

getOUT

doSOMETHING

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CSE 440 | Low Fidelity Prototyping and Usability Testing Report

November 16, 2009

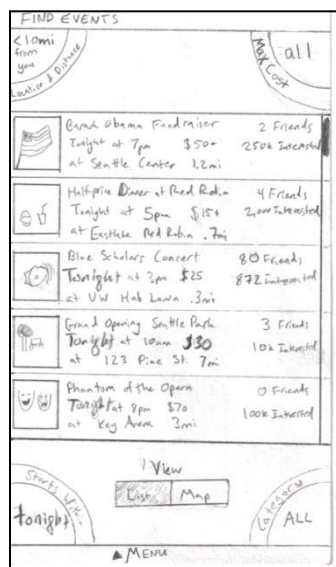
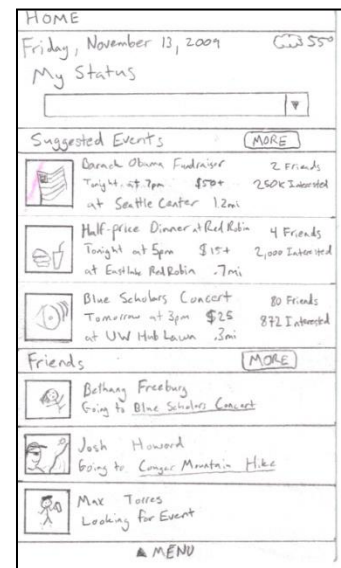
URL: [http://www.cs.washington.edu/education/courses/cse440/
CurrentQtr/projects/getout/files/getOUT_Low_Fidelity.pdf](http://www.cs.washington.edu/education/courses/cse440/CurrentQtr/projects/getout/files/getOUT_Low_Fidelity.pdf)

Introduction and Mission Statement

Finding something to do on the spur of the moment can currently be a frustrating process. When an individual is not already aware of what event options are available in the near future it can be difficult to discover a nearby event that is relevant to the individual's interests. Furthermore, if the individual wishes to coordinate with friends to plan something to do, discovering the current availability and plans of multiple friends usually involves contacting friends one by one and can be slow and cumbersome. getOUT is a mobile smart phone application that seeks to address these problems by providing on-demand relevant event suggestions as well as an easy way to check the availability and plans of friends. Using getOUT, and individual should be able to quickly and easily access the information needed to get out and do something.

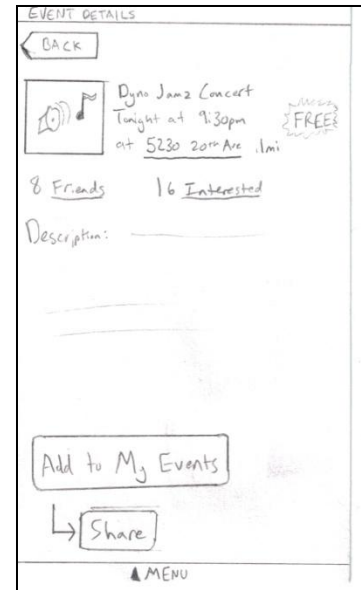
Prototype Description and Sketches

The prototype design focuses to immediate access to the most frequently desired information, as well as easily being able to further filter that information. For example, the **Home** screen displays a short list of suggested events, a short list of the current status of friends, and a drop-down box to set your personal availability. If you click on "More" next to suggested events, you are taken to the find events screen.



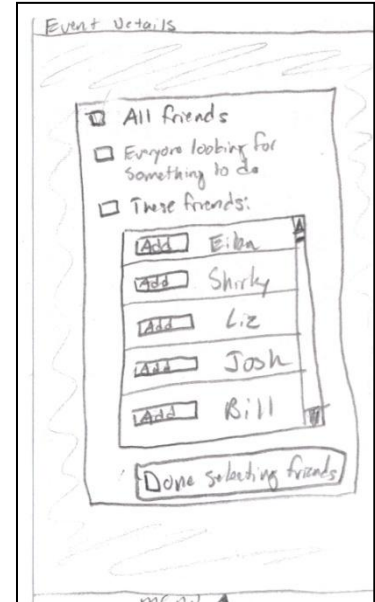
The **Find Events** screen focuses on allowing the user to filter the suggested events based on parameters of cost, distance, starting time, and category. Pop-out dials are used in each corner to immediately change the filter values without leaving the screen, with filter updates being applied and the events list re-sorting based on any new values. To use them, simply click on the corner of the dial, spin the resulting wheel to the new filter value, and click the corner of the dial again. Users can also switch from a list view to a map view if they wish. Clicking on an event will take the user to the event details page.

