

Scam Prevention

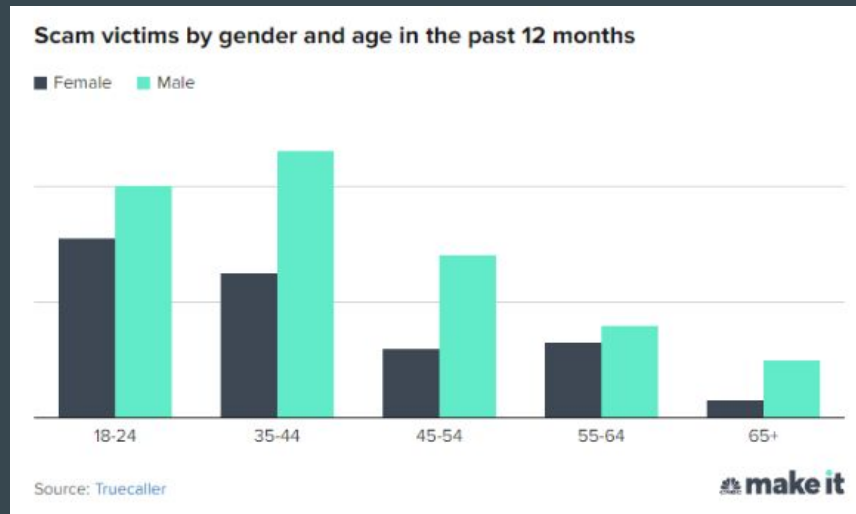
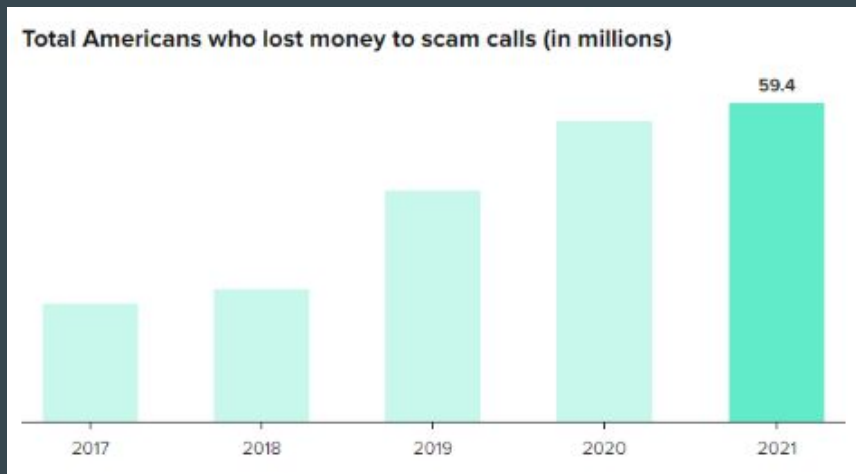


Group 3

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Overall Problem

- Millions of people fall for scams every year
 - In 2020, a study found about 1 in 10 of all elderly people fell for some kind of financial scam (source: <https://www.comparitech.com/blog/vpn-privacy/elder-fraud-by-state/>)
- Scams are becoming more and more realistic
 - About 50% of all individuals contacted by a scammer engage with them (source: [https://legaljobs.io/blog/scam-statistics/#:~:text=In%20the%20US%2C%20one%20in,%2C%2085%25%20are%20over%2065.\)](https://legaljobs.io/blog/scam-statistics/#:~:text=In%20the%20US%2C%20one%20in,%2C%2085%25%20are%20over%2065.)))



Design Research

Contextual Inquiry with SIUE Student

- Observed a student interacting with a scam email.
- For scam-aware people, email scams are more of an annoyance than a threat.

Interview with BofA employee

- Interviewed an employee in the cybersecurity sector.
- Scams can happen to anyone and are more often than you may think.

Interview with a scam victim

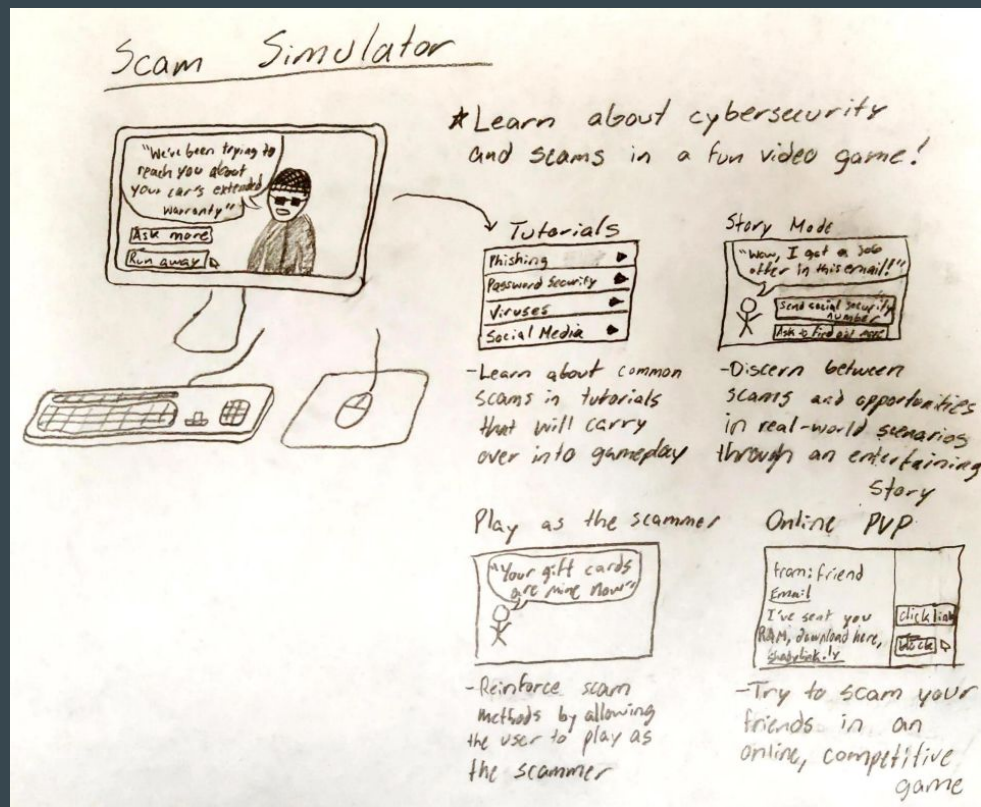
- Interviewed a victim of an IRS scam.
- Some scam victims may not recognize they have been scammed.

