

# **PROJECT OVERVIEW**

Travelogue is a mobile application that was created as part of an interaction design studio course at Carnegie Mellon. This app was aimed at addressing the needs of mobile workers who travel as a part of their jobs.

Specifically, we were interested in mobile workers who travel to unfamiliar places. The goal of this app was to help those mobile workers identify services when visiting new areas, in addition to providing them with the opportunity to learn more about those areas.

This project was created in collaboration with two graduate students at Carnegie Mellon: Kevin McMillin and Kaushal Argawal. This project began in January 2012 and will be completed by March.

# BACKGROUND RESEARCH

The first component of our project was to learn more about mobile workers. Below are some of our key findings.

#### Mobile workers are a surprisingly large portion of the workforce.

In a survey of international organizations, Nemertes Research found that over 91% of workers report doing some work outside of the main office.

#### The use of tablets and smartphones is increasing among mobile workers.

The use of desktop computers for email correspondence is decreasing.

#### There is no one traditional occupation for mobile workers.

A Knoll study of 577 workers from over 80 organizations found that mobile workers occupy a variety of positions including specialists, managers, and executives.



## Mobile workers utilize a number of locations outside of the office.

In addition to working in the office, these workers commonly work at home, airports, hotels, cafes, bookstores, and on public transportation.

#### Smartphones and tablets serve a variety of work-related purposes.

A study by Gist found that mobile workers use these technologies to take notes, connect with other workers, manage data, send and receive email, surf the internet, read, and type documents.

# **COMPETITIVE ANALYSIS**

There are a wide array of mobile applications that are designed to help users plan their day and find local services (wireless internet, transportation) and places (coffee shops, book stores). Conducting a competitive analysis allowed us to explore key features of existing applications and to identify the ways in which currently available mobile apps are not meeting the needs of mobile workers. Below is a summary of the related apps that are available in the iPhone and Android App Stores.



nou	• 0.01114
	Nearby
٣ſ	Restaurants
Y	Bars
**	Coffee & Tea
Ē	Banks
	Gas & Service Stations
6	Drugstores
*	Check-In Offers
9	Deals & Special Offers
-	San Francisco Yelp Deal: \$17 for a Gourmet Food Truck Menu for Two (up
Nea	rby Check-Ins Search Bookmarks Mo







#### Yelp provides:

Reviews of local businesses Location-based recs Special offers Categorized listings

Coffee Spot Pro provides:

Locations of major chains and local businesses Ability to save favorites Location-based services



Q Address, City or

WiFi

Finder

WiFi Finder provides:

Listings for local wifi hotspots Offline access to location data Wireless provider and payment information

# **OPPORTUNITIES**

Examining these mobile applications exposed a number of opportunity areas for our mobile application, which is directly targeted towards mobile workers.

The available mobile applications tend to focus on one of two tasks: (1) identifying and locating services and businesses in a particular geographic area or (2) helping a user with way-finding to a destination. However, there are no applications that combine these two services in a way that supports planning a day in advance and accommodating unexpected changes throughout the day.

As a result, there is clearly an opportunity to develop an application that provides a targeted set of features to mobile workers that enables them to find relevant services and businesses based on their plan for the day.

Additionally, there is also an opportunity to distinguish between when a user is traveling between two destinations and when the user is at a destination, as this might change the types of businesses and services that he is interested in locating.

Maps+ provides:

Bagel Street Cafe 🕟

Route planning Directions and alternatives Recording past routes

Maps+

### USER RESEARCH

We conducted six informal interviews with mobile workers. The goal of these interviews was to learn more about their experiences and use of technology while traveling and working.

Our participants ranged in age from 21-54, used both smartphones (4) and feature phones (2), were from locations across the United States, and had a number of different occupations (educational consultant, journalist, letter carrier, wildlife monitor, and IT consultant). We asked our participants a number of questions, for example:

Please describe a typical day at work.

How often do you travel as a part of your job?

How far do you typically travel from your home base?

Could you tell us about any travel routines or habits?

What do you do to prepare for your workday?

What kind of cell phone do you use?

Do you use any route planning applications or web sites? If so, which ones?

What do you do during your downtime at work?

What are some examples of problems you have encountered at work?

#### RESEARCH FINDINGS

#### Most of our participants did not consider themselves to be "mobile workers" and were not familiar with the term.

The uncertainty conveyed by our participants indicates that we should consider alternative expressions to use in our application.

### Because most mobile applications focus on one particular aspect of work-related travel, they can be difficult to use on the go.

Participants indicated that they would prefer an application that provided a simple interface that was easy to use while traveling.

# Our participants talked about using a variety of different resources to help plan their day, including friends, coworkers, and review sites.

The advice that we receive from people we trust is often just as important as that which we receive from web services.

#### Though almost all of our participants spoke about having a schedule planned in advance, their schedule often changed unexpectedly.

Our application should accommodate sudden changes to a schedule gracefully and minimize confusion.

#### PERSONAS



#### Maxine Sanders, 28 Flower Delivery Person

Maxine works for a flower delivery shop in New York. She's been working at the flower shop for about six years, **delivering flowers** for most of that time. Her aging boss plans to retire soon, and she hopes to take over the shop. She recently started taking night classes in business at CUNY Hunter.

Maxine's daily routine involves **planning her flower delivery route in the morning**, and then spending most of the day out on her bike making deliveries.

Sometimes traffic is unusually good, and she runs **ahead of schedule**. She likes to use this time to finish some homework, but often she finds herself in an **unfamiliar neighborhood** and isn't sure where to find a place to work that has wifi or coffee.



Eric Sanchez, 23 Recent Graduate and Actor

Eric is a **recent college graduate**, having graduated three months ago after receiving a degree in Drama from UCLA. He is currently living with his parents in the suburbs, about 30 miles from Los Angeles.

