

Trans-disciplinary Collaboration: Inquiry to Innovation Seminar



Project Managers

UC Mobile Application Project: Phase One

UC Forward
The *Innovation Collaborative*

Inquiry to Innovation Gateway Seminar

Course Description

In a global world, being smart and working hard isn't enough.

Through collaborative learning experiences, students will be able to demonstrate clearly—precisely and convincingly—constructive, effective and transformative solution-oriented outcomes for problems brought by a client or user group.

Students will:

- Identify and distinguish differences between types of collaboration
- Perform as a constructive and effective member of a trans-disciplinary team
- Appraise opportunities to create new perspectives for problem-solving
- Conduct qualitative, quantitative and archival research
- Synthesize research and ideas to develop initial concept prototypes
- Justify solutions based on market and societal inquiry

Winter 2012

App Project Phase One

The topic of the winter quarter sections has been on leveraging emerging mobile technologies to support the university by creating a UC Mobile App.

The focus of this quarter has been on:

- Investigating and auditing existing mobile apps
- Classifying potential users of a university-focused mobile app
- Making connections with organizations and communities that will use or contribute to the mobile app
- Archiving of information and materials
- Develop a schedule, process document and functional digital archive
- Document the experience through a reflective journal



Introduction

As Project Managers, we oversaw all stages of phase one design and research for the UC Mobile Application. We did this by encouraging all groups to update wikis on Blackboard after each class period. The wikis allowed us to compile an online database of the App information with easy access to such information. They also allowed us to track each group's progress throughout the quarter.

Phase One

UC Mobile Application Project: Phase One



Goals

Facilitate communication between all groups in both sections

- Cross-communication between groups was key to keep progress moving forward. At the beginning of the quarter we established a group point of contact for all groups. This point of contact was responsible for all communication between other groups and with us. The wikis were another way we established open communication between groups.

Provide overall structure to groups

- The groups created their own goals, and from those goals we created deadlines. This allowed us to track progress, while still giving the groups freedom to decide what they were doing.

Compile all research and data from groups

- The Blackboard wikis we used were a great way to compile all data from the groups into one easily accessible point. Anyone could get onto the wiki and see any other group's information.

Ease transition to phase two

- We created strong process books that will allow phase two participants to fully understand our progress, which will allow them to pick up where we left off.

Helpful Information/Tips

- Make contact with the other Project Management group immediately and set up a weekly meeting time to discuss each class's progress. Also, make sure other duplicate groups do this as well. This will allow those groups to work on the same project as opposed to trying to combine two separate projects at the end of the quarter.
- We met once a week, after both classes had met, to discuss the previous week's progress. The conference rooms in Teachers College are a good place to meet, and they are easy to access.
- Don't be afraid to approach the professors. They are willing to meet with you and help any way that they can. If you have issues with any groups or individual students, contact the professors immediately.
- Be prepared to work on this project more than the other groups, especially toward the end of the quarter.
- Our quarter started off very slowly (by week four we were just beginning the project). We advise you try to get the ball rolling as soon as possible.

What Worked Well

Online Communication

- Blackboard Wikis
- Google Docs
- Doodle

Deadlines

- Without Deadlines, groups will put work off

Meeting Outside of Class

- 450 Dyer Conference Room worked well throughout the quarter

Face-to-Face Communication

- This worked better than email when possible.

Acquire All Cell Phone Numbers

- We didn't do this, but it would have been really helpful.

What Didn't Work Well

Lack of Power

- Some did not want to take this project seriously. We had to ask professors to create group evaluations so we could hold some power over them. Once the evaluations were established, groups were more willing to cooperate with us.

Email

- People will not respond or even read their email.

Gantt Chart

- It was very time consuming, unhelpful, and we lacked enough information to fill it out.

Duplicate Groups

(Other than Project Managers)

- Groups failed to communicate outside of class and relied on only one group to do the majority of the work.

Phase Two

UC Mobile Application Project: Phase One

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Spring 2012 Next Steps

App Project Phase Two

- Use class time to decide new content groups
- Continue to facilitate open communication between groups
- Oversee completion of research and design of the app, and present final project to UCIT
- Encourage groups to establish contacts with professionals in a field related to group content area to serve as mentors throughout the process
- Make sure all groups read their specific process books, and establish a starting point based upon the previous group's work
- Brainstorm new ideas for app that were not included thus far

Spring 2012 Next Steps

Ideas We Were Unable to Pursue

Bearcat Cash

- Access to discounts/coupons for businesses around campus

Greater Involvement of Local Businesses

- Create sub-app that allows local business to update information, menus, deals, and special events

Contact Information

If you need anything that we didn't include, don't hesitate to contact us.

Michelle Martin – marti3mc@mail.uc.edu

Nick Hansman – hansmanh@mail.uc.edu

Robert Hubbard – hubbarm@mail.uc.edu

Virginia Heckel – heckelvr@mail.uc.edu

Andrew Griggs – griggsad@mail.uc.edu

Kyle Lamb – lambke@mail.uc.edu



MARKETING TEAM

Introduction

If you're reading this then you are somehow involved with the development of new University of Cincinnati Mobile Phone App. Congratulations! This is going to be a really awesome and challenging process. This section is about the Marketing Team which consists of Allison Eberle, Erik Zamudio, and Melanie Guinto. This past quarter has been a very interesting process about both the actual class and the development of the app. While most groups focused on the concrete areas such as interface design and app content, we focused on the more abstract groundwork of a successful marketing campaign. We really tried to give you all (the next group in the process) most or all of the information that you could need in order to create a strong campaign that may even go beyond advertising a mobile application but may advertise the University itself. So enjoy what we've done and we hope it helps!

-Marketing Team Winter Quarter 2011/2012

Overall Approach and Process

As a group we originally established a few simple goals that we believed would help in setting up a successful campaign for our UC app. Those goals included tasks such as figuring out a demographic, finalizing a name, creating a logo and description for the app. As we began to pursue these objectives we soon discovered that they were much larger than we had predicted.

The first obstacle to overcome was determining what demographic we should focus our marketing campaign toward. One of the most important aspects of a successful campaign is targeting the correct audience. However, with such a vast array of different students and faculty at the university it is difficult to select one group to market to. Eventually we selected a method to figure out how to create a slightly more focused campaign using the classic technique of surveying. In order to choose what questions to include on the survey we referred back to a survey done last year by the UC IT department. Several of the questions that were asked in the past study were helpful toward creating the new format for the online survey developed by our group. Currently, the survey has been sent out and we have received a great deal of feedback which will help in determining what group to market to as well as how and what to advertise. For example, if most of our results say that people are interested in the athletics portion of the app, we will create ads that display that section best. That way the campaign is more focused and will appeal to a greater audience.

Overall Approach and Process

The second major goal for our group was to finalize a name, logo, and description for the app. This is an important task because it is up to us to create something that will catch the attention of smartphone users and instill a desire to download the app. Even if someone randomly comes across the app in the app store, we want them to be intrigued enough to download it anyway. Our group also came up with a unique way to select a name using a voting system. During our presentations we allowed listeners to involve themselves in the process by voting between several different options for names. This not only helps in choosing the name, but it also creates a connection between the UC community and the application. This connection will help people to relate to the app and feel as though they were involved in the formation of it. The description of the app that will appear on a smart phone is also an important aspect of the marketing group's work. The information that goes into the description will be directly related to the survey responses that were received for the campaign. Similar to determining a demographic, this will allow the description to be seen as relevant to the largest number of students, faculty, and alumni.

Overall Approach and Process

A final goal of the group was to interact with potential businesses that would be interested in being partners and advertisers with the app. In other words, they would sponsor the app and in exchange we would provide them with a spot for advertising on the interface. This benefits both the business and the app in several ways. The funding and sponsorship that we receive from the companies will allow us to continue making new improvements and updates to the app. This will keep people interested and involved in the progress of the application. Owning an app that never receives updates can be very frustrating from a user's point of view and we intend to continuously provide new improvements to it. Also, the partnerships with local companies promote healthy growth of those businesses. This allows them to penetrate certain markets that they otherwise may never be able to reach.

Marketing Team

Something else that our group focused on was the concept of the advertisement campaign and what we think would be the best to interact with our audience. After some discussion and internet trolling, we came across the new Cheetos commercials and thought that it could be really cool to give our Bearcat a similar spice or attitude. While searching the internet for inspiration we also came across the Old Spice “Smell Like a Man, Man” campaign and liked it for its viral qualities. Our marketing team want to combine a personality filled Bearcat with an ingeniously funny campaign in order to advertise the mobile app. But it wouldn't have to even stop there. The Bearcat character that we create could be used for other advertising on campus, such as sports events, shows, admission events; pretty much anything. We thought that it could really spice up things around campus and give UC something else to brag about and make it unique from other state campuses.

