

Parisian Flea™

A Paris Flea Market Guide

M5 - Usability Study

Purpose

The purpose of this usability study was to evaluate the efficiency of some basic task flows related to browsing, planning and joining that are currently being implemented for the Parisian Flea mobile experience.

Goals

The primary goal was to determine if the user understands how to go about evaluating which markets to visit, how to filter the markets by categories, how to add a market to their schedule and how to mark a favorite.

The secondary goal is to determine if the user understands how to plan a trip to the market by specifying a date range then filter the markets for that date range then add the event to their schedule.

Tertiary goals include determining if the task flow to track purchases made sense as well as the shopping list task and finally the join task.

Summary

The Parisian Flea is an application intended for users who are traveling to Paris France to shop the Paris Flea Market circuit. This user experience provides a highly personalized service, unique with its cultural context along with features that enhance the enjoyment of shopping the Paris flea markets. Given recent media exposure to television programs such as The American Pickers and Flea Market Flip along with the rising popularity of French style and the DIY movement, flea markets have become a pop culture phenomenon.

Users

The users are primarily individuals who are interested in flea markets and secondly those individuals interested in flea markets in Paris explicitly. Potential users of this system range from flea market enthusiasts and Francophiles to designers and decorators to travelers seeking unique experiences.

Tasks

We will be testing the browse, plan and purchase tasks in this study.

Browse

Browsing first allows the user to look at all of the Paris Flea Markets in detail. There is a favorite icon that allows the user to designate a market as one of their favorites. This favorite feature also allows the user to add notes to the market. The user can also add the market to

their calendar by creating an event. The schedule allows the user to see what markets and other points of interest they are planning for a given day as well.

Browse - Add Favorite

- Browse markets
- Choose Antica Market
- View details
- Add to favorite
- Add note to favorite

Browse - Add Event

- Browse markets
- Choose Antica Market
- View market details
- Add event to calendar
- Choose times
- Set reminder
- Add event
- View schedule
- Change times for Antica Market
- Choose Antica Market
- View market details

Plan

If the user chooses to plan first, they begin by choosing the dates for their trip followed by an overview of the markets that are held during that week in a calendar view, list view or map view. The user can create shopping lists, add tags and filters so that the market selection is narrowed down based on their preferences. From there the markets can be added to the schedule.

Plan – Travel Dates

- Choose travel dates
- Show markets
 - Calendar view
 - List view
 - Map view
- View market details
- Add to calendar

Plan – Preferences

- Create shopping list
- Add tags
- Filter markets

Purchase

When the user makes a purchase at the market they can upload a photo of the item and enter the name of the item, name of the vendor, the price, add tags and notes. The photo icon clicks to the photo gallery within the app. The photo gallery houses images that were taken with the app camera. When clicking the camera icon the user can select photos from the gallery or take a new photo. Once the details for the purchased item are entered the user may collapse the row by touching the item row.

Purchases - Add Purchase

- Choose Purchase from the main menu
- Add a purchase
- Add details
- Add tags
- Add photos
- Choose from gallery
- Add note
- Collapse row

Evaluation Methods

In-person usability studies were performed on the Parisian Flea Mobile App in addition to an online survey. The purpose of the in-person component was to get a feel for the successes and pain points through direct observation of the user while interacting with the application. The purpose of the online survey was to explore general usability to determine if the terminology and affordances were intuitive. This hybrid approach was chosen so that the basics could be covered in the online survey and insights from the in-person dialog could be discussed further. The hybrid testing approach has provided a wide variety of responses given the time constraints.

Technique

Chalkmark by Optimal Workshop was used to perform this usability study. This tool can create a survey and upload wireframes that you can send to a target group for evaluation. The tool follows a task flow using a question asking format where the user then clicks on the wireframe to record their answer response. Multiple choice and text answers are available as well in pre and post survey questions. The results are plotted as a heat map, and raw data is provided in an Excel spreadsheet. The data presented makes it easy to see where success and problem areas are located.

Users

There were a total number of five participants in this study. Three of the participants were not familiar with the project, and the remaining two participants were from the original interview sample taken from the design research phase.

