

Cybersecurity Training and Emerging IT Threats: Unintended Consequences for Digital Natives

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Abstract:

As organizations increasingly integrate information technologies into their operations, the cyber threat landscape has correspondingly expanded. Cybersecurity threats continue to escalate, presenting substantial risks to individuals and organizations worldwide. Higher education institutions, often targeted for their valuable data and extensive digital infrastructure, face increasing cyberattacks due to perceived vulnerabilities. Undergraduate students, widely recognized as digital natives, exhibit high reliance on online environments for education and personal use, making them especially susceptible to cyber threats such as phishing and identity theft. This vulnerability is compounded by limited cybersecurity awareness and risky online behaviors, posing risks to both personal data and university systems. Although cybersecurity training is crucial for fostering secure behaviors, it does not always yield the desired outcomes. Research indicates that, in some cases, such training can have unintended, counterproductive effects. Psychological and behavioral factors may even lower protection motivation following cybersecurity training. While Protection Motivation Theory (PMT) is widely applied to examine cybersecurity behaviors, it is predominantly studied in organizational settings, with limited focus on university students. To address the research gaps, this study conducted cybersecurity training intervention to a group of undergraduate students to compare its impact on cybersecurity behaviors. Findings indicate that, although training increased awareness, it paradoxically reduced protection motivation among students. These results highlight the complex psychological dynamics at play and emphasize the need for carefully designed training to balance awareness and anxiety, thus maximizing its effectiveness.

Keywords:

Cybersecurity, digital natives, cyber threats, training, protection motivation, cyberpsychology.