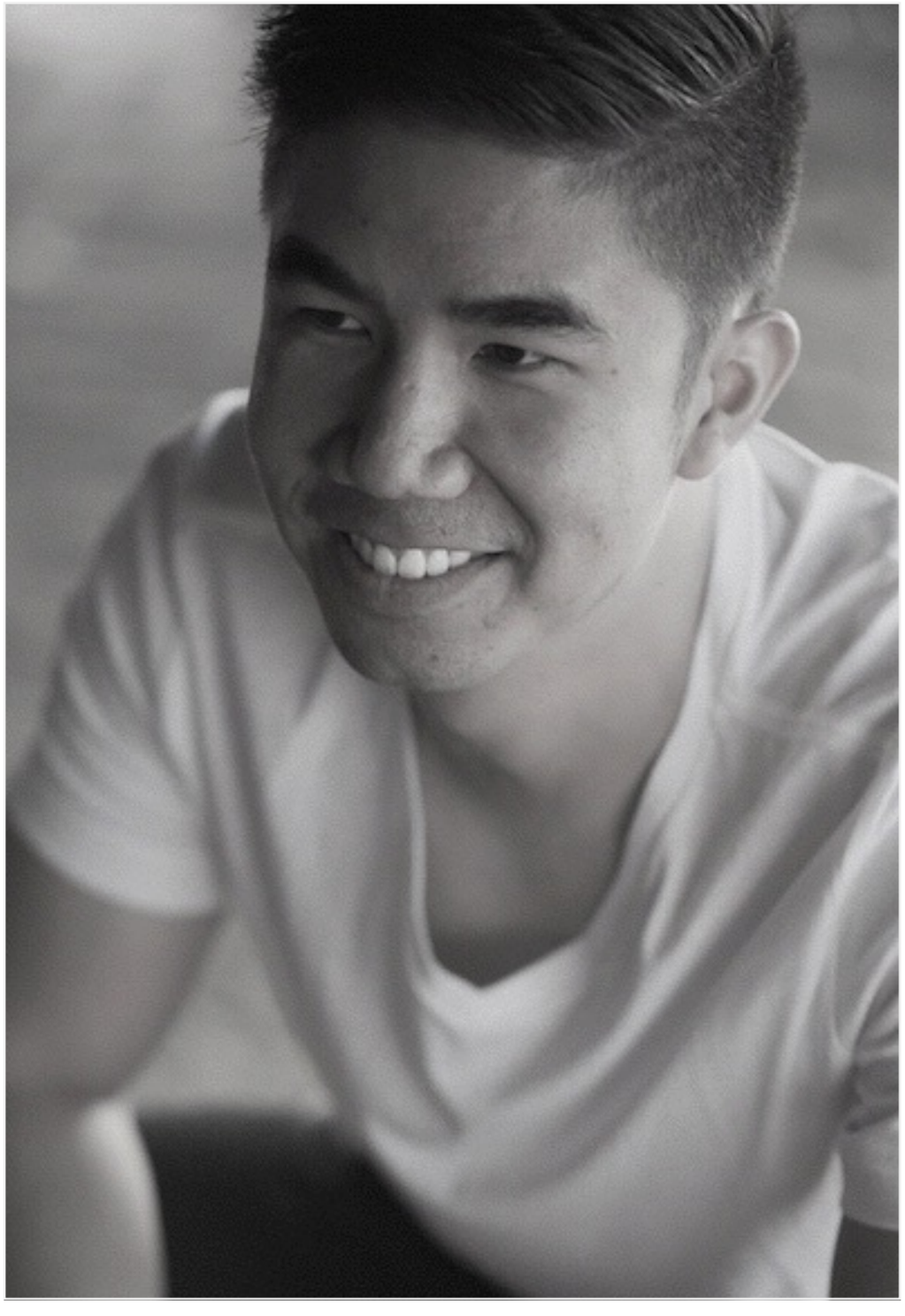
I'm a self-proclaimed Happiness Engineer driven to make technology better and more delightful for everyone.

I graduated from the University of California, Irvine with a MS in Human-Computer Interaction, and a BA in Computer Science from the University of California, Berkeley. I have a strong interest in Human-Computer Interaction, User Interface/Experience Design, and Mobile Design. I was a member of The Berkeley Institute of Design working with John Canny and Bjoern Hartmann at UC Berkeley, and a member of the Laboratory for Ubiquitous Computing and Interaction.

My project experiences have covered education, medical, and consumer products/services, and I have collaborated with professors and Phd Students from UC Berkeley, Stanford, Carnegie Mellon, and UC Irvine to industry designers and researchers.