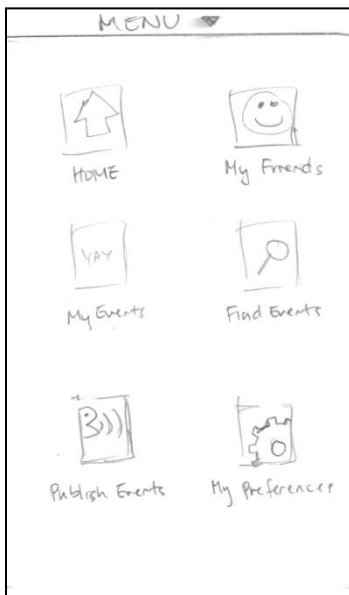
When viewing the **Event Details** page, the user can add an event to their “my events” list, for further review later. They can also actively share the event, enabling them to set the event as their status or suggest this event to their friends. This is accomplished by clicking the “share” button.



The **Share** screen allows users to use various means of sharing the event with others, such as setting this event as their status, publishing the event to their Facebook wall, or choosing friends to send the event to through getOUT.

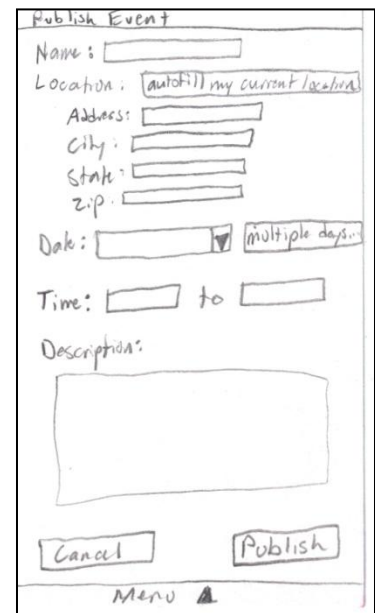
If they choose to **send a message** to friends, options are displayed for selecting the friends they wish to share the event with.





