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Cyber and Social Sciences

Cybersecurity Awareness and Training specialist

Introduction

When we think about cybersecurity we envision coders battling malicious software while the analysts are deciphering complex logs. While learning more about this field I learned that human intricacies social behaviors and society structures. For me, cybersecurity awareness and specialists perfectly illustrate this intersection. With this career I would be using the principles from social sciences to help build a secure digital world for everyone.

Social engineering

One key concept in this field is social engineering. You need to understand social engineering tactics, and how they attack. In the research I did on social science, it is basically doing psychology and sociology and using that to think about why people fall for phishing scams, and messing with sensitive information. For instance, knowing cialdini's principles of persuasion can help you design training techniques. Doing so instead of having instructions that just say don't do this,or don't click suspicious links I would example why.

Human Factor

Also another concept in this field is the human factor in security. It is central to this career. You need communication because if users can not understand the controls then they won't be able to use it effectively. The research on behaviors and human computer interaction guides the training materials that are not only informative and user friendly. For this you will need to consider how people learn,backgrounds, and technical literacy to help ensure the message which resonates with their studies so the securities concepts are accessible. Applying the pedagogy principle of communication helps address different departments making sure the message is clear and relevant to their specific roles.

Scams

I do not have that much knowledge about marginal groups, but after reading more I learned it has a significant role in this career. The threats of cybersecurity affects vulnerable populations. For instance the individuals who lower digital literacy or people who are trusting due to social factors can be affected the greatest by online scams. With that I learned about sociology I believe striving to create inclusive training programs would be more beneficial. To better do this you might need to incorporate videos and different language options so people who do not mainly speak Spanish can have a better understanding of specific threats. I understand the common tactics that people use when scamming people, they go for elderly individuals or immigrants who will develop training modules that address vulnerabilities.

Public trust

The impact of cybersecurity branches are immense when it comes to society. The breaches could lead to financial problems, identity theft while using online services. The cybersecurity specialist plays a crucial role in building a more secure society. They empower individuals with skills so they can fully protect themselves online. They need to understand the norms around technology while also learning the impact of cybercrime on public trust.

Conclusion

Finally when I chose my career path in cybersecurity I now have important knowledge about social science and their principles. Understanding the psychology behind social engineering attacks is important because the system design and unique vulnerabilities of marginalized groups are not just theoretical concepts but tools you can use daily. You can apply these principles to bridge the gap between technical security and human behavior. This fosters a more secure and equitable digital environment for everyone. The fight that many people are facing everyday without knowing isn't a technical battle it's a social one.

Sources

United States Department of Justice. (n.d.). *Computer Fraud and Abuse Act*.

- https://www.justice.gov/criminal-ccips/computer-fraud-and-abuse-act

UpGuard. (2025, April 7). *Human Factors in Cybersecurity in 2025*.

- https://www.upguard.com/blog/human-factors-in-cybersecurity

Terranova Security. (2024, November 29). *9 Examples of Social Engineering Attacks*.

- https://www.terranovasecurity.com/blog/examples-of-social-engineering-attacks