

What are the top authentication problems?

Elia Ahadi
Product Manager Candidate
Capital One
March 8, 2017

What are the top 3 issues with user authentication in an app?

I'm going to take this approach for finding the biggest problems to write the product requirements document (PRD).

5 step process:

1. Research problem areas
2. User Profiles
3. Product Principles
4. Prototype and Test Product Concept
5. Feature Prioritization

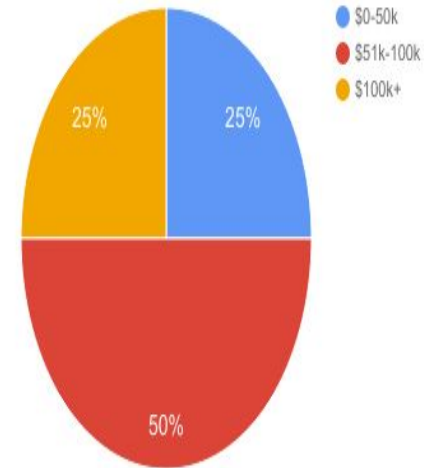
Research Problem Areas

Questions/details to assess problem areas using mutually exclusive collectively exhaustive (MECE):

1. Customer interviews?

- a. Interviewed 4 people on biggest travel concerns
- b. Separated by salary
 - i. 1 person in \$0-50,000 USD, a 53 year old janitor
 - ii. 2 in \$50,000-100,000 USD, a 34 year old saleswoman and 24 year old museum curator
 - iii. 1 in \$100,000+ USD year old, 26 year old design engineer

4 Customer Interviews by Salary

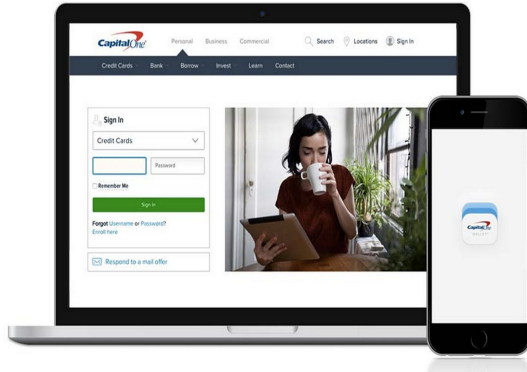


Product Purpose for Problem Areas

From research, we can create a product to fulfill biggest problem of concern from 4 customer interviews:

1. Trust in security (100% or 4 were concerned)
 - a. All 3 salaries ranges were worried that data can be corrupted or hacked since the authentication may not be strong enough
 - b. Other minor concerns were considered such as number of screens, detailed instructions, customer service help and phone compatibility for authentication were not as important factors

User Profiles for authentication



1. \$0-50k
 - a. Janitor wanted detailed onboarding yet easy to use interface
2. \$50-100k
 - a. Both saleswoman and curator wanted something simple but able to contact customer support quickly if needed for any concerns
3. \$100k+
 - a. Design engineer wanted simple also and have everything customer may need right in app as opposed to contacting customer service

Product Principles

Address concerns of customers through better technology & customer service

Some themes to follow relating to forming product ideas:

1. Transparency

- a. Let customers know any issues and that their money is fine when there is a software issue internally

2. Easy to use

- a. Understand the balance to have the right number of screens to authenticate to gain a user's trust regardless of tech savviness

Prototype and Test Product Concept

Product Ideas

1. Digital mobile app solutions

- a. Bypass security questions when logged in their own device
- b. Email user when account is logged in from device not their own
- c. Push notify user when any account activity occurs
- 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

- a. Non-digital
 - i. Customer service representative providing any information via a printout, or phone call
- b. Digital
 - i. Web
 - ii. Wearables

