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## Cybersecurity for Everyone App

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Chantel M. White



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Proposal

As the world continues to progress towards an increasingly digital society, cybersecurity threats to include malware, phishing, spear phishing, adware, zero-day exploit, advanced persistent threats, and ransomware to name a few, continue to grow in scale and magnitude. Everyone with a mobile phone is a player, whether they would like to believe so or not. In 2020, it was found that employees working remotely were using devices such as smartphones and tablets that were not properly secured, patched, and managed by IT security, putting their organizations at risk of a cyberattack ("Cyber Security Threats"). While people in the military, contracting for the military, working in IT related fields, and most government positions are required to complete annual trainings on cybersecurity to keep them aware of the current threat environment and current ways to protect themselves, that is not enough. Training has been created for children as young as five years old to educate them on the basics of Cybersecurity and apps have been created to protect mobile phones the same way that you would a desktop computer. However, there are more than a few options to choose from and some of the free and cheaper apps are worse than having nothing at all since they run in the background collecting the user's information and selling it to the highest bidder.

In the corporate sector, forty-two percent of companies have designed strategies against mobile threats, and security is cited as the main reason for businesses looking to issue smartphones to their employees. In 2020, it was found that just forty-nine percent of mobile users have an antivirus app and cybercrime is up six hundred percent due to the covid pandemic. (Anderson, 2020)

Protecting yourself online is hard enough for a person with a basic understanding of the internet and the threats within it. Adding in the five-to-twelve-year old's who are still trying to understand how the world works in general and grasp the fact that everyone is not your friend with the best intentions and the 70+ crowd who are just trying their best to keep up with the times and manage as much as they can before calling their children or grandchildren to assist. Convenience and Security meet at a head. For the older generation, a lot of times, whomever the person is keeping them up to date will be in search of convenience. Currently that looks like, setting up biometrics on their elders' phone accounts to make it easier for them to access without calling for help. In some cases, even setting up a service like amazon's Alexa devices to make things even simpler or going all the way and setting them up with a smart home. Then, back to the younger five- to twelve-year-old group that we have seen during COVID being forced to become computer savvy for educational programs. While society continues to become more interconnected all these groups become vulnerabilities to each other. For the majority, everyone has a cellphone. From the elementary school student to the most senior resident in your community, they are all walking vulnerabilities. As hackers continue to make advancements in their programs and methods, unprotected vulnerabilities can be exploited. A post-COVID dinner party with family and friends could be the opening a hacker needs to gain access. As the guests connect their devices to the hosts network, it does not take much for the hacker to find a backdoor and an unprotected device is a low hanging fruit. While none of the people at the dinner party maybe the final target of a hacker's scheme, any of them could be the beginning of a chain reaction. Ignorance should not be an option going forward.

With one app to provide continuous short training at multiple levels of understanding with the option to push alerts and warnings about current and new cyber related issues we can educate the masses and create safer communities. For convenience, we will work with cellphone providers to get this apps installed on phones prior to activation, so people do not have to look for it. While the app will not tell people what security service (Norton, McAfee, ect.) to use on their device it will highlight success stories and the benefits that those services provide. In short it will be a starting place and an up-to-date pocket

reference for all from the novice to expert computer user. Using dramatized videos, games, and learning tutorials to educate and engage the user, while providing references and links to current cybersecurity guidelines and resources.

Proving the effectiveness of this training app to the cellphone service providers can be a challenge but starting with google and using the google play store to release a beta version of the app will help us to test and perfect the app prior to pushing out the final version. Communicating with security services to have them purchase their promotions, will also be included after we have data showing the success and new market provided by the beta app. The biggest challenge will be getting to the audience that does not take cybersecurity as seriously as they should. We will overcome this by pitching the app to teachers and afterschool program leaders to gain buy-in and have them help improve and promote the training to their students and their students' parents. Some of the short videos in the app showing dramatized examples of the impact of cyber-attacks on unprotected devices will also be sent through social media as sponsored ads for the app to reach a wider audience.

Prior to launching the beta version of the app, using random sample groups from multiple areas and economic backgrounds across the United States, a short survey will be taken to gauge the average use of cybersecurity services and the average knowledge level on the subject. We will collect the contact information for those that participate in the initial samples to re-poll them again once our app has been released. The final survey will include questions on information provided in the training so that we can assess whether they have understood the training given. Once launched we will also reach out to the security services promoted on the app to see if they have had a noticeable increase in customers. Lastly, we will update regularly and request feedback from all customers so that we can continue to improve and provide useful training at all education levels and across all learning styles. While the best outcome would be for every cellphone user to be fully aware and protected from the current threats in the cyber realm. Success for this app will be raising the public level of knowledge as it relates to cybersecurity by meeting the individuals where they are and providing the training and tools for them to protect themselves in a convenient and digestible manner.

## References

1. *Cyber Security Threats and Attacks: All You Need to Know*. (2020, December 4). Stealthlabs. <http://www.stealthlabs.com/blog/cyber-security-threats-all-you-need-to-know/>
2. Anderson, S. (2020, January 24). *Antivirus and Cybersecurity Statistics, Trends & Facts 2021*. SafetyDetectives. <https://www.safetydetectives.com/blog/antivirus-statistics/>