What are the biggest air travel problems?

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Design Challenge
Delta Airlines
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How do people use air travel?

I'm going to take this approach for finding the biggest problems.

4 step process:

1. Research problem areas
2. User Profiles
3. Goals
4. Prototype and Test Product Concept

Research Problem Areas

Questions/details to assess problem areas:

1. Customer interviews?
   a. Interviewed 6 people on biggest travel concerns
   b. Separated by age
      i. 1 in 0-18 years old, a 17 year old high school student
      ii. 3 in 19-50 years old, a 26 year old stewardess, 33 year old French chef, 36 year old Chinese startup CEO
   iii. 2 in 51+ year old, 52 year old hair stylist, 65 year old retired grandfather

6 Customer Interviews by Age

- 0-18 years old
- 19-50 years old
- 51+ years old

16.7%

33.3%

50%
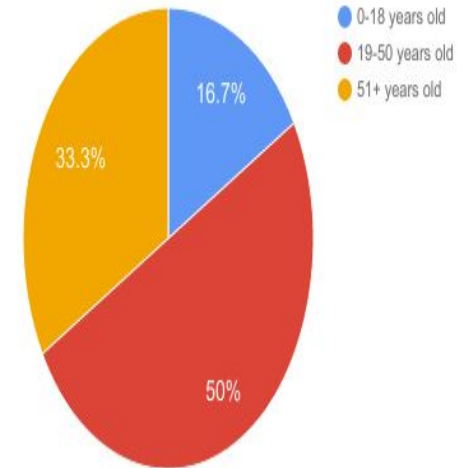
Product Purpose for Problem Areas

From research, we can create a product to fulfill 2 problems of concern from 6 customer interviews:

1. Missed connecting flight (100% or 6 were concerned)
   a. Federal Aviation Association (FAA) also did a survey and found this to be one of the top customer concerns while traveling
2. Bags are lost at end of transit (66% or 4 were concerned)
   a. International Air Transport Association (IATA) Economics reported this as a common complaint

Top Travel Concerns by Age

0-18
19-50
51+

Missing connecting flight   Lost Bags
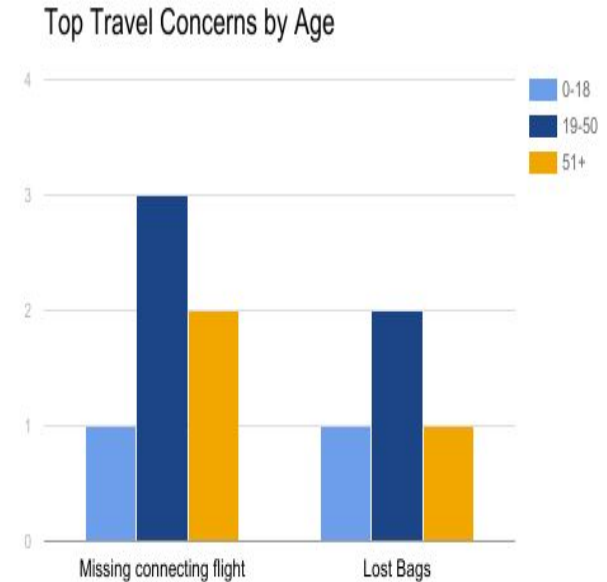
User Profiles for missing connecting flight

1. 17 year old high school student
   a. He is frustrated with short connection windows since he really doesn't like to be rushed
2. 26 year old stewardess
   a. She hears this complaint often from travelers and thinks technology can help alleviate concerns
3. 65 year old retired grandfather
   a. He is handicapped and avoids making non-direct flights to not have this trouble

User Profiles for bags lost at end of transit

1. 33 year old French chef often takes unique spices is concerned that they will be lost and they are expensive to replace
2. 36 year old Chinese startup CEO carries hardware demos while traveling to customers and is concerned demos will be lost

Goals

Address concerns of customers through better technology & customer service

Some themes to follow relating to forming product ideas:

