

findings



iPhone App Design
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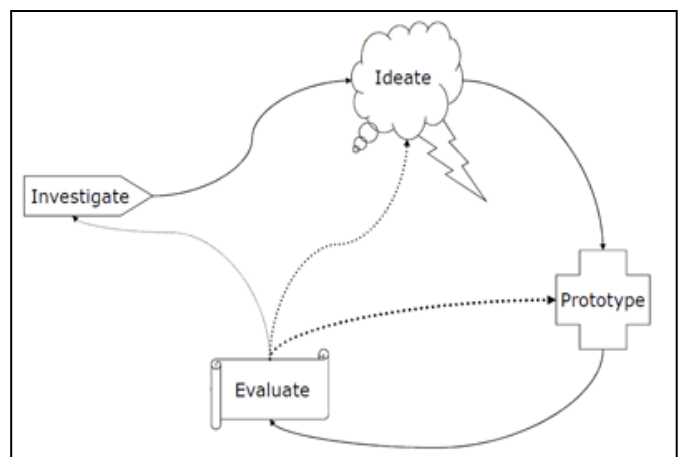
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Purpose

In this document we will outline our design methodology, describe our user research and testing, and provide justifications for our major design decisions. This document is intended to be distributed to Findings to provide all of the information needed to decide whether to proceed with implementing our design. Our research may also help inform other future design decisions on the website.

Design Methodology

Our design methodology was highly iterative and we often performed tasks in tandem, such as initial ideation sketching while completing competitive analyses. We followed a basic pattern of investigate, ideate, prototype and evaluate, where the evaluation phase could lead back to more investigation, ideation, or prototyping depending on what was discovered. Since we did not expect our first ideas to necessarily become the final product, we found that this methodology allowed us to explore more ideas than otherwise possible in our limited time frame.



Research

Competitive Analysis

We looked to other iPhone and iPad apps that either provide a similar service or perform a similar function for inspiration and guidance. These resources included:

- Readmill
- Readability
- GoodReads
- Kindle
- Read it Later (now Pocket)
- Instapaper
- Amazon's Kindle site
- Quote.fm
- iOS Twitter applications

From these, we gathered ideas and patterns to use in order to solve common design problems. Several of these apps provide a way to save favorites, search, add content from websites, sync with other services, share content through Twitter, Tumblr, and Facebook APIs, and employ different solutions to common small-device reading problems. Additionally, we found that several apps include tutorials in order to lessen the learning curve for more advanced features.

Most notably, we noticed the barcode scanning feature for Amazon, a web-view with an embedded bookmarklet from several apps, search scoping options from Good Reads, and the successful use of carefully selected fonts in Instapaper.

Website Content Inventory

The following is a full inventory of the available information and different actions that could be performed on Findings.com on March 27, 2011. Due to changes in the site's structure, this list may be outdated.

Actions:

Create account

Log in and out

Delete account

Post - manually type in a quote (must have ISBN)

Capture - from website

Create a note for your clip

"Clip some more"

Read

- Purchase on Amazon
- View Website (when applicable)
- View on Google Books (when applicable)
- Find in a local library (when applicable)

Refind (repost) or make a note on someone else's clip (adding a note automatically refinds it)

Share

- Twitter
- Facebook
- Tumblr
- Link

Remove clips

Access your clips

Hashtag your clips (in Notes field)

View your library

Manage your library

Restoring removed books

Managing privacy settings per clip

Managing privacy settings for library

Default privacy setting

Follow other users (by RSS or on site)
View global stream
View the stream of people you follow (People page)
View individual peoples' streams
View individual clips
Receive email notifications about user activity
Search within your collection
Search all of Findings

Information associated with each clip:

Source image
Clip content
Title - Source
[user image] Found by [user], [time] ago from [format] [Page number (if paper, optional)]
Notes (& hashtags) - *editable*
(Hidden) ISBN, or source URL
Public/private flag

Business Requirements

Findings.com currently requires users to add paper books by looking up the ISBN, as a form of authority control. The site doesn't allow users to edit the metadata of web pages or Kindle books they clip from—another way of signaling that the authentic source of a clip is very important. This may be because links to the Amazon Kindle versions of texts are encoded with a special referral code that makes money for Findings. Whatever the reason for it, we have honored this attention to metadata control in the app design and maintained the site's basic organizational structure, as well as including the Amazon referral links.

We chose to recommend an iPhone app partially because iPhone App Store customers are historically likely to spend money on well-designed, useful apps even when free alternatives are available—charging a small fee for the app could allow Findings to recoup development costs.

User Research

Findings provided us with the following user research data:

- 46% of users make their clips public by default
- Clip sources have the following breakdown amongst all users:
 - 94% from Kindle
 - 5% from websites
 - <1% from paper books
 - <1% from Google Play
- 2% of users access the site at least once a month
- 21% of users have used the Kindle bookmarklet at least once

We also used the site's RSS API to gather an archive of a week's clips, and used that to determine an approximate average length of book title, average length of authors' names, and more information about the way that people use the site. Because we can't reasonably expect to improve Findings' metadata, we designed around the imperfections in it (e.g. very long names for Kindle books, or very long clips).

Usability Tests on Findings Website

Before we started designing our own product, we wanted to run some usability tests on the Findings website in order to inform the design. Specifically, we wanted to find out how easy newcomers found the website to navigate and use. We could then use this information to decide whether to re-use the terminology and layout of the website, or learn if there were specific changes we could make to improve the usability of our product. See Appendix A for full details on the results of our usability tests on the website; what follows is a summary.

