Parisian Flea™

A Paris Flea Market Guide

M3 - SYSTEM DESIGN

The Parisian Flea is a Paris Flea Market Guide designed to assist users in planning and scheduling specific flea markets that they intend to visit along with purchase tracking and social sharing. The system is a responsive design that supports both desktop and mobile. The applications currently available for this niche market do not support scheduling, purchase tracking or social networking. The proposed system design will support the following features: account creation, privacy setting, tagging options, market browsing and details view, adding favorites and note taking, shopping preferences and scheduling, market filtering, shopping list, purchase tracking, photo-gallery and privacy settings.

User Needs – Insights Revealed

Our user interviews revealed that all three users had various goals and expectations for their visit to the Paris Flea Market. Their planning styles ranged from very planned to semi-planned to not planned at all. One user was purely interested in exploring and experiencing the culture while another user was looking for ideas and inspiration for her business. Lastly, the third user viewed the experience much like a treasure hunt and wanted to do something different each day.

All three users wanted to be able to evaluate the markets as part of the planning process before hand, to view details, read reviews and mark as their favorite. They all wanted a way to remember where each market location was in case they wanted to return later. All three users stated that they did not want to get lost.

They all expressed the desire to socialize and share their experience with other travelers on the same trip. Recording purchases, remembering vendors and shipping things home were also primary needs.

Navigation support was a concern as well. They all expressed the need to locate cafes, bathrooms, places to rest and shipper locations. All within proximity to where they were going to be for the day.

TASK ANALYSIS

Understanding the Tasks

The task flows being implemented were created using a cloud tool called Lucidchart. https://www.lucidchart.com/

TASK: Planning
The most important task was the planning task. Users wanted to browse through the various markets to choose which ones to attend on a given day. They wanted to make selections based on a set of criteria that included: types of merchandise, proximity, public transit, walking distance, reviews, payment methods, shipping and translation services and flea market etiquette. Outside of weather and time of year to travel to Paris, market browsing and planning were two of the most important features.

Travelers were certain they would also need the following items on a daily basis: tape measure, measurements, pen and paper, shopping cart, shopping bag, shopping list, snacks, and water.

TASK: Navigation
The second most important task was the navigation task. Users wanted the ability to remember where they had gone so they could return to buy something later. They wanted to know what things were en route such as cafes, bathrooms, shipping services, points of interest, resting places, shopping cart rental, public transit, and proximity to other markets.

TASK: Preferences
The user group has varying shopping styles. They wanted to be able to filter the markets based on item preferences. They did not want to waste a lot of time looking if they knew they were not going to buy and ship anything substantial like furniture back to the US. Shopping by category with the ability to filter and prioritize choices was preferred. They wanted to research the markets and compare items, read reviews and narrow their choices.

TASK: Tracking
Vendor specific tracking included keeping track of the market location and business cards. They wanted the ability to mark a vendor as their favorite. They also wanted to be able to take a photo of the items that the vendor carried or a photo of an item that they purchased or wanted revisit later. They had the desire to compare items to other vendors.

Users wanted purchase tracking capabilities that include: recording receipts, keeping track of the cost of an item, photographing a purchase; recording details about a purchase, tracking their budget and calculating any duties owed.

TASK: Social Networking
The user group had the desire for a private social network to share common interests and to share experiences. They wanted to have a flea market buddy and or travel groups. They wanted to have tours and share transportation. The group should be private for those who want to remain private.

TASK: Concierge
We asked our participants if they would be willing to pay extra for a concierge service that was exclusive to the Paris Flea Market experience and was not part of the hotel concierge.

They responded unanimously “yes”. They would use the concierge for the following purpose: restaurant reservations, storage and or locker rentals, how to get somewhere, entertainment, museum trip, movies, on call messenger or courier and transportation.

