

User Experience Design Research

USA Airlines

Mobile Application: A painless
boarding experience



The Plan



Description

USA Airlines have reinvented their responsive website and now they want to solve other pain points they've heard from customers. They know they have a lot to do to improve the boarding experience.

Challenge

Design a mobile end- to-end flow covering the customer experience from the moment they enter the gate until they exit the plane.

Project Goal

The overall goal is to define a mobile tool that will improve the customer experience when boarding an USA Airlines plane.

Research Objective

Discover and define the user's needs, and solve various pain points we've heard from customers. What needs to be done in order to improve their boarding experience?

Research Methodology:

- Conducted one-on-one interviews
- Competitive Benchmark Analysis
- Evaluating (Heuristics)
- Quantitative versus Qualitative
- Alternative Sources
- Design Principles

Customer Journeys and Omnichannel User Experience

“Nowadays, air travel is a lot more streamlined and enjoyable. When I am away from my computer, I still have access to tools like my smartphone and airport kiosks that help with travel-related tasks. However, the biggest reason for the improved air-travel experience is that airlines use these tools effectively.

They provide me with the right functionality to simplify my journey and, like a well-oiled machine, they successfully lead me through the entire travel process, from booking to boarding.

My customer journey with the airline started on the laptop and ended when I walked off the airplane.”

— KIM FLAHERTY,
User Experience Specialist with
Nielsen Norman Group

Contextual interviews

Individual sessions with users took place in person in various locations. Each session lasted up to 20 minutes and included a short briefing and an interview.

Participants

1. Xiao Chang
2. Hank Rearden
3. Catherine Deneuve

Script

Interviewing Questions

- 01.** How often do you travel by plane?
- 02.** When was the last time you traveled by plane?
- 03.** What was the airliner's name
- 04.** From where to where did you travel?
- 05.** What was the reason? Did you travel on business or for pleasure?
- 06.** How long was the flight?
- 07.** How long did it take to board the plane?

Script (continued)

- 08.** How was the boarding process/experience?
- 09.** Did you use a mobile device to board online, or in person, at the airport?
- 10.** Do you think online boarding through a mobile app will make a better user experience, rather than boarding in person at the airport? Why?

Script (continued)

11. What did you like about your boarding experience?
12. What didn't you like? What annoyed you the most about it?
13. How would you improve it?



Interview #1

Demographic Information

Name: Xiao Chang

Age: 20s

Ethnicity: Chinese

Gender: female

Occupation: college student

Home: Jersey City NJ resident

Xiao usually travels 5-6 times per year. The last time she traveled by plane was 4 months ago, using Southwest Airlines, traveling for pleasure from New York NY to Houston TX. Her flight took about 4 hours, and it took her about 1 hour to board the plane.

Her boarding experience was easy, she printed her ticket online chatting on mobile, did not use any mobile apps, preferred to use responsive website on mobile device via the Safari browser,

rather than downloading apps, having to log in and creating a profile.

She liked the ability to print her ticket online, no waiting. She also liked the airlines branding colors/friendly design.

She didn't like the seating procedure: first come first served, no assigned seats. Different groups, no control over seating. Couples may need to seat separately.

Her most pleasurable flying experience has been with Hawaiian Airlines, she liked their theme style experience.



Interview #2

Demographic Information

Name: Hank Rearden

Age: 50s

Ethnicity: American

Gender: male

Occupation: businessman

Home: New York City resident

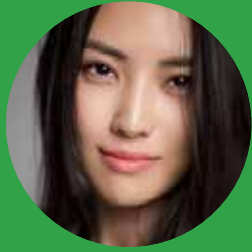
Hank usually travels 8-9 times per year. The last time he traveled by plane was 3 weeks ago, using JetBlue Airlines, traveling on business from New York NY to Palm Beach FL. His flight took about 3 hours, and it took him about 0.5 hour to board the plane.

His boarding experience was easy, however he had an awful experience buying his ticket online through Expedia. com. He ended up canceling his ticket and buying a ticket directly from JetBlue

via the phone. The JetBlue staff was courteous in handling his request in a professional manner.