Feature Prioritization

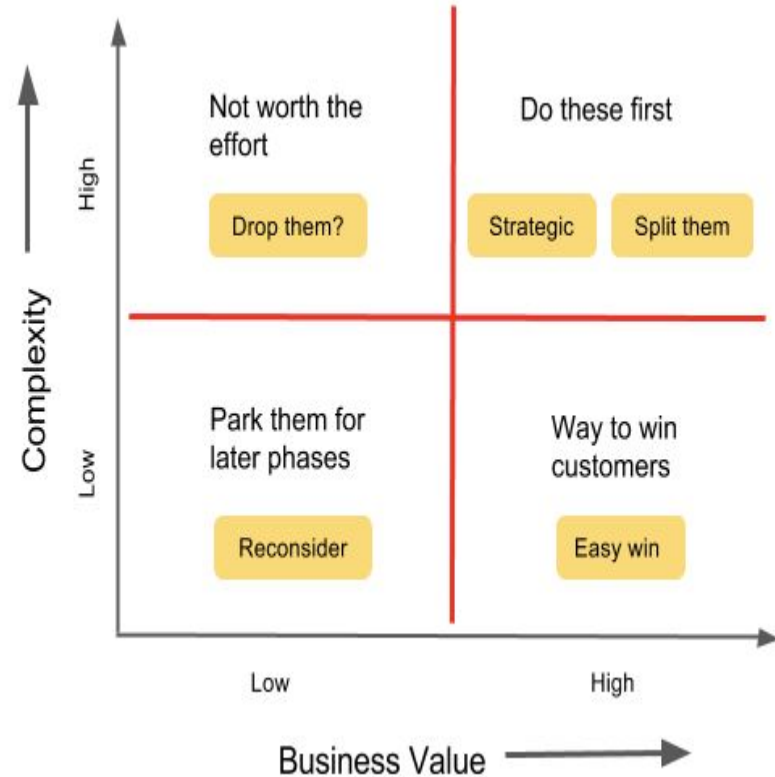
Follow approach of Value vs Complexity (Kano model) from customer interview and market research data for top features

Feature #1:

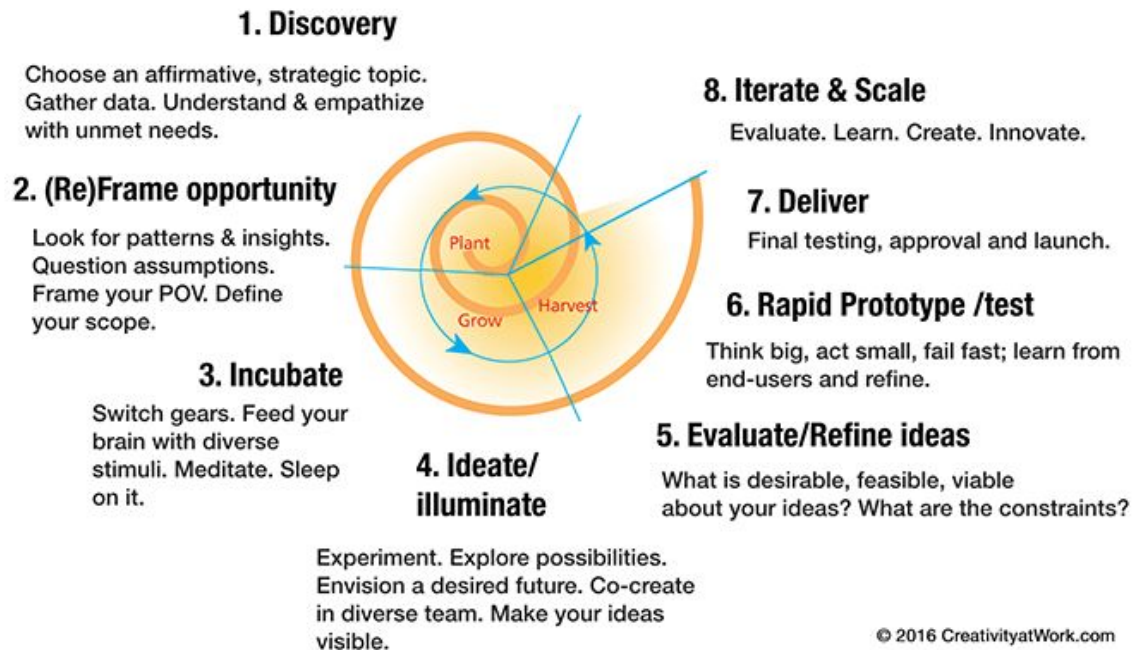
- Bypass security questions when just using own device

Feature #2:

- Email user when account is logged in from another device not of their own



Backup: Design Thinking



Backup: Product Principles

Define principles to address purpose to fulfill 3 needs:

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

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?