


Chapter 5

Exploration of Social Engineering in the Digital Era of Stealth

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ABSTRACT

Social engineering entails obtaining important information. Attackers may request varied victim details. After targeting someone, attackers aim to steal their bank account information or passwords or breach into their machine to install malicious software to take control. Social engineering is simpler than software infiltration because attackers exploit victim confidence. Tricking someone into giving their password is simpler than hacking it. Trusting people and things is crucial to security. Finding out if someone is who they say they are is crucial. Trusting a website and giving your personal information: when? Thus, every respected security expert agrees that the weakest link in the security system is the believer. Even with locks and deadbolts on our doors and windows, guard dogs, alarm systems, floodlights, barbed wire fences, and armed guards, the pizza delivery man at the gate can get in. This chapter expands on social engineering and safety.

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OVERVIEW OF SOCIAL ENGINEERING

Kevin Mitnick's work is still as engaging on paper now as it was on film, from his exciting autobiography about becoming the most famous hacker in the world to his instructional materials about social engineering and significant security dangers. He is referred to be the originator of social engineering. One of the most influential figures in the sociological school of jurisprudence was Roscoe Pound. He established the “Social Engineering” theory, which attempts to create an effective social structure that would allow the greatest number of needs to be satisfied with the least amount of waste and friction. Zhang, C., Jiang, Z., Zhang, G., Li, Z., and Fathollahi-Fard, A.M. (2023).

Phishing is the most popular type of social engineering assault. Phishing attacks use human mistake as a means of credential harvesting or malware distribution (Joyce, P. R., et al., 2024). Typically, they do this by sending links to malicious websites or infected email attachments. Ivanov, N., Lou, J., Chen, T., Li, J., & Yan, Q. (2021). The act of psychologically coercing, misleading, or persuading someone to reveal private or sensitive information or take particular actions is known as social engineering. This kind of cyber-attack relies less on technological exploits and more on taking advantage of human weaknesses. Phishing emails, phone frauds, and pretexting are common strategies. To obtain sensitive information, social engineers frequently assume the identities of reliable organizations, such as banking institutions or IT assistance. Kano, Y., and Nakajima, T. (2021). It's critical to maintain awareness, confirm identities, and use caution when handling personal information in order to guard against social engineering.

Although dishonesty has always been a part of life, ICT technologies have considerably raised its frequency. Social engineering techniques in IT can be examined from two angles within this new framework: either by using psychological manipulation to get more access to an IT system where the scammer's actual goal resides, such as phoning a well-known client to trick the target into visiting a malicious website that infects the target's workstation, or by using IT technologies to support psychological manipulation techniques to achieve an objective outside the IT domain, such obtaining banking credentials by means of a phishing attack to then steal the target's money. 2020 Alturas, B.; Reis, J.; Gomes, V.

The usage of these strategies has inevitably increased along with the use of IT tools, to the point where the majority of cyber-attacks now involve social engineering of some kind. Al-Turjman, F.M., Bhatia, S., Salama, R., & Yadav, S.P. (2023). S.

There are numerous ways to carry out social engineering, according to Mattera, M., & Chowdhury, M.M. (2021). One of these attacks can affect a variety of people. Cyber-attacks are typically perceived as extremely technological attacks executed by a highly skilled computer system specialist.

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