He liked the boarding experience, very polite and friendly staff.

He didn't like the airliner's process of handling carry on bags, some bag compartments were already filled when he boarded the plane, making it harder to find available space for his carry on bag.



Interview #3

Demographic Information

Name: Catherine Deneuve

Age: 30

Ethnicity: French American

Gender: female

Occupation: interior designer

Home: Brooklyn NY resident

Catherine usually travels 3-4 times per year. The last time she traveled by plane was 3 months ago, using American Airlines, traveling for pleasure from New York NY to San Francisco CA. Her flight took about 6.5 hours, and it took her about 45 minutes to board the plane.

Her boarding experience was “acceptable”, she bought her boarding ticket in person at the airport’s kiosk. She prefers to buy a physical

ticket in person, rather than using a mobile website or app.

She liked the carry on bag attendance, the airliner's staff helping/assisting the passengers.

She thought the boarding experience took way too long, was not happy about waiting while boarding.

Her most pleasurable flying experience has been with Virgin Airlines, the flight attendants being so nice, creating a happy experience.

Interview takeaways

- What are some of the negative attributes?
- What are some of the positive attributes?
- What is one of their key differentiators?

Based on the three contextual interviews the insights I gathered are that all three participants were not quite happy with their flight boarding experiences. None of the participants use mobile apps for any of the boarding stages, including buying their boarding ticket.

All three participants like the “live” boarding airliner’s staff attendance.

One of their key differentiators is that each of the three participants preferred use a different way/venue for purchasing a boarding ticket.

Conclusion: the interview takeaways

Participants were rather reluctant to using a mobile app for their flight boarding. They preferred using a more “traditional” way, such as chatting via a mobile responsive website, using a third party desktop website, or even purchasing a boarding ticket in person at the airport’s kiosk.

Main pain points for people being disinclined to use a mobile app as their flight boarding experience: they have to download the app.

Once the app has been downloaded, they need to register and log in. Afterwards they need to create a profile. This process takes time, and also it requires the user to input their personal/private information. It would only be beneficial to a “frequent flier”, a person who flies many times a year, using the same airliner.

Another disadvantage for using an app is that the user will always be hit with unsolicited ads and offers from the actual airline company, or from third-party merchants.

Research finds that most apps are used only once, or very rarely.

“New research on mobile behavior released today points to the growing struggle that app businesses face in establishing themselves as a must-have download on users’ smartphones. Today’s consumers are spending over 85 percent of their time on their smartphones using native applications, but the majority of their time – 84 percent – is spent using just five non-native apps they’ve installed from the App Store.” — techcrunch.com

How can we design a mobile app that would solve some of the user's pain points, and create a better experience?