Marketing Team

This is the login information for the SurveyMonkey account:

Username: BIGmarketingteam Password: uc123

This is a link to a playlist of the YouTube videos we used for inspirations:

<http://www.youtube.com/playlist?list=PLFB63E4BC0184CB8F&feature=plcp>

Here are some people that we have contacted about either advertising or for help with the actual campaign:

E-Media:

Jeni Vanlandingham

-Administrative Coordinator

Dr. Manfred Wolfram

-Director of the Munich Summer Curriculum

-Former Director of E-Media

DAAP:

Maureen France

-Graphic Design Program Coordinator

Linda Phillips

-Director of Business Affairs

Sooshin Choi

-DAAP School of Design Director

choiss@UCMAIL.UC.EDU

Marketing Team

Advertising and Sponsor Contacts

Graeter's Ice Cream – (513) 721-6265

Kroger Headquarters – (800) 632-6900

Bogart's – (513) 872-8801

Roxx – (513) 221-8646

Frische's Headquarters – (513) 961-2660

Domino's Pizza – (513) 751-6262

Penn Station – (513) 961-7366

Five Guys – (513) 559-9900

Papa Dino's – (513) 221-4747

Adriatico's Pizza – (513) 281-4344

Pomidori's Pizza – (513) 861-0080

Buffalo Wild Wings – (513) 281-9464

Newport Aquarium – (859) 491-3467

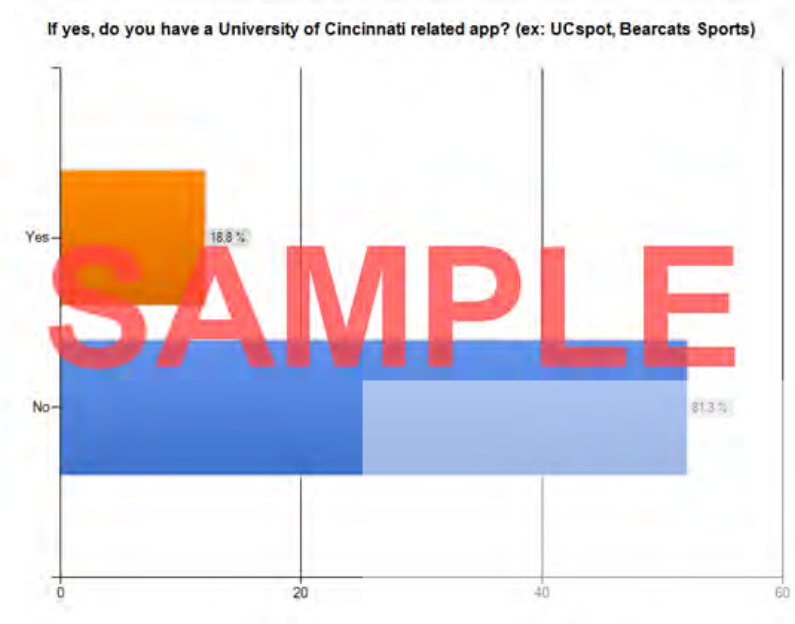
Woody's – (513) 751-2518

*For all TUC restaurants, please contact (513) 556-2831. This includes Chick-fil-a, Taco Bell, Papa Johns, etc.

**All sponsors are local to Clifton area unless stated otherwise (“Headquarters”)

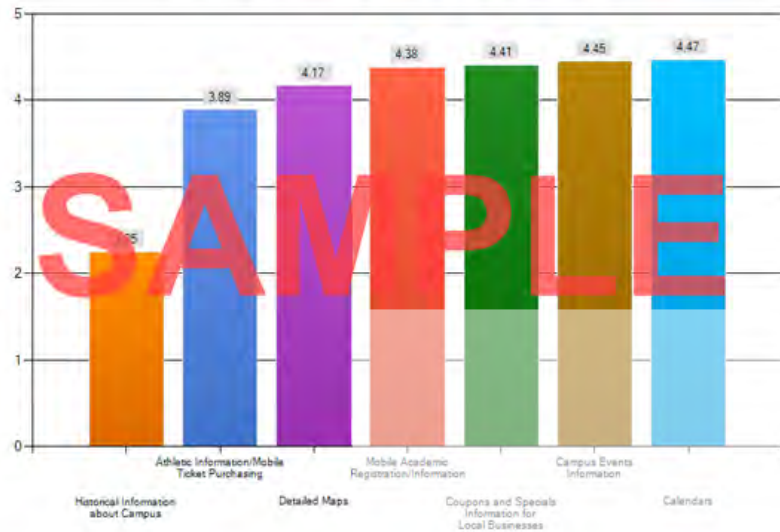
While we may not have gotten responses from everyone, you should still try to either maintain or re-contact the people on this list or anyone else that you deem useful

Marketing Team-Survey Results

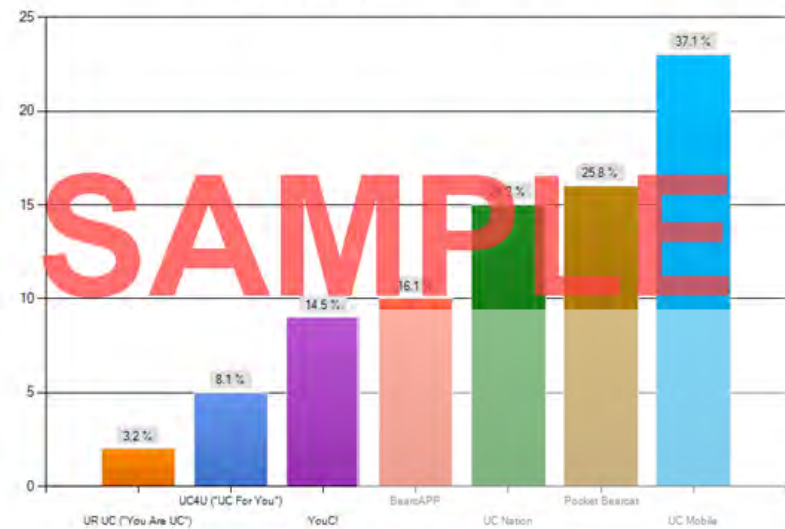


Marketing Team-Survey Results

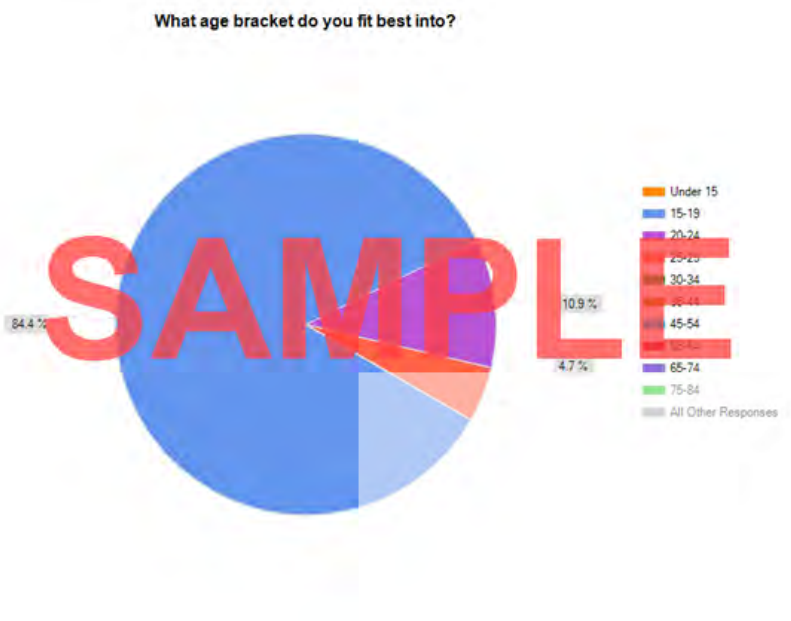
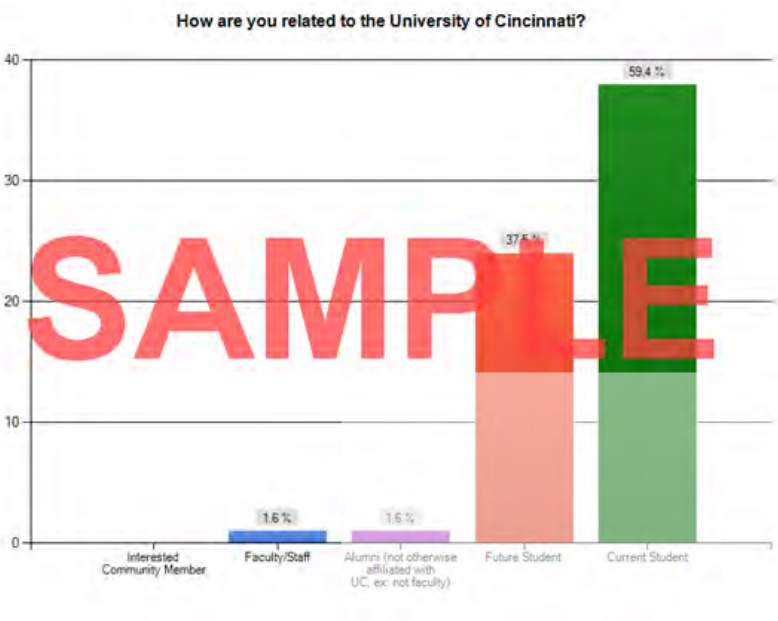
Rate what you would want most in a University of Cincinnati mobile app (with 1 being the least important, and 5 being the most important thing to you.)