Each of our three test subjects had difficulty finding the correct place on the website from which to enter a clip from a physical book. When entering a clip, each person also first tried finding a book using the book's title, rather than ISBN. (The form was labeled "Find Title.") Since all three people we tested encountered the same issues, this suggests that the process of entering a clip from a physical book could use some improvement to minimize confusion. We doubt that only 1% of clips would be from paper books if the process were less onerous.

Our subjects were initially confused as to how to locate the stream of clips for the people they were following. Each person had no problems finding the stream of their own clips, however. When asked to locate a source or user, our subjects consistently identified them using the images on the site, which emphasized the importance of the images for us—especially on a smaller screen.

Regarding the bookmarklet, all of our subjects assumed that the bookmarklet would pre-populate with the already highlighted text when it opened, so they selected text before opening the bookmarklet.

Terminology Analysis

Some of our subjects in the usability test for the Findings website expressed confusion over items being called by different names in different places, so we decided to analyze of the terminology used on the site. Here are the items we found described by multiple terms:

- Clips that are posted on the site are referred to by two terms:
 - "Clips":
 - In menu bar on the "Mine" page
 - In the button to "Enter a Clip"
 - "Findings":
 - On the "Mine" page in the profile section on the right: button to view the user's findings/clips

- On the “Mine” page in the profile section on the right: search box to “Search Your Findings”
- Sources used for clips are referred to by two terms:
 - “Sources”:
 - On the “Mine” -> “Library” page at the top. The title for the page says “Your Sources” along with the total count of the sources.
 - “Library”:
 - On the menu bar for the “Mine” tab to view the user’s sources
 - On the “Mine” page in the profile section on right: button to view the library also lists how many items it contains
- Comments/Notes:
 - “Comments”: Referred to as “comments” when adding a clip.
 - “Notes”: Referred to as “notes” when viewing a clip.

User Personas

We created three personas based on our observations of the site’s activity over the course of a week. As we did not talk to current users of the website, our user research comes from the information provided by Findings as well as the use cases we tended to see on the site. The full personas are located in Appendix B.

Our first persona is Jared. He represents a current typical user of Findings. He primarily posts clips using his Amazon Kindle, but very occasionally posts from the web. He saves clips primarily for his own reference, so that he can keep track of what he is reading and easily look things up later. He rarely visits the website and almost never reads what other people clip. Jared is not a primary persona for our iPhone application since he is focused on clipping via the Kindle, though he may end up using the application periodically to review his own clips.

Our second persona is Anthony. He represents both a current typical user of Findings and a potential user of our application. He is more socially-motivated than Jared: he uses Findings to gain exposure to books and websites by looking at what other people are sharing, and he frequently re-finds what others post when he likes the clip. He keeps all of his clips public in order to share them with others, though also enjoys being able to review and search through his own clips. He primarily posts clips using his Amazon Kindle, though also occasionally posts from the web.

Our last persona is Clarisa. She does not represent a current typical user of Findings, though she is a primary persona for our application since she would be more likely to post clips using a mobile application than a website. She loves to read, but does not own a Kindle or other e-reader: she instead prefers reading paper books. Most of her clips would come from paper books, but she currently finds that the process of posting clips from a paper book is too difficult since she usually doesn’t read near a computer. She would like an easier way to post clips in order to share her favorite quotes from books with others and store them for her own reference. Right now, most of her clips on the site come from the web.

Scenarios

We created the following scenarios to describe use cases we expected for the application.

Clipping

(1) Jeff is waiting at the bus stop and has a few minutes to kill. Lately, he's been reading Bill Buxton's *Sketching User Interfaces* and learning a lot. He takes out the book and reads a few paragraphs before stumbling upon a gem of a sentence. In order to remember it later, Jeff wants to clip the text and note why he liked it. He takes out his iPhone and opens the Findings app. Since the book is already in his library, Jeff opts to select it from "most recent" rather than scan in the barcode. He takes an in-app picture of the text to clip it just as he realizes his bus is about to arrive. Jeff closes the app and puts up the book just as he sees his bus come around the corner. Jeff gets car sick, so he decides to finish adding his clip later, rather than posting it on the bus.

(2) Beth is lying in bed catching up on a few blogs she follows on her iPad. She knows that several of the people she follows, and that follow her, are interested in fashion. A paragraph from an interview of designer Fufu VonChichi perfectly encapsulates how she feels about the latest fashion trends. Beth wants to clip the text and hopes that her friends will add notes to begin a conversation. Beth selects the URL and opens the Findings app. Beth selects to open the URL from her clipboard and uses the in-app clip button to add it to her stream. She wants to keep reading the article, so she goes back to the in-app webview and finds several other clips to fuel her discussion.

(3) Seth has recently begun reading Anais Nin's *A Spy In The House Of Love* and finds that he wants to remember a few passages from the book for future reference. He highlights the text using a yellow highlighter. Because he is followed by many co-workers, Seth has to be careful about what he shares on social networking sites. He retrieves his iPhone and opens the Findings app to begin clipping. First, he selects the Add Clip tab from the tab bar. Since he has not clipped from this book before, Seth scans in the barcode, which auto-populates the necessary information. He then follows the prompt to take a picture of the text. Seth lines up the text and takes a picture. The software automatically scans in the highlighted text, per Seth's previous color calibration, and pulls up his clip for privacy and notes. Seth selects to keep this clip private, writes a note about it, and posts the clip to his wall. He feels safe thanks to the lock image next to his posting, which ensures that only he can see it.