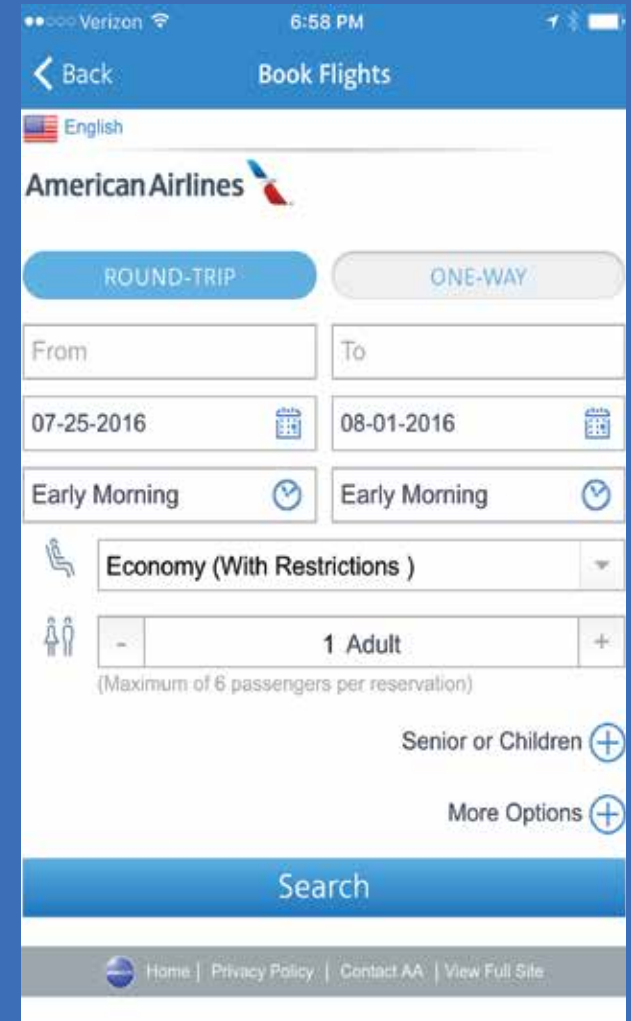
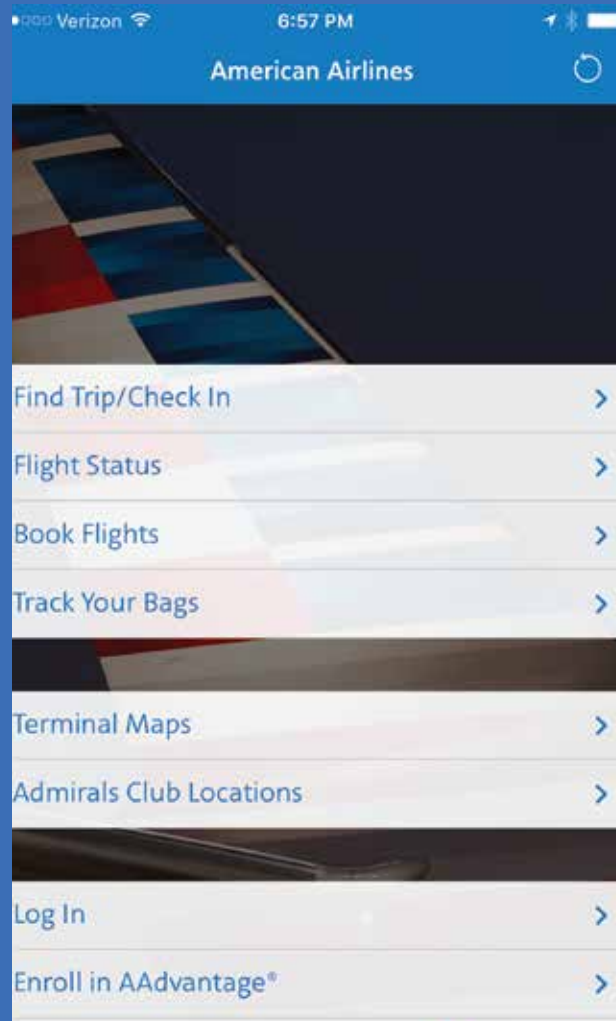
Competitive Analysis

Competitors (from broad to narrow)