Key skills:

- Management of the full product life cycle, including agile, lean and waterfall.
- Recognizing patterns and connections to create straightforward systems for desktop and mobile.
- Conducting user studies, user research, and usability testing.
- Ideation, heuristic evaluations, and contextual inquiry.
- Communicating effectively with sketches, wireframes, prototypes, user flows and other documentation.



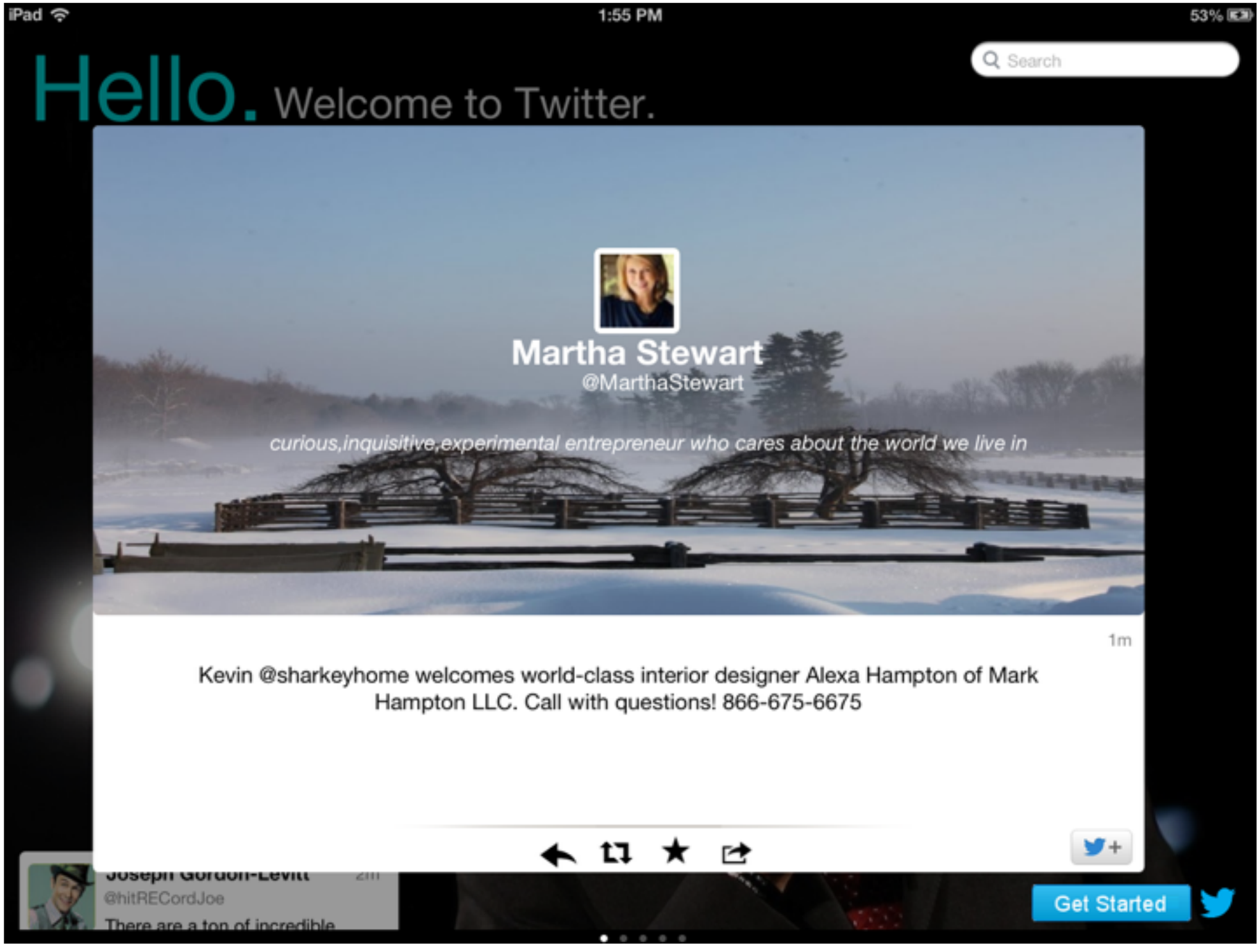
Chirp 1/3

Twitter Without an Account; Exploring a New, Logged Out Experience

A fun way for Facebook users to Explore Twitter

Chirp 2/3

Twitter Without an Account; Exploring a New, Logged Out Experience



A new design for viewing a tweet

Chirp 3/3

Twitter Without an Account; Exploring a New, Logged Out Experience

The brief

Chirp is the logged-out Twitter experience on the iPad for non-users, specifically Facebook users who asked, “why not use Facebook?”

