

ORIGINAL

Combating Information and Psychological Operations Through Youth Media and Information Literacy Development

Lucha contra las operaciones de información y psicológicas mediante la alfabetización mediática e informacional de los jóvenes

Anastasiia Bessarab¹  , Inna Penchuk² , Vitalii Babenko³ , Galyna Volynets⁴ , Andrii Pihura⁵ 

¹Department of Psychology and Social Work, Faculty of Special Education, Social Sciences and Humanities, Municipal Institution of Higher Education “Khortytsia National Educational and Rehabilitation Academy” of Zaporizhzhia Regional Council. Zaporizhzhia, Ukraine.

²Department of Journalism and Ukrainian Philology, Institute of Journalism and Mass Communication, Classical Private University. Zaporizhzhia, Ukraine.

³Department of the Journalism, Faculty of the Management, University of Customs and Finance. Dnipro, Ukraine.

⁴Department of Journalism, National University Zaporizhzhia Polytechnic. Zaporizhzhia, Ukraine.

⁵Department of Media Technologies, Information and Book Affairs, Institute of Printing Art and Media Technologies, National University “Lviv Polytechnic”. Lviv, Ukraine.

Cite as: Bessarab A, Penchuk I, Babenko V, Volynets G, Pihura A. Combating Information and Psychological Operations Through Youth Media and Information Literacy Development. Metaverse Basic and Applied Research. 2025; 4:183. <https://doi.org/10.56294/mr2025183>

Submitted: 01-07-2024

Revised: 11-01-2025

Accepted: 08-06-2025

Published: 09-06-2025

Editor: PhD. Dra. Yailen Martínez Jiménez 

Corresponding author: Anastasiia Bessarab 

ABSTRACT

The relevance of the study is determined by the rapid growth of information aggression and disinformation, which poses a significant threat to national security, social stability, and the personal development of young people. The article is devoted to the study of the role of ethical, cultural, and philosophical aspects in the process of forming media literacy and digital communication culture among young people, considering them as key factors in counteracting information and psychological operations (PSYOP) in the modern information space. The main methods used were: critical analysis of scientific literature on media literacy, digital culture, information security, ethics, cultural studies, and philosophy; synthesis and generalization of the data obtained to identify key concepts and interrelationships; deduction and induction to specify theoretical provisions and identify practical examples; comparative analysis of existing approaches and strategies for developing media literacy and counteracting PSYOP; interpretation and conceptualization of research results to substantiate the role of ethical, cultural, and philosophical aspects in the context under study. The results of the study demonstrate that ethical education within the framework of media literacy contributes to the formation of a responsible attitude of young people towards information and an understanding of the principles of honesty, objectivity, and respect in the digital environment. The development of a culture of digital communication that takes into account the cultural context and principles of netiquette is important for preventing cyberbullying and hate speech and promotes tolerance and intercultural dialogue.

Keywords: Media Literacy; Digital Culture; Information And Psychological Operations; Ethics; Cultural Studies; Philosophy; Youth; Information Security; Critical Thinking.

RESUMEN

La relevancia del estudio se debe al rápido crecimiento de la agresión informativa y la desinformación, que representa una amenaza significativa para la seguridad nacional, la estabilidad social y el desarrollo personal de los jóvenes. El artículo se dedica al estudio del papel de los aspectos éticos, culturales y filosóficos en el proceso de formación de la alfabetización mediática y la cultura de la comunicación digital entre los jóvenes,

considerándolos como factores clave para contrarrestar las operaciones psicológicas e informativas (OPIC) en el espacio informativo moderno. Los principales métodos utilizados fueron: análisis crítico de la literatura científica sobre alfabetización mediática, cultura digital, seguridad de la información, ética, estudios culturales y filosofía; síntesis y generalización de los datos obtenidos para identificar conceptos clave e interrelaciones; deducción e inducción para precisar las premisas teóricas e identificar ejemplos prácticos; análisis comparativo de los enfoques y estrategias existentes para desarrollar la alfabetización mediática y contrarrestar las OPIC; interpretación y conceptualización de los resultados de la investigación para fundamentar el papel de los aspectos éticos, culturales y filosóficos en el contexto de estudio. Los resultados del estudio demuestran que la educación ética, en el marco de la alfabetización mediática, contribuye a la formación de una actitud responsable en los jóvenes hacia la información y a la comprensión de los principios de honestidad, objetividad y respeto en el entorno digital. El desarrollo de una cultura de la comunicación digital que tenga en cuenta el contexto cultural y los principios de la netiqueta es importante para prevenir el ciberacoso y el discurso de odio, y para promover la tolerancia y el diálogo intercultural.