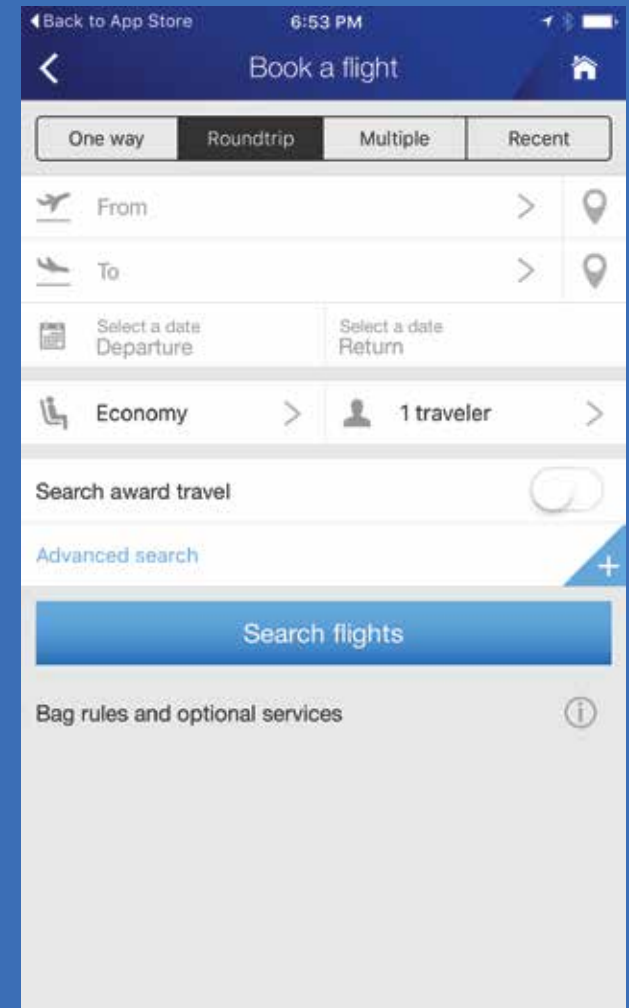
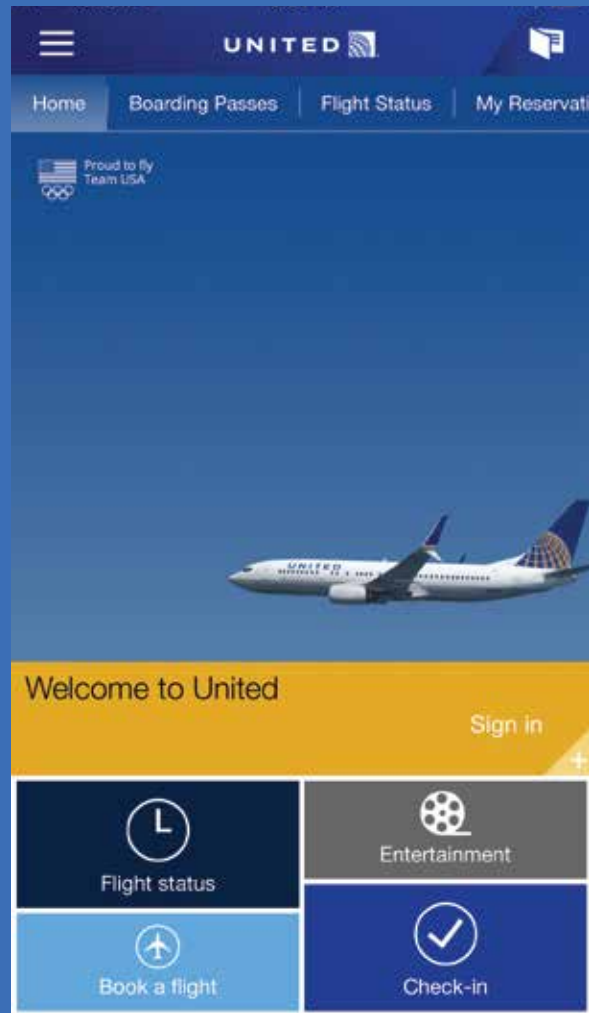
01. American Airlines