Sources

(4) Jose and his girlfriend have some company over for dinner. The conversation has shifted to talking about what they have all been reading lately, and Jose wants to share how he felt about a book. Instead of giving a vague answer, he gets his iPhone from his pocket and opens the Findings app. Jose goes to his personal library to see what he would like to suggest. He browses through the titles until he comes across *Perdido Street Station* by China Mieville. Jose selects the book and shares a few clips and notes with his friends, passing his iPhone around as it's requested. This way, his friends can get a better idea of how the book is written and Jose's thoughts, in chronological order.

(5) William, an out-and-proud atheist, is in the middle of a discussion with his last remaining Christian friend. As it usually does, the discussion takes a turn for the religious, and William would like to interject with a quote. He excuses himself for just a moment while he takes out his iPhone, so as not to seem rude, and opens the Findings app. Williams goes to his library and selects *The God Delusion* by Richard Dawkins. He made a point of clipping any good quotes to use in this situation and immediately finds the one he's looking for. His contribution changes the pace of the conversation a bit in William's favor.

Design Justifications

Platform

We knew we wanted to focus on mobile to make it easier for people to create clips on the go, while away from their computers or Kindle devices. This also meant focusing on the use cases of clipping from paper sources or mobile websites, since those are what tend to be read in such a situation.

When we started this project, the website was designed such that adding clips from a mobile device was difficult since the website did not load properly on any of the mobile devices we tested with: iPad, Android tablet, iPhone, Android phone, and Windows phone. Therefore, we sought to improve that use case. At the time, though, Findings was already creating an adaptive layout for the website to improve the user experience on iPads and other tablets.

We then decided to focus on smartphones, which have a much smaller screen size, as that seemed to be needed next. Since Findings was already working on adding support for an iOS device, we chose to focus on the same environment by designing an iPhone application. We believe that the iPhone App Store is also a potential money-maker for Findings.

We chose to design a native iPhone application rather than an adaptive website since we knew we wanted to add support for several features that require native support:

- Ability to clip from a website using a browser view in the application.
- Ability to scan the barcode of a book, as opposed to typing in the ISBN.
- Ability to scan the text on the page of a book using OCR when adding a clip.

While designing the iPhone application we looked at many other iPhone applications in order to see how they solved similar issues on this platform, such as Twitter, Facebook, and Mail. We also consulted design books to learn best practices, such as the Human Interface Guidelines (HIG) for iOS. References to the specific books we consulted are provided at the end of this document.

Terminology

We have chosen to adhere to the terminology used by the website with three exceptions:

- “Clips” has been used to identify the website equivalent of “Findings” and “Clips.”
- “Sources” has been used to identify the website equivalent of “Sources” and “Library”
- “Notes” has been used to identify the website equivalent of “Comments” and “Notes”

These decisions have been made in an effort to maximize consistency in terminology and to create a flat abstraction of terms and features. Usability testing has shown that these are relatively intuitive and easy to learn. The choice to use only terms found on the website provides cross-platform consistency.

Adding a Clip

Based upon the usability tests we performed on the website, we decided to make the following design changes in order to make it easier to add a clip from a paper book:

- Add a persistent navigation button for adding a clip to make the option more prominent and hopefully easy to find.
- Allow users to add a book using these methods:
 - Searching by ISBN
 - Scanning the barcode
 - Selecting from an existing book in the user’s sources
 - The books in the user’s sources list will have originally been entered using either ISBN or the barcode, and will thus have the proper metadata. This makes it easier to add multiple clips from the same source.
- If possible—if OCR technology is good enough to support it—we would also like to allow users to enter text for the clip via either the mobile keypad or by taking picture(s) of the text and then modifying the resulting text as needed. We are skeptical about the reliability and ease of use of OCR for this purpose, although open-source libraries are available to iOS developers.

Combining Global and Following Streams

From our usability tests on the website, we found that users had difficulty finding the stream of clips from just the people they were following. It was easier for them to find a stream of clips from all users or just their own clips, but all three subjects were confused when looking for the stream of the people they were following.

To try to minimize this confusion, we decided to use the word “stream” to refer to both the global stream—clips from *all* Findings users—and the stream for just the clips for the people the user is following. Within the stream view, the user can then filter which stream they want to view.

Because this is a frequently changed and significant option, we decided to put it front and center. Prominently placed at the top of the stream page is a segmented controller for choosing which stream to view: either the global stream—for all people who use the site—or just a stream for the people the logged-in user is following. We confirmed during our usability testing that our users did not have any problems locating either stream within our application.

While the user's own clips could also be considered a "stream", we decided to leave the user's own stream of clips under the "Me" section within the application, rather than in the "stream" section, as a result of our usability testing. We found that everyone immediately went to the "Me" section to look for anything that they have done—including looking at clips they have previously entered—rather than trying to look in the general "Stream" section.

Search Methods

To enable searching within the application, we chose to add search bars at the top of all pages that display lists of information, most notably the Stream, My Clips, and Source pages.

The search on the Stream page will be global in scope: this search can look for anything on the site, whether it is a person, a clip, or a source. A segmented controller to limit scope appears when the user starts a search to prompt the user to specify what they are looking for—or leave it as "All" and search for anything that matches.