V1: Proposed Features

Browse

- View markets by category and proximity
- View market details
    - History
    - Hours
    - Shipping services
    - Translation services
    - Reviews
- Mark as favorite
    - My favorite
        - The user can add a market to their favorites only if they have created an account. However, they do not have to have a trip planned to add a market to favorites.
    - Must go back

Plan

- Shopping preferences
- Choose travel dates
- Add market to Calendar
- Add stops along the way each day
    - Cafes
    - Coffee shops
    - Bathrooms
    - Shippers
    - Public transit
- Set reminders when store is getting ready to close

Join

- Login
- Privacy preference
- Add tags
- Shopping preferences

Purchase

- Add item
- Favorite vendor
- Take photo
- Add price
- Add vendor

- Add tag
- Share
- Add note

Potential breakdowns

Many breakdowns could occur while using this system. If the market is busy, the user may be pressed for time and find it difficult to take photos and or record their transactions or take notes of things to revisit later. They may also experience time constraints if the shippers were scheduled to pick up purchases. Language barrier may also present a type of constraint if there is not enough time to get translation help. Other breakdowns may include wanting to purchase something from a vendor that does not have a shipping service, or that is too large to carry. Some may need language assistance or a translator. There may be cases where the user wants more information on a place or item. Not knowing how to bargain or the flea market etiquette in France, medical assistance, unfamiliar forms of payment, where the ATMs are, money conversion, exchange value, information booth. Emergency phone numbers should be easily accessible as well.

Strengths

The strengths of the system include the ability to view the market listing along with market details, hours of operation, reviews. Icons for shipping, payment, and language assistance are provided as affordances as well. Users can plan a schedule based on the markets available on a given day. They can track purchases for business purposes, for sharing or future trips. Constraints will include providing only the most desirable features that are explicit to the Paris Flea Market experience, for example, flea market details along with tracking and shared experiences.

Weaknesses

Weaknesses include competition with disparate navigation tools, tracking, and social media tools that are familiar to the user. The app belongs to a very competitive travel guide genre and will require a smart marketing plan to gain membership and users.

The user group currently uses many different tools to plan and track travel and purchases. Given the explicit features that this app offers around shopping the Paris Flea Markets, it is preferred that as many of those related experiences be located within a single application for ease of use. The desire is to create artifacts internally as opposed to externally using other tools. For example; creating an agenda inside the app as opposed to externally using a calendar app. Recording and tracking purchases internally as opposed to externally. Using the internal GPS capability within the app so that favorites can be pinned and recorded internally as opposed to using Pinterest or some other social media. Sharing photos and shopping journeys internally as opposed to posting publicly on Facebook is the preferred experience.

The Google suite of tools such as Google Calendar and Google Maps can accomplish quite a few of these tasks as well as external review sites like Yelp, Facebook, Twitter, and Instagram.

These tools are popular tools for shared experiences. However, the embedded social network within the Parisian Flea provides a deeper layer of meaning and is more intimate. The people using the app are doing so for the same reasons as everyone else. They are exclusively experiencing the Flea Markets of Paris together.

Functional Requirements

For this design iteration, the focus is on the following tasks: Join, Browse, Plan and Track Purchases.

No Login Required
Browse
The user must be able to browse markets and view market details without joining the app.

Join
The user must be able to join the app, specify privacy setting and add tags.

Login Required
Favorite
The user must be able to pin a market and or vendor as their favorite and add notes.

Plan
The user must be able to create a shopping list.
The user must be able to filter markets based on item type.
The user must be able to view the markets by:

- Calendar view
- List view
- Map view

The user must be able to create a schedule and be able to:

- Add markets to schedule.
- Add points of interest, cafes and shippers to schedule.
- View schedule by day and or week.
- Map view of schedule.

Track
The user must be able to create and edit a vendor contacts list.
The user must be able to track their purchases against their budget.
The user must be able to take a photo and:

- Add to purchase gallery.
- Add notes to the photo.
- Attach purchase price and or receipt of an item.

Future

Concierge
The user must be able to order on-demand shipping and other concierge services.

Socialize
The user must have the option to connect with others and or create a travel group.
The user must be able to indicate the desire for a flea market buddy.
The user must have the option to share travel experiences and photos.
The user must be able to socialize items purchased internally or externally.

Membership
The user must be able to add on paid membership and services.

Design Space

Tradeoffs

Simplicity vs. Complexity
The high-level goal of the design is simplicity along with the sharing aspect of the experience design being first and foremost. The app has the potential to become quite complex. Conversations with users indicate that they are interested in the basics with a purpose to capture their experiences in a digital format, track their expenses along the way in addition to being inspired and to share.

Not a Travel Booking Tool
This system design is intentionally void of airfare and lodging booking capabilities and does not connect to apps that do. There are many competent tools out there that people are accustomed to using for this purpose. The Paris Flea Market Guide experience is designed simply for browsing the various markets then deciding to plan a trip and choose which markets to attend. Based on user feedback the desire to browse the various markets was a top priority.