The usability participants who were new ranged from advanced mobile users to novice. All three had a general understanding of the trip booking task flows and list making task flows in

addition to scrolling views and various design patterns native to mobile applications. These new users were able to test basic usability that was not necessarily context driven.

The users from the design research sample provided a deeper level of usability insights that would only be gained from this demographic, those who would be using the application within the context.

Tasks and Questions

Scenarios

You have decided to visit the Paris Flea Markets next spring for your vacation. You heard that the Paris Flea Market was huge. You would like to have a tool to help you stay organized while at the markets. You search the app store and find the Parisian Flea. You download the app and take it for a test drive.

HEATMAPS

See Appendix B

1. Which button would allow you to create a schedule?
2. Which button would allow you to view the Paris Flea Markets?
3. Which button would allow you to create an account?
4. Choose the Antica Market.
5. Mark the Antica Market as your favorite.
6. In the favorites listing, how would you go about adding a note about the Antica Market?
7. Add the Antica Market to your schedule.
8. You want to narrow the market choices based on items you are looking for. How would you go about doing this?
9. How would you view all of the markets available on October 12th?
10. You have just added an event. Where would you go to view your schedule?
11. Where is the main menu located?
12. How would you go about adding a purchase?
13. You have added some details about your purchase. How would you go about adding tags?
14. How would you go about adding a photo?
15. You decide to add a note to the photo. How would you go about doing this?
16. You have just finished adding all of the details to your purchase. How would you close the row?

MULTIPLE-CHOICE

1. Choose browse from the home screen. In this view, there are many more markets available than what can be displayed on the screen. How would you expect to view all of the markets on this screen?

2. After reviewing the extensive list of markets, you decide to choose the Antica Market. How would you go about choosing Antica Market?
3. Choose Antica Market. How would you describe this screen?
4. Choose Plan Trip. You have entered your date range. The calendar displays a mask over your date range. What do you think the number icons in the lower right-hand corner of each day represent?
5. How many markets are available on October 12th?
6. How do you access the markets that are available on October 12th?
7. Some but not all of the markets are displayed on the screen for October 12th. How would you expect to view the remaining list of markets for October 12th?
8. How would you change the way the markets on October 12th are viewed?
9. From the list view choose Antica Market on October 12th and view the details screen. How would you add this market to your schedule?
10. Locate shopping lists and add a new list. Now that you have added items to the list how would you go about closing the list?
11. How would you go about removing a list or a list item?

SHORT ANSWER

1. Do you think a mobile app designed for this travel experience is useful?
 - a. Yes (100%)
2. What did you like about the Parisian Flea mobile experience?
 - a. The matching look and feel to "Paris," map view availability
 - b. Comprehensive in its goals and tasks.
 - c. One stop shop for this kind of app.
 - d. That it's easy to find the events for the day and add to the calendar.
 - e. That it is easy to define your purchases and mark them as memorable (picture, notes).
 - f. Looks like a blast!
 - g. Would help me get organized.
 - h. It is very feature rich.
 - i. I can look at the available flea markets on a day, which is helpful in scheduling a flea market for a day.
 - j. I can also track purchases, make checklists of things I want to buy and filter flea markets by the things I need.
 - k. The UI is very aesthetically pleasing.
3. Is there anything you would add or change about the experience so far?
 - a. Suggest markets based on items I am looking for... match me with markets... MarketMatch™
 - b. FAB buttons to have clear affordance for actions.
 - c. Use the long press to reveal additional actions.
 - d. Ensure that there is a quick over available for those who may not be as mobile/social media savvy.
 - e. Might want to be able to add notes to individual pictures.
 - f. Distinguish between a shopping list and a wish list.