The search on all other pages will be contextual, searching only for that type of item, and only returning matches from that page (rather than global searches). For example, the search on the My Sources page will only search for sources that belong to the user. If there are no matches found, then the user can be prompted for whether or not to search the entire site for a match.

During usability tests we noticed confusion about how to search the site, especially in order to look for a person. They finally used the search bar on the Stream tab to look for a person, but—at that time—given the lack of a segmented controller to limit scope, the users weren't sure if that search could even look for people. After we added the segmented controller, though, our users better understood what could be found using that search. Although it did still require them to tap on the search bar to find out what it could do, it helped to reinforce that they were in the right place. Our analysis of other iPhone applications also found several other apps that use a segmented controller to limit scope while searching—most notably the Mail client and Goodreads.

Our participants during the usability tests had no difficulty understanding the search functionality for the other pages: they expected them to limit scope to only the items that were already displayed in the list on that page.

App Login

Login is not required until a user wants to interact with the content directly. New users are able to browse the global stream without logging in, like the website, but are unable to contribute or follow others. We decided this in accordance with Apple's iOS Human Interface Guidelines, which state, "if your application requires a lot of user input before anything useful happens, that input slows people down and can discourage them from using your app." Although we have minimized the amount of input required to be consistent with the website, we felt it best to allow users to explore at least the global stream before requiring login credentials.

Therefore, users are required to login (via a modal window) when accessing the “Following” stream, their profile, or adding a clip or a note. The available actions for users to take prior to logging in are viewing the “Global” stream, viewing clips and associated information, viewing other users’ profiles and associated information, and all source-related information including the use of external links.

Images in the App

From our usability testing on the Findings website, we found that people frequently relied on the images to locate specific sources or people. Therefore, we decided to always place the source and user images near the corresponding name/text in our app.

Notes

We spent some time making a decision about how best to implement the “notes” feature from the Findings website. We initially placed a “notes” button in the clip view, which would take the user to a separate page to view and add notes. However, when we tested this design using our paper prototype, the user assumed that this button would only allow her to add a note, not view all notes. This prompted us to remove the button and move all of the note functionality—viewing and adding notes—to the clip view page, below the source and user information. Further user testing showed that this design change did not cause confusion.

Time Stamps

While we did not specifically do any user testing for whether people found it useful to have timestamps displayed on clips and notes, we came up with the following justifications for displaying time stamps:

- It is consistent with the website.
- It places the clip or note in a temporal context.
- For a user’s stream, it is an indication of that user’s activity and frequency of posting.
- For a note, it lets you know whether any discussions in the notes are old or recent.
- For the global or following stream, it is an indicator for whether the stream was updated.

Based on these justifications, we decided to display the timestamps for clips in the stream view (global or following streams), view of all clips by a user, within the clip view, and for notes. These are the same locations that have timestamps on the website.

Timestamps should display in the same format as on the website. Currently, that is:

- Use full date format, i.e. ‘May 14, 2012’ to minimize confusion over date formats
- Within the streams, instead of a date recent clips (posted within the last week) should show the time since posting:
 - ‘X minutes ago’ (up to 59 minutes)
 - ‘X hours ago’ (up to 23 hours)
 - ‘X days ago’ (up to 6 days)

A user's own clips always use the full date format, however, even when viewing their clip stream.

Found From Location

While we did not do any user testing for whether people found it useful to display the source location -- such as "from paper", "from web", and "from Kindle" -- we came up with the following possible justifications for including this information in the app:

- It is consistent with the website
- An indication of how people are reading
- An advertisement for Kindle books, which can lead to revenue for Findings
- Gives an indication of the different possible sources allowed by the website
- For clips that were re-found (and thus the "posted from" source becomes a user), it indicates the other user.

Based on these justifications, and the limited screen real estate on an iPhone, we decided to only display this information on the full clip view. The information will therefore still be available and can be seen, but will not take up a significant amount of space for what we assume is a more limited use case.

We would recommend testing with existing users of the Findings website for whether this information would be useful to include elsewhere in the application.

Usability Testing

Paper Prototyping

We used paper prototypes frequently in order to quickly try out different design options on ourselves and/or on friends to help make design decisions. The only paper prototyping we fully document in Appendix C, however, are the two longer paper prototype usability tests we conducted to confirm what we had learned in our earlier testing or to test out new screens and functionality.

The results of the places where our paper prototypes caused confusion—and thus their impact on our design decisions—are already documented in the sections related to the decisions they affected. Otherwise, the paper prototyping was used to confirm that the organization of the app makes sense: the user was able to figure out how to complete the assigned tasks, and the navigation between the screens in the app were easy for the user to follow.

High-Fidelity Prototyping

We created a semi-functional prototype in Axure in order for us to test out the interaction between sections in our application. We fine-tuned some of the design while creating the prototype, based upon interactions we found. We also ran one usability test using the prototype

with it running on an iPhone 4. Details on the usability test, as well as a link to where to find the prototype, can be found in Appendix D.

The usability test emphasized our design decision to make sure the tab bar at the bottom of the screen provides an indication for which tab is currently being shown. It also provided us with evidence that the navigation in the application was easy to follow, since our participant had no problem navigating the app and understanding where he was at any given time.

The primary issue our participant ran into was in figuring out how to find another user of the site. That was the very first action he was asked to take while exploring the app; had he first had time to explore the application, this would not have been so difficult a task. As it was, however, he was able to find the person in under a minute of exploring, though it took some trial and error.

