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THEORETICAL FOUNDATION OF A METHODOLOGY TO STRENGTHEN CRITICAL THINKING ON UNMASKING DEEPPAKES

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Introduction. The study focuses on Deepfake technology, advocating for a robust methodology to enhance critical thinking amid widespread disinformation and media manipulation. It examines existing approaches, identifies gaps, and formulates effective strategies. The rise of false information poses a serious concern, impacting public discourse, society, education, and democracy. Fake news spreads through social networks, necessitating strategies to promote critical thinking, especially with advancements like Deepfake technology enabling convincing manipulation of visual information. The era is marked by digital disinformation and information warfare, posing significant threats in politics, legal proceedings, terrorism, blackmail, financial markets, and fake news dissemination.

Results. Growing concerns about diminishing public trust in visual content highlight the urgent need for developing critical thinking skills, a crucial defense against misinformation in visual media. This is particularly relevant for countering the impact of misinformation on Ukraine's sustainable development. Despite high-quality deepfakes used in the film industry and advertising, achieving complete naturalness remains elusive, resulting in the uncanny valley effect. When analyzing suspicious videos, special attention should focus on the manipulated object, usually the face. A comprehensive study identified markers of image tampering, contributing to the development of tools and strategies for discerning synthetic media and reinforcing critical thinking in society. Deepfake can give away a lot of signs: excessive pixelisation, defects, fuzzy and blurred image, duplication of elements; blurry outlines; notice the flickering of the

face (one of the obvious things, since some of these videos still look unnatural – this applies to the transitions between the face, neck and hair, which are not always organically combined with each other); unnatural facial expressions, especially when blinking, eyebrow and lip movements; pay attention to the fuzzy inside of the mouth (artificial intelligence is still learning to correctly display the oral cavity, which may result in poor clarity of the image of teeth or tongue during a conversation); detect blinks (so far, most software cannot reproduce a normal human blink) low video quality, which is often used to hide incorrect neural network operation; or vice versa high quality with unnaturally perfect hair or skin; differences in body type, physique, hairstyle and voice from the original; in the most popular solutions only the face is replaced, so it is possible to notice the boundary of the face overlay, differences in shadows, lighting and skin tone.

Conclusion. Amidst the surge of disinformation and escalating sophistication in media manipulation, there is a pressing need to develop a robust methodology for enhancing critical thinking skills. The study emphasizes a comprehensive approach to examining misinformation through synthetically reproduced media. Results underscore the pivotal role of developing critical thinking skills to counter misinformation in visual media, recognizing challenges posed by high-quality deepfakes and identifying key signs for their identification.

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References

1. Chemerys H. (2023) Truth & Trust in the Age of Deepfakes: Recognize & Overcome. Українські студії в європейському контексті: зб. наук. пр. Київ : ГО “Інноваційні обрії України”. № 7. Pp. 403-407 DOI: <https://doi.org/10.31110/2710-3730/2023-7>.
2. Chemerys H., Briantseva H. V., Briantsev O. A. (2021) The Urgency of the Problem Synthetically Reproduced Media Content. International scientific conference «Interaction of culture, science and art in terms of moral development of modern European society» : conference proceedings. Riga, Latvia : «Baltija Publishing». Pp. 85-88. DOI: 10.30525/978-9934-26-178-7-20

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COMPLIANCE WITH NORMS OF ACADEMIC INTEGRITY WHEN STUDENTS PERFORM PRACTICAL TASKS (PROJECTS) DURING MIXED EDUCATION

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Introduction. The issue of compliance with the norms of academic integrity in the learning process, in particular, the performance of practical tasks (projects) by students during blended learning, is currently quite relevant, as evidenced by the repeated occurrence of the subject in professional and scientific literature. The mixed form made it possible to complete the task in an online format, when the practical task is downloaded in Google Class. However, now, after the update of Google Classroom functions, the function of checking the originality of the content is relevant.

Basic outline of the material. Digitization of most of the documents, their functioning in electronic form significantly simplified search access to information. In this regard, the problem of citation and compliance with authorship when students perform certain types of work has gradually become more relevant. That is why, in recent years, coursework, bachelor's and master's theses have been checked through online systems of academic integrity. However, borrowings and citations are available not only in theses. So, the performance of practical tasks can be related to writing an essay or writing an analytical note. It is in