We want your input as to what we should name our future app. Vote for your favorite name or suggest one of your own!



Marketing Team-Survey Results



Marketing Team-Survey Results

When asked what they wanted in the app students said:

- Campus Safety Updates
- Accurate Shuttle Tracker
- Full Interactive Calendar of Events
- List of Major Events
- Walking and Driving Maps of Campus Area
- Discounts
- Class Cancellation Notifications
- Class Registration



Phase Two

UC Mobile Application Project: Phase One

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Spring 2012 Next Steps

App Project Phase Two

So as the next step of the process, you are going to need to really create a lot of concrete advertising where as our group tried to lay all of the ground work. Contact E-Media and DAAP again to see if they would be willing to be involved, continue to contact local businesses and organizations to get some sponsors and advertisers. Also make sure that you know exactly what all of the groups are doing and keep track of the content of the application to be sure that you are properly marketing it. Use our information as you need it and find your own; turn what we started into a great campaign. Best of luck and have a great spring!

Also UC IT has been really helpful with sharing their information, and the instructors should have copies of everything, however if you have any questions or want the information yourselves e-mail Melanie from this past quarter at m.guinto.22@gmail.com and she will try to answer your questions and get you the information that you need.

New to UC/UC History/Academics

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Introduction

These are some of the thoughts we have at this time:

- There is not really a plausible way at this point in time to find a connection point with all student services, so the majority of the information/goals we categorized in the Academics section originally has pretty much dissipated and we aren't left with much. We plan on dropping the title of Academics all together and redirecting our focus to: "New To UC/UC History"
- We also had pretty so-so feedback about the "Rate My Class" option, so what if we called the Sub-Applet "Class Evaluation" and then just had a survey regarding class work load, amount of time spent out of class working, more/less advanced information in that particular subject, etc. This would keep the connection with "Rate My Professor" to a minimum, thus spinning the absolute most positive on this idea (which has the potential to be an extraordinary class-enrolling tool for students looking for specific course types or work loads). We also discussed completely dropping the Class Evaluations since we are dropping Academics.

Overall Approach and Process

Our focus was based on improving the UC experience:

- **Convenient**
- **Enjoyable**
- **Accessible**
- **Engaging**

Phase One

UC Mobile Application Project: Phase One



Beginning Goals:

Academics

Integrate major student services with the app:

- Figure out format for class feedback data.
- Locate a list of contacts for student services (centers).
- Create a connection point with contacts for logistics purposes
- Re-addressing the above goals for the following reasons:
- Not sure whether this is even possible.

Our group shrank significantly and we are rethinking the hierarchy of our information so we can determine what is most vital and what will be most beneficial and convenient to communicate through the app.

Beginning Goals:

UC History

Make learning UC History more accessible and engaging for students:

- This has currently been pushed aside as we feel we have a more reasonable and more aesthetically pleasing solution than sticking ugly codes all over campus.
- UC Walking History tour using the information pulled from the podcast created last quarter in the honors seminar that Mike took.
- Turning on an applet within the app that notifies someone when they are within (i.e.) twenty feet of a statue like Oscar Robertson and says "Hey, you're pretty close to this; do you want to learn more about Oscar, what he did during and after his time at UC, why there is a statue of him, etc?"
- Compiling a list of notable/famous alumnus with their accomplishments

Beginning Goals:

New to UC

Serve as a guide to prospective and incoming students (or parents):

- Compile list of operating hours of all on/off campus restaurants, shops, and facilities.
- Determine weather-friendly routes through campus
- Establish a solid format for student tips/tricks (maybe a discussion board in which posts would have to be approved before actually being posted to the public, simply due to the need for a filter of some sort)
- Personally interview students as well as parents, or even create a survey or poll that would help to determine things they wish they had known coming in fresh.
- Figure out how to communicate emergencies to students through the mobile app rather than (or in addition to) through email so that students could then pull up the hours of operation of various services and see that (i.e.) "Oh, classes are cancelled after 2:00 due to snow, so when will Center Court be open until?"

The main thing we took away from mid-term presentations:

Think about what value this app will have for students aside from sheer convenience. Perhaps our sections can strive for sparking more school pride within the students that use it by making learning things and finding things way more accessible and simpler than digging through the library to find a book (which no average college student has the desire nor the spare time to do)

Other ideas from the mid-term presentations:

- Maybe adding safety updates? Or perhaps throw a positive spin on things and list suggestions for how to stay out of trouble (like not walking by yourself anywhere at 3:00 AM).
- UC History can benefit from speaking with Kevin Grace - works in the UC Archives over in the Blegen Library.
- Who is covering the Shuttle system? That is something that should aim to be included in this app somewhere, even if only by a link; it is important and very helpful.

Other Stuff and Things:

There was talk about adding a panic button somewhere in the larger app; maybe as its own applet? Something that wouldn't be able to accidentally be punched, but that would still be easy to navigate to in case a student is not near a blue help phone or is right off campus. It would be able to connect them directly to the Campus Emergency Services rather than having to call Cincinnati or other neighboring areas and then be redirected to the UC Police.

Survey results:



Microsoft Office
Word Document

Off campus hours of operation:



Microsoft Office
Word Document

On campus hours of operation:



Microsoft Office
Excel Worksheet

Walking tour information:

- **UC Historic Walking tour site**
 - sites.google.com/site/ucwalks
- **Contact Professor Tracy Teslow (tracy.teslow@uc.edu)**
 - *She taught the class that created the walking tour site*
 - *We have her permission to use information from the site as long as we ask the people who did the individual pages for their permission. She should have the list of which students did what sites.*
 - *It was never uploaded, but there should be a spoken podcast and map that go along with the walking tour. Ask her for them.*

Phase Two

UC Mobile Application Project: Phase One



Spring 2012 Next Steps

App Project Phase Two

- Develop Discussion Board
- Establish Point of Contact for Student Services
- Create Walking Tour Notification System
- Address logistics of the applet and all of its components

- Figuring out a way to filter the discussion board; obviously we can't let just anyone post anything to it, the risks with that run way too high.

- Taking a look at how the applet components function within the network as a whole; how does the walking tour notification system have its own signal or GPS locator? Is it eventually possible to find a connection point for all UC services (blackboard, UC mail, grades, syllabi, Onestop, etc.) or is that completely unreasonable?

Accessibility

UC Mobile Application Project: Phase One

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Phase One

UC Mobile Application Project: Phase One

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Accessibility

Resources

Listed below are the primary contacts our group has made in Chapter I, specifically the stakeholders involved in improving campus accessibility and the eventual campus accessibility mobile wayfinding app:

Disability Services

Michael Southern, Program Director
Michael.Southern@uc.edu

UC Facilities

Ken Bloomer, Director of Maintenance and Operations
Kenneth.Bloomer@uc.edu

UCIT

Mark Faulkner, Assoc. VP of Network & Telecommunication Services
Mark.Faulkner@uc.edu

Chris Shaw
Chris.Shaw@uc.edu

Student Government

Shy Ruparel
Shy@ShyRuparel.com

Accessibility

Resources (continued)

Disability Services

Michael Southern, the Program Director at the University of Cincinnati's Office of Disability Services, has been this group's primary "go-to" person with regards to general campus accessibility issues. Mr. Southern has been one of our greatest cheerleaders and has proven to be a valuable resource, specifically with regards to "connecting" the group to other people important to our cause who work elsewhere within the university.