The logged-out experience at the time was a list of categories, and visitors could browse through short, 140 character messages from celebrities or trending news. Chirp aimed to help users become closer to their heroes, causes, movements, and much more.

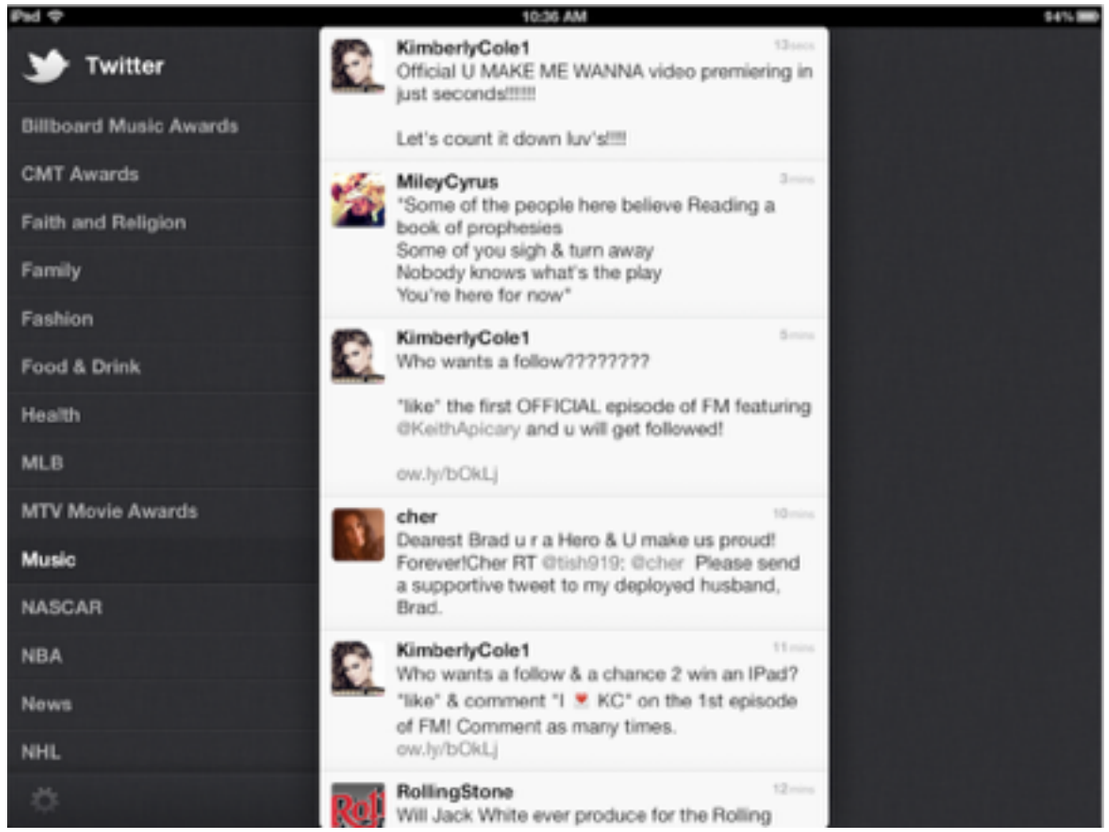
As a result, the new logged-out experience was segmented in five ways, categorized by Heroes, Causes, Personalities, the 2012 London Olympics, and Stories (of how Twitter was impacting the world and individuals).

What I did

I conducted research with non-Twitter users to gain a better understanding of how they view the platform. I also explored various designs and prototypes, working alongside a members of Twitter’s design team, including Josh Brewer. I also participated in in-house usability interviews to observe users playing with Twitter for Desktop and smart phones. Finally, I created a working prototype using Objective-C and the new iOS 6 API at the time.

Key tools and deliverables

- Low-Fidelity prototypes
- User studies/observations
- Mock-ups
- iPad app



The Logged-Out Twitter Experience for the iPad in 2012. Tweets were categorized generically, and often displayed tweets of people or entities unfamiliar to non-users.

Results

Chirp was presented to the Design and Mobile team, along with members of the Executive Board and former CEO Dick Costolo. The prototype allowed them to explore the logged-out experience in-depth and prioritize it along with upcoming features.

