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ВИКОРИСТАННЯ ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНИХ ТЕХНОЛОГІЙ У ПРОФІЛАКТИЦІ ІНФОРМАЦІЙНОГО НАСИЛЬСТВА В ОСВІТНЬОМУ СЕРЕДОВИЩІ ПЕДАГОГІЧНИХ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ

Анотація. У статті досліджується проблема профілактики інформаційного насильства в освітньому середовищі педагогічних закладів вищої освіти засобами інформаційно-комунікаційних технологій. Актуальність дослідження детермінована зростанням впливу інформаційно-комунікаційних технологій на сучасне суспільство та посиленням проблем інформаційного насильства, особливо серед молоді, в тому числі в освітньому середовищі університетів.

Мета статті – визначити ефективні підходи використання інформаційно-комунікаційних технологій у профілактиці інформаційного насильства в освітньому середовищі педагогічних закладів вищої освіти. В дослідженні застосовано методи теоретичного аналізу наукової літератури, узагальнення педагогічного досвіду та аналізу даних. Основні напрямки застосування інформаційно-комунікаційних технологій у профілактиці інформаційного насильства охоплюють моніторинг, аналіз контенту, розслідування та навчання. Дослідження показують, що завдяки використанню інструментів інформаційно-комунікаційних технологій для проведення опитувань, соціальних мереж, чат-ботів, сервісів моніторингу, штучного інтелекту та онлайн-платформ можливо досягти значних результатів у протидії інформаційному насильству. Наукова новизна дослідження полягає у розробці комплексного підходу до використання інформаційно-комунікаційних технологій для профілактики інформаційного насильства в освітньому середовищі педагогічних закладів вищої освіти. Практична значущість дослідження полягає в тому, що отримані результати можуть бути використані для розробки програм з профілактики інформаційного насильства, підготовки фахівців, які зможуть ефективно протидіяти явищам інформаційного насильства, а також для створення інформаційних ресурсів для здобувачів вищої освіти, викладачів та іншого персоналу закладів вищої освіти.

Ключові слова: інформаційне насильство, профілактика, педагогічний заклад вищої освіти, інформаційно-комунікаційні технології, освітнє середовище, професійна підготовка, майбутні вчителі.

THE USE OF ICT IN THE PREVENTION OF INFORMATION VIOLENCE IN THE EDUCATIONAL ENVIRONMENT OF HIGHER EDUCATION INSTITUTIONS

Abstract. The article examines the problem of preventing information violence in the educational environment of pedagogical institutions of higher education by means of information and communication technologies. The relevance of the study is determined by the growing influence of information and communication technologies on modern society and the growing problems of information violence, especially among young people, including the educational environment of universities.

The purpose of the article is to determine effective approaches to the use of information and communication technologies in the prevention of information violence in the educational environment of pedagogical institutions of higher education. The study used the methods of theoretical analysis of scientific literature, generalisation of pedagogical experience and data analysis. The main areas of application of information and communication technologies in the prevention of information violence include monitoring, content analysis, investigation and training. Studies show that the use of information and communication technology tools for conducting surveys, social media, chatbots, monitoring services, artificial intelligence and online platforms can achieve significant results in countering information violence. The scientific novelty of the study is the development of an integrated approach to the use of information and communication technologies for the prevention of information violence in the educational environment of pedagogical institutions of higher education. The practical significance of the study is that the results obtained can be used to develop programmes for the prevention of information violence, train specialists who can effectively counteract the phenomena of information violence, as well as to create information resources for higher education students, teachers and other staff of higher education institutions.

Keywords: information violence, prevention, pedagogical higher education institution, information and communication technologies, educational environment, professional training, future teachers.



INTRODUCTION

The problem formulation. The development of information and communication technologies (ICT) leads to the development of educational interaction between participants and educants. The intensity of such development gives rise to new challenges, among which the issue of information violence (IV) is particularly acute. IV is becoming a significant threat to the younger generation, since it was during their development when a surge in the integration of information technologies into all fields of human life occurred. An important role under such conditions is played by higher education institutions (HEIs) of a pedagogical nature, in the educational environment of which training of specialists for work in various educational institutions is provided. Such specialists should develop in conditions that are free from various forms of violence, including IV. At the same time, future specialists of the educational field should have sound training in identifying, recognizing various forms, and IV preventing.

The issue of IV preventing (using ICT) in the educational environment of pedagogical higher education institutions remains insufficiently researched in modern realities. Filling this scientific and pedagogical gap is a necessary prerequisite for improving the quality of graduates' training of pedagogical higher education institutions and, as a result, the training of the younger generation.