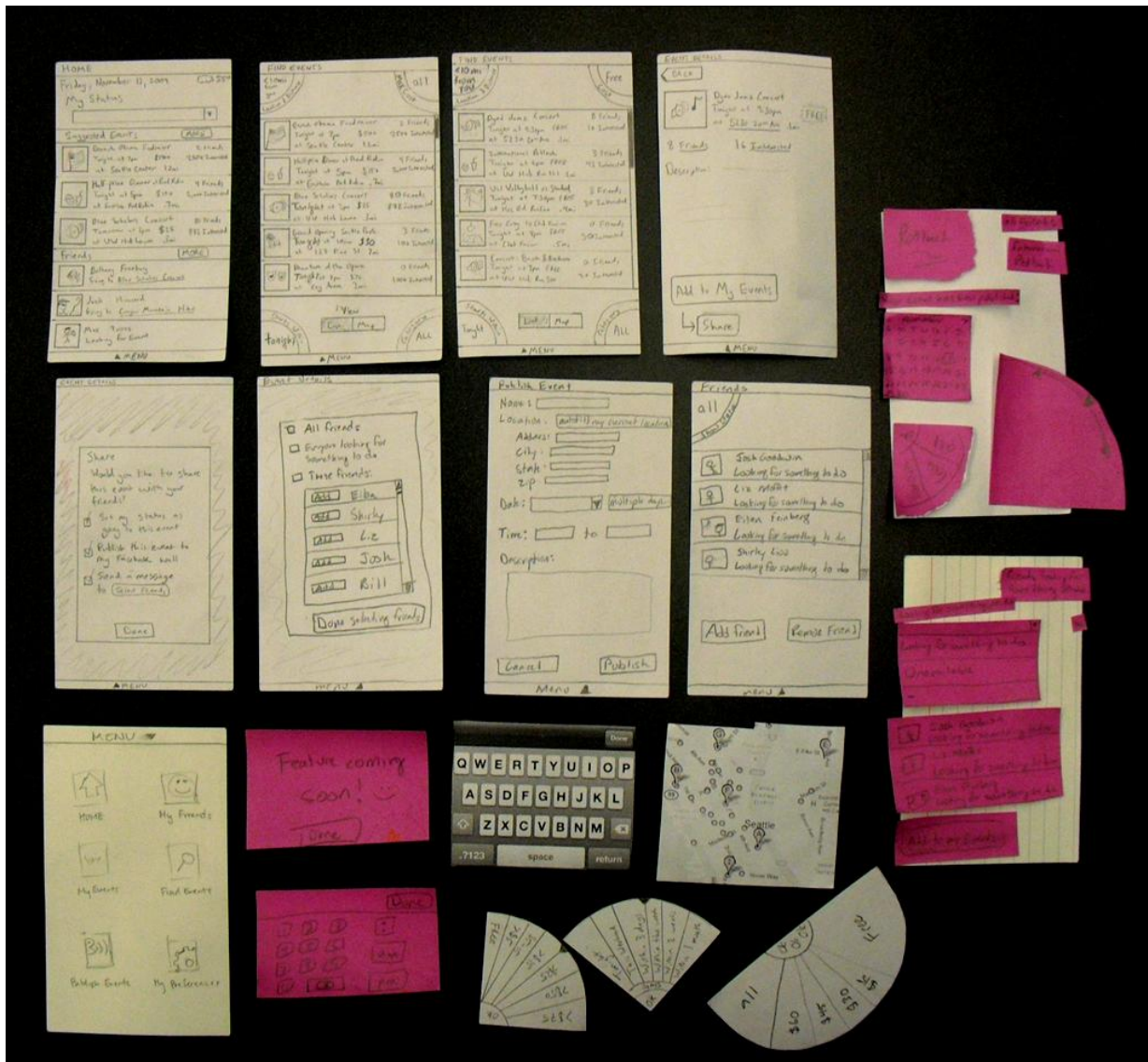
Another feature of the user interface is a **Menu** accessible from the bottom of the screen throughout the various screens of getOUT. Clicking on the menu at the bottom results in a large tab sliding up on the screen with iconic menu options to choose from. For example, clicking “Publish Event” will take the user to the publish events screen.

On the **Publish Event** screen, the necessary information can be input to add the event to the getOUT database. There is also a convenience option to have the GPS of the iPhone attempt to auto-fill the address fields based on the current location. When an event is published, the share screen also comes up asking the user if they would like to actively share this new event.



Another screen accessible from both the Menu and the “More” button next to Friends on the home screen is the **Friends** screen. Here the user can view and manage all of their friends, as well as view a filtered list using the widget in the top-left.

The above screens cover the common usage scenarios of getOUT. An overview of the entire paper prototype is shown below.



Method

Participants

The participants for our usability testing were all undergraduate college students at the University of Washington. They represented our key demographic of consumers—sociable people who are technologically aware of smartphones and mobile applications. The first participant was a male student, a freshman who has yet to declare a major. The second was a female sophomore and was majoring in Business. Lastly, the third participant was a male fifth year senior, majoring in Public Health. All three were familiar with the iPhone, though none currently possessed one.

Environment

All of the testing was conducted in the Odegaard Undergraduate Library at the University of Washington. The first two were on the first floor, an area known to be more geared towards group work and socializing. The final one was on the second floor, near the computer sections. The atmosphere was generally relaxed (unlike the peak midterm and finals weeks) and all the participants were in their own comfortable place. We did not ask them to move from the spots they had already claimed for the evening. Because of the nature of the application, it can be used in countless of locations and situations. The library exemplifies the best testing arena for us since it is public (after all, it is hard enough to ask a person for some of their time without asking to invade their private homes) and yet still offers an area that is quiet and comfortable. Also, students at libraries are constantly thinking about they would like to do after they leave, rewarding themselves for all the hard work they've just accomplished.