HyperSource 1/2

Bridging the Gap Between Source and Code-Related Web Sites

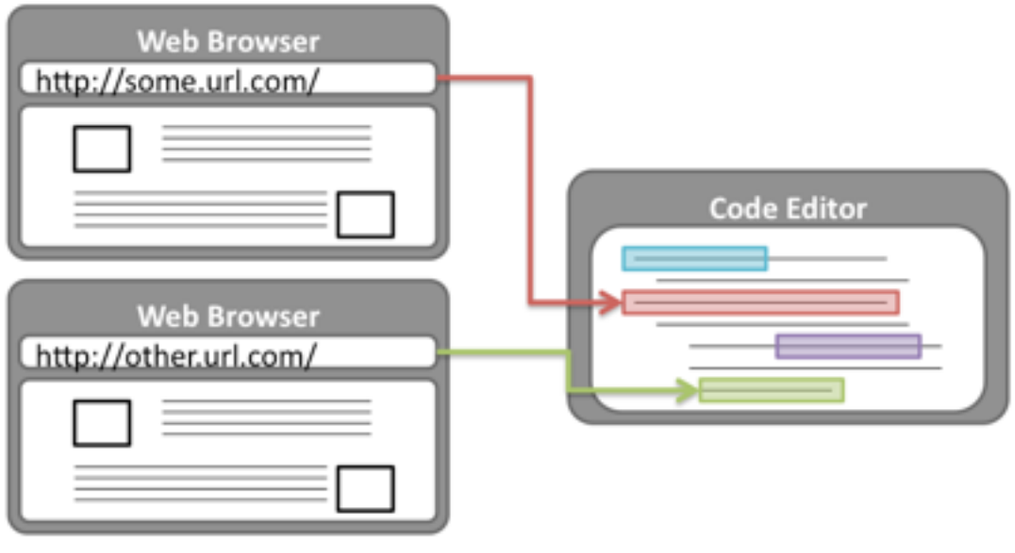
The brief

HyperSource is an IDE augmentation that associates browsing histories with source code edits. Programmers frequently use the Web while writing code: they search for libraries, code examples, tutorials, documentation, etc. Connecting the source code and (selective) browsing history can help programmers maintain context, reduce the cost of Web content re-retrieval, and enhance understanding when code is shared.

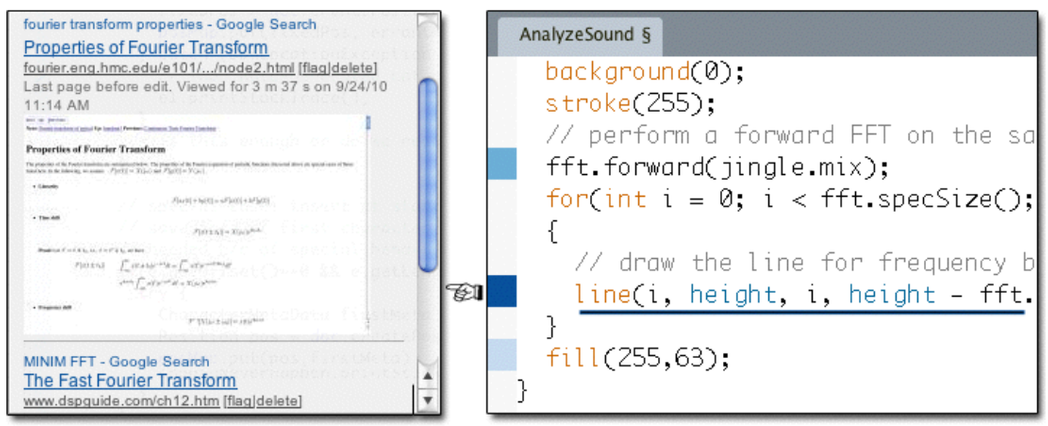
What I did

I made enhancements to the current user interface, and connected the Processing IDE to the Terminal to track commands during a programmer's session. Knowing the command history provided more context outside the browser and the IDE. I also conducted usability interviews with four users and had them use HyperSource in a music-visualization coding competition. I also reviewed the current apps to work out where they needed to change.

HyperSource was also used in a modified text editor for essay-writing, I explored its potential to auto-cite sentences and quotes during a student's essay-writing session. The end-result showed little citations/ annotations because the student was frequently re-writing and making changes, which deleted the history.



HyperSource associates web activity to source code edits. This provides context and improved documentation for novice programmers.