02. United Airlines

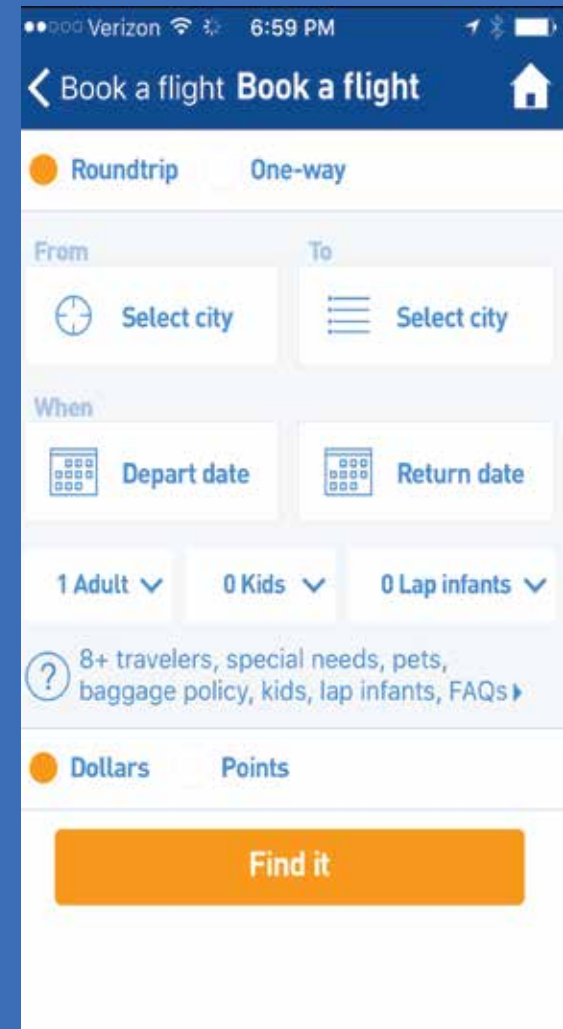
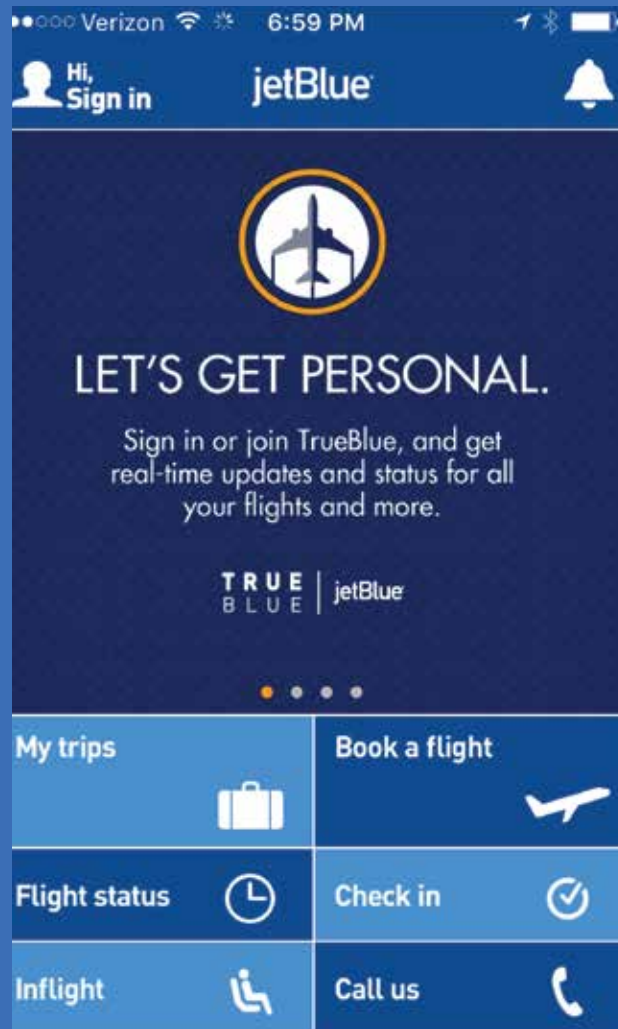
03. JetBlue



American Airlines



United Airlines



JetBlue

10 Psychological Usability Heuristic Checkpoints (Susan Weinschenk)

- 01.** People don't want to work or think more than they have to. Does it use progressive disclosure?
- 02.** People have limitations. Is content scannable?
- 03.** People make mistakes. Is it easy to undo an error?
- 04.** Memory is complicated. Does it require users to remember things from one task to another?

- 05.** People are social. Can users look to others for guidance or recommendations?
- 6.** User's attention is grabbed and held in the right moments, and isn't distracted in others.
- 07.** People crave information. Does the system provide more info to users when they ask for it?
- 08.** Unconscious processing. Are users required to take a small action before a larger one?
- 09.** People create mental models. Does the site fit common nomenclature and mental models?
- 10.** Visual System. Is the design uncluttered and aesthetically pleasing?

Work in Progress: More to come...



Thank you for your time.