Since we also expect that this will not typically be the very first thing someone does in the application—and also will not be a very common use case—we decided to leave the search method mostly unchanged. We did, however, rename the option in the segmented controller for searching from “User” to “People” to make it clear that the search bar in the Stream tab can be used to search for people that use the site.

The usability test also showed that our design for the “Add” tab is easy to navigate—as much as we implemented it in the prototype—though to make it clear as to its functionality we decided to rename the button on the tab bar to say “Add Clip”, rather than just “Add”.

Things We Didn't Design For

Although we tried to be thorough in our design specifications, we are leaving some aspects of the app untouched. Here is a list of the important things:

- The title bar is twice its normal height when an iPhone user is in a call - this might throw off some of our layouts, though almost all of the screens we designed have vertical flexibility.
- Landscape view - we've decided not to enable screen rotation.
- Accessibility - the developer should allow using VoiceOver to navigate the app; we understand that Apple makes this easy given minimal effort.
- We don't know what happens when using the app with no internet connection - e.g. on an iPod Touch away from wireless connections.
- We assumed 100% uptime for Findings' servers and have not written error messages.
- As previously mentioned, we aren't sure that OCR for entering clip text is a viable plan, and we did not have sufficient time to design for it.
- We're not sure how to display “All” search results from Stream page, which will need to show results from “People”, “Sources”, and “Clips”.

Design Specification

For the wireframes that outline the final design of the iPhone application, please see the separate wireframes document.

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Appendix

A. Details on Usability Tests on Findings Website

Since we wanted to test with potential new users, rather than existing users, we chose a sample of convenience: three people in their 20's who are avid readers, but who did not have an account with Findings. Therefore, their first real exposure to the website was during the usability test.

We either provided the person with an existing Findings account to use for the test or helped them set up a new account prior to the test. The accounts we used were already following several other people. The tests started with the person logged into an account, since we were not interested in testing the account creation process.

We provided each person with a brief description of the purpose of the website prior to the test, and then gave them a series of tasks and watched as they tried to carry them out.

Task #1: Pretend you've just read a sentence in a book that you'd like to share or remember. Enter a sentence from a physical book onto the Findings website. (For this test, we gave them a book to use and started them on the "Explore" page of the site.)

User 1: It took her several minutes to locate the page on the site where she could add a clip. She first tried the "Tools" page, and when that failed she looked for an "About" page or for instructions somewhere on the site. When she could not locate any instructions, she installed the bookmarklet from the "Tools" page to see if that would help. She eventually clicked on the right page (the "Mine" page) by accident.

When trying to enter a clip, she first tried entering the title of the book in the text field labeled "Find Title" and got back an "Invalid ISBN format" error. She then changed to enter the ISBN number instead, which successfully found the book. She entered the page number in the "comments" field, and manually entered quote marks around the clip she was entering -- resulting in a double set of quote marks around the clip after submitting it to the site.

User 2: It also took our second user several minutes to locate the page to add a clip. She first tried clicking on Tools and was confused by the bookmarklet instructions. She then clicked on "Mine", but it took her awhile to notice the button the right side of the page labeled "Enter Clip".

Our second user also first tried searching for the book using its title and got back the error "Invalid ISBN format". She then entered the ISBN instead, which correctly found the book. While entering the clip, though, she had difficulty holding the book open to the correct page since she was using both hands to type the clip. She also entered the page number for the clip before submitting.

User 3: Our third user first searches for the book title then the author in the global search bar on the "Explore" page. When this does not give him the result that he needs, he navigates to the "Home" page, then the "Clips" page, and finds the "enter clip" button. He reads "enter title" in the input bar and starts to type in the title before noticing that he needs to enter the ISBN number. He enters the ISBN, inputs a clip, adds a note and the page number, and then submits the clip. After he finishes clipping the excerpt, he says he wants to see his clip and first navigates to the main stream, where it does not show up. Finally, he goes to the "Clips" page in the "Home" section and sees his clip.

Task #2: Find all of the clips shared by a specific friend you are following.

User 1: She immediately clicked on "People" and found the specified friend due to his profile picture. She definitely recognized him from his picture, rather than reading his name.

User 2: She immediately clicked on “People”, but was confused as to the order of the people in the list of followers. She assumed it was alphabetical and looked for the person by name, but the list is not alphabetized. However, she still found him fairly easily due to recognizing his picture and name.

User 3: He clicks "People" and finds the specified username, then clicks on the user to be taken to the page. He is confused about what the term "findings" means. Then, unprompted, he tries searching for the username in the global search bar, asking, "what if I weren't friends with him?" This search brings up the correct user, and he clicks on the user again and is taken back to the user's page.

Task 3: You're interested in seeing what all of the people you're following have been posting to the site. Find a page that displays this information.

User 1: Immediately clicks on “People” and sees “Following”, which displays just a list of people that are being followed. The user is confused as to where to go to see a stream of all of their clips. She decides to try the “Mine” page. She was just about to try clicking on the “Following” button on the right side of the page -- in the profile section -- when she noticed the menu button at the left that said “Stream” and selected that instead.

Task #4: Pretend you're interested in learning more about the book “Steve Jobs” by Walter Isaacson. Try to find all clips posted to the site from this book.

User 1: Tried searching for clips by typing “Steve Jobs clips” in the global search box at the top of the website and there were no results. Then instead tried searching for “Steve Jobs” and located the correct book based on the image of the book’s cover.

