Lashanti Gladney

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CYSE 201S

Cybersecurity and Social Science

Cybersecurity and sociology, two careers fields that may not be thought of together. However, there are various instances in which having knowledge about both these areas are vital to performing certain jobs. One such example is the job of an intelligence analyst. An individual in this position utilizes skills from both the cybersecurity and sociology fields. The Federal Bureau of Investigation defines this position as one being able to " understand, mitigate, and neutralize threats". (FBI)This relates to sociology because the understanding portion refers to the understanding of the way a human, specifically in the terms of a criminal or cybercriminal thinks. The intelligence analyst role applies to cybersecurity in the fact that it is a position not limited to physical data but electronic data stored within technology as well.

Cybersecurity is defined by the Merriam dictionary as "measures **taken to protect a computer or computer system against unauthorized access or attack"**, and sociology is essentially the study of human societal behavior. To address the first portion of the roles of an intelligence analyst is to understand, this portion relates to understanding why someone might decide to attack a system, they will study available information in order to predict what an attacker may do to prevent attacks from happening. In other words this means they will need to use the sociological aspect in order to get into the mind of an attacker to think how and why they might perform an attack. In this call it has been discussed many ways in which someone may be swayed to become a criminal through, neutralization theory, cognitive theories and cyber

offending, and behavioral theory. These are all ways to explain how or why someone may cyber offend and can help intelligence analysts with knowing who might be more likely to perform attacks as well as what their motivations may be.

This position relates to cybersecurity as there is always a need for analyzing information in order to mitigate and neutralize threats. With the continuous evolution of technology, cybersecurity has played a huge role in keeping data that millions of people have stored within this technology safe. This is especially true given how much technology has been integrated into society. It is something that is seen in vehicles, medical equipment, and forensics. These are all devices that could affect one's life if it were to be tampered with, which is why cybersecurity is important. The role of an intelligence analyst can be seen as an important piece of cybersecurity. There is also a more specific position, which is a science and technology intelligence analyst. This position focuses on the technological aspect specifically and can even include analyzing technological weapons. This position further links the intelligence analyst career to the cybersecurity discipline.

Jobs within the technology field tend to be quite lucrative, however, there are still disparities between ethnic groups and genders, including in terms of an intelligence analyst. According to the zippia website a whopping seventy-three percent of the intelligence analyst field is men; sixty-three percent of people in this field are white. The percentage of workers within the lgbtq+ community is only at nine percent. These statistics show that although this field is dominated by straight, white males, which is a common theme for many positions, namely in America. An article done by the Pew Research Center also supports this and goes into some detail about the issues that minorities face in the workplace in terms of STEM jobs. In this article, it is also shown by research done that around half of minorities working in STEM fields

believe that one reason for this gap in employment rates of minorities is due to the limited access

their communities have to education, the issues with racial inequality. All communities do not

have the same access to certain tools that would help them in their careers, specifically in terms

of minorities such as blacks and hispanics vs their white counterparts. There is also the issue of

racial issues, some feel as though their applications may be overlooked because of their race or

gender and even those who land positions face racial discrimination amongst their coworkers.

This makes it harder for minorities to want to break into or stay at such positions for an extended

amount of time.

      Cybersecurity and Sociology are both two completely different fields that still can be

used in tandem. In the aforementioned example of being an intelligence analyst, those who work

in this position will have to analyze and understand behaviors of offenders in order to determine

how to be protected against them. The role of an intelligence analyst relates to cybersecurity as it

is a broad field with smaller subsections that focus specifically on performing this role with

technology. Also, as a broad definition there is a demand for mitigating and neutralizing

cyber-threats just as there are other threats. Overall both of the areas can be linked in order to

better understand and defend against cybercrimes.

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