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Career Paper: Information Security Analyst and its Connection to Social Science

Introduction

With the many careers and jobs that cybersecurity offers, there is only one that interests me the most. That job is an Information Security Analys. The main reason for pursuing this job is that I want to help companies and their customers with their cybersecurity issues. In this paper, I will be reviewing the connection this job has to the social sciences, how key concepts from the course connect to the job, how this job connects to the issues faced by marginalized groups and the contributions this job brings to society.

Connection to Social Sciences

One of the social sciences that this career relies heavily on the science of psychology. Understanding psychology in cybersecurity as mentioned by Arielle Miller "... is essential for developing effective strategies to protect against cyber threats" (Miller, 2024). As mentioned in the quote, by understanding psychology, Information Security Analysis can develop policies to protect against cybercriminals; however, they can also use psychology to understand why an employee may have fallen for scams like phishing. Another social science that connects to this career is that of criminology. As mentioned by Western Governors University

"Cybercriminals and the technologies they use are constantly changing, so a good information security analyst needs to change with them. A large part of their job will involve researching the latest trends in hacking and security, communicating security needs to the organization, and even

conducting research into the most effective technology for protecting their company's data"
(WGU, 2024).

This quote helps to show the importance of understanding criminology by showing the importance of understanding the motives and reasoning behind why cybercriminals commit crimes as well as showing that an Information Security Analysis needs to be up to date on hacking tendencies and how people view them.

Key Concepts from the Course

Two concepts from the course that connect to the job of an Information Security Analyst is the concept of human factors as well as cyber offending. As mentioned by Arielle Miller on her blog post "Human behavior plays a significant role in shaping the security landscape, influencing the vulnerabilities and strengths of organizational defenses" (Miller, 2024). This quote helps to show the importance of understanding human factors as they can help to implement and change a company's security; this quote also relates to cyber offending as by understanding the impact of human behaviors, information security analyst are able to understand why cybercriminals target or use specific attacks on specific groups of people. Another two concepts from the course that connect to the job of an Information Security Analyst are the concepts of cyber victimization and individual motives. The concept of cyber victimization relates to an Information Security Analyst as by understanding concepts like Optimism bias can also help to understand how employees fall for phishing attempts, which is similar to why Information Security Analyst need to understand human factors. The concept of individual motive is important for this career as similar to cyber offending it can help to understanding what makes a cybercriminal want to target a business or person, whether it be for

financial gain or revenge, it can help to create new cybersecurity plans and programs to protect the assets of the company.

Connection to Marginalized Groups

This job and the cybersecurity workforce face many challenges regarding minority groups. Some of the significant issues that are faced are mentioned by Ben Allen are as follows: "Access to Education and Training, Lack of Mentorship and Role Models, and Systemic Racism" (Allen, 2020). Issues like the access to training and systemic racism mentioned in the quote are big issues as many have no clue as to how to fix them nor do many try to fix them. However, the same article also discusses some solutions like increasing funding for cybersecurity education, using universal languages, and recruiting diverse personnel in the workforce. (Allen, 2020). By implementing some of these solutions into the cybersecurity workforce as well as the job of an Information Security Analyst, it can help to improve the landscape of cybersecurity and create innovative solutions that may of never of been thought of.

Connection to Society

Information Security Analyst contributes to society in many unique ways. Two of the major responsibilities that contribute to society are that they help to protect a company's network and create security plans for the company they are employed at (ComputerScience.org Staff, 2023). By protecting these networks and creating security plans, they can keep the sensitive information of many of the company's users safe, which helps reduce cybercriminals from committing criminal actions like blackmail. These contributions also allow many companies and people to become aware of cybersecurity threats and policies. By working with many privacy laws in fields such as healthcare (Coursera Staff, 2024), it allows companies and people to be wary of where their information is being held as well as used.

Conclusion

Overall, the job of an Information Security Analyst relates to the social sciences and concepts of the class by explaining why people fall for cyberattacks and why criminals target certain companies. Furthermore, this job connects to marginalized groups by mentioning that there are many issues like limited access to training that does not allow for many minorities to pursue a career in this field, but there are solutions that companies can take to ensure diversity in the workforce. Finally, this job connects to society by allowing for the protection of sensitive data and the creation of security plans in the chance there is a breach. In the end, this career is something that many who are looking for to help others may be interested in and by applying the concepts of the social sciences, will allow for success in this job and their career.

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