- g. Add to schedule" looked like a tab instead of a button.
- 4. Would you be willing to participate in usability studies in the future for this application? (Yes, 100%)
- 5. Was there anything that was confusing?
 - a. Jumbled screen with lots of different things (too many interactive pathways).
Need to focus on task completion without distraction
 - b. Add to calendar action used a plain calendar icon for its starting point. I think the icon may be confusing as it could mean to go back to a calendar view. Perhaps use an icon that is a "plus" sign on top of the "calendar icon to denote that you are adding to a calendar.
 - c. My lack of knowledge in some of the mobile lingo caused me to struggle a little.
 - d. Not easy to see how to close a window
 - e. Starting to plan a trip was a little confusing, but it could have just been because of the screen I was at in the prototype. It was very clear how to start from the home screen (plan circle) and once I opened up the main menu.
- 6. How much would you be willing to pay for the app?
 - a. \$1.99
 - b. \$0.99
 - c. I wouldn't because of my low interest in the area.
 - d. \$20-25
 - e. Around upwards of \$25. If I'm going all the way to Paris and spending money at flea markets, this seems like a reasonable (low even) price to pay for an easy way to plan and keep track of my trip.
- 7. Would you be willing to pay extra for VIP membership, virtual tour guide or concierge service for this experience?
 - a. Click to call real time shopping suggestions.
 - b. Yes
 - c. I wouldn't because in my low interest in the area.
 - d. Or, pay \$5 for the app and then \$20 - 25 for VIP. I would define the VIP membership by the trip.
 - e. Concierge service definitely, virtual tour guide maybe, VIP depends on what it came with.

Testing Environment

The usability study was performed in a conference room with four of the participants. One participant came to the facilitator's home and performed the study at the kitchen table. The final participant performed the usability study online in Google Hangout.

Results

Qualitative Summary

All of the participants had a very positive experience with the application. One user said it was very feature rich, and another user said she could not wait to use it. The overarching usability themes that surfaced in each test case were focused on the ambiguity of the *trip plan* task and *add to schedule* task, unfamiliar icons, and the need for hidden view affordances. The advanced mobile users knew intuitively that long-press produced more options and tapping the row would close the item. The less advanced users struggled a bit with the Android design patterns. All of the participants agreed that a mobile app designed for this experience would be useful. Participants liked that the app was feature rich, was aesthetically pleasing, the goals and tasks were comprehensive, was easy to use and tracking purchases was particularly well received. A clever design idea surfaced as well called MarketMatch™, a feature that matches the user with markets that match their profile.

Quantitative Summary

Of the five users tested all of them understood where finger scrolling was need to view items that were obstructed. The long-press or finger tap questions were a way for me to gain an understanding the user's mobile mental model. I have since learned from my users that long-press is used almost exclusively for obtaining more actions. More than half of the users viewed what I refer to as a details view to be a map view. Again I was searching for the mental model and if the terminology was a factor here. Sixty percent of the users said the number icon on the day indicated the number of markets available on that day. Eighty percent of the users would tap the entire day to view the markets on that day as opposed to tapping just the number icon. Eighty percent of the users chose the calendar icon to add a market to their schedule. I was also looking to understand the users mental model about swiping to archive items. The multiple choice and heat map data collection has proved to be quite useful and aligns with my direct observations. The tasks that are below eighty percent have been allocated as high priority and will be reworked or fixed.

Heat Maps

The Optimal Workshop tool produces heat maps that provide information as to how successful the target and or target region of a particular action was. The majority of users hit the target or target region. A small percentage missed the target entirely. The lower numbers warrant investigation to see if the affordances and interaction patten can be improved upon. User feedback from raw notes and surveys will influence what features get redesigned.

Task	Hit Target	Hit Target Region	Missed Target
1. Create Schedule	80%	20%	
2. View Markets	80%	20%	
3. Create Account	60%	40%	
4. Choose Antica Market	60%	20%	20%
5. Favorite Antica Market	80%	20%	

6. Add Note to Favorite	80%	20%	
7. Add Antica to Schedule	60%	20%	20%
8. Filter Categories	60%	40%	
9. View Markets on Oct 12	80%	20%	
10. View Schedule	60%	40%	
11. Locate Main Menu	100%		
12. Add Purchase	80%	20%	
13. Add Tags to Purchase	60%	40%	
14. Add Photo to Purchase	80%	20%	
15. Add Note to Photo	60%	20%	20%
16. Close the Purchase Row	60%	40%	

Multiple-choice

This series of questions was designed to understand better the users familiarity with mobile design patterns, particularly Android Design Patterns. This questionnaire also revealed some confusion in the iconography that should be addressed.