UC Facilities

Ken Bloomer, the Director of Maintenance and Operations at the University of Cincinnati, has been identified to us, by Mr. Michael Southern, as the prospective contact person with regards to determining the physical operational status of elevators and other useful handicapped-accessible mechanisms such as ramps and doorways.

UCIT

Mark Faulkner, the Associate Vice President of Network & Telecommunication Services at the University of Cincinnati, has been another invaluable resource. As an executive within University of Cincinnati Informational Technologies (UCIT), Mr. Faulkner was the first person to talk to us about the upcoming UCIT-designed campus wayfinding mobile app. He should continue to be able to answer essentially any and all questions with regards to the navigation app, or be able to identify the appropriate person who can.

Chris Shaw, an Applications Analyst at UCIT and former Bearcat himself, was one of the people directly involved in the "design and construction" of the university's new navigation app. Relatively late in the quarter, we were able to meet with him and view the working-version of the app which is to be debuted in the short-term.

Student Government

Shy Ruparel, a technology guru working under the auspices of several branches/divisions of UC Student Government, is currently working to identify "bugs" and glitches with the navigation app, to be amended by UCIT, before the app's ownership is transferred to UC Student Government in preparation for rollout to the university community and public-at-large.

Accessibility

Interview



Michael Southern
Program Director
UC Disability
Services

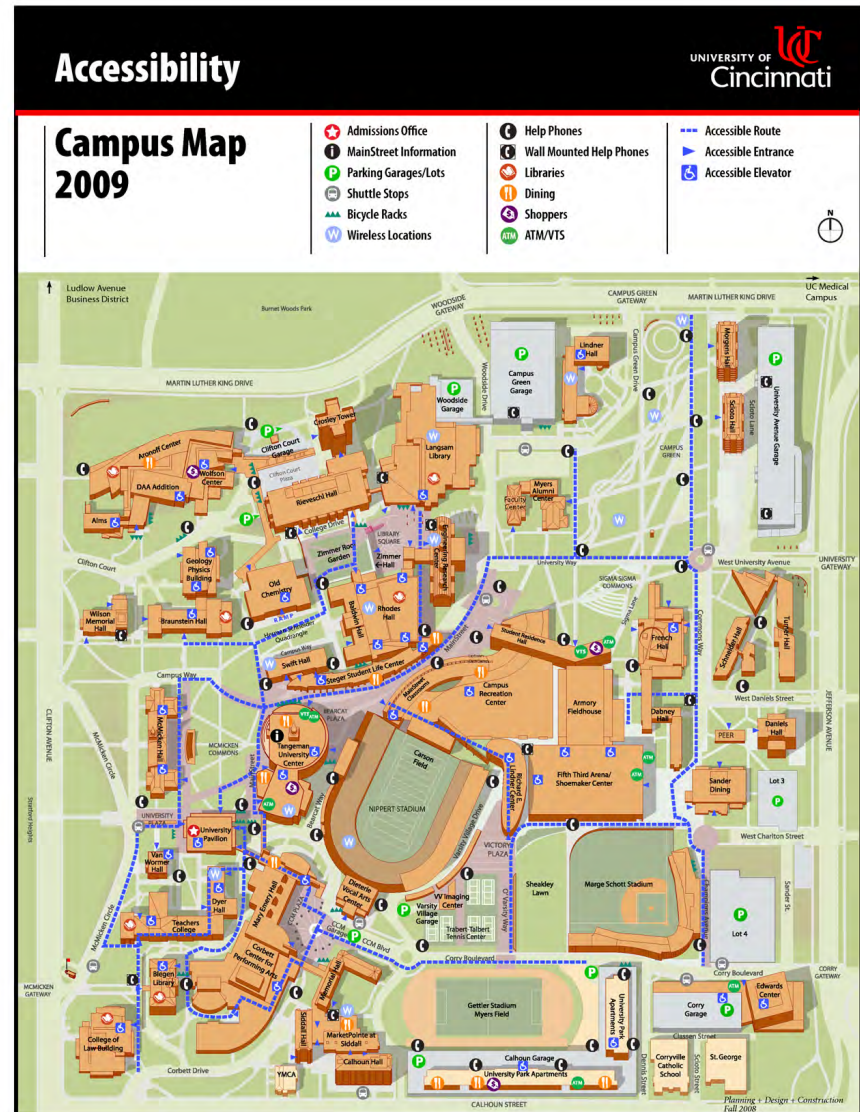
On January 19, 2012 our group met with Mr. Michael Southern, Program Director of the University of Cincinnati Office of Disability Services. Working to pilot a campus accessibility oriented mobile app, our group knew that we needed to engage the university's in-house disability services program not only for our purposes, but also to address any of their own concerns and/or goals.

Going in to the interview, our group was—thankfully—ignorant with regards to the pre-existing campus accessibility navigation affordances. Coming out of the interview, our group was newly equipped with the university's official accessibility wayfinding map, albeit on paper, but a map nonetheless. This allowed our group to re-channel our focus from “making” a map to “improving” and “validating” a campus accessibility map for eventual use in a mobile, electronic format.

Mr. Southern also was grateful to provide our group members with ideas and suggestions. He was one of the first to propose the idea of having a feedback button where both app users and app owners could communicate with regards to “broken” elevators, pathways, etc. Mr. Southern continued to be a helpful and enthusiastic supporter of our work throughout winter quarter.

The current accessibility map

Available in Disability services office or online on UC website



Accessibility Icons

Accessibility Logo

We think the most obvious choice for an accessibility logo is the wheelchair accessible icon. This also goes well with the main accessibility feature of the app wheelchair accessible routes.

Feedback Button

This is our concept for a Feedback Button to report broken elevators, etc.

HELP Phone Button

This is our concept of a blue HELP Phone button to call UCPD.



Accessibility

Pocket Bearcat logo idea



Image Source:

<http://www.magazine.uc.edu/content/dam/magazine/images/0509/Lsports7.jpg>

In the ensuing slides, please take the time to explore a *concept* for the campus accessibility navigation mobile app. This is only supposed to represent app functionality possibilities and future goals. While far from perfect, the “mock-up” demonstrates many of the features, tools, and options that are team believes should be considered when constructing this app including estimated travel time, accessibility ratings, 2D vs. 3D imagery, campus amenity mapping, and more. It also makes use of the “Pocket Bearcat” name and logo, which could be extended insofar to serving as the app’s help feature.

Pocket Bearca



Campus Accessibility

 **Back to Pocket Bearcat HOME**

Where are you leaving?









**HELP
TOOLS**



-  **Admissions Office**
-  **MainStreet Information**
-  **Parking Garages/Lots**
-  **Shuttle Stops**
-  **Bicycle Racks**
-  **Wireless Locations**

-  **Help Phones**
-  **Wall Mounted Help Phones**
-  **Libraries**
-  **Dining**
-  **Shoppers**
-  **ATM/VTS**

-  **Accessible Route**
-  **Accessible Entrance**
-  **Accessible Elevator**
-  **Various slope indicators.**
-  **Red for slopes 10% grade**
-  **and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.**



◻  **Back to Pocket Bearcat HOME**

Where are you going?



**HELP
TOOLS**







**Start:
Teachers College**

Change



-  **Admissions Office**
-  **MainStreet Information**
-  **Parking Garages/Lots**
-  **Shuttle Stops**
-  **Bicycle Racks**
-  **Wireless Locations**

-  **Help Phones**
-  **Wall Mounted Help Phones**
-  **Libraries**
-  **Dining**
-  **Shoppers**
-  **ATM/VTS**

-  **Accessible Route**
-  **Accessible Entrance**
-  **Accessible Elevator**
-  **Various slope indicators.**
Red for slopes 10% grade and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.



 **Back to Pocket Bearcat HOME**

Your route:



**HELP
TOOLS**



Start:
Teachers College

Change?





End:
Old Chemistry Hall

Change?



-  Admissions Office
-  MainStreet Information
-  Parking Garages/Lots
-  Shuttle Stops
-  Bicycle Racks
-  Wireless Locations

-  Help Phones
-  Wall Mounted Help Phones
-  Libraries
-  Dining
-  Shoppers
-  ATM/VTS

-  Accessible Route
-  Accessible Entrance
-  Accessible Elevator
-  Various slope indicators.
Red for slopes 10% grade and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.



