The Cyber Security Consultant and Social Science

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Abstract

The field of cybersecurity overall requires the usage of the social sciences in defending computer networks, infrastructure, and corporate and customer data. Each job in the field of cybersecurity, however, has its own focus in what it does, and this dictates how the social sciences are involved.

Keywords: cybersecurity, social science

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The role of Social Science

Social Science plays an important role when working as a cybersecurity consultant. When looking at ways to better safeguard corporate email and phone systems, the consultant must have a good understanding of human behavior. The attacker will be utilizing social engineering in their attack. For malicious emails, the attacks will involve making the email seem legit by using names or company logos the user will be familiar with. Any links in those emails at first glance will look legitimate to the recipient, but on further inspection, the links don't match the links for the sites they claim to redirect the user to. Whether or not these links will get clicked on depends on whether the user is screening them. In defending against emails, the consultant would recommend to a business entity that they would need to utilize spam filtering. For vishing attacks, or social engineering attacks that occur over the phone, the attacker will try to seem familiar with the person they are talking to by offering up certain kinds of information that would make them seem reputable if they are verifying an identity, or possibly create a distraction or mislead the person answering to get information they need, among a variety of angles that could be taken. The notion of social engineering also raises plenty of ethical concerns.

Interpersonal skills are also a necessary job for a cybersecurity consultant to be well-versed in. The cybersecurity consultant will be responsible for recommending a way for employees to refer cybersecurity issues or concerns to the appropriate departments or people and will need to recommend how these individuals work together to solve these issues.

Relativism applies in being a cybersecurity consultant, as the consultant will need to be able to understand what actions led to specific results. For example, if an attack occurs, they will

need to understand why the attack was successful, what could have prevented it, and what actions or inactions made the attack successful.

Economics are also at play when making cybersecurity recommendations. The consultant needs to understand the extent of financial harm different attacks will cause a company. Ransomware will have far greater harmful economic harm to a company then some lesser attacks that might exist. This will determine what gets a heavier focus first and will allow the company to focus on smaller issues to deal with, rather than constantly having to fix issues that can cost them a lot of money (Courtney, 2024).

The Lack of Women pursuing the Field to fulfill this need

Cybersecurity is sprawling in terms of the many positions that can be filled across a variety of roles. For the role of cybersecurity consultant specifically, there aren't a lot of women in the field. This is a disservice as women tend to be very detail oriented. According to a report from The Female Quotient and Deloitte Global, women make up only 25 percent of the global workforce in cybersecurity (Crist, 2024). There is a mix of feelings in relation to being in the IT industry. Fifty-five percent of respondents say that they feel they would be intimidated by the work, and fifty-one percent responded saying they don't feel like they could be themselves in the field (Crist, 2024).

In contrast, women in the industry do find benefits. Fifty-seven percent responded positively saying that the industry provides job security, fifty-three percent appreciated the learning opportunities present in the industry, and over half say they have a greater sense of purpose (Crist, 2024).

The industry would benefit greatly by having more women involved in the field for the positive reasons listed above from respondents. Part of the solution to getting more women

involved will be to get rid of concerns that are present which cause women to feel they might not be able to be themselves.

Why cybersecurity consultants are beneficial to Society

Cybersecurity consultants are beneficial to society in numerous ways. They help companies reduce costs by providing cheaper solutions and safety mechanisms where the companies wouldn't have the knowledge to do so. Risk is reduced by implementing better security measures than what was previously used. As cybersecurity consultants are retained, entities are given opportunities to learn about new technologies on the market and implement them. Cybersecurity consultants also bring knowledge to the table in how to best properly train a company's workforce in cybersecurity (SSE Inc., 2024).

Conclusion

Cybersecurity consultants are important to the field in cybersecurity with the great depth of knowledge they provide. This service expands the understanding of human behavior to end users so that they have the tools they need to protect themselves in cyberspace. As time moves on, it would be beneficial to get more women involved in the field to give more opportunity to society to reap the benefits of cybersecurity consultants.

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