Task	100%	80%	60%	40%	20%	20%
1.	Finger scroll					
2.		Long-press			Finger tap	
3.			Map view	Details view		
4.			# of markets	# of train stops		
5.	6 markets					
6.		Tap day			Tap number icon	
7.	Finger scroll					
8.		Tap			Long-press	
9.		Calendar icon			Heart icon	
10.		Tap			Long-press	
11.			Long-press		Swipe	I don't know

Recommendations

Recommendations are based on a summation of direct observations, heat maps, and surveys. The trip plan task flow needs to be reworked. There were enough indications that users were confused as to how to plan a trip. This usability study also revealed some new features that will be put on the backlog for future releases.

Usability Issue	Priority	Effort	New Feature
Plan Trip			
Change Plan Trip icon to suitcase. Make more obvious.	HIGH	LOW	
Iconography & Affordances			
Make number icon bigger and make entire day active	HIGH	LOW	
Add market icons to each day	LOW	HIGH	
Make icons in details view smaller	LOW	LOW	
Find new icon or other affordance for filtering categories	HIGH	MED	
Add affordance to view items that are out of screen display range	HIGH	LOW	
Add Open/Close list affordance. Move icon utility further down into list	HIGH	LOW	
Views			
Change the display of List View to horizontal Day View and make each day larger. Swipe or pan to left or right to view days of the trip.	HIGH	HIGH	
Task Rework			
Remove date range on all screens except for initial plan screen	HIGH	MED	
Use FAB to change market views	MED	HIGH	YES
Need to ad the behavior for Add Event button	MED	MED	
Scheduling and Planning tasks need to be revisited	HIGH	HIGH	
Work out 2 task flows for list making	HIGH	HIGH	YES
Work out 2 task flows for filtering	HIGH	HIGH	YES
Revisit archive action for list items. Long-press vs. swipe. Use FAB.	LOW	HIGH	YES
Other			
Index, legend or hover for details view icons	MED	HIGH	YES
Tutorial for novice user	LOW	HIGH	YES

Problems with test:

- Tried to test to many tasks.
- Need to have a prototype available to load on a mobile device.
- The blend of multiple-choice using a prototype outside of the survey required additional guidance from the facilitator.

Conclusion

My conclusion based on the data collected and my direct observations is that the plan task needs to be reworked to be more inline with common scheduling design patterns for mobile. The data in the heat maps indicate how often the users hit the same target. The multiple choice data provides a glimpse into the mental model of the user and how they relate to terminology used for mobile and within the app itself. I am surprised that I could learn so much with such little effort in a rapid usability study. I am also surprised that the users could see the value in the app and that it meant more to them than just a wireframe test.

Implications

The usability studies have had a major impact on my design. Not that the design idea or basic task flow will change as a result. It's more about the areas where improvement can be made for the 80% use case that is realistic to focus on.

I am continuously amazed at the insights gained from rapid informal usability studies. What I mean by rapid and informal is that they are done quickly using a variety of techniques and are treated more like guided conversations. There is something about the phrase usability and test that poses a threat to some.

I have resorted to using words and phrases for prototype testing such as *"try it out"* or *"test drive"* or *"get input or feedback"* to *"see how you like it"* as my empathetic way into the hearts of my users.

The most amazing thing for me is how many creative insights can surface from just a few short sessions. I feel good about this kind of work because I realize that it is about them and not me. If my users tell me about a better way to do something by all means, I am going to listen and give them what they want.

What I have learned is that usability studies are a compassionate response to the end user's need to experience something that they enjoy and want to use and not something that comes from my wants explicitly. My wants may drive the design initially however my users wants and needs supersede mine in the end.

Herein lies the reward...

Appendices

Appendix A

Direct-Observations.pdf

Appendix B

ParisianFlea-Heatmaps.pdf

Appendix C

ParisianFlea-Survey.pdf