Analysis of recent research and publications. In recent decades, there has been an increasing interest among scientists in the issue of IV in the educational environment. In particular, the studies presented by H. Smith (Smith, 2007) and O. Kuppenko (Kuppenko, 2014) outline a sharp increase in various forms of information violence in the educational environment, which, in their opinion, is due to the rapid development of ICT. The results of these studies confirm that IV not only negatively affects the psychological state of victims, but also contributes to the development of obstacles to the effective educational process, contributing to the destabilization of interpersonal relationships of educants in the educational environment. Yu. Hlinchuk emphasizes that a modern teacher must possess a whole range of competencies for IV prevention in professional activities. She states, in particular, that a teacher must possess such competencies as: informational, communicative, social, creative, emotional ones, of critical thinking, as well as competence in solving problems and making decisions. This combination will allow the future teacher to act effectively in conditions of IV manifestations, giving it the ability to protect itself or other representatives of education (Hlinchuk, 2024).

V. Ternopil'ska emphasizes that effective IV prevention is primarily "the development of harmonious educant-educant interaction of participants in the educational process in higher education institutions, taking into account value orientations, individual characteristics of student youth, and conducting regular educational work" (Ternopil'ska, 2024). At the same time, the researcher proves that media literacy (the ability to use ICT for critical comprehending of information) is one of the key prerequisites for effective IV prevention in the educational environment of pedagogical higher education institutions (Ternopil'ska, 2024, p.63). Thus, ICT contributes to media literacy development of higher education students through the use of various effective tools. L. Danylchuk, in the thesis, proves the effectiveness of ICT tools for violence prevention, which are based on the use of multimedia, information and reference, and analytical tools (Danylchuk, 2018).

A group of researchers from Kropyvnytskyi University presented a methodology for using ICT tools for the study and IV prevention. Such tools include services that help effectively visualize information, means of communication and cooperation between specialists, as well as web services for surveys and questionnaires. The use of such tools should be carried out in the conditions of a special information model (platform), which will provide diagnostic, communication and correction functions (Prisyazhniuk and all, 2021).

That is, in modern conditions, IV is a serious educational problem, the solution of which is possible under the conditions of developing future teachers' competencies, in particular in the effective use of ICT. This is explained by the fact that ICT have significant potential in diagnosing and correcting various forms of IV, while contributing to the formation of a safe digital educational environment in pedagogical higher education institutions.

THE PURPOSE OF THE RESEARCH

Define effective approaches to using ICT in IV prevention in the educational environment of pedagogical higher education institutions.

RESEARCH METHODS

The choice of methods and materials for the study is justified by its theoretical nature. The main research methods of the study include: collection and systematization of research on IV manifestations and the use of ICT for its prevention (or sources that are similar in content); system analysis of selected research; synthesis of information to find the best ICT tools for IV prevention in the educational environment of pedagogical higher education institutions. In order to clarify the basic concepts of the study, the method of content analysis was used.

The main source of information for the study was scientific papers, which were searched through the information systems Google Scholar and Web of Science. The following criteria were taken into account at the stage of selecting the source database: publication year, topic relevance, language of publication, and scientific level of the publication.

RESULTS OF THE RESEARCH

The use of ICT in IV prevention in the educational environment of a pedagogical higher education institution requires a general clarification of "prevention" concept. In pedagogical practice it is mostly associated with the prevention and consequences overcoming of a certain negative phenomenon (usually associated with behavioral norm violation, bad habits or manifestations of various forms of violent actions) (Vol'nova, 2016). That is, the selection of effective ICT tools for IV prevention in the educational environment is based on general preventive approaches.



First of all, preventive work should begin with identifying its negative manifestations. In the conditions of the modern educational environment, such a tool is services that allow conducting surveys of education seekers (in a confidential form). The use of digital technologies for assessing or surveying education seekers contributes to: "minimizing manipulation during the survey, guaranteeing the safety of research subjects, and contributing to maintaining academic integrity" (ilonov6 and all, 2018). In other words, in IV prevention, such tools are particularly effective, making it impossible for the subject to identify the object of violence. For such specific diagnostics, it is recommended to use services such as Google Forms. It allows for quick data collection, does not require additional training of education seekers, as it has a simple and intuitive interface, has the ability to automatically evaluate the results of diagnostics, is characterized by convenient tools for data analysis, and also guarantees data storage and protection from unauthorized access (Osipchuk and all, 2019). In IV prevention in the educational environment of pedagogical higher education institutions, Google Forms should be used at the stage of primary research of academic groups for its manifestations. It should be noted that such an approach makes it impossible to identify students, which in turn will not allow other educators (who commit acts of violence) to establish their identity. That is to say, the student is fully protected within the framework of collecting data on IV manifestations, and his answers will be minimized in terms of distortion of the context.

It is worth stressing that the most common sources of producing informational violence are means of communication, in particular social networks. O. Fushtei emphasizes that social networks are both a source of cyberbullying and a means of its prevention (Fushtei, 2022). That is, in order to prevent IV manifestations in the educational environment of a pedagogical higher education institution, it is necessary to formulate a strategy of preventive measures. The author states, it is advisable to conduct an analysis of popular groups in social networks or messengers that are actively used by members of the student community. Such work consists of identifying (usually through automatic search tools) various forms of IV manifestation and through the same groups (communities, public pages) informing students about such forms of violence, methods of its identification, methods of prevention, as well as an algorithm of actions for notifying administrators of such communities (for further detection and prevention of spread).