 **Back to Pocket Bearcat HOME**

Est. time: 4 min 15 sec 
Accessibility rating: **GOOD** 



HELP TOOLS 


Your route:



Start:
Teachers College





Change?

End:
Old Chemistry Hall

Change?

-  Admissions Office
-  MainStreet Information
-  Parking Garages/Lots
-  Shuttle Stops
-  Bicycle Racks
-  Wireless Locations

-  Help Phones
-  Wall Mounted Help Phones
-  Libraries
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-  Shoppers
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-  Accessible Route
-  Accessible Entrance
-  Accessible Elevator
-  Various slope indicators. Red for slopes 10% grade and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.



 **Back to Pocket Bearcat HOME**

Est. time: 4 min 15 sec 
Accessibility rating: GOOD 



Your route:

More information about your route:

The estimated travel time is based on the fastest calculated transit time between the buildings you have selected, taking into account the placement of wheelchair-friendly doorways and ramps, etc.

The accessibility rating is based primarily on the terrain changes along your calculated route plus quantity and quality of accessible entrances/exits in your selected buildings.






-  Admissions Office
-  MainStreet Information
-  Parking Garages/Lots
-  Shuttle Stops
-  Bicycle Racks
-  Wireless Locations

-  Help Phones
-  Wall Mounted Help Phones
-  Libraries
-  Dining
-  Shoppers
-  ATM/VTS

Old Chemistry Hall

Change?

-  Accessible Route
-  Accessible Entrance
-  Accessible Elevator
-  Various slope indicators. Red for slopes 10% grade and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.



 **Back to Pocket Bearcat HOME**

Est. time: 4 min 15 sec 
Accessibility rating: GOOD 



Your route:

TOOLBOX OPTIONS

- Map view (**ON** or OFF)
- 2D Google Earth imagery (ON or **OFF**)
- Quickest route (**ON** or OFF)
- Foul weather route (ON or **OFF**)
- Easiest/most flat route (ON or **OFF**)
- Campus amenities (**ON** or OFF)
- Campus facts and history (ON or **OFF**)







Old Chemistry Hall

Change?



-  **Admissions Office**
-  **MainStreet Information**
-  **Parking Garages/Lots**
-  **Shuttle Stops**
-  **Bicycle Racks**
-  **Wireless Locations**

-  **Help Phones**
-  **Wall Mounted Help Phones**
-  **Libraries**
-  **Dining**
-  **Shoppers**
-  **ATM/VTS**

-  **Accessible Route**
-  **Accessible Entrance**
-  **Accessible Elevator**
-  **Various slope indicators.**
Red for slopes 10% grade and . Yellow for 3-10% grade. Green for 0-3% grade. direction of triangle indicates uphill or downhill.



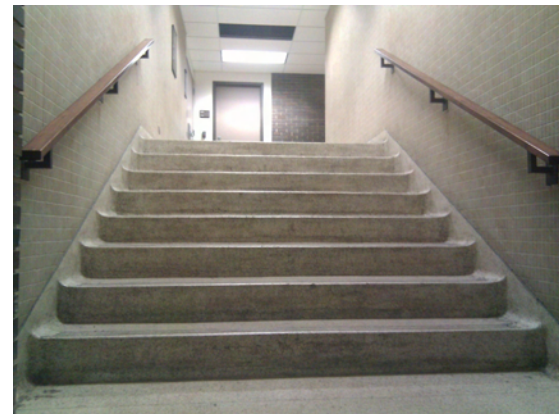
Accessibility

“Exploring”

It is obvious that UC’s campus is not easily accessible.

We did some exploring on our own, often taking notes, pictures, or video to document the obstacles.

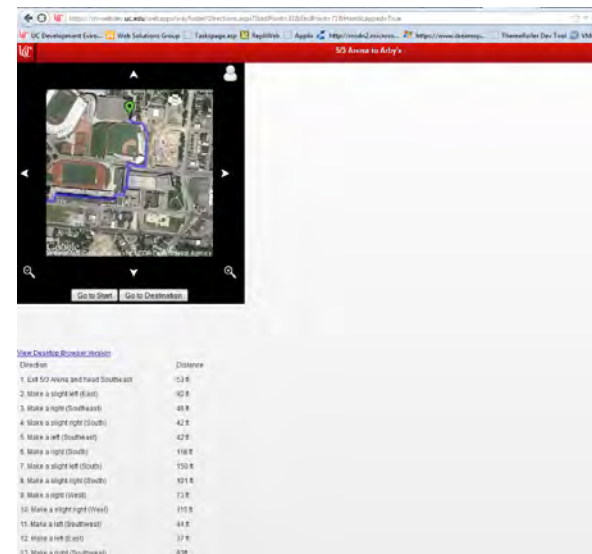
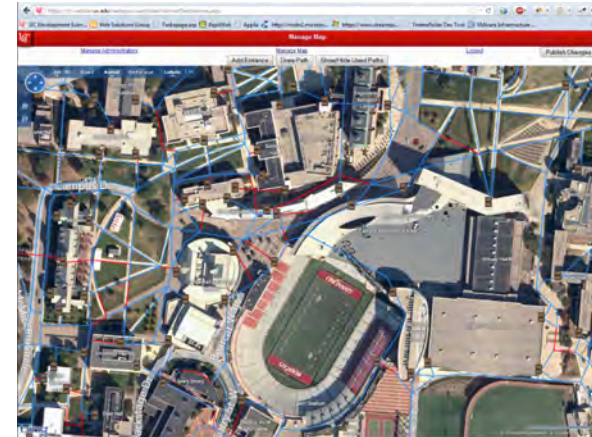
- Two staircases in Baldwin hall in entrances marked as accessible that obviously are not
- Matthew mentioned Baldwin hall as one of the hardest halls for him to navigate while on crutches
- Another problem that came up: the automatic doors open too fast or the button is in a bad location which makes it very hard for wheelchair users to get through the door



Chris Shaw's Wayfinding App

There is currently a mobile web app developed at UCIT called the *Wayfinding app*. It provides walking directions around UC's campus. There is a desktop version and a mobile version; however, the mobile version is not very polished.

The app has a frontend (which is the interface that users see) and an administrative backend interface where an administrator can log in to edit the roads and mark paths as wheelchair accessible or not. When the administrator finishes editing the roads, a computer program calculates all the possible routes to and from each destination and saves the shortest route for each. That way, when a user asks for walking directions, it can simply look up a pre-calculated route. This makes it fast to use, but also very limited. For instance, if you want to generate walking directions based on a person's current GPS location, you would have to display directions from the nearest entrance, which might not be very accurate.



Current state of the Wayfinding app

When UCIT asked around for a group to “own” the app, meaning maintain the data (routes) via the administrative backend, Student Government agreed to take ownership of maintaining the app’s data. We had an interview at UCIT with Mark Faulkner and Chris Shaw (chris.shaw@uc.edu) one of the original developers of the webapp. We also interviews Shy Ruparel who is a Student Government Representative for the Wayfinding app, which is currently in a testing phase.

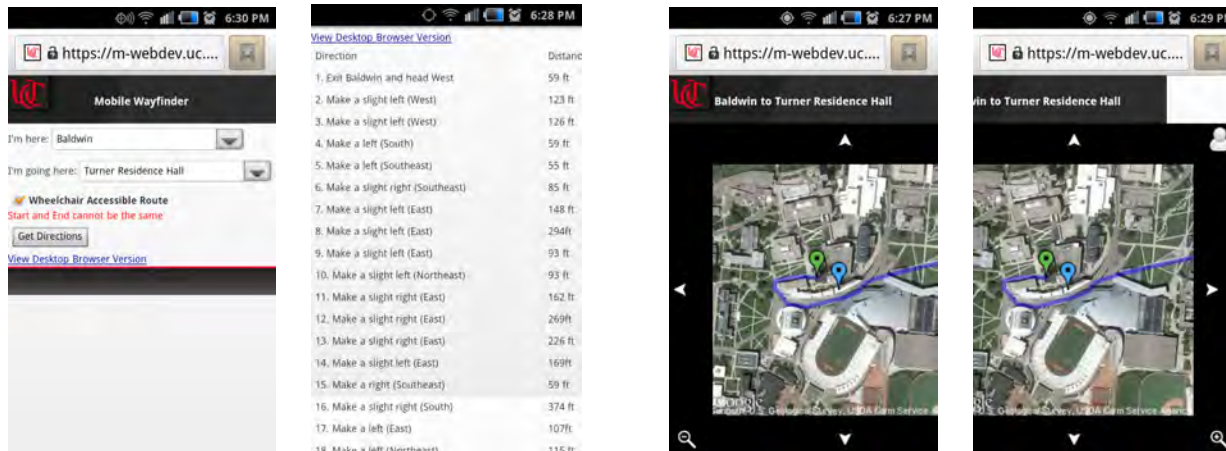
Shy felt that the Wayfinding app has too many bugs to deploy in the near future.