Palabras clave: Alfabetización Mediática; Cultura Digital; Información Y Operaciones Psicológicas; Ética; Estudios Culturales; Filosofía; Juventud; Seguridad De La Información; Pensamiento Crítico.

INTRODUCTION

According to views on human capital development, investment in media literacy and digital skills not only contributes to economic growth and social cohesion, but also helps make citizens less susceptible to hostile propaganda.⁽¹⁾ Media literacy is super important in today's world, especially when it comes to keeping info safe and supporting democratic institutions. It's a bunch of knowledge and skills needed to analyze and critically think about media content, spot disinformation and fake news, and protect yourself from being manipulated.

Expanding access to media education and building media literacy are essential for ensuring national information security and preserving social cohesion.⁽²⁾ In this context, the ability to analyze information is becoming a strategically important asset for countries seeking to protect their information space and citizens from external threats.^(3,4)

Today, the virtual world largely reflects real-life relationships. This also applies to legal relationships in digital form. A system of interaction between consumers and providers of Internet services has emerged, which includes electronic payments, communication, the provision of administrative services through digital applications, e-government, and much more. All these aspects are regulated by the legislation of different countries and international agreements.⁽⁵⁾

At the same time, there is the concept of netiquette, which emerged in the 1980s. It refers to the culture of virtual communication and includes several key aspects:

- Emotional contact: use of emoticons, emojis, informal or formal forms of address, ignoring aggressive remarks, established forms of greeting and farewell in official correspondence, etc.
- Technical features: citation rules, font type, size, and color, specific text formatting, presentation design, and other technical nuances.
- Administrative aspects: acceptability or inappropriateness of flame wars, advertising or its prohibition, group topics, and other administrative issues.⁽⁶⁾

In order to shape and develop digital culture in Ukraine, which is linked to the digitization of society, it is worth paying attention to the experience of EU countries, while taking into account our internal situation, needs, and threats arising from Russia's full-scale invasion.^(7, 8)

Young people, as the demographic group most adapted to digital technologies, have unique opportunities to actively participate in socio-political processes. Preparing the new generation to understand the complexities of the modern information environment is important for creating a community capable of distinguishing truthful information from manipulation.

Byrkovych et al.⁽¹⁾ emphasize the importance of investing in media literacy to strengthen society and reduce vulnerability to propaganda. An article by Krupskyy et al.⁽²⁾ highlights the key role of the media in ensuring information security and the development of democratic institutions. The publication of Chmyr et al.⁽³⁾ is devoted to the analysis of information as a strategic asset in the protection of the national information space.

The issues of digital culture and netiquette are discussed in the works of Oral,⁽⁶⁾ which identify the main aspects of virtual communication, as well as in the publication,⁽⁷⁾ which emphasizes the need to take into account the EU's experience in developing digital culture in Ukraine, especially in the context of Russian aggression.

Ethical aspects of online behavior and the risks of disclosing personal information are analyzed in detail

in the recommendations of the Cyber Police of Ukraine, materials from the Center for Antivirus Protection of Information, as well as in studies by Mncube⁽⁹⁾ and Cohen-Almagor,⁽¹⁰⁾ which examine cyberbullying and responsibility in the digital environment. A cultural approach to the formation of media literacy is revealed in the works of Pazer⁽¹¹⁾ and Agarwal.⁽¹²⁾ Their works explore the influence of social networks on the formation of youth identity. Also important for our article is the work of Flannery and Vanterpool,⁽¹³⁾ which develops models of cultural perception taking into account various influencing factors, which is extremely important for considering audience diversity in the educational process. The philosophical aspects of media literacy are highlighted in the work of Mihailidis,⁽¹⁴⁾ which emphasizes the development of critical thinking as the basis of media literacy.

