



ENHANCING INFORMATION SECURITY THROUGH IMPROVED MEDIA LITERACY MODULES

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Annotation. This thesis focuses on enhancing information security by improving media literacy modules. In an era of rapid technological advancements and the widespread use of digital platforms, the ability to critically evaluate information has become essential for preventing misinformation, cyber threats, and data breaches.

Key words: *Media literacy, information security, digital behavior, misinformation, cyber threats, data protection, fake news, media education, critical thinking, digital literacy.*

Аннотация. Данная диссертация направлена на повышение информационной безопасности путем улучшения модулей медиаграмотности. В эпоху быстрых технологических изменений и широкого использования цифровых платформ способность критически оценивать информацию становится необходимой для предотвращения дезинформации, киберугроз и утечек данных.

Ключевые слова: Медиаграмотность, информационная безопасность, цифровое поведение, дезинформация, киберугрозы, защита данных, фейковые новости, медиаобразование, критическое мышление, цифровая грамотность.

INTRODUCTION

In light of the substantial dangers that increasingly modern and sophisticated technologies pose, it is long overdue that we emphasize the educational aspects to better information security. There has been a formidable shift towards like-minded approaches that prioritize a highly educated bloc of users to stand firm and weed out fake news, like the prevalent form of a weed rising up through an otherwise beautiful field of flowers caused by a history of misinformation. The role of media literacy, both in terms of user security and the work of journalists, is invaluable. A wave of concerns internationally has sparked this idea that to live more safely in the digital world, to avoid falling for scams or sharing harmful information, children must be educated about what they see in the media. Information security, as defined in these discussions, usually refers to the security of data and networks, shots in the arm of our increasingly technical role as bearers of information in spaces such as organizations, educational settings, and everyday life.

LITERATURE REVIEW

Rationale The levels of mistrust of information sources are expected to increase because of misinformation ¹². Misinformation is becoming increasingly difficult to

¹² M. Thakur, "Cyber security threats and countermeasures in digital age," Journal of Applied Science and Education (JASE), 2024.P 32. a2zjournals.com



manage, impacting public safety and security. Surveys indicate that over 50% of respondents had been subjected to misinformation during **COVID-19**, and of those, 20% were then put in a position where they would behave unsafely. Adhering to governmental advice is crucial to public trust and safety. It is vital to time and social stability in a democratic society to avert information conflicts that are fueled by disinformation. Today's mass communication affects people's social, political, and cultural lives. Societal dependence on digital information platforms makes people vulnerable to the impacts of disinformation. A survey estimated that up to 73.8% of respondents engaging with websites or content available proffered trustworthy information, and 89% had high confidence in those sources. As outlined in the introduction, digital life influences the economic, educational, and social activities of all individuals in society¹³. It is estimated that 48% of citizens get information (and education) from social media and online sources. This relies on those engaged on these digital platforms to be able to make informed judgments on the authenticity and legitimacy of web tools, social media, electronic, and online materials.

Information security remains a central focus of academics and practitioners due to the large volume of data being shared between organizations and individuals on digital mediums today. Information security is defined as the defense of digital information from unauthorized access or modifications to ensure confidentiality, integrity, and availability of sensitive information. The threat landscape facing organizations continues to evolve with advancements in technology and subsequent connectivity. Threats to digital information can take many forms, such as cyberattacks, which may exploit vulnerabilities in IT systems; malware attacks, which might use phishing tactics to gain access to systems using end users to escalate and execute their code; or ransomware attacks, which will use similar techniques to other types of attacks to gain access to an end-user system, encrypt their files, and ask for a ransom to decrypt them again. Whatever the form, attacks to SWDs are real and current¹⁴.

METHODOLOGY

Media literacy is commonly understood as the ability to access, analyze, evaluate, and create messages across a variety of outlets. When examining information's legitimacy, the public needs to engage in media literacy to combat fake news, clickbait, and other manipulative tactics¹⁵. Media literacy can prevent a person from falling for scams, hacking attempts, or disease misinformation through the development of critical thinking skills surrounding digital documents, which are in abundance due to digitization. Media literacy as a core education and practice focuses critical thinking on the barrage of news, advertising, propaganda, entertainment, and formal information conveyed through digitized documents and online distribution, which is increasingly where people are

¹³ S. Bondarenko, O. Makeieva, and O. Usachenko, "The legal mechanisms for information security in the context of digitalization," Journal of Information, 2022.P 123.

¹⁴ S. Rani, A. Kataria, and M. Chauhan, "Cyber security techniques, architectures, and design," in ... cryptography in cyber security, 2022. P 43/

¹⁵ A. Rai, A. S. Singh, and A. S. Kumar, "A Review of Information Security: Issues and Techniques," *for Research in Applied Science &, 2020.p 67.



exposed to their information in new digital branding and online avatars, and perhaps the most difficult for traditional media literacy training programs to reach.

The importance of media literacy cannot be understated. With the increasing prominence of "fake news" and misinformation being cited as principal options for AI research within the US, and digital forensics specialists in the EU working towards creating programs to detect digital media manipulation in order to secure social media spaces against adversarial operations, the need for a more media literate society is dire¹⁶. Instead of attempting to simply eliminate misinformation from the media landscape, which is a fool's errand, the goal is often to increase the average ability to discern and use critical thinking to sort information. Good problem solvers have to be critical consumers of information, in other words.

As the previous chapters demonstrated, there are multiple challenges associated with embedding media literacy and information security in education. Underlying most of the challenges are shortcomings in the modules or the way they are implemented. This section addresses the second recurring challenge: the need for more practical knowledge and hands-on exercises. Data show that relevance can be operationalized through an accurate representation of risk; if modules fail to include contemporary threats, adult learners will lose interest in populated, unrealistic learning environments. Accordingly, the way to go is to revitalize modules with the latest news from the media landscape. This means regularly updating teaching resources to reflect relevant, contemporary case studies that are rooted in media landscapes as they now exist. The importance of this has only increased since the beginning of the crisis, when news consumption and hence the relevance of disinformation strategies increased¹⁷.

CONCLUSION

This research essay has presented the argument that media literacy skills and security literacy pedagogies must work together to enable students to establish and value trust in media content, as this is a fundamental aspect of information security in the digital age. Recent writings on media literacy have considered similar issues and identified scenarios for the development of curricula that take into account the current state of digital news content creation and dissemination. We have suggested potential enhancements to the media literacy and security literacy curricula that could fill these gaps. In conclusion, the stakes of writing these research essays are particularly high both for the underlying idea that they were designed to introduce to you and for the implications on the profession.

¹⁷ O. Harmatiy, "Science coverage: What does the audience want and really need? Exploring media consumption in Ukraine," Journal of Creative Communications, 2021.P 4,

¹⁶ S. Mishra, "Exploring the impact of AI-based cyber security financial sector management," Applied Sciences, 2023. P 134.





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