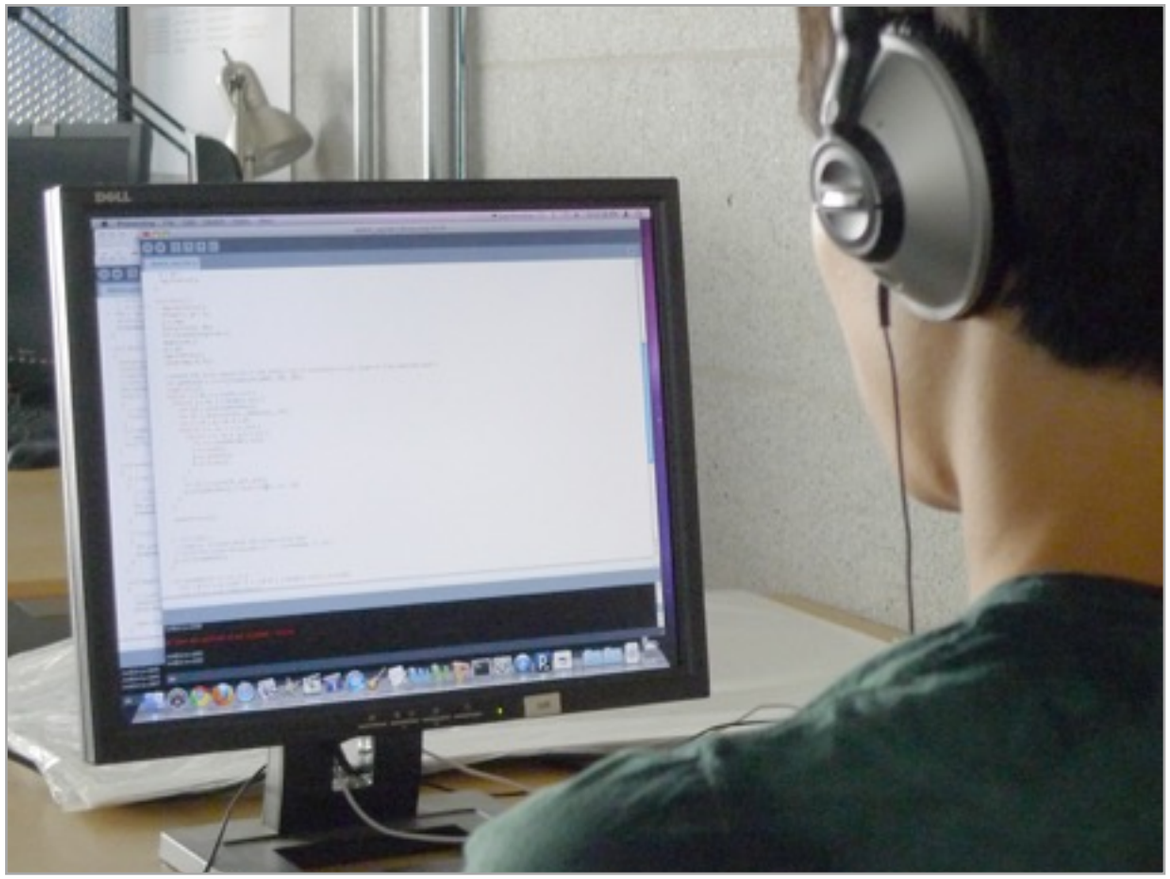


Processing was edited to show activity per line with shades of blue, and reveal context for code. The left screen shows the websites that influenced the line of code.

HyperSource 2/2

Bridging the Gap Between Source and Code-Related Web Sites

The Processing IDE was edited to show previous annotations per line, and the shade of blue on the left column indicates how much activity occurred.



One participant using HyperSource in a music-visualization coding competition. Three of the four users explicitly commented how useful the annotations provided.

Key tools and deliverables

- Fully-functional prototype
- Sketches / mock-ups
- Usability interviews
- Two academic papers