Tasks

Task 1

Find an event. You are with a group of friends, and you're trying to find something to do. Find a free event, and add it to your list of events.

Task 2

Publish an event. You are at club fusion setting up for a Lil Wayne concert tonight at 9:30. You want to publish this event to getOUT so users of this application will be aware of it.

Task 3

Coordinate with friends. You just got up Saturday morning, and your day is free. You want to set your status on getOUT to indicate that you are looking for something to do. You then want to see what your friends are up to. If none of your friends are currently planning on doing anything, find an event going

on today, set that event as your status, and share that event with all your friends who are looking for something to do.

Procedures

After our team met up at the library, we first practiced our roles with one of our members acting as a participant. Then we proceeded to scout out likely participants. We did not want to interrupt any students who seemed too engrossed with their studies and instead aimed for those who could spare some 10 to 15 minutes. After approaching students, the facilitator would explain our situation (that we were students developing a concept for a mobile application for class and needed people to test our prototype) and ask for their consent. They agreed and signed the consent form (see Appendix). The facilitator then introduced the other members (the 'computer' and observer) and explained that the test would be following a set test script with a short demonstration and three tasks. It especially stressed that this was to test the product's design, not their technical abilities. The fault for any difficulties with the tasks would lie strictly with our designs, and not with the participant's intelligence or savvy. The participants were encouraged to 'think aloud' so that we could better understand their reasoning. The participants could stop at any point.

After the brief demonstration, the facilitator would then present the participants with a task sheet, which showed only one task at a time, and read the task aloud. When the participants were done with one task, they were presented with the next. If they were stuck, they were encouraged to take their best guess. If they were still stuck after that, they were asked about their expectations and suggestions before they were shown a hint so that they could continue to test the other parts of the design for that task. After the last task, the participant was asked about what he or she liked and didn't like about the application and was prompted for any suggestions or comments.

During the testing, the 'computer' would handle the interface, the note-taker would jot down observations, and the facilitator would gently prompt for comments and reasoning. All would observe closely so that after they thanked and left the participants, they could discuss what they learned and considered to be critical incidents.

Test Measures

Our test measures consisted of both the verbal feedback from the participants and the actions that they took to complete the task. Comments or actions that were repeated among testers were given extra weight, along with those that most significantly impacted the usage of the application (for example, if they stopped because they were unsure how to continue on with the task.) We paid special attention to their deviations from the way we were expecting people

to use the application to complete the tasks. We also noted the time it took them to complete the tasks.

Results

Overall, we received positive feedback from the participants, especially in terms of concept and potential usage. They thought this would be a useful and practical application to have and one participant wondered why there was not already an application like this out in the market.

Finding An Event

We had a range of results with this task. The first participant was able to complete it quickly and easily while the second and third had more trouble. After she navigated to the Find Events screen from the menu, the second could not locate the appropriate filter because she expected more of the controls to be on the bottom while the third concluded simply from the Home page that there were no events that fit our criteria. Once hints were given, they both were able to easily navigate through the task. When prompted for comments, they noted that it was hard to distinguish the buttons on the paper prototype (since it was not color-coded), but also added that they would have no trouble locating them on an actual smartphone. Finally, we were most anxious about the filters that fan out from the corners and whether the participants would be able to figure out the swiping. Our worries turned out to be unfounded and they all were able to use the filters.

Publishing An Event

This turned out to be the easiest and most straightforward task and they all managed to find the Publish screen easily from the Menu. The form fields were all very familiar to the participants. This is probably because of the standardized nature of the form, and special dropdowns, like the calendar and the time, were observed to be nice and convenient, but not anything extraordinary. The sharing screen was also easy for them to navigate through. They all chose to fill in the location information themselves instead of using the AutoFill button.

