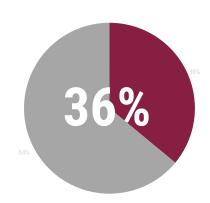


# Inbox Investigator: a Tool for Privacy/Security Education

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### **Problem and Context**

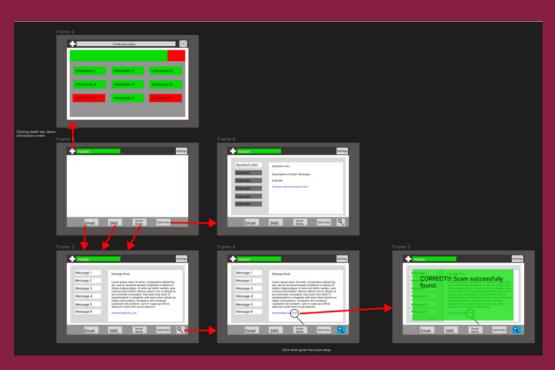


of all cyberattacks in the U.S. are phishing attacks [1]

- College students do not know how to correctly identify potential privacy threats and dangers
- People 18-25 are the most likely age group to fall victim to cybercrime [2]

### **OUR PRODUCT**

Inbox Investigator is a simulator that aims to teach users how to recognize the signs of phishing emails. Users are presented with an inbox with a number of emails they must open, read, and decide whether or not is a legitimate, safe email, or a phishing/spoof email.



- Users will learn through trial by error after a brief tutorial
- Users "win" by sifting through all of the emails without losing all of their health
- Health is lost by clicking on or indirectly identifying phishing clues
- A bank of clues to look out for is at the user's disposal to reference back to when needed

## **Design Process**

## **Engineering**

- Used GameMaker to build the game; Godot
- GitHub for version control

## **Functional Requirements**

- "Health bar" to track player mistakes
- A Detection mode that allows users to identify clues within apps
- A pop-up window that indicates users have been scammed when they click on compromising content.
- Reference handbook that records reported scam tactics (Scam Dex)

#### New Scam Email your package is on the way! ing-services@bestbvv.com **shipping-services@bestbvy.com** To: joesmoe20@vt.edu Cž 👨 package is on the way! /alued Customer, We are writing to infor... Dear Valued Customer, :e@paypal.com offer to save \$5.00 at Ta... We are writing to inform you that your order has ben confirmed! noe, pay with PayPal by Friday, October... Order No. 9000X9237BY746328 MacBook Pro 2023 2TB: \$3.528.89 er Festival (@SoccerFest... Sales Tax: \$176.45 cerFestival: Don't miss out on our Sunda... Total: \$3705.34 If you didn't authorize this Charge, you have 24 Hrs. To cancel and get an instant refund of kend Game Tailgate the purchase, please provide your payment information and account details on the refund form at refundweb.bestbvy.com. I, We will be tailgating with the CS depa.. Thank you, BEST BVY Clicking on the link will reduce Health ts Analytics Role: Active R... (compromise personal information) escription: VT Sports is looking for a new.

### **User Evaluations**

#### Good

- UI is clean and well-designed
- Idea is intuitive and effective as a learning tool

## **Room For Improvement**

- Tutorial should be more comprehensive
- It can be easy to get stuck
- Scam clues seemed a little inconsistent

# **Future Implementations**

- Add the social media and text tabs
- Adda hint tool
- make the dex more interactive/available

# References

[1] J. Rushton, "50+ phishing statistics you need to know - where, who & what is targeted," Techopedia statistics#:~:text=Phishing%20Statistics%20Highlights,to%20the%20FBI%20in%202022 (accessed Sep. 8, 2023).

[2] E. editorial staff, "Younger people more likely to fall victim to cyber crime, survey finds," RSS, https://eandt.theiet.org/content/articles/2021/11/younger-people-more-likely-to-fall-victim-to-cybercrime-survey-

finds/#:~:text=Younger%20people%20more%20likely%20to%20fall%20victim%20to%20cyber%20crime%2C%20survey%

By%20E%26T%20editorial&text=Younger%20individuals%20aged%2018%20to,a%20study%20by%20Atlas%20VPN (accessed Sep. 8, 2023).