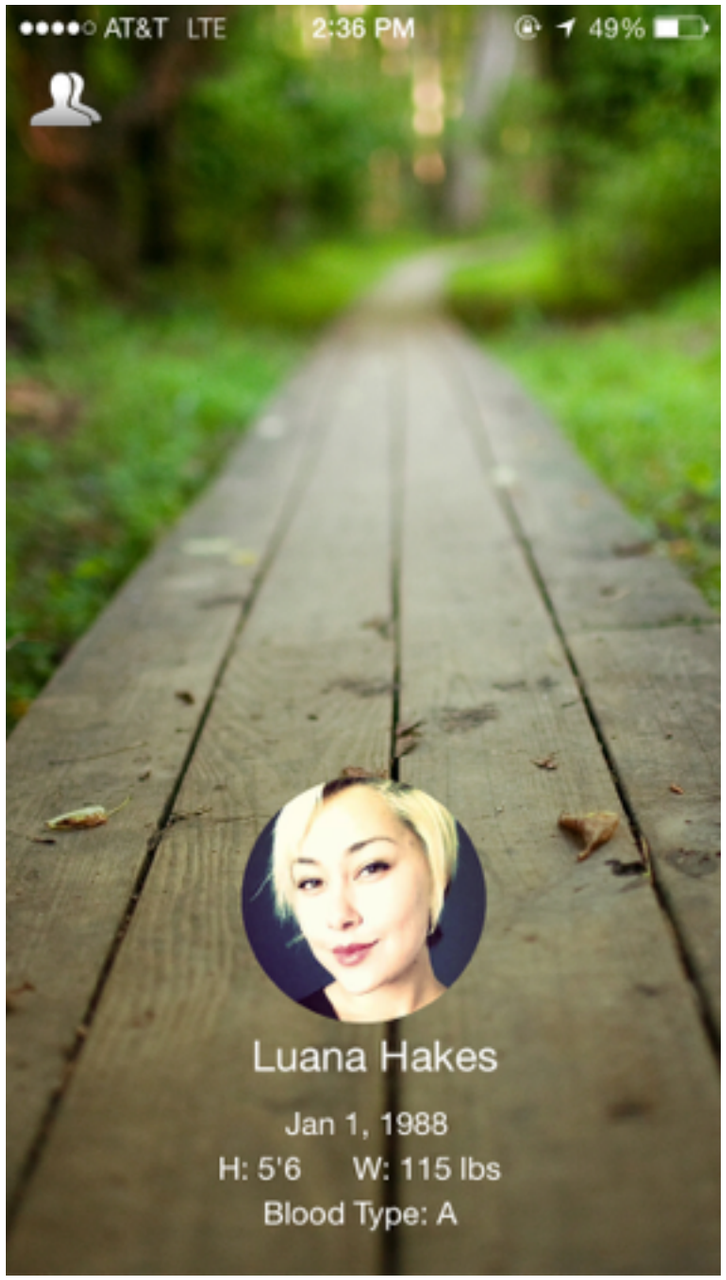
Results

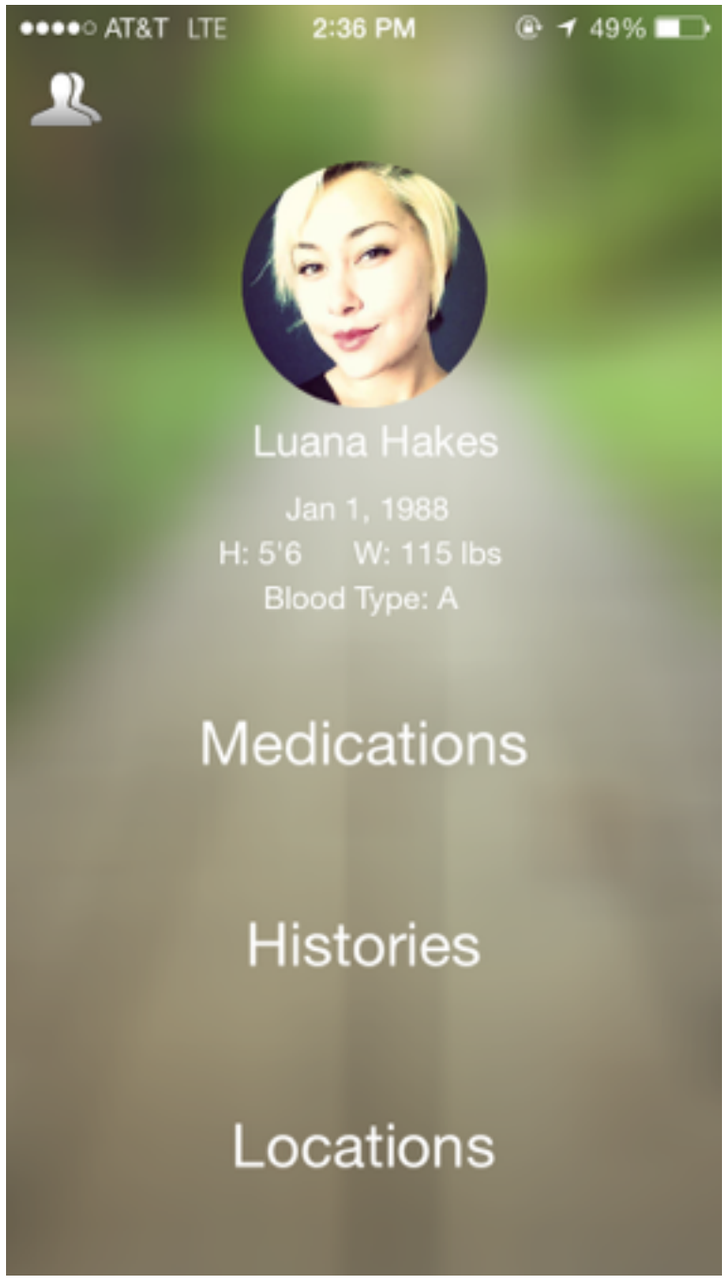
HyperSource was accepted and published at:

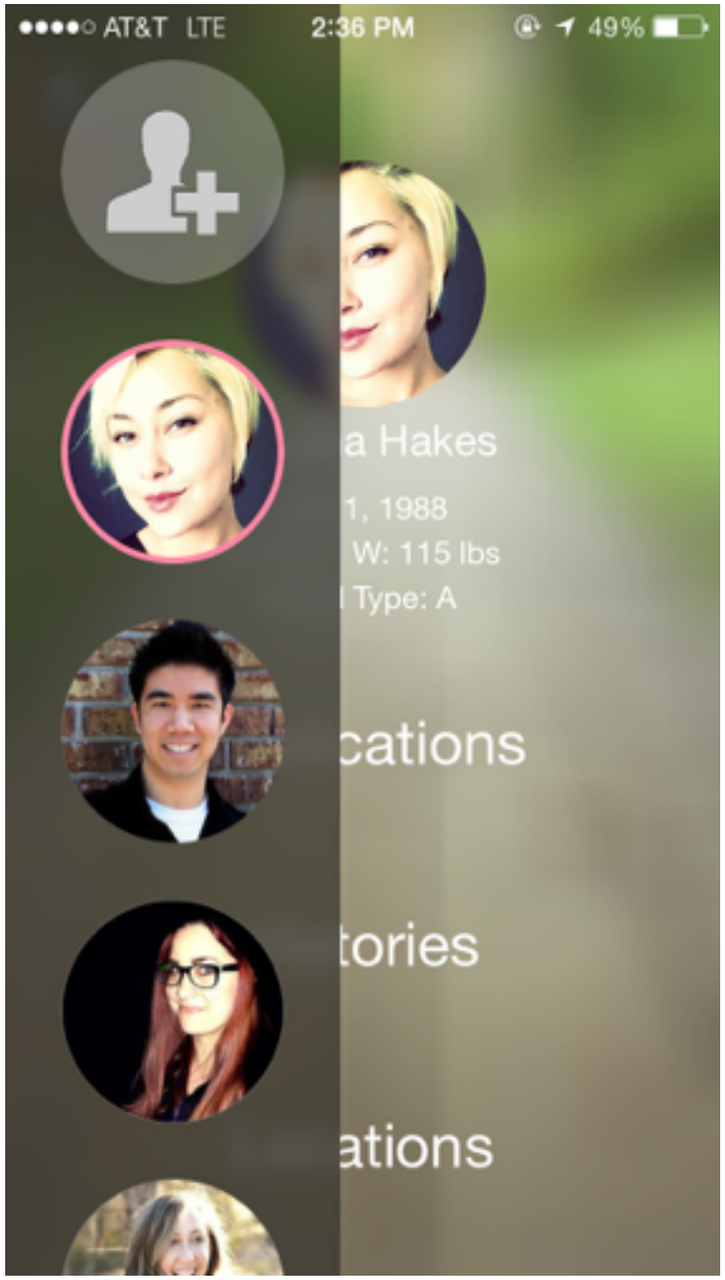
- User Interface Software and Technology 2011
- Computer-Human Interaction 2011

Minerva 1/2

Maintaining communication and providing medical records during natural disasters and emergencies