The problem of information and psychological operations (PSYOP) and countermeasures against them is discussed in the works of Kaprisma,⁽¹⁵⁾ Shulska et al.,⁽¹⁶⁾ Talishinsky⁽¹⁷⁾ and Radchenko et al.,⁽¹⁸⁾ which analyze the essence of PSYOP, their impact, and the importance of developing critical thinking to counter disinformation.⁽¹⁹⁾

The issue of media education in the era of digitalization and the use of innovative teaching methods is explored in the works of Butyrina et al. and Poplavska et al.^(20, 21) The publication by Tkachenko et al.⁽²²⁾ raises the issue of shaping public opinion in the digital environment. Neuberger⁽²³⁾ analyzes society's expectations of the internet. The EU's experience in developing digital skills is reflected in the report "Young people - digital world"⁽²⁴⁾ and the European Commission's strategy "Media and digital culture".

Overall, the literature review demonstrates the multifaceted nature of the problem under study and emphasizes the need for an integrated approach that takes into account ethical, cultural, and philosophical aspects for the effective formation of media literacy and digital culture among young people as an important tool for countering information and psychological operations.

METHOD

The article is based on a combination of various scientific research methods. This study is theoretical and analytical and is based on the comprehensive application of a number of scientific methods to achieve the set goal - to identify and substantiate the role of ethical, cultural, and philosophical aspects in the formation of media literacy and digital communication culture among young people as an effective way to counteract information and psychological operations. A critical analysis of scientific publications, monographs, articles in professional journals, reports of international organizations, and other relevant sources on media literacy, digital culture, information security, psychological operations, ethics, cultural studies, and philosophy has made it possible to identify key theoretical approaches, concepts, and developments in the field of study, as well as to identify existing gaps and prospects for further research.

The data obtained from the analysis of scientific literature was synthesized to identify common patterns, key trends, and interrelationships between different aspects of the study. The generalization method was used to form a comprehensive understanding of the role of ethical, cultural, and philosophical aspects in the context of countering PSYOP. The use of the deductive method made it possible to consider general theoretical provisions on the formation of media literacy and digital culture for their concretization in the context of countering information and psychological operations aimed at young people. The inductive method was used to identify specific examples and practices that confirm or illustrate the theoretical provisions of the study. The results were interpreted to identify deep connections between ethical, cultural, and philosophical aspects and their impact on the formation of media literacy and digital culture as a means of countering PSYOP. Based on the analysis, the role of these aspects in the context of the study was conceptualized.

The choice of these methods is determined by the theoretical nature of the study, which aims to understand the complex interdisciplinary links between media literacy, digital culture, ethics, cultural studies, philosophy, and information security. Literature analysis is necessary for forming a theoretical basis, while methods of synthesis, generalization, deduction, and induction allow identifying patterns and draw well-founded conclusions. Comparative analysis enriches the research with practical context, while interpretation and conceptualization contribute to a deeper understanding of the problem under study. This methodology provides a systematic and scientifically sound approach to researching a specific topic and helps achieve the set goal.

RESULTS

Ethical education within media literacy aims to develop a responsible approach among young people to the information they consume and disseminate. It involves understanding the principles of honesty, objectivity, and respect for the rights of others in the digital environment. Young people are often targeted by disinformation. An important ethical challenge is to develop the ability to critically evaluate sources, distinguish facts from fiction, and understand the consequences of spreading unverified information.

The development of digital communication skills must take into account ethical standards of online behavior: showing respect for others, rejecting cyberbullying, hate speech, and discrimination. Understanding responsibility for one's words and actions in the online space is becoming an important aspect of ethical

development. Young people also need to be aware of the importance of protecting their privacy and personal data in today's digital world. Ethical education should include teaching safe online behavior and understanding the risks of disclosing personal information (table 1).

Table 1. Digital footprint ethics: risks of personal information disclosure

Risk	Description	Countermeasures
Cyberbullying, online harassment	Posting personal information online (address, high-quality photos, class schedule, etc.) can be used by malicious individuals or bullies for harassment, threats, stalking, and intimidation.	1. Set up privacy settings on social media profiles. 2. Block and report bullies. 3. Keep evidence of bullying. 4. Seek support from adults or specialized services or cyber police.
Phishing, fraud	Disclosure of banking information, contact details, various passwords - all this can lead to financial losses and theft of personal information.	1. Use reliable antivirus software 2. Carefully check all messages before entering personal information. 3. Do not trust suspicious requests, offers, tempting advertisements, etc. 4. Never share passwords, PIN codes, or bank details.
Identity theft	Malicious actors use personal information to create fake accounts, obtain loans in the victim's name, or for other illegal transactions.	1. Limit the publication of high-quality personal photos and do not publish personal documents. 2. Check your bank accounts and credit history for suspicious activity. 3. Use complex and different passwords.
Disclosure of private information, unwanted content, sexting, and blackmail	Young people may accidentally (or deliberately) publish explicit photos or exchange intimate images, which can be used against them for blackmail, extortion, reputation damage, etc.	1. Before publishing such content or sharing photos with anyone, consider the possible undesirable consequences for yourself. 2. Set your privacy settings if you have decided to publish content.