Coordinating with Friends

This task gave mixed results. All found the status bar quickly on the Home screen. Some expected the status to be filled in with your own words instead of a dropdown menu, possibly because the idea is tied to Facebook's format. Two tried to select the friends on the Home screen, although we did not assign those that kind of functionality. One navigated to My Friends screen by pressing the 'More' button on the Home page, another through the Menu, and the last just assumed that the Home page showed all the friends. After finding a suitable event, all shared their events by pressing the Share button directly, and did not bother with the "Add to My Events" button.

Discussion

This set of user testing proved to be helpful in revealing the pros and cons of our design. Each participant offered us unique responses and valuable insight that better shaped our understanding of the application's usability. It showed that our design was generally straightforward and easy-to-navigate but still had room for improvement, especially in terms of button differentiation and consistency.

The participants reaffirmed the demand for such a product and liked the concept and purpose of getOUT. They especially appreciated being able to see what friends were available. They had often found themselves with the problem of being unsure about what they should do and getOUT presented a good solution. By the third task, each participant started to understand the interface more and was faster in navigating through the different screens, showing us that it is easy to pick up and learn. They also liked the way the Menu functioned and thought it to be very convenient and accessible.

Testing was limited because it was paper prototype and, in our case, not colored. They missed buttons (such as the 'More' buttons on the Home page or the 'Share' button on the Event page)—but they claimed that they would have noticed it had it been differentiated better, like it would have been (with colors or shading) on a real iPhone or other smartphone. However, still we must take extra care to make sure these buttons stand out when we move forward with a higher fidelity prototype. We also noticed some inconsistencies during the testing which the participants did not mention. Not all the screens had noticeable 'Back' buttons, which forced them to use the Menu to go to previous screens. We must ensure consistent designs in the next prototype.

They also clicked on buttons that lead to screens that were not required of the tasks, so were not designed yet. Understanding the confusion that led them to click on these buttons improved the flow of the design. Another change to consider for the future is to add an 'advanced options' filter (that is named something less imposing), as requested by one participant. This option was in the original design that got cut in the effort to streamline and simplify the design.

Another limitation was that, despite our efforts, the very nature of the testing environment was contrived. Since most of this application's function is aimed towards people who want to do something late minute, it is hard to simulate that feeling in a controlled environment.

Appendix

Usability Testing User Consent Form

Consent Form

The getOUT application is being produced as part of the coursework for the University of Washington Computer Science course "CSE 440: Introduction to Human-Computer Interaction". Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of getOUT. Data will be collected by interview, observation, and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers (Eitan Feinberg, Josh Goodwin, Shirley Liou, and Liz Moffat) or with Professor James Fogarty, the instructor of CSE 440:

James A. Fogarty
Computer Science & Engineering
University of Washington
206-685-8081
jfogarty at cs.washington.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the researchers and their supervisors.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my usage and opinions in relation to the getOUT experiment. I understand I may withdraw my permission at any time

Name _____

Date _____

Signature _____

Witness name _____

Witness signature _____

Demonstration Script

We are designing a touch-screen mobile phone application called getOUT. It is designed to help people find something to do when they are bored, as well as coordinate with their friends. To help test the design, we have examples of what the screens will look like. For example, this is the Home screen. To use the application, when you touch the screen we will update the screen if anything changes. For example, if I touch “Menu”, like this, then the screen is updated to show the menu. We would like to give you a few tasks to accomplish using the application.

Do not worry if you cannot finish a task. This is in no way meant to test your ability or intelligence—these tests are meant to evaluate the quality of our design. If you are stuck, it simply means our design is not intuitive enough—*not* that you are not capable enough to figure it out. You are free to stop at any point in time.

Please think out loud as you go about your tasks, exploring the screens as needed to find what you are looking for. We will update the screens when you touch something that causes the screen to change and may ask you questions as you go about your task, but otherwise you should pretend you were sitting by yourself with this application and trying to accomplish these tasks.

Critical Instances with Severity Ratings

Positive

Liked the concept and potential usage, along with the social aspect (ability to see what friends were doing).

Liked the calendar dropdown.

Thought the filters were interesting.

