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A Rapid Review Cybersecurity Strategic Analysis Framework: The Case of Higher Education Institutions

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This paper conducts a rapid review using the adapted SVOT (Strengths, Vulnerabilities, Opportunities, Threats) framework to synthesize current literature on cybersecurity in higher education institutions (HEIs). The review addresses (1) inherent strengths that enable HEIs to adopt robust cybersecurity measures, (2) specific vulnerabilities exposing HEIs to cyber threats, (3) opportunities to enhance cybersecurity practices, and (4) threats from sophisticated cyberattacks. Findings reveal that HEIs possess strengths like advanced technical resources and collaborative research cultures that could support innovative cybersecurity solutions. However, vulnerabilities can also arise from complex IT systems, open academic settings, and limited security funding. Opportunities include leveraging AI and machine learning for threat detection, implementing comprehensive security frameworks, and expanding cybersecurity education. Key threats involve ransomware, phishing, and state-sponsored espionage. This review underscores the need for HEIs to adopt a holistic, strategic cybersecurity approach, strengthen internal capabilities, and address administrative and cultural challenges to develop more adaptive defenses.

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