Communication is not necessarily

Minerva 2/2

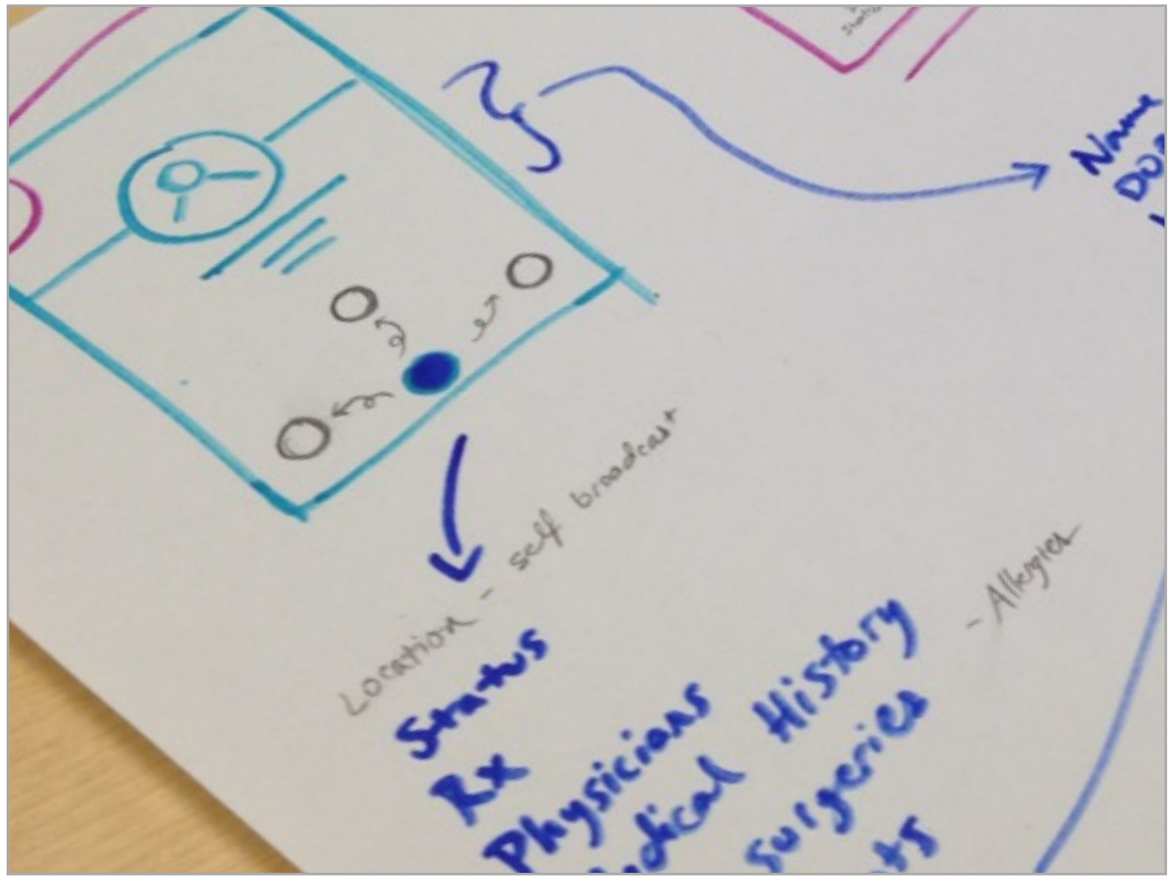
Maintaining communication and providing medical records during natural disasters and emergencies

The brief

Minerva was created during during an in-house hackathon competition at Spokeo. Minerva aims to help family members maintain their medical records and light-weight communication during natural disasters such as earthquakes or snow storms. Instead of sending active messages, Minerva allows family members to keep a digital pulse on each other, such as battery status.

What I did

In a team of 5 , I led the business research and explored the infrastructure of cell-towers. I learned that cellular towers are hardened and designed to be resilient during emergencies and natural disasters. Telecommunication companies maintain a fleet of mobile cell-towers ready to be rolled out to compensate the load. I also created a prototype iPhone app using Objective-C and iterated on the designs.



Mock-ups and sketches from an earlier iteration

Key tools and deliverables

- 10 page business plan and research
- Mock-ups, low-fidelity prototype
- iPhone app

Results

Minerva came in 1st place out of 8 teams.

SPRING 1/1

Speech Pronunciation Improvement through Games

The brief

Lack of proper English pronunciations is a major problem for immigrant population in developed countries like U.S. This poses various problems, including a barrier to entry into mainstream society. This research study explored the use of speech technologies merged with activity- based and arcade-based games to do pronunciation feedback for Hispanic children within the U.S. A 3-month long study with immigrant population in California was used to investigate and analyze the effectiveness of computer aided pronunciation feedback through games. The quantitative findings point to statistically significant gains in pronunciation quality, shed insights on qualitative findings, interaction patterns and challenges faced in this community.

One of the two Flash-based games to combine learning and activity-based games for a speech-driven interface.

What I did

I worked with two graduate students at UC Berkeley. I led the design and creation of one of the two Flash games that were combined with SPHINX, an open-sourced speech-recognition software. We conducted user studies with students at a local high school to inform our design decisions, then we deployed the two games in an experiment, observing students as they used our games to improve their English pronunciation.

Key tools and deliverables

- Heuristic Evaluation
- Usability Study
- Low-Fidelity prototypes
- Two Flash games
- Published academic paper
- Presented in London

Results

SPRING was accepted to ‘Information and Communication Technologies and Development’ conference in 2010, and presented in London.