Digital Forensics Investigator & the Social Sciences

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Overview

The digital forensics investigator, sometimes referred to as a cyber forensics investigator, is a job that combines the fields of cybersecurity, forensic science, and criminal justice. This job involves collecting and analyzing digital evidence in order to solve both physical and cyber crimes (Cyber Defense Forensic Analyst, n.d.). Those interested in this career often have four-year degrees in forensic science, computer science, or cybersecurity. They must be able to perform the technical skills required to capture and investigate digital assets while also understanding the legal procedures necessary for handling and presenting evidence.

Relation to Social Sciences

The digital forensics investigator role has many relations to the social sciences. To start, the job deals with criminology and criminal justice quite frequently. Criminological theories help investigators understand why and how cybercrimes occur as well as why an individual committed these crimes. This plays into psychology to understand the motives of someone committing a cybercrime and potentially why someone was victimized. Digital forensics investigators must also understand criminal justice in order to work in the legal system and potentially explain and present their evidence in the court system. For instance, "officers and certified forensic practitioners must be familiar with national computer crime laws and privacy legislation" (Slonopas, 2024). Finally, since cybercrimes and the investigations of digital forensics investigators directly impact society as a whole, those in this role must use sociology. This is integral to understanding how social systems both encourage and prevent cybercrime as well as how cybercrime affects society.

Relation to Class Concepts

In addition to relating to the social sciences as a whole, the job of digital forensics investigator is based on many principles covered in this class. To start, digital forensics investigators use human factors in order to understand how humans will view technology, and eventually use it for a crime. They also must understand the psychology behind cyber victimization and cyber offending in order to properly investigate cyber crimes and prosecute cybercriminals accordingly. Additionally, digital forensics investigators collect and analyze key evidence to help prosecute cybercriminals, keeping cyber subcultures and the social structure of cyberspace as a whole safe. Finally, this career relies heavily on social science research principles to "ensure that [the] nation's criminal justice practitioners are maximizing the use of ever-evolving developments in the forensic sciences" (Browning, 2015). Overall, digital forensics investigators must rely heavily on social science principles in order to do their job effectively.

Connection to Marginalized Groups

The job of digital forensics investigator can help solve many challenges of marginalized groups. The most obvious one is that a digital forensics investigator helps solve crimes which helps bring justice to victims of the cybercrime, who are statistically more likely to be marginalized communities like uneducated individuals, the elderly, and minority groups. This act also keeps cyberspace and society itself safer for these groups by prosecuting criminals and discouraging crime. This is especially true for crimes like financial scams and identity theft where marginalized groups are the most victimized as well as the least likely to report the incident. Additionally, digital forensics investigators can help solve the challenge of a lack of trust in law enforcement from marginalized communities by helping solve crimes and thoroughly analyze evidence in order to help them. Finally, digital forensic investigators help marginalized

groups by increasing access to cyber resources which helps combat misinformation; this is one of the most common forms of cyber incidents that marginalized communities are often victimized with. Investigators can do this by putting out accurate information as a trusted source to help prevent cybercrimes and protect these communities.

Connection to Society

Digital forensics investigators act in a way that directly helps society as a whole. Their job is to understand and investigate the digital aspects of crime that can make society less safe. In many cases, these investigators find and analyze evidence that helps prosecute criminals, keeping society safe from more crimes. This also keeps someone's digital society much safer, with less online harassment, identity theft, and other malicious acts. All of these things help promote public safety as a whole, which betters life for every individual.

Conclusion

Digital forensics investigators play a key role in protecting society and cyberspace as a whole. Their job focuses on collecting, analyzing, and presenting digital evidence for cybercrimes in order to solve issues in cyberspace and prosecute cybercriminals. Those in this career work in technical forensics roles while understanding and contributing to social science fields like criminal justice, psychology, and sociology. It is through this interdisciplinary approach that they are able to contribute to the cybersecurity industry, do valuable work, and keep society safe.

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