Alanna Richerson

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Cybersecurity in the school system

With increased digital exposure especially to the younger population it is only logical to discuss the reinforcement of cybersecurity education in the school systems. Although it is important to make everyone aware of cyberattacks it is pivotal to educate children on this matter due to how easily children's minds can be influenced especially by attitudes and behaviors that occur online. Also, with the coronavirus pandemic that recently happened forcing schools to change the structure to remote and hybrid learning for two plus years. Thus, accelerating the shift to technology-based teaching and learning, and increasing the frequency of cybersecurity attacks on the school systems. Making schools an increasingly appealing target due to the massive amounts of financial and personal information being stored under safety measures that are not fit for the vital info that is being contained. "According to the K-12 Cyber Incident Map, in the 2020 school year alone, 408 reported cybersecurity incidents impacted 377 school districts across 40 states in the US (Dascoli, 2022)." There is also an especially prevalent shortage in cybersecurity skill, and the problem begins with the high disinterest in STEM subject with children k-12.

The K-12 cybersecurity act was to reinforce the implementation of cybersecurity in schools with federal resources. The act allows the director of Cybersecurity and Infrastructure Security Agency (CISA) 120 days to conduct a study on specific cybersecurity risks that are impacting K-12 institutions. Then, the director of CISA will have the 60 days following to recommend cybersecurity guidelines based on the results of the study. Then, in next following

120 days a training toolkit would be created for officials at K-12 institutions. Passing this act is seen as the first step in moving forward with a longer legislative process in managing cybersecurity risks especially. The goal of implementing this act is to have teachers not only teach about cybersecurity concepts in the classroom, but to also have the promote IT security as a attractive career path (Javidi, 2018). This act is also the first formal insight into the K-12 cybersecurity data for the federal government.

It is important for individuals such as teachers, students, caregivers, and administrators to understand the practical elements of cybersecurity, so there is solid line of defense created at the user level. Which it is important to push for cybersecurity education nationally, but internationally as well. "This is because the successful prevention of cyber attacks is dependent upon the availability of skilled cyber-literate workforce (Frankie, 2019)." Because while yes, the nation can outsource to other foreign nations to hire workers for cyber-operations and vice versa this solution is not a sustainable method for cyber-operation upkeep. And in most of the nations that this nation pulls cybersecurity workers from are developing nations which most likely means whatever cybersecurity information they may know is elementary due to flaws in their higher educational system. Thus, meaning it reflects on the nation to increase its cybersecurity knowledge to prepare to teach other nations cybersecurity concepts. Although to back other nations in the reinforcement of teaching cybersecurity concepts in institutions national governments must actively work together to address national cybersecurity educational requirements and its challenges. These challenges structural capabilities, social integration, economic resources, and governance capacity (Frankie, 2019). Once the nations address these issues, they can keep these institutions safe by implementing standards for cybersecurity awareness and supplying them with the proper resources.

Sources

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