1. Transparency
2. Easy to use
3. Fair for customers
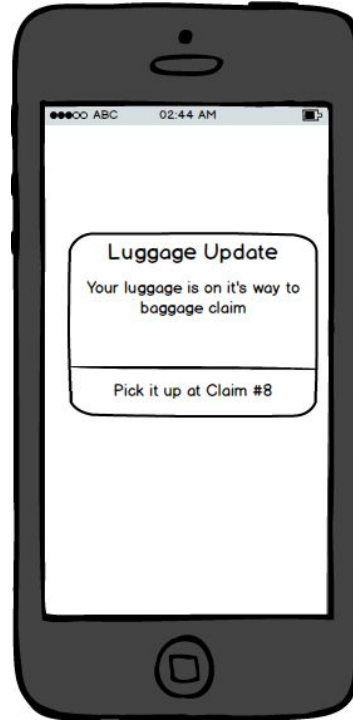
Prototype and Test Product Concept

Product Ideas

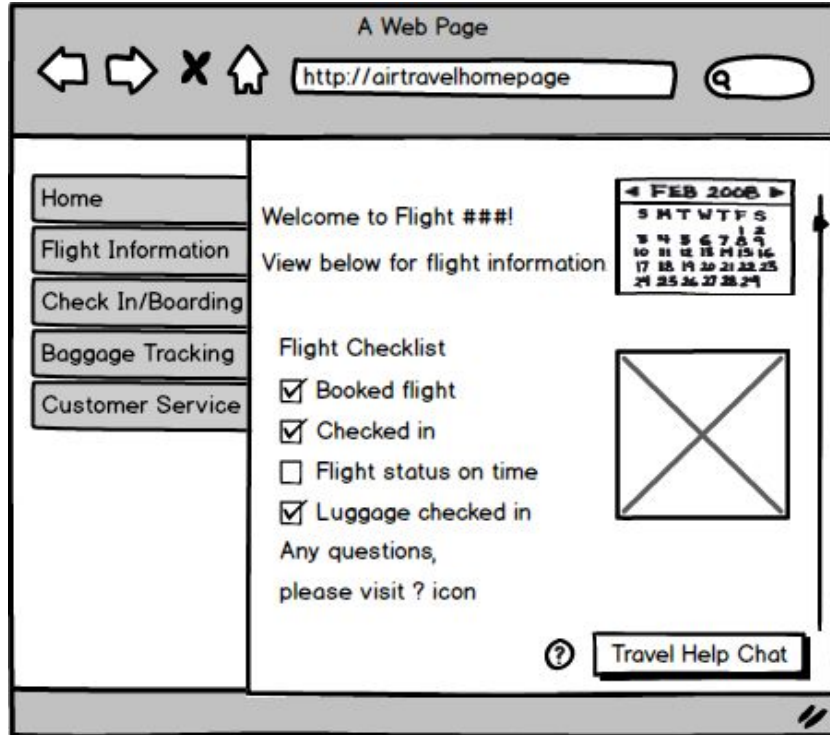1. Mobile app solutions
    a. Track real time flight times
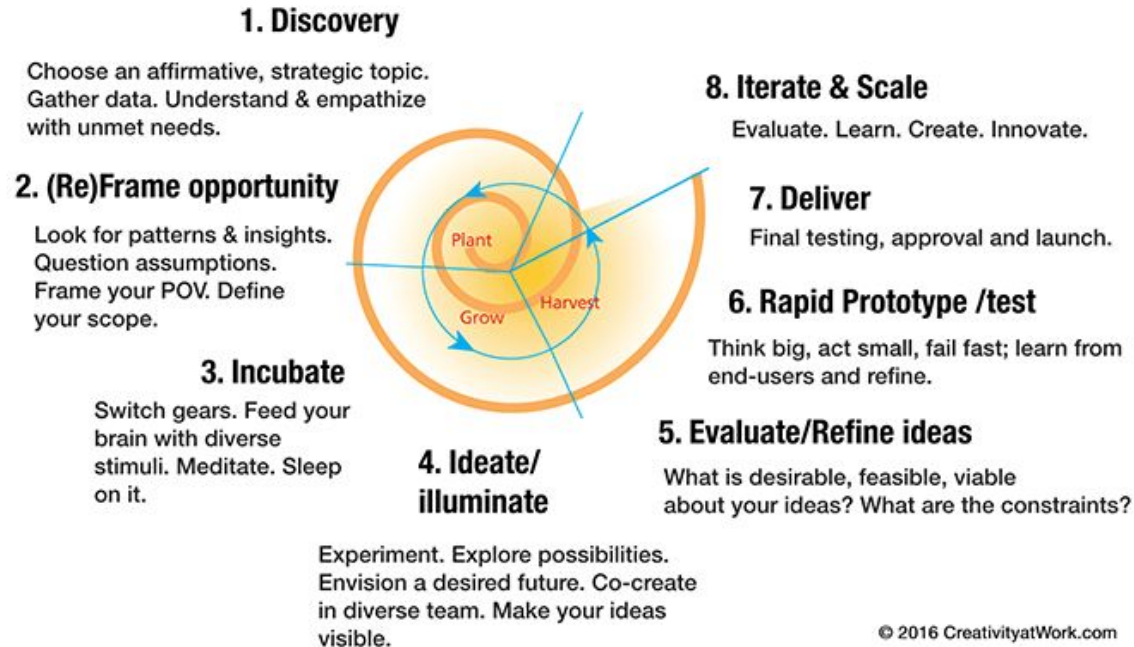   b. Map of airports to reach next flight the fastest
    c. Instant notification/call for flight delays, bags lost, bumped off flight, etc.
    d. Tradeoffs with mobile app
        i. Pros - On the go and convenient, can provide many features
        ii. Cons - Smartphone dependent, requires good design and development
2. More solutions...

