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CYSE 201S 24153 Cybersecurity & Social Science

30 September 2023

Article Review: Going From Bad To Worse: From Internet Voting To Blockchain Voting

https://academic.oup.com/cybersecurity/article/7/1/tyaa025/6137886?searchresult=1#333667706

Introduction:

*Going from bad to worse: from Internet voting to blockchain voting* is a research article which “examines the suggestions that “voting over the Internet” or “voting on the blockchain” would increase election security and finds such claims to be wanting and misleading. (Park, Abstract)” Additionally, “This article analyzes and systematizes prior research on the security risks of online and electronic voting and shows that not only do these risks persist in blockchain-based voting systems, but blockchains may introduce ‘additional’ problems for voting systems (Park, Abstract). In the article the authors identified five requirements for secure elections. They are Evidence-based elections, The Secret Ballot, Software Independence, Voter-Verifiable Ballots, and Auditing. After discussing current vulnerabilities with electronic systems and explaining block chaining technology, the authors reviewed current data and practices and attempted to answer weather these new systems can meet these criteria. The article concludes “Blockchain technology does not solve the fundamental security problems suffered by all electronic voting systems” “Electronic, online, and blockchain-based voting systems are more vulnerable to serious failures than available paper-ballot-based alternatives” and “Adding new technologies to systems may create new potential for attacks.” (Park, Conclusion)

How it relates

This article helps to demonstrate how cybersecurity has come to impact so many areas of our life in the 21st century. The entire basis of our political system is voting, and we are having discussions about turning voting over to the cyber world. In module 5 the class discussed the various reasons people may commit cybercrime and political motive was an entire section. The article also brought to mind the principles of Parsimony and Empiricism. Parsimony, or the keeping explanations as simple as possible, and Empiricism, or the study of behaviors which are real to the senses, can be difficult when discussing cyber topics; however, the authors struck a wonderful balance of depth and brevity. The entire article was grounded in the real world. The authors were able to bring tangible examples of how elections are handled now, what the cyber mechanisms are, and how cyber might interact with these systems.

Impact

While many claim the expansion of online or blockchain voting would increase turnout among marginalized groups, the paper challenges the idea. “Studies of Estonian elections have also suggested that turnout changes due to online voting may favor higher-income and higher-education demographics. Recent US studies demonstrate significant demographic disparities in smartphone ownership (e.g., in gender, income, and education) (Park, Introduction).” Not only would requiring internet access marginalize already struggling communities (by imposing but could be argued is a poll tax), but the security risks introduced by using cyber tools could allow for entire communities to have their votes manipulated or wholesale discarded.

This paper is discussing an issue of monumental importance. Voting in free and fair election is the backbone of democracies and republics around the world. The freedom to elect representatives to wield the power of government is paramount to a free and functioning society. Systematic and scientific review of cybersecurity practices of must be completed before any changes are made to these systems and this paper strives to do just that. Using scientific principles and methods in the cyber world, even on topics typically reserved for the social sciences, is critical to our way of life.

References:

Park, Sunoo, et al. “Going from Bad to Worse: From Internet Voting to Blockchain Voting.” Journal of Cybersecurity, vol. 7, no. 1, 1 Jan. 2021, https://doi.org/10.1093/cybsec/tyaa025. Accessed 17 May 2021.