It doesn’t resize well on mobile screens.

It doesn’t zoom out to show the entire route.

The text directions are useless.

It is confusing to enable the website with permission to show your GPS location.





Phase Two

UC Mobile Application Project: Phase One

Spring 2012 Next Steps

App Project Phase Two

Required Features:

These are the features we would expect in an initial release.

Map of accessible routes. The most important element to the Accessibility app* is to display a map that shows the outdoor routes accessible by wheelchair, accessible building entrances, and wheelchair accessible elevators. Users should be able to click on the elevators, entrances, or routes for additional details, such as what floors an elevator goes to and whether it requires a key to use, notes about the entrance, and tips or advice about taking specific routes.

Feedback button. The app should provide a way for users to report broken elevators, handicap doors that won't open, wheelchair routes that are blocked, etc. It should also display alerts from UC Facilities to show users when elevators are broken, etc. This could be thought of as a geo-social feature, but would be targeted primarily at communications between users and UC Facilities.

Directions: The ability to generate directions is useful, because it reduces the clutter of plotting all the accessible routes at once. The current Wayfinding app generates directions given a starting building and a destination building.

Pocket Bearcat logo: If the name of the overall UC app does become "Pocket Bearcat" (which seemed to be the crowd favorite at the midterm critique), the use of a small omnipresent Bearcat logo might serve as a visual equalizer between applets and pages and an attractive feature for a help button.

Alternate Routes

Several other groups discussed map-like applications. Ideally, all these map features will be available in one UC Map app, and Accessible Routes will just be one layer of options. Here are more route layers that our group happened to of, which are not accessibility related but which we liked.

Foul weather: Going beyond the scope of just “accessibility”, a campus navigation app could be easily extended to be useful for all University of Cincinnati students by designing additional “layers” with regards to climate. Through-building shortcuts abound on our campus, but they are generally unknown to new students, and those students who might be unfamiliar with certain buildings. A “foul weather” feature could identify routes that maximize the use of interior shortcuts to get people out of the rain, snow, cold, extreme heat, etc.

Guided Tour. The UC History group knows of an audio tour of campus. That would be an awesome layer for the map.

*** Accessibility shouldn't be a separate app. We think it should be a series of features that should be included in a more general Map app.**

In the future:

Future Navigation Ideas:

Get Directions:

There are at least two types of settings. 1) What stuff to display on the map. 2) What characteristics to use when generating directions.

Real-time navigation: Initially, the navigation app might take the form of a rigid, minimally interactive program where the user may or may not be able to visualize their location in real time, but will merely have a map displayed with a route overlaid on-top. Eventually, a real-time feature will be important to help people from veering off course. A real-time feature will allow its users to accurately gauge his/her progress along the plotted route, identify landmarks along their way, etc. Real-time navigation will necessitate the use of GPS and/or Aruba WiFi localization technology. If the accessibility map and app are to be successfully integrated with other map-related projects (such as 'Campus History' and 'New to UC'), a real-time feature will be crucial so that app users can fully engage in their UC campus experience.

Dynamic Routing: We think that a mobile app should only require a destination, and allow users to generate directions starting at their current GPS location. Because the current Wayfinding app pre-calculates all the routes between entrances, this is not possible. A real-time algorithm for finding routes may have to replace the pre-calculated approach.

Touch Interface: Users should be able to pick a destination by touching it on the map rather than picking a name from a long list of buildings.

Indoor navigation: The Aruba Wi-Fi system that UC is installing will allow for indoor localization. This technology, if incorporated into the app, would allow for indoor directions that could guide users to handicap accessible elevators, etc. This would be extremely useful, because UC's inaccessibility is not limited to outside - it is pretty hard to navigate inside some buildings. Indoor navigation could use the existing floor plans, and display only the current floor as users follow indoor routes.

3D-style imagery: The UC map could ultimately include Google Earth-type imagery and use augmented reality to draw the walking path directions.

In the future:

Misc Future Features:

Door-open. Many times, the handicap door-open button is poorly placed; the door is too far, too close, the person gets whacked with the door when it opens. Several people have expressed that the desire to open doors using the phone to eliminate the need to wheel their wheelchair over to the button, press it, scoot back and slide through the door before it closes. This would require some kind of technology that lets the phone communicate with motorized handicap doors.

HELP button. Have a button on the app (or home-screen widget, if applicable to the phone OS) that calls UCPD. It would be similar to the blue help phones on campus, but in your pocket. (In case you fall, are too scared to walk to a help phone, are being robbed at gunpoint, etc.)

Blind users. To cater to other disabilities other than being physically handicapped, the app could use voice command and be interactive in this way so blind people could use it. Everything could be programmed to be “read aloud” by the app for blind, visually impaired, or those without the use of their arms or hands. Someone brought this problem up in the mid term critique.

Campus Life

UC Mobile Application Project: Phase One

UC Forward
The *Innovation* Collaborative

Phase One

UC Mobile Application Project: Phase One

UC Forward
The *Innovation* Collaborative

Goals

- To show future students the different opportunities that UC has to offer.
- To increase the passion and involvement of current students.
- To increase accessibility of campus resources and student organizations.
- To increase awareness of events going on throughout campus.

Rec Center

- **Ability to swipe into the rec center with a bar code on your phone rather than using your Bearcat Card**
- **Class offerings and specials listed daily on the app.**
- **Ability to sign up for free classes so that you have an assured spot upon arrival at the rec center.**
- **Access to daily workout plans and nutrition help.**
- **Ability to see how many people are using the facilities.**
 - You can check to see if it is too busy for your liking and decide to do other work and then come back when it is less crowded. You can manage your time better.
- **Be able to reserve racquetball and squash courts from your phone instead of**

Athletics

- **Varsity:**
 - Ability to purchase tickets and scan into games with the app.
 - Receive push notifications when tickets go on sale.
 - Have a display of recent results for the teams.
 - Calendar displaying when games are and the ability to choose what sports to follow.
 - Have lyrics for the fight songs and alma mater.
- **Club:**
 - Show when tryouts for the sports are.
 - Results
 - Calendar displaying when games are and the ability to choose what sports to follow.
- **Intramural:**
 - Ability to sign up through the app.
 - Ratings of teams
 - Standings of tournament
 - Ability to confirm/cancel your team

Student Government

- **Ability to follow student bills and current issues.**
 - There are many important issues being voted on that UC students not involved in Student Government have a hard time knowing about. We think that since the issues affect the lives of those students at UC, there should be updates to let everyone know easily what Student Government is discussing and how it could affect them.
- **Vote in surveys on bills.**
 - Giving students the ability to let Student Government know their opinions on certain bills so that they get a sense of what the student body wants the result of the bills to be.
- **Ability to follow student government events.**
- **Connecting with student representatives.**
 - Be able to talk to your student representatives and let them be aware of what ideas and concerns you have.

Calendar

- **Capability of customization**
 - Organizations
 - Events
 - Colleges
 - Classes
- **Ability to sync selections with user's phone or tablet.**
 - Whenever the user selects that they want to attend an event or meeting, it is scheduled into their personal calendar.
- **Option to receive notifications from selections.**
 - At a set time before an event, a push notification is sent to the device to remind the user.

Research

Data Collection Methods

- Brainstorming
- Student Surveys
- Interviews

Resources

- SAB Council
- UC Athletic Director
- Student Government

Sample Artifacts

- UC Athletic Department
- Other University Apps
- ESPN App



Phase Two

UC Mobile Application Project: Phase One

UC Forward
The Innovation Collaborative

Spring 2012 Next Steps

App Project Phase Two

- Have a program that allows you to track the nutrition information of the foods you eat at the dining halls
- Talk to more representatives of head groups of campus and get more in-depth information.
- Figure out how realistic the goals we have created thus far are by talking to more technologically knowledgeable people on campus.
- Think of any more main departments of campus life that should be incorporated into the app.