Source: compiled based on (9, 10, 25, 26, 27,28,29)

The Austrian Council for Ethics in Public Relations has formulated eight key principles for interaction on the Internet and social networks:

1. Honesty - use the power of communication responsibly.
2. Respect - treat users and their opinions with respect.
3. Responsibility - take responsibility for the content of your statements as a communicator.
4. Moderation - establish clear rules for conducting discussions.
5. Clarity - provide clear instructions and guidelines for company employees.
6. Transparency - disclose the role of the communicator and their motivation.
7. Courtesy - choose an appropriate and correct tone of communication.
8. Confidentiality - maintain privacy in personal matters and ensure the protection of confidential information.⁽³⁰⁾

The cultural approach to the development of media literacy and digital communication culture takes into account the socio-cultural context in which young people are formed. It is extremely important to consider the influence of the media on identity formation, as they significantly affect young people's perception of themselves and the world around them.^(11, 12) Critical analysis of the media can help to identify manipulation or stereotypes, while promoting the formation of an authentic identity.

In the context of globalization, understanding cultural diversity in the digital environment remains particularly relevant. The Internet has become a global space where the younger generation actively interacts with different cultures and worldviews. Therefore, the development of digital communication culture requires respect for diversity, tolerance, and the ability to establish intercultural dialogue. At the same time, in the era of information wars, it is important to teach young people to distinguish authentic cultural values from propaganda narratives. Systemic media literacy can be an effective tool for promoting and preserving national cultural heritage in the digital reality. For a better understanding of the cultural approach in education and, in particular, in media literacy training, it is important to take into account the levels of cultural perception of learners (table 2).

The philosophical view of the formation of media literacy and digital communication culture touches upon profound questions of cognition, truth, and freedom in the information society. The philosophical approach emphasizes the importance of developing critical thinking as the foundation of media literacy. Young people should be able to question information, analyze arguments, identify logical fallacies, and form their own informed judgments. Philosophical reflections on the nature of truth and objectivity help young people understand the complexity of the media landscape, where sources may present different, sometimes contradictory, versions

of the same events.⁽¹⁴⁾

Table 2. Levels of cultural perception among students

Inner cultural	It is linked to a person's direct life experience, such as relationships within the family, between brothers and sisters; differences between families within the same community, religious community, school, or office.
Intracultural	Covers experience within a society but is not related to an individual's direct life experience. It relates to aspects such as racial and ethnic origin, religious or gender identity, physical appearance, or socioeconomic status.
Intercultural	Emphasis on international cultural concepts. These levels are not isolated from each other but, on the contrary, are interconnected and influence each other.

Source: compiled based on⁽¹³⁾

The formation of a digital communication culture requires an understanding of the relationship between freedom of expression and responsibility for one's words. Philosophical analysis helps young people understand the limits of freedom of speech and the ethical consequences of its use in the digital space. Developed media literacy and a well-formed digital communication culture are powerful tools for countering PSYOP. Critically thinking and ethically responsible young people:

- Able to recognize manipulative techniques (understanding the principles of propaganda, framing, and emotional influence helps identify attempts to manipulate consciousness).
- Are less vulnerable to disinformation (the ability to verify sources, analyze information, and identify fakes makes young people more resistant to the imposition of false narratives).⁽¹⁹⁾
- Consciously shape their information space (understanding social media algorithms and the principles of the information bubble allows young people to actively shape their information flow, avoiding falling into propaganda traps).⁽³¹⁾

Developing media literacy and digital communication culture among young people is a complex, multifaceted process that encompasses ethical, cultural, and philosophical aspects. Integrating these dimensions into educational programs and educational initiatives is key to raising a generation capable of critical thinking, acting responsibly in the digital space, and effectively countering information and psychological operations. This is an investment in the future of information security and societal resilience.