Liked being able to see what friends were up to.

Selected the “Share” button directly without first selecting the “Add to My Events” button.

Thought the Menu was easy-to-use.

Was able to ‘swipe’ the wheel easily and liked it after better understanding it.

Negative: Severity Rating 0

Thought Menu bar on bottom was not obvious enough.

Negative: Severity Rating 1

Expected buttons to be near bottom of screen and could not find the Max Cost fan-filter on the top right corner.

Negative: Severity Rating 2

Did not see/understand ‘Auto-fill Location’ Button on Publish Event screen.

Tried selecting a friend on the Home screen and expecting more content.

Did not see ‘MORE’ buttons on Home screen.

Was not used to the fan-filter format.

Negative: Severity Rating 3

Thought at first Home screen would show all available events and friends and be scrollable.

Expected an “Advanced Options” button on the Find Events screen.

Negative: Severity Rating 4

Did not see the “Share” button on the Event Details page.

Raw Data and Comments

Participant 1

Bio:

Male, Freshman, thinking about Business

Had a nice slider phone (didn't ask for brand)

Task 1

Didn't filter, found free event on 1st Find Event page

No problems otherwise. Very fast.

Task 2

Home>Menu>Publish

Filled out location information by 'typing'; didn't notice "autofill"

Share screen pretty straight forward

Task 3

Status: thought maybe type in something instead of dropdown

"what happens if I click on a friend?"

Just used Home to find an event > Blue Scholars

Added to events fine. Didn't use Share button > Didn't see it> Says maybe b/c it was on a paper prototype, it didn't stand out much.

Tried Menu> My Friends instead.

Liked

User-friendly, straight forward

"for a lot of weekends...wake up with no plans..." etc.

Disliked/Would Change

Share button (but felt it would be okay on a real screen)

Our Comments

Time and Date—didn't have any problems b/c pretty standardized

Participant 2

Bio:

Female, Sophomore, Business

had a Blackberry Storm

Task 1

tried selected Friends on Home

Menu bar on button hard to select

Menu>My Events → no screens here. was expecting "events you already had"

Had trouble finding right filter in the Find Events screen (Max Cost) → expected most of the buttons to be on bottom on screen.

Menu>Find Event>Category filter
then the Date filter

then finally Max Cost
Swiping worked well

Task 2

Menu>Publish
tried to fill in location (instead of autofill)
date selector easy
Publish→Share screen
clicked on 2nd, then 1st, then 3rd option.

Task 3

Set Status fine
Tried to click on Friends
Menu>Find Events>events>Share (directly, not Add and then Share) okay

Liked

Separate icons on menu, easy to navigate

Disliked/would Change

Menu button not obvious enough
Couldn't filter the cost b/c didn't pay see filters on top

Our Comments

seemed reluctant at first; got into it later on

Participant 3

Bio:
Male, 5th yr Senior, Public Health
Had a Nokia smartphone; but familiar with iPhone

Task 1

Home>Chose event> Added it (but didn't follow specifications @ first and he chose a \$30 event)
clicked the back button.
On Home, expected Price to be on the right (but then again, thought the # of participants useful, too)
Concluded that there were no free events b/c he didn't know you could click on MORE or go through the
Menu to Find Events
Wanted to scroll on Home screen
After Hint: Clicked on More
Concluded that there were no free events because he couldn't find an "advanced search"
button/filter
After Hint2, used fan filters. Scrolled the wrong way at first, but learned fast.

Task 2

Menu>Publish events
filled in name and location instead of (autofill)←had to explain what it was

Task3

Went to Menu at first, and then back to Home to change Status
Looked at Friends only on the Home screen. Didn't go to MORE friends
More Events> Volleyball> Pressed Share, not Add.

Liked

idea of it; it's part social networking
liked focus on events, not like FB (which is more limited)
sharing
can import friends (like from phone or from FB)

Disliked/Would Change

Task 1, wanted more on Home; thought that was it.
On second thought, thought MORE would be okay b/c of loading and space constraints.
Wanted the MORE button to stand out more—as it probably would in real life. Thought I was good placement.