Not a Facebook App
The system is not designed to provide a comprehensive social media experience either. The social component, designed for sharing additional information about markets; items purchased, pricing and other various conditions. Users are interested in sharing specific details about shopping experiences or experiences with neighboring points of interest.

Difficult to Implement
Advanced GPS
The custom agenda view is one of the most difficult requirements to implement requiring extensive knowledge of how to use Google's API. There are some basic mapping capabilities that are executable to the average developer and even designer. The system would need to pull GPS data from each market and point of interest that the user has indicated on their

daily agenda. In other words, this would be an entirely customizable mapping experience for the end user. Advanced GPS is not part of this first design iteration.

Advanced Social
The Socialize feature has dependencies as well. The experience is meaningful only if there are some people who have joined the app and who are having a simultaneously similar experience at the market in the same or relative timeframe. The social feature may also be just a history of people and what they have purchased similar to how you can see a user's bid history on Ebay. There are many shared experience capabilities in other apps on the market for reference. Some apps allow the user to see who is online "now" and or within the hour. This same feature is desirable for individual markets. On a given day, the user could see who was going to a specific market and then connect with them to discuss that market. Connecting a profile to a specific market would enable the user to see when a purchase gets made. The watchers of that market would get a ping that a particular item was purchased. It would then be displayed on a person's profile as well. The Socialize feature is not being implemented in this design iteration.

The Design

Justification Rationale
The design for Parisian Flea is a simple layered experience that follows the Android design patterns from the Google Material Design Language. The industry move toward universal design patterns is being influenced by Google's MDL primarily. A position in status formerly owned by Apple. While trying to understand the needs of the users it makes sense in a travel scenario that universally understood design patterns should be employed while still delivering a unique experience. The users primary need was to focus in on markets that interested them with a purpose to keep them from getting lost in such a huge marketplace. They want to be able to see where they are going and to connect with other travelers to share or get help at any given point in time. A sense of place is important to users in this context.

In the wireframe illustrations notice that MDL provides transitions and drawers that support layered interactions. There is an FAB (Floating Action Button) as well that allows the user to perform the primary screen task with ease. In this case, the favorite icon is being shown as the FAB on the market details view screen.

Use Case - Scenarios

Random Searcher - Most Interesting and Exciting Markets
Monelisa is planning a trip to the Paris Flea Market, and she wants to know more about the markets and the kinds of treasures that she might find on her trip. She browses through the markets and views market details such as location, store hours, reviews, along with types of merchandise. She continues to browse until she finds a market that she loves. She marks Antica Market as one of her favorites and writes a note that they carry vintage hats. She wants to visit this market because she collects vintage hats. Elisa marks her calendar to visit this market on the first Monday of her trip.

Focused Searcher - Time Constraints and Traveling Light
Tewillie is planning her European vacation and wants to spend a few days in Paris, France. Her time is limited, so she decides to spend one day at the Paris Flea Markets. She has recently developed a passion for flea markets and wants to experience as many as she can when she travels. Tewillie browses the markets and decides to plan a day trip. She plugs in the dates and views the markets available on her specified dates. She then filters the markets to display the ones that carry small art objects and vintage clothing since she has time constraints she has to stay focused, and she heard that the Paris Flea Market is enormous. Tewillie has a small apartment and plans to carry her purchases back home with her using a suitcase rather than shipping large items home. She continues to plan her market choices based on the points of interest in the area.

Organized Searcher - Business Buyer
Billyjo is going to the Paris Flea Markets to get inspiration for her retro clothing line. She is looking specifically for textiles and vintage fashion, jewelry and accessories. She does a search for markets that carry vintage clothing and vintage textiles then views the days that those markets are open. From there she plans her trip to these specific markets. Billyjo likes the fact that she tracks vendors and purchases while on her trip. She doesn't like to buy right away and likes to think about the things she is interested in to see if she wants to use something in her collection and then go back to purchase that item later. She thinks the app will keep her organized, so she knows who to revisit and to organize items for her clothing collection. She is also glad to know what vendors will ship her purchases for her.

Emerging Technologies
User feedback has been the primary source of inspiration for this system design along with Google's Material Design Language as the secondary source of inspiration. The organizational structure of the MDL is reminiscent to that of publication design and the modern art movement. The design principles incorporate grid technology and layering that delivers order and hierarchy to the user interface. The move toward universality in interaction design patterns makes a designer's job so much easier allowing more focus on content and the end user experience.

