Chapter 7
Student Perceptions and Knowledge of Deepfake Technology in North Macedonia

Blagoj Nenovski
http://orcid.org/0000-0001-7093-5133
Faculty of Law, University "St. Kliment Ohridski", Bitola, North Macedonia

Ice Ilijevski
Faculty of Law, University "St. Kliment Ohridski", Bitola, North Macedonia

Angelina Stanojoska
http://orcid.org/0000-0002-0587-1222
Faculty of Law, University "St. Kliment Ohridski", Bitola, North Macedonia

ABSTRACT

This chapter investigates students' perceptions, knowledge, and attitudes toward deepfake technology, including its potential misuse and related protection and reporting mechanisms. The research employs a focus group discussion involving 10 students from five faculties at the University "St. Kliment Ohridski" – Bitola: Faculty of Law, Faculty of Education, Faculty of Technical Sciences, Faculty of Information and Communication Technologies, and Faculty of Biotechnical Sciences. Preliminary findings indicate that while students are generally familiar with the concept of deepfakes, they lack sufficient skills to accurately identify deepfake content. To the best of our knowledge, this is the first study in North Macedonia to examine students' awareness and understanding of deepfake technology. Based on these results, the chapter offers recommendations aimed at enhancing public awareness and improving

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students' ability to recognize and respond to deepfake materials effectively.

INTRODUCTION

Deepfake technology, powered by artificial intelligence (AI), has rapidly evolved, creating a new landscape of digital deception that poses significant challenges to individuals, society, and institutions. This chapter explores university students' perspectives on deepfakes and their ability to recognize deepfakes by working with a focus group study with students from various faculties. The increasing accessibility of deepfake technology has raised concerns about misinformation, privacy, and ethical implications, making it imperative to assess students' awareness, perception, and ability to detect such content.

As deepfake technology becomes more sophisticated, its societal implications grow more significant. Researchers have identified various threats deepfakes pose, including non-consensual imagery, political misinformation, and cybersecurity concerns. Efforts to counteract these threats include legislation, corporate policies, and educational initiatives. A pilot study examining undergraduate students' ability to detect synthetic media revealed that even educated individuals struggle to identify deepfakes with the naked eye, highlighting the need for improved awareness and training to enhance detection skills (Preu et al., 2022).

As a digitally engaged demographic, students are particularly susceptible to deepfake misinformation. A study investigating their trust in deepfake videos on social media found that user knowledge, the platform, and the uploader significantly influenced their perception of credibility. Conversely, comments and accuracy indicators had little effect. This suggests that while students know deepfakes, they still rely on contextual cues rather than content authenticity in evaluating media credibility (Hilmansyah et al., 2024).

The challenge of deepfake detection extends even to students with a background in computer science. A survey of UK university students tested their ability to recognize deepfake videos on mobile devices. Despite being informed that one of the videos was altered, students struggled to identify the manipulated content, with accuracy levels lower than random guessing (Delchev et al., 2024).

The vulnerabilities of various educational stakeholders to deepfake misinformation have also been explored in the context of scientific communication. A nationwide survey found that 27–50% of individuals, including students and educators, struggled to distinguish real videos from deepfakes. Interestingly, educators demonstrated greater susceptibility to deepfakes than students, underscoring the need for targeted interventions to enhance media literacy among those responsible for disseminating knowledge (Doss et al., 2023).