Design ideas (Web, Mobile - push notifications & Siri)

Backup: Design Thinking

1. Discovery
Choose an affirmative, strategic topic. Gather data. Understand & empathize with unmet needs.

2. (Re)Frame opportunity
Look for patterns & insights. Question assumptions. Frame your POV. Define your scope.

3. Incubate
Switch gears. Feed your brain with diverse stimuli. Meditate. Sleep on it.

4. Ideate/ illuminate
Experiment. Explore possibilities. Envision a desired future. Co-create in diverse team. Make your ideas visible.

8. Iterate & Scale
Evaluate. Learn. Create. Innovate.

7. Deliver
Final testing, approval and launch.

6. Rapid Prototype /test
Think big, act small, fail fast; learn from end-users and refine.

5. Evaluate/Refine ideas
What is desirable, feasible, viable about your ideas? What are the constraints?

Plant
Harvest
Grow

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Backup: Product Principles

Define principles to address purpose to fulfill 3 needs:

1. Transparency
2. Easy to use
3. Fair for customers

Backup: Research Problem Areas continued

Questions/details to assess problem areas:

3.   Industry analysts
     a.   Federal Aviation Administration (FAA)
     b.   International Air Transport Association (IATA) Economics
     c.   R.W. Mann & Company Consulting
     d.   Oliver Wyman
4.   Market & Technology
     a.   Slow integration of new technology
     b.   Many existing problems still not resolved across the industry

Backup: Missing connecting flight

Questions to consider

1. What are the main causes to missing connecting flights?
    a. Tight scheduling (less than 2 hours between flights)?
    b. Booking through multiple airlines and harder to accommodate once missed?
    c. Weather issues usually force customers to take care of accommodations.

Backup: Bags are lost

Questions to consider

1. What are the main causes for bags being lost on flights?
   a. Bags not tagged properly.
   b. Tracking errors during transit.

Backup: Design or improve product steps

Type 1: Designing a product
- Ask questions to understand the problem
- Provide a structure
- Identify the users and customers
- What are the use cases? Why are they using this product? What are their goals?
- How well is the current product doing for their use cases? Are there obvious weak spots?
- What features or changes would improve those weak spots?
- Wrap things up?

Type 2: Improving a product
- What is the goal of the product?
- What problems does the product face?
- How would you solve this problem?
- How would you implement these solutions?
- How would you validate your solution?