User 2: First looked the book up on Amazon.com to find an image of the book’s cover and the book’s ISBN. Entered the ISBN into the global search box at the top of the Findings website, but there were no results since searching via ISBN does not seem to work on the site. She then decided to search for “Steve Jobs” in the global search on Findings. All of the top results were for articles, not the book by Walter Isaacson. After looking around for a while, eventually found the book based on the image of the book cover.

User 3: The user first searches for the author, Walter Isaacson, and clicks on the first result, which is one version of the book. However, there are no clips from that source, so he goes back to the search results page and clicks on the author’s page, which is the second hit for his search. He then picks the correct book from the right side of the page and views the clips from that source.

Task #5: Pretend you've just read something from a website that you want to share on Findings. Clip a quote from a website using the Findings bookmarklet.

User 1: She highlighted the text first, then opened the bookmarklet, which then unselected the text she had highlighted. She then tried to copy and paste text in the bookmarklet text field, then tried to edit some text in the text field by pressing Delete, which instead just made the browser

to back to the previous page. She eventually got it working and was able to post the clip, but it took effort.

User 2: She started with the bookmarklet already open, and when she highlighted text it automatically appeared in the bookmarklet's text field. She then tried to edit the text in the text field to remove something she didn't mean to highlight, which didn't work since that text field is not editable. She then just pressed "Post" and successfully created the clip.

We then asked her to re-start the test with the bookmarklet closed. This time she highlighted the text first, then opened the bookmarklet and was confused since she assumed it would pre-populate with the text she already had highlighted. She then re-highlighted the text to get it entered into the bookmarklet's text field. Once again, she tried to edit the clip in the bookmarklet and was unable to do so, and then just pressed "Post".

User 3: User started playing around with the bookmarklet before the task was fully explained. He tried highlighting on the web page and then opened the bookmarklet and discovered he had to re-highlight the text he wanted to clip. He then got frustrated when the bookmarklet covered up the right side of the page and he was unable to highlight that part of the page. While playing around more with the bookmarklet, the user caused the page to crash by trying to highlight inside the bookmarklet.

B. Personas

Anthony

The Socialite

Primary Persona for iPhone Application



Anthony is a socially-motivated Findings user. The majority of his clips are imported from the Amazon Kindle, though he does clip from the web every now and then, and from a paper book very rarely.

He keeps his posts public since likes to share them and get feedback from the people that are following him. He also likes to re-find clips that he likes that other people have shared.

Anthony uses Findings as a way to gain exposure to different books and quotes, as well as a way to archive and curate his own list of quotes.

Clarisa

The Book Nerd

Primary Persona for iPhone Application



Clarisa likes books. The majority of her clips come from paper sources, though a few of them come from the web. Her profile is set to public so that she can share her highlights and notes. She doesn't have a Kindle because she likes the feel and smell of paper.

Clarisa likes to use findings to share her favorite quotes from paper sources. She wants an easier way to input quotes than what the webpage currently allows. Clarisa reads everywhere - on the bus, in the park, at lame parties, and at home - though is rarely next to a computer when she reads.

Jared

The Statistically Typical User

Secondary Persona for iPhone Application



Image from: <http://www.cherokeemoose.com/Kindle/kindlecatalog.htm>

Jared is a current typical Findings user.

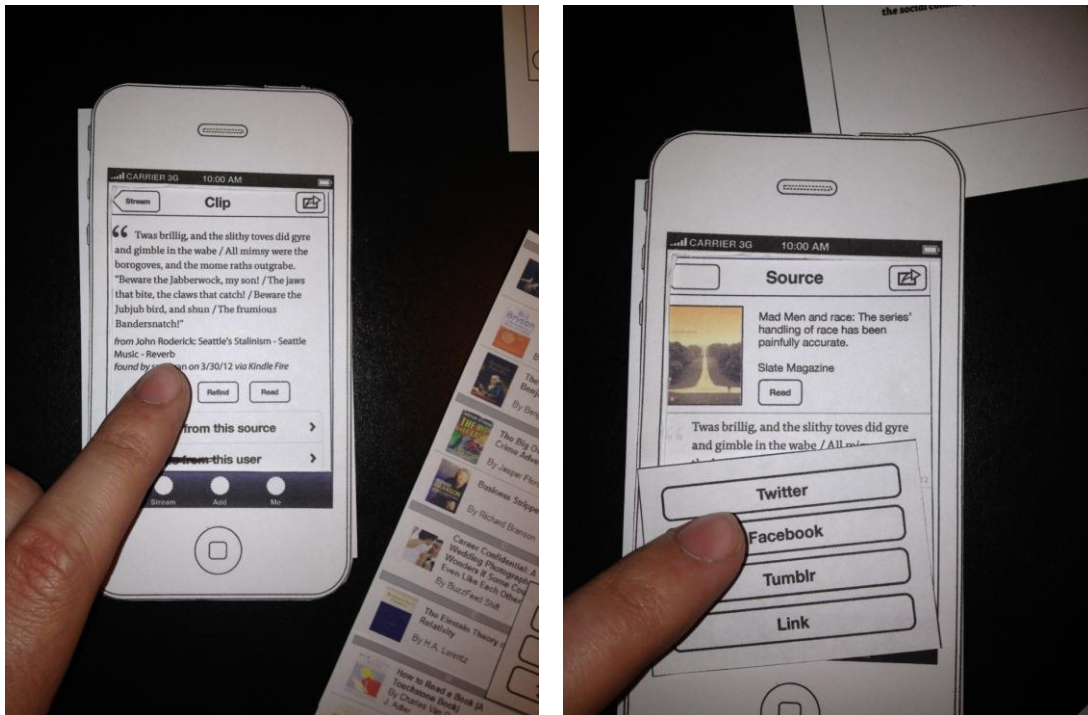
The vast majority of his clips are imported from his Amazon Kindle highlights, though he occasionally clips from the web. He keeps his clips private and uses them for referencing, though he does not look back through his clips very often.