Phase One

UC Mobile Application Project: Phase One

UC Forward
The *Innovation* Collaborative

Interface Design/Development

Tuesday Group:

Developed aesthetic styling to be used throughout the app

- Aesthetics follow UC branding standards and common design principles
- Focus on fonts, colors, shapes, and page layouts

Designed the navigation and control schemes for the application

- Emphasis on intuition and functionality
- Replicate controls used in other popular applications

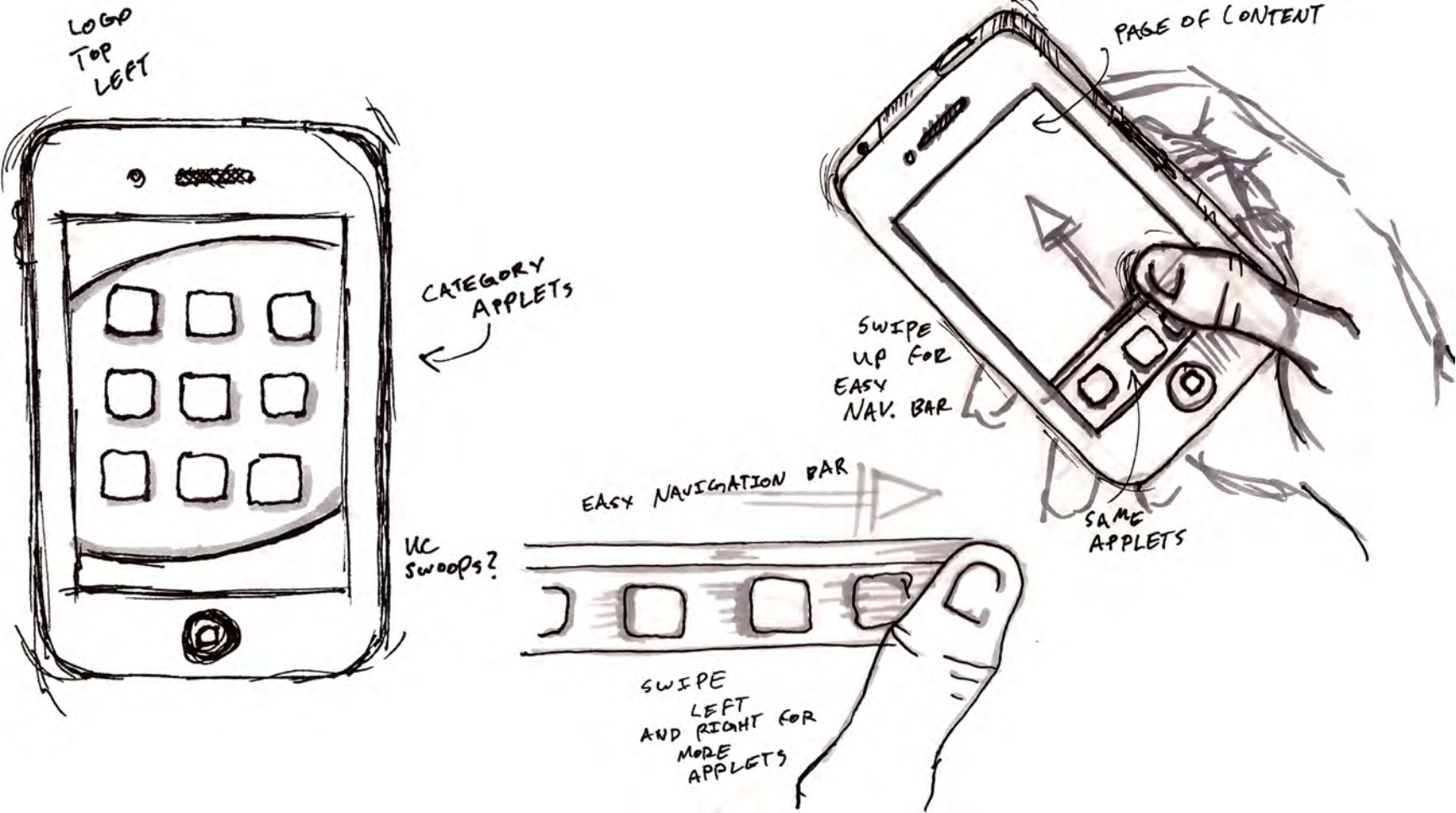
Designed how information on the app is displayed

Interface Design/Development

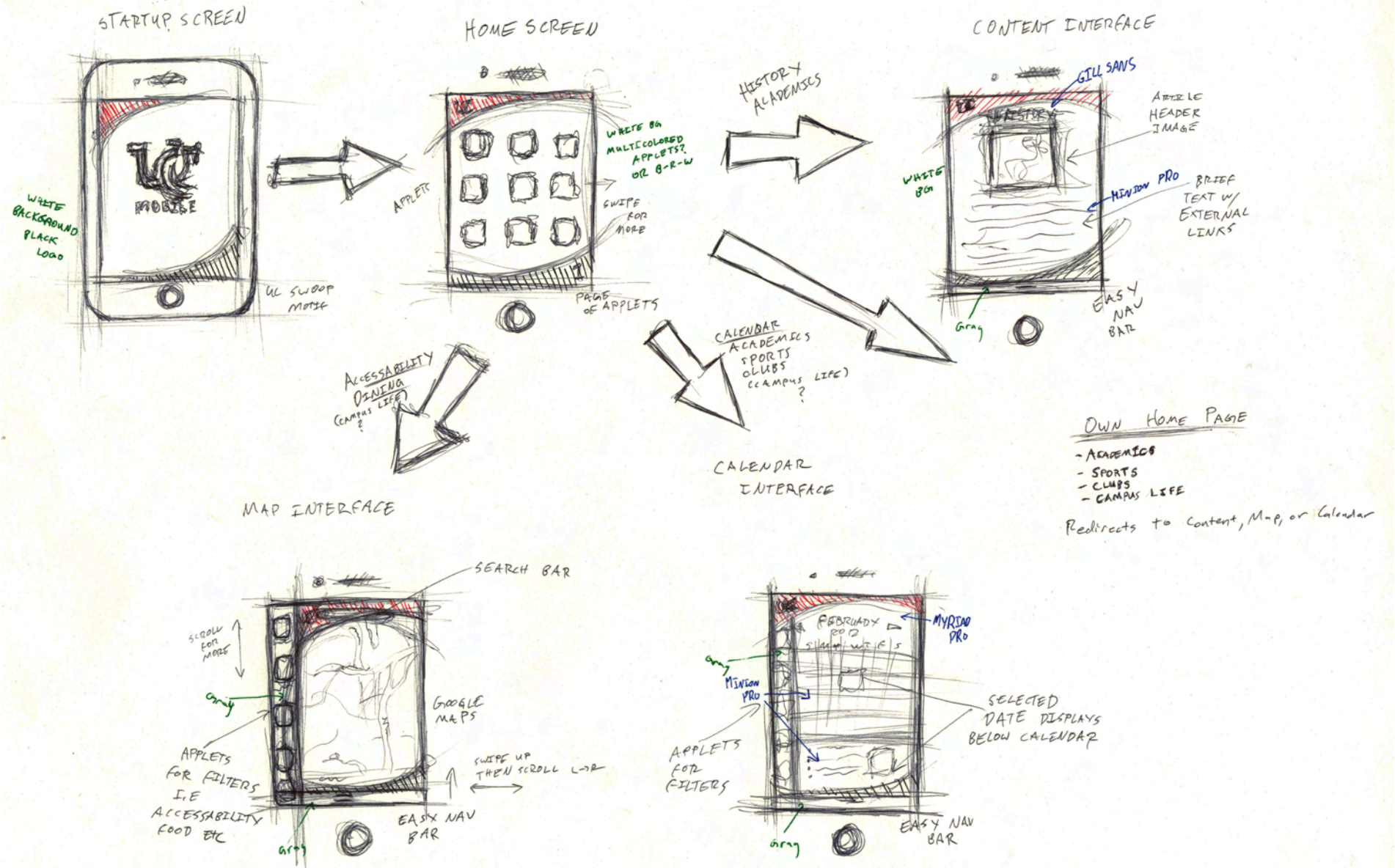
Wednesday Group:

- Researched articles on the web on what makes an app successful and aesthetically pleasing
- Spoke with UCIT department about goals and ideas for application design and implementation
- Analyzed aspects of most successful/useful applications currently available
- Compared UC mobile site and other resources to other college apps (OSU, Stanford, UT Austin, MIT)
- Interviewed and surveyed people (from all demographics) on what they thought should go on the app

Interface Design/Development

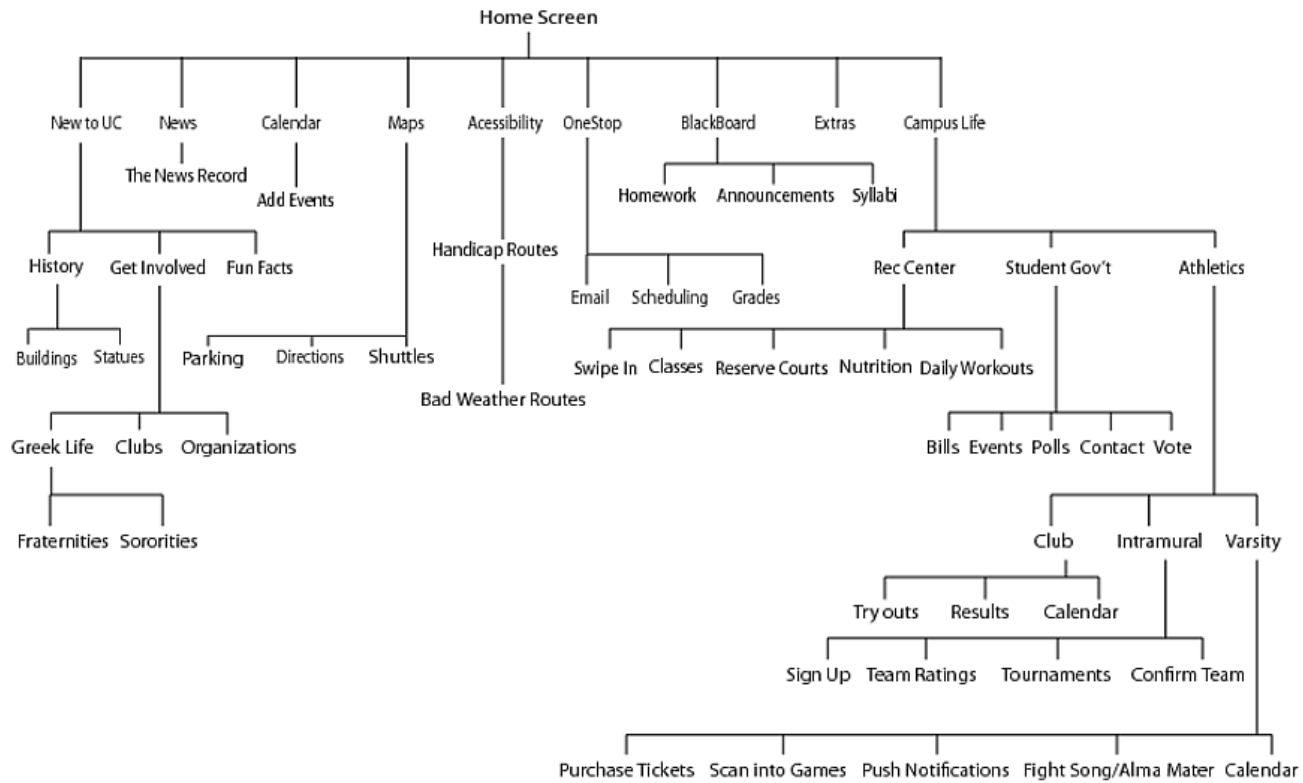


Interface Design/Development Potential Layout



- OWN HOME PAGE
- ACADEMICS
 - SPORTS
 - CLUBS
 - CAMPUS LIFE
- Redirects to Content, Map, or Calendar

Application Wire-framing



Applet Icon Designs



Accessibility



Athletics



Bearcat Card



Blackboard



Emergency



Extras



Feedback



Future Students

Applet Icon Designs



Health and
Safety Alert



History



Hours of Operation



Grades



Calendar



Libraries



News

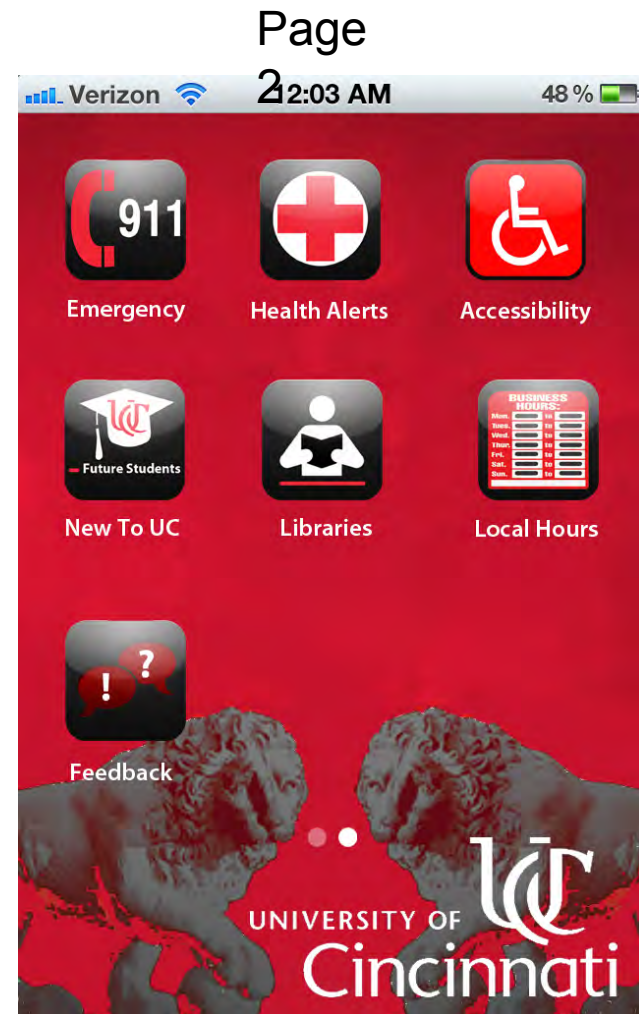
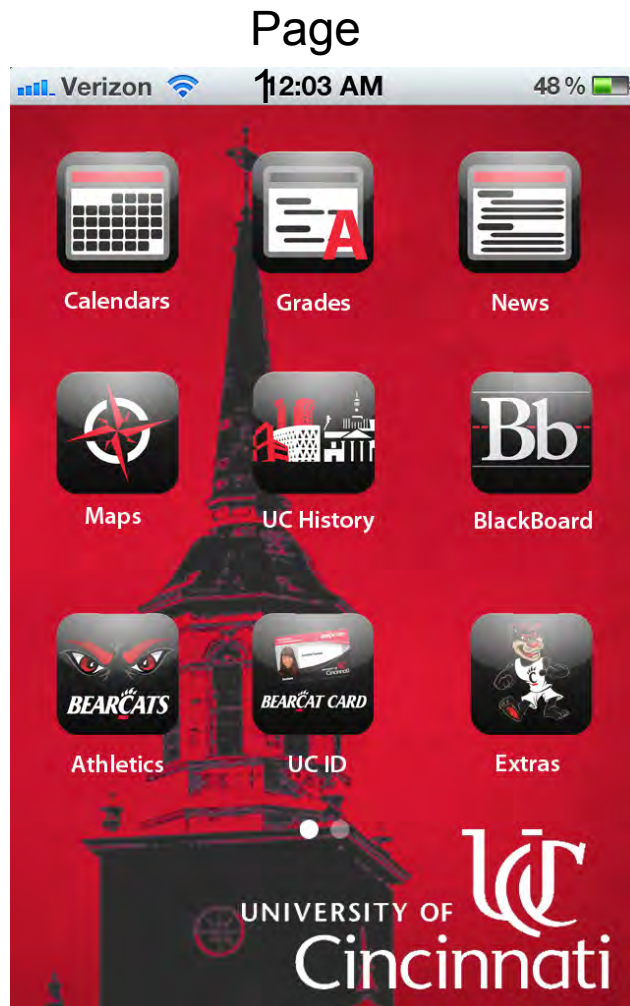


Maps

Application Main Icon



Application Home Screen



Phase Two

UC Mobile Application Project: Phase One



Spring 2012 Next Steps

App Project Phase Two

Goals:

- Integrate content completely (information and design)
- Investigate programming logistics (platform usage)