DISCUSSION

Psychological operations (PSYOP) are well-planned measures aimed at conveying specially prepared information and signals to various audiences, mostly foreign. The main task of such operations is to influence the emotions, motives, critical thinking of the target audience and, ultimately, their behavior, as well as the actions of relevant governments, organizations, groups, or individuals. The official definition of the concept was recorded in the US Armed Forces Field Manual 33-1 - Psychological Operations, which was published in 1987. However, such methods had been used long before that, starting with the political and religious conflicts in human history. The main forms of PSYOP include propaganda and disinformation.

The term itself appeared in 1918, when a psychological propaganda unit was established as part of the military intelligence of the American Expeditionary Force. Psychological operations are generally seen as the strategic use of information to influence people, their attitudes, and behavior in order to create certain messages, emotions, and attitudes that support specific goals. These operations are closely related to communication, information, and behavior. Forms of communication can vary from simple word of mouth to the use of mass media, including visual, audio, and audiovisual formats.⁽¹⁵⁾

Information and psychological operations include political, military, economic, diplomatic, and information and psychological measures. They are aimed at influencing a specific person or group of people in order to impose foreign ideological and social attitudes, create false stereotypes of behavior, and change their moods, feelings, and will in the desired direction. Information and psychological operations can be directed at the entire population or at specific social strata and groups.

Their targets may include representatives of the political, financial, economic, scientific, and cultural elite, individual political or military leaders, religious figures, or persons who make socially important decisions. Interference may also affect the information and technical infrastructure, but the main focus is on influencing people's consciousness and behavior to achieve maximum effect.⁽¹⁶⁾

Psychological operations from a socio-cultural perspective are inextricably linked to communication. The concept of communication for psychological operations was described in Berlo's work.⁽³²⁾ It emphasizes the important role of the socio-cultural aspect in improving the effectiveness of message delivery to the target audience. This concept includes elements such as communication skills, attitudes, education, knowledge,

social systems, and culture. For psychological operations to be successful, the sender, i.e., the operational team, must study the social, cultural, and physical characteristics of the target audience. A deep understanding of the target audience helps determine the format and content of the message to be conveyed during the operation. The use and manipulation of social media to illegally influence decision-making and public opinion is part of a broader context of information influence and can be effectively analyzed through the lens of strategic communications.^(33,34)

The Declaration on the Principles of Internet Governance identifies ten key principles that form the basis for the functioning of the global network:

- Human rights, democracy, and the rule of law.
- Multistakeholder approach to governance.
- Responsibility of states in regulating the Internet.
- Enabling conditions for user convenience and security.
- Universal accessibility of the Internet.
- Ensuring the integrity of the network, including security, stability, reliability, resilience, and the ability to evolve as core management objectives.
- Decentralization in governance, where technical organizations, management structures, and the private sector retain a leading role in technical and operational matters, with transparency and accountability to the international community for actions that affect public policy.
- Adherence to architectural principles for barrier-free access to the network.
- Support for an open network.
- Encouragement of cultural and linguistic diversity alongside the development of local content.⁽³⁵⁾

In today's globalized world, digital communications have become an integral part of our daily lives. Media literacy enables people to critically evaluate information, understand the influence of the media, and independently verify facts and data sources. Disinformation and data manipulation campaigns increasingly threaten social stability.⁽¹⁷⁾ In countries where critical thinking programs are actively developed, citizens' trust in political institutions is growing. At the same time, poor information literacy often leads to credulity towards disinformation, which undermines social stability and trust in official sources.⁽¹⁸⁾

Media education in the age of digitalization is an important topic for research, as the formation of a post-industrial society and the digitization of many aspects of social life require a well-founded approach. This creates a need for effective teaching styles. Innovative styles of media education, which are tools and methods of information and communication technologies, contribute to the prospects for the successful development of society. They support the development of information, language, mathematical, and other competencies. Due to the widespread availability of media resources in cyberspace and social networks, media education is becoming increasingly relevant. Among the main approaches to media education are the use of media texts, media resources, and video resources in the context of educational activities. In the educational process, priority should remain with the use of hybrid styles that combine virtual and physical learning environments.⁽²⁰⁾