Jared doesn't access Findings very often, he checks it less than once per month. He rarely looks at what other people are sharing on the site.

C. Paper Prototype Usability Tests

Paper prototypes were conducted by printing and/or sketching pages from the application and asking a participant to walk through various scenarios, pretending that the paper screens were an iPhone application. The person conducting the test then took on the role of the phone by replacing pages on the screen, adding action sheets, and so forth. We conducted many, small-

scale paper prototypes at various points during our process, though only the two more formal tests are documented here. The pictures in this section represent samples of what our paper prototypes looked like.



Usability Test with Participant 1

Task 1: See what Leo has been clipping lately.

User began from the Stream view. Tapped "Me" tab, then selected "Following." Scrolled to look for Leo, tapped user image, then tapped Clips.

Task 2: You want to find your recent clips from "The Einstein Theory of Relativity."

User began in the Stream view. Tapped "Me" tab, then "Clips." Expressed interest in using the Clips view search bar to search for "Einstein Theory of Relativity." Would have selected clips from there, if we had the search function implemented in the paper prototype.

- Note: When asked, the user mentioned that she didn't think to use "Sources" from the user page to find the Source, rather than searching within Clips. This could be due to the task specifying the word "clips", or perhaps it was due to the "Sources" option not being visible on the screen and her deciding not to scroll. Either method -- searching/browsing within clips or finding the book in Sources -- will work, however.

Task 3: See your most recent clips

User began in Stream view. Tapped "Me" tab, then "Clips." Expected it to be organized by most recently clipped, and it was.

Task 4: Add a note to your most recent clip

User began from their own Clips view. Tapped most recent clip and then tapped "Add" tab bar button hoping to add a clip before we were able to replace current screen with the Clip view. After we replaced the screen with the Clip view, user selected "Note" and typed in the note. We did not have a way to submit. The user had expected the "Note" button to only let her add a note, not view all Notes; however, at this point it was designed to take the user to another page to do both.

- Note: The confusion over the user tapping the recent clip and then the add button immediately would not happen in an actual app; this was an artifact of paper prototyping, since "the app" can only respond as quickly as we can change out the paper screen. In a real app, it would respond immediately after the first tap.

Task 5: See who you're following

User tapped "Me" tab from Clip view, then selected "Following." No confusion.

Usability Test with Participant 2

Task 1: Find a quote you have posted from Blink by Malcolm Gladwell

From stream, taps Me, then Clips, then drags to Search Bar. In the search bar, types "Blink" and hits Enter. Scrolls through results to find the one she was looking for. Nothing was confusing.

Task 2: Find any quotes in Steve Jobs' biography that have to do with a bicycle. You have not posted from this source.

In stream, pulls down to Search, selects "Global" from segmented controller, searches for "Steve Jobs Bicycle." User expressed a concern about pulling up too much information all at once.

Task 3: Create a note for a clip

From stream, taps a clip, goes to Add Note at the bottom of the page. No observable difficulties.

Task 4: Find Sam Ryan's profile and follow him

From Stream, taps Me, confused about where to find the user. Goes back to Stream. Searches in Stream (Global) for Sam Ryan. User thinks there should be a button to find users.

Task 5: Find out what Sam has clipped from "Sketching User Experiences"

From Following, looks for Sam. Taps Sam, then taps Sources, finds the source alphabetically using the Index, and taps on the source. No apparent difficulties; the participant seemed to understand that the sources list only contained Sam's sources.

Task 6: Find what your friends have been clipping lately

Started from Sam's Sources. Tapped Stream and tapped Following in segmented controller. No complications at all; acted quickly.

D. High-Fidelity Prototype Usability Test

This usability test was conducted using an Axure prototype running on an iPhone 4. The prototype can currently be found online at: http://share.axure.com/XNFHGJ/Splash_Screen.html

To make this prototype run on an iPhone:

1. Open it in the browser on the iPhone and save the page to the home screen.
2. Open the prototype using the link on the home screen of the iPhone.

As this is only a prototype there are many features that are not fully implemented, but it gives an overview of the functionality and interaction of the application. The images in this section are screenshots from the prototype, though were taken after some slight modifications to the prototype that followed as a result of this usability test.

Our participant for this usability test was a technology-savvy male in his late 20's who currently owns an iPhone 4 and has been using an iPhone for several years. He was unfamiliar with the Findings website prior to this test, though was given a brief introduction to the purpose of the site prior to getting started.

Task 1: Your friend Sherlock Holmes has recently joined Findings. You want to follow him.

Our participant found it difficult to figure out how to find someone in the application. He started on the Stream page with the Global stream selected -- though, as our prototype lacks an indication for which tab is currently open -- he wasn't sure which page he was viewing. (*Note: our design calls for having an indication for which tab is selected, but our prototype does not have this feature; his confusion emphasizes the need for that feature in the application.*)

He first explored all of the tabs in the app -- "Me", then "Add", then back to "Stream" looking for an obvious way to find a person that was using the site. He then toggled between "Global" and "Following" for the Stream, and noted that he expected that clicking on "Following" would only show him posts from the people he was following.