Monitoring and support services are of great importance in IV prevention. For this purpose, it is advisable to implement chatbots that will serve to advise and support victims of negative information influences. In particular, the article "Using the Telegram messenger as a means of supporting the educational process under quarantine restrictions" (Nosenko O. V., Nosenko Yu. H., Shevchuk R. M.) highlights the possibilities of chatbot functionality in supporting students during distance learning (Nosenko and all, 2023). The advantages of using chatbots are their cross-platform characteristic (access to information materials is provided through the ability to access them on different devices), synchronous and asynchronous interaction (the ability to communicate instantly and remotely), exchange of messages in various formats (audio, video, photos), various types of communication (individual, group), the possibility of automation (providing feedback, sending information memos and reminders on a schedule). The author highlights that it is advisable to use chatbots in IV prevention for two purposes: firstly, they are convenient for use by specialists of special services whose scope of activity includes the prevention of various forms of violence, through convenient communication with education seekers; secondly, basic counseling on IV prevention may take place in automatic mode, through a sequential dialogue between the victim of violence and the messenger in which the chatbot is implemented.

An effective approach to IV preventing is monitoring social networks for its various forms. In particular, web services such as Brandwatch (<https://www.brandwatch.com/>) and Hootsuite (<https://www.hootsuite.com/>) allow you to track mentions in user publications, analyze the tone of a certain type of content, and detect cases of hate speech in real time. Using human language processing algorithms and big data analysis, these tools help: identify keywords that are markers of IV in its various manifestations; assess the emotional nature of a user's (company's) publication; track the spread of negative content among various interested user clusters. The optimal way to use such tools is to conduct a detailed analysis of social groups related to the educational environment of a higher education institution. This allows for centralized management of content from various social platforms related to a specific higher education institution. At the same time, tracking trends will contribute to the formation of detailed reports on the spread of a specific type of IV, and thus will allow identifying the main facilitators of negative content spread.

In modern conditions, it is extremely important to use the potential of artificial intelligence (AI), including in IV prevention. The potential benefits of AI implementing into the Ukrainian education system are in studying personalizing and increasing the efficiency of educational processes, as well as ensuring ethical norms and data confidentiality (Boiko and all, 2024). In the context of IV prevention, a rather important task is to recognize fake visual content used for various types of manipulation and distortion. In particular, a service such as Deeptrace (<https://www.deeptracetech.com/>) allows you to recognize edited materials, perform content analysis and its authenticity, and provide an evidence base for identifying visual manipulations. A group of Australian researchers found that deep AI neural networks allow you to automate and improve the quality of identifying disinformation in social media (Li and all, 2015). IV prevention in the educational environment of higher education institutions using such tools will contribute to a more complete comprehending of the primary sources of manipulative content. It is advisable to use such tools for in-depth analysis of IV cases.

AI tools in IV prevention should be used in such areas as monitoring, content analysis, investigation and training. It is advisable to implement the outlined ICT tools in combination, which will increase the level of effectiveness of preventive measures against IV.



IV prevention should take place not only in the discourse of overcoming its consequences, but also in the direction of its early prevention. Thus, according to K. Zhurba, the effectiveness of IV prevention is determined by the appropriate level of education seekers' training in recognizing and counteracting various forms of its manifestations (Zhurba, 2024). A higher education seeker should be provided with an appropriate level of theoretical and practical training in identifying and counteracting various forms of IV. In the conditions of a digital educational environment, such training should be carried out by organizing webinars dedicated to informing about the risks of destructive content and methods of its prevention. For this purpose, it is advisable to use the following popular platforms:

Zoom (<https://www.zoom.com/>) allows you to conduct interactive web conferences involving a large number of participants, exchange multimedia, organize sessions and questions.

Google Meet (<https://meet.google.com/>) has similar tools as the previous one, but provides the ability to integrate into Google Workspace services, which allows you to significantly expand its capabilities in the context of organizing training.

Microsoft Teams (<https://www.microsoft.com/uk-ua/microsoft-teams>) offers integration with other Microsoft services, has a wide range of tools for video recording, speech recognition, but some functions are provided only on a paid basis.

The use of these platforms contributes to raising awareness among the educants of HEIs about the dangers of IV and developing joint strategies for its prevention. It is advisable to integrate the outlined platforms within the framework of formal and informal training for the formation of competencies in countering IV. It is worth noting that such tools allow the involvement of experts in cybersecurity, law or social work, which will contribute to raising the general level of information dangers awareness.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The study represents the importance of organizing IV prevention in the educational environment of pedagogical higher education institutions. The explanation for this is the rapid development of ICT and their integration into all fields of human activity. A thorough analysis of the research has demonstrated ICT as an effective source of IV prevention. The main areas of ICT use in IV prevention are monitoring, content analysis, investigation and training. It has been established that thanks to ICT survey tools, social networks, chatbots, monitoring services, artificial intelligence and online platforms, it is possible to effectively counteract information violence. Particular effectiveness is achieved under the conditions of their harmonious combination, which allows ensuring IV prevention at different stages of its manifestation.

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