6 Tasks

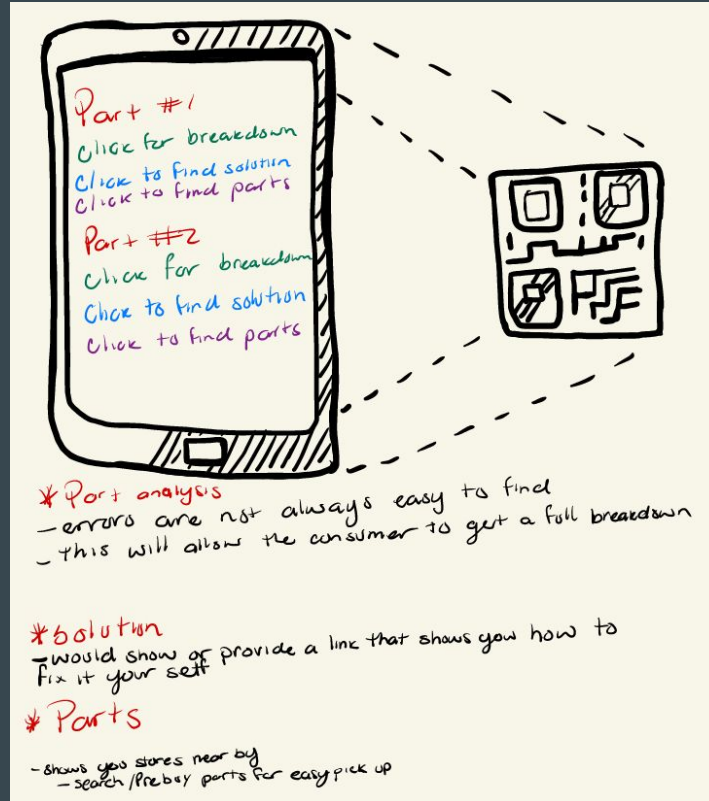
1. Answering the phone safely
2. Using an ATM Securely
3. Finding the right download link
4. Determining if a message is suspicious
5. Keeping private information private
6. Protecting yourself as a consumer



Design 1: Scam Simulator



Design 2: Shopping App



Design 3: Scam Blocker

Scam-blocker - A set of tools to detect and prevent digital scams

Settings:

<input checked="" type="checkbox"/> Email detector
<input checked="" type="checkbox"/> Phone number blocker
<input checked="" type="checkbox"/> Pop-up blocker
<input checked="" type="checkbox"/> Security rating
<input checked="" type="checkbox"/> Password check

- Control which tools are enabled

Pop-up indicator:

warning: your device has a virus!	This window is suspicious, Close safely
Enter password	

- Detects popups, and allows user to close window without interacting with popup

Email Scam Blocker:

Email	You've won!
Scams	Claim your \$500 at this link. www.shadylink.de
	This email is a scam Block Remove

- Prevents users from interacting with scam emails

- Allows user to determine what is done with message

Security rating

Your rating is: 7/10
You could improve in the following areas -
• ~ ~ ~
• ~ ~ ~

- Tracks user actions and rates security

Phone scam indicators

Call from: Likely Scam
Block
Answer
Decline

- Indicate if the user receives a call from an unknown/suspicious phone number

- Allow the user to decide to answer or block

Password Checkers

password: ****
This password can be broken in x minutes.

- Makes user aware of password security

Decision: Scam Blocker

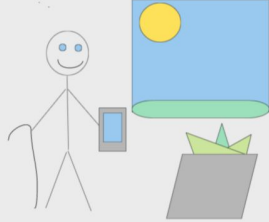
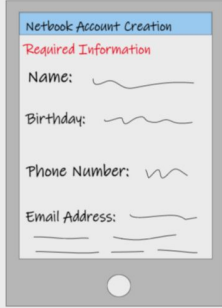
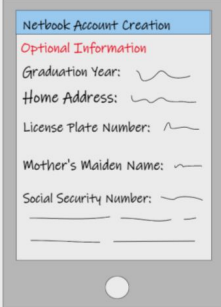

- This design addresses the most tasks, and is the most straightforward solution to the problem we are trying to solve.
- Requires the least amount of effort from the user.



Storyboard 1: Determining if a message is suspicious



Storyboard 2: Keeping private information private

	
<p>Bob, an elderly man who isn't that tech savvy, wants to set up a new Netbook account using his tablet</p>	<p>First, Bob fills in the info that is required in order for him to make an account</p>
	
<p>Next, unassuming old Bob begins to fill in the optional information, too, since he wants his account to be nice and filled out</p>	<p>Our anti-scam software suite recognizes that the form is prompting the user for sensitive information, and lets the user know that it might be dangerous</p>

Questions



Contributions

- Sam H. - 25% Presented half the slides and helped set up the presentation
- Chase W. - 25% helped with interview slide
- Justin P. - 25% Presented half the slides and worked on the BofA employee slide.
- Jose B. - 25% helped format the slide and timed us.