At this point, he dragged down on the screen to bring up the search bar. He tapped in the search bar to bring up the keypad and typed in "Sherlock Holmes". He did not tap on "Users" on the segmented controller for the search bar and instead just did a search for "All". The

participant was told that what he just did should work in the actual application, though wasn't implemented in our prototype, and asked whether he could find another way to search for the person. He then re-ran the search and this time selected "Users", which worked to find "Sherlock Holmes". He then tapped on Sherlock from the search results to view Sherlock's profile page. On the profile page, he tapped on the "Follow" button then confirmed that he wanted to follow using the action sheet.

While discussing with the participant afterwards, he mentioned that while he was able to find the person eventually, it was a little frustrating and required him to first gain some familiarity with the layout of the application. However, he was still able to figure out how to find someone relatively quickly, though it wasn't obvious to him how to do it and required exploring the app to find it. Once he found the person, though, following them was very easy.

Task 2: You're interested in seeing what the people you are following have been sharing lately.

As the participant had already done this -- and correctly explained what he expected to see when selecting this option -- this test was skipped. The participant found it very easy to understand the difference between "Global" and "Following" streams.

Task 3: You're interested in finding what you have recently shared on Findings.

The participant selected "Me", but then became confused by terminology as we had not mentioned that "Clips" were what the quotes that were shared on findings were called. So he first tapped on several other options from the "Me" page before tapping on "Clips" to see what he had recently shared.

While discussing this with the participant afterwards, he mentioned that had he understood the terminology -- which he would have, had he used the website before or tried using the application before -- he would have found it very easy to find what he had recently shared.

Task 4: You're interested in finding everything you have shared from "Diablo 3: The Unofficial Novelization", by Alec Meer.

The participant selected "Me", then "Sources". He then found the source -- which was listed alphabetically -- and tapped on it to open a page with all of his clips from this source. No confusion.

Task 5: Find what Sherlock Holmes has shared from "Leaves of Grass", by Walt Whitman.

As the participant knew he was now following Sherlock Holmes, he selected "Me", then "Following", then tapped on Sherlock Holmes.

He then selected "Clips" to see what Sherlock had recently shared. He commented that it was hard to determine which source these clips came from since they only had a small image to represent the source. However, he quickly found a clip from "Leaves of Grass"

based on the image and selected it. He immediately noticed that he was only viewing a single clip, though, rather than all clips from the source, so he pressed the back button until he was back at Sherlock's profile page. (Note: he did not notice the button on the Clip view linking to the source page.)

He then selected "Sources" from Sherlock's profile and found the source in the list, which was sorted alphabetically. He tapped on the source and found all clips that Sherlock had posted for that source.

Task 6: This was not a real task, as the ability to add a clip using the prototype was not fully implemented. However, we asked the participant to walk through the steps for how he expected it to work to see if his understanding matched with what we intended for the design. He was asked to pretend he was going to add a clip from a paper book "A Short History of Nearly Everything", by Bill Bryson -- something he had clipped from before.

The participant selected the "Add" tab button, then "Clip from paper source". From here, he tapped on "Select source" to bring up the list of paper sources he already had in his list of sources. Once he selected the source he was automatically taken back to the page to continue adding the new clip, as he expected.

The participant was then asked what he would do if he had accidentally selected the wrong source from the list. He said he would expect that tapping on the source on the new clip page again would take him back to the list of sources -- and it behaved as expected.

He was then asked what he would do if the source he wanted to clip from was not already in his list of sources. He tapped on the source to go back to the list of sources and tapped on the "+" button at the top right of the screen, which brought up an action sheet asking whether he wanted to enter an ISBN number or scan a barcode. There was no confusion, and his expectations matched our design.

Back on the "New Clip" page, he was asked what else he would expect to need to do prior to sharing the clip. He mentioned that he would expect to enter the text for the clip and then tap the "Post" button on the upper-right of the screen. There was no confusion.

Global Following

This underscores the larger problem with how so many companies in the entertainment industry think...
found by LUCASWIMAN - 5 minutes ago

Companies strive to make their products "viral" and "sticky" so that "users keep coming back" to...
found by LUCASWIMAN - 30 minutes ago

Ahead: demons! At least dozen, Slo'ugh calculated. This would require caution, and the most elaborate ...
found by thisisme - 30 minutes ago

Familiarity may or may not breed contempt, but it certainly seems to stifle creativity.
found by JBRIGGS - 35 minutes ago

I celebrate myself, and sing myself, /

Stream Add Clip Me

Followers 221bbakerstreet Follow

221bbakerstreet
Sherlock Holmes

I am a detective.

Clips 75 >

Following 32 >

Followers 61 >

Sources 49 >

You are not following this user

Stream Add Clip Me

Add Clip New Clip Post

From:
Select source >

Clip:
Enter clip Page #

Note:
Type comments or hashtags here (optional)

Make Private

Stream Add Clip Me

Me Sources Sort

A

A Night With the World's Most Hated Bands
Chuck Klosterman - Grantland.com

A Short History of Nearly Everything
Bill Bryson

B

The Big Over Easy (Nursery Crime Adventures 1)
Jasper Fforde

D

Diablo 3: The Unofficial Novelization
Alec Meer - Rock, Paper, Shotgun

E

Stream Add Clip Me