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Introduction

Digital forensics is the process of identifying, retrieving, analyzing, and reporting digital evidence that may be of use as evidence in legal cases. A digital forensic analyst is responsible for ensuring that the forensic process remains incorrupt and maintains its integrity. In addition to finding and reporting evidence of cyber attacks, a digital forensic analyst is able to locate what caused the attack and inform the victims on how to prevent similar attacks from happening. They are able to do so with a strict set of guidelines to follow for specific types of digital evidence along with the tools and techniques utilized while performing their job (EC-Council, 2023).

Social Science Principles

When it comes to social science principles, digital analysts depend on relativism, parsimony, and determinism. Relativism refers to all information being related to one another but a part of different systems. In digital forensics, this would be the process of collecting, analyzing, and presenting evidence ultimately relating to cyber attack prevention. The hard work of the digital analysts ultimately serves to protect the already victimized systems from the same attacks occurring again. Parsimony refers to scientists keeping their heavy explanations short and simple for others to better understand. This relates to the presenting part of a digital forensic analyst's job because they have to ensure that the client, law enforcement, etc. understands exactly what happened, how it affected them, and how to prevent it from happening again. It is especially important because most individuals are quick to dismiss cybersecurity concerns and ultimately suffer the consequences for not properly listening. Determinism refers to an individual's behavior being a result of preceding events. In digital forensics, this could be the attacker deciding to

initiate their crime against a person or organization simply because of a vulnerability they found to exploit.

Social Concepts

The career of digital forensics also relates to the social concepts of psychology, threats, and quasi experiments. Psychology focuses on understanding why individuals engage in certain behaviors. When it comes to digital forensics, psychology, similar to determinism, allows digital forensic analysts to put themselves in the shoes of the attackers to try and understand why they chose to hack that person or organization. In a sense, the forensic analyst's are profiling the cyber attackers (Paraben, 2021). Threats are another social concept that relates to the career of a digital forensic analyst because these analysts actively pursue threats against the systems they work with and also mitigate those threats to ensure they do not cause any harm to their clients in the future. In addition to the previously mentioned topics, the digital forensic analyst career may also relate to the social concept of quasi experiments. A quasi experiment is a study that focuses on a causal relationship without the incorporation of random assignment to demonstrate more realistic results. A digital forensic analyst may perform a quasi experiment if they are trying to determine the realistic probability of an attacker gaining access to certain systems through vulnerabilities or human error.

Challenges of Marginalized Groups

Digital forensic analysts are able to educate marginalized communities on how to maintain their privacy, remain safe, and be responsible when using technology. People of color, members of the LGBTQ+ community, the elderly, women, and children may find themselves digitally illiterate and as a result be targeted for malicious cyber activities by cyber criminals.

Forensic analysts assist in preventing these situations from happening by identifying what went wrong and coming up with solutions to prevent those marginalized individuals from being taken advantage of (Anthony, 2023).

References

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