The adoption rate for Material Design is not only prevalent in the Android mobile market it is being translated into iOS and desktop experiences as well. MDL will soon become easily recognizable in user interface design much like Twitter's Bootstrap framework has been influencing the behavior, look and feel of desktop and mobile experiences for the past five years. JavaScript libraries such as jQuery and jQuery Mobile UI and content management systems like WordPress as emergent technologies have also left their mark on the period.

Google's MDL is nonetheless a seismic shift in design philosophy exceeding that of the debut of the iPhone user interface on June 29, 2007. The Twitter Bootstrap responsive framework introduced in 2011 and in 2014 saw a 60% increase in usage. Nearly every website and mobile experience on the market is a reflection of this influential rate of adoption. http://trends.builtwith.com/docinfo/Twitter-Bootstrap

Top designers are predicting MDLs influence will disseminate over the entire mobile ecosystem. MDL appears to be the move toward universal design. I consider MDL to be quite revolutionary having been in the design field for over 15 years. Style guides such as this were typically only available behind the closed doors of top brands. Google is pioneering the branded interface and the brand style guide. Since the launch of MDL many other corporations have released their design language as an OpenSource technology.

http://www.wired.com/insights/2014/12/google-material-design/

http://venturebeat.com/2014/06/27/top-designers-react-to-googles-new-material-design-language/

There are many innovators, and early adopters of Google's MDL given the launch was a little more than a year ago. Apple may become the laggards to say the least while taking hits from Forbes and Norman. Forbes states that Apple continues to lose market share. With Android having 77% of the market share is it safe to say that Google's MDL will be influencing the industry-wide mobile user experience?

Market share
http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/SB721-Models/SB721-Models4.html

Apple loses market share
http://www.forbes.com/sites/chuckjones/2015/05/07/apples-iphone-continues-to-lose-market-share-month-to-month/

Don Norman is very outspoken on this very issue of Apple losing focus on design.
https://www.linkedin.com/pulse/why-apples-products-so-confusing-ignore-design-don-norman

Mobile experts say that Google is raising the bar. "One of the more surprising mobile UX trends is that Google has become the standard-setter for mobile UX design patterns. Apple has been the standard bearer for years, but some experts believe the company has stumbled."
http://techbeacon.com/4-leading-mobile-ux-experts-talk-key-trends

Google's Material Design Language is revolutionary for designers who can wrangle some code but who are not front-end developers. Material Design Lite was created for that very purpose. There are no framework dependencies. Material Design Lite simply uses HTML 5, CSS3, and JavaScript. The components are provided as "vanilla" as Google refers to them so that they can be built into web pages and responsive mobile experiences quickly.
http://www.getmdl.io/index.html

Ethical & Social Implications

To make ethically based decisions regarding technology, situations with ethical implications must arise. Each decision a designer makes when designing a user interface has the potential to impact the lives of more than one individual. There are many ethical considerations when designing for technology. How much does it cost to maintain the data storage? What are the privacy and security issues surrounding this data and what are the implications if it were to be abused? What is the lifespan of this technology? Is there planned obsolescence or graceful degradation being considered?

Privacy and security are the biggest concerns for this application. Users have the choice to be public or private with what they share in the community. They also deserve to be confident in the purchasing of memberships or services in the future that the payment methods are secure as well. When the application retires or becomes obsolete, inform its users. Then give them enough time to download their data and photos before deleting them from the system.

Social Implications

When users post photos of vendors and write reviews about their experiences with various marketplaces, this will have either a positive or negative effect on the merchant. Reviews may also influence new visitors and repeat visitors either positively or negatively. The review site Yelp is an example where a bad review can cause some real damage to a retail establishment.

How exclusive does the online community need to be? How is this monitored? How do you keep just anybody from joining? What are the privacy preferences? Should the app restrict posting to Facebook and Twitter for safety reasons?

Conclusion

The Parisian Flea has been an exercise in designing for pleasure and enjoyment. The novelty of the design being exclusive to one's trip to the Paris Flea Markets is what makes this experience appealing. There is the anticipation that information collected while on a trip will be used again on a future trip, shared with others or be used to create new things for a business. These are the primary motivators that fuel this experience thus far. The Parisian Flea thereby becomes another surrogate social actor fulfilling the need for connection and sense of place that is prevalent in the landscape of digital experiences.