As a young graduate, Eric is avidly pursuing acting auditions and attending dance and acting classes to hone his skills. As a result, he **frequently drives to different locations in Los Angeles** to go to auditions and his classes.

Because the auditions happen in a variety of locations around L.A., Eric **relies on his phone** to help him navigate to new, unfamiliar places. Additionally, Eric uses his phone to help him find healthy places to eat while waiting for auditions or his classes to start.



#### David Ganten, 32 Business Consultant

David is an experienced Solutions Architect and business consultant who has worked in Asia, Europe and across the United States. The nature of his job requires him to **travel frequently** to different places around the world. He loves traveling and discovering new places, and looks forward to his business trips.

As a result of his job, David spends a great deal of time in **unfamiliar locations**. When traveling, he uses the commute time to read on his Kindle. But once he's arrived at his destination, **he loves to explore, meet local people, and find interesting restaurants**.

He uses his **smartphone and computer to get recommendations** about where to go and to make sure he sticks to his work schedule.

#### **SCENARIOS**



#### Scenario One: Planning Your Day

Hugh Galbo, 43, is a realtor in Albuquerque, New Mexico. Today he has 3 houses to show across the city. His first showing goes very well, and his potential buyers are ready to discuss their terms. But because Hugh is fairly new to Albuquerque, he realizes he **doesn't know where to take his buyers** to have this discussion.

Although Hugh has a smart phone, he worries that it might seem unprofessional to his customers to look for a site in front of them. Hugh pretends he has a spot in mind, and instructs his potential buyers to follow him in their car. While driving, he uses the Yelp app to find the closest coffee shop, and heads there.

He realizes he should have **planned such meeting places before leaving the office**. Using Travelogue, Hugh would have been able to enter his itinerary in advance and later have access to a list of suggested places based on his origin, current location, and next appointment.



Scenario Two: Unexpected Changes

Emily is a freelance photographer who often shoots photos of events for the Pittsburgh Post Gazette. Because of the nature of her work, her daily schedule is often **a mix of scheduled events and spur of the moment unscheduled events**.

One day last week, Emily was scheduled to photograph three events in a small town 20 miles north of Pittsburgh. Unfortunately, when Emily arrived at her first appointment, her boss called to say that it had been moved to another location. Already late, Emily had to **change her plans** and drive to the new location.

Because she had not planned to be at this new location, Emily was unaware of what coffee shops and restaurants were in the area and had trouble finding a place to answer emails and send photos to her editor. Using Travelogue, Emily could have amended her schedule on the fly and found local shops in between her destinations.

## TRAVELOGUE DESCRIPTION

Based on our competitive analysis and user research, we decided that we would develop an iPhone app that combined route planning and service finding. Using our app, which we named Travelogue, users can plan out their day. Additionally, Travelogue allows users to select the types of services and locations they are likely to need both at their destinations and while traveling between those destinations. Using the iPhone's GPS, Travelogue will then tailor the recommendations and information presented to users on their current location, preferences, and travel history.

#### INITIAL WIREFRAMES

## **DESIGN FOCUS**

When designing Travelogue, our goals were to:

- Create a simple app with a clean visual aesthetic
- Gracefully support changes to users' schedules
- Provide concise and clear feedback to users

Below is a sample of our initial wireframes, developed using Balsamiq. The first wireframe shows the main page of the application. On this page users would be able to enter their itinerary and plan a trip. The second wireframe presents users with a text view of their itinerary and provides them with the option of viewing this itinerary as a map. The third wireframe shows a map view of nearby services. The fourth wireframe is a list of options for users in a particular area.



# WIREFRAME EVALUATION

After developing a full set of wireframes, we conducted three evaluations and collected feedback from participants about the design, organization, and features of the application.





# **REVISED WIREFRAMES**

We then developed a set of more refined wireframes based on the feedback we received from our evaluators. In particular, these revisions will help users by making it easier to understand the context of the information being presented to them, to find and adjust their preferences, and to navigate through the application.

These four wireframes show the process of entering an itinerary into Travelogue. More wireframes appear on the next page.



#### **REVISED WIREFRAMES**

This wireframe shows a user a map of their itinerary. Included in this visualization are two locations and the route between them. This wireframe also shows a control to set the exploration distance around each of these three areas. In this wireframe, Travelogue presents a user with relevant services and businesses in their search area. This wireframe is a list view of services. Each service name is presented with an icon to indicate its category, the distance from the user, and a star rating. This wireframe shows the settings page for the application. For each category, users are given the choice to select if they'd like to see results form that category when at a destination or when traveling between destinations.









# TRAVELOGUE DESIGN

The pictures below show several screens from Travelogue. The changes we have introduced reflect the feedback we received about the second group of wireframes and our earlier designs.



## COLOR PALETTE



# TYPOGRAPHY

The typeface for the logo is Melbourne.



The typeface for the main text is Helvetica Neue.

# ICONOGRAPHY



# ATTRIBUTIONS

Page 1: Running by Mark Ramsay, http://www.flickr.com/photos/neutronboy/4030001063 Page 4: flower stand by Marilyn M, http://www.flickr.com/photos/moomoo/101609526 Page 4: Untitled by Hunter Woodruff, http://www.flickr.com/photos/virtualhunter/6614409037 Page 4: lamp by Kevin N. Murphy, http://www.flickr.com/photos/knmurphy/3181182884 Page 5: Pro female photographer by Mike Baird, http://www.flickr.com/photos/mikebaird/3537334876 Page 5: Self-Affirmation through Real Estate by Bryan Costin, http://www.flickr.com/photos/bcostin/101701289