BACKGROUND

- The use of mobile devices, particularly smartphones, has skyrocketed in the past few years, resulting in a surge in cyber threats for phone users.1,7
- Mobile devices are fundamentally different in functionality to desktop PCs and other computers, which can make mobile users more vulnerable.5
- Most studies have focused on the technical models of resolving cyber threats with advanced techniques, with minimal consideration for end-users’ usability.11

PURPOSE

Our project focuses on the specific cyber dangers present for mobile devices and phones, with the goal of raising awareness and presenting safer ways for using said devices.

Through a literary review, we hope to find up-to-date cyber threats to mobile devices and methods of communicating this information to the public in an accessible way.

METHOD

Databases: Google Scholar, IEEE, MDPI

Keywords: mobile devices, cybersecurity, threats, cybersecurity education, smartphones, mobile apps, education app, mobile network security

Number of Articles: 28 initial identified articles, 10 identified as presenting a problem and potential solution(s) for Public Awareness or a new Cyber Threat

Analysis: Reading through the 10 included sources, we identified potential ways mobile device users could be vulnerable to cyber-attacks and existing efforts to raise awareness about such risks.

Inclusion Criteria: The studies incorporated in this analysis addressed cyber threat concerns and provided viable solutions to mitigate their effects.

RAISING AWARENESS VIA EDUCATIONAL APPS

- Several of the articles6,8,9 found that developing apps were the best way to quickly teach about cyber safety.
- By gamifying tasks, including creating tasks to complete, quizzes to take, and scores based on how well they did can engage the user compared to less interactive means of learning such as lectures.6
- It was found that the respondents were aware of theft as a threat, but the more virtual threats such as malware and spyware were less familiar to respondents.
- Users were also familiar with the more basic security measures like a pin password compared to a VPN.8
- After using the apps, users were found to have improved understanding on how to identify malware.9

IMPACT

As more and more potential modes of attack are developed for mobile devices, the public awareness of the danger has lagged far behind.

Creating ways to teach people about the risks specific to the most commonly-used technology today is necessary.

As mobile devices are replacing credit cards, carry important personal data, and can even control the appliances in a smart home, the public needs to understand how to stay safe when using their smartphones.

By creating apps that can teach cyber safety in an understandable way, it can bridge the gap between cybersecurity professionals discovering new vulnerabilities and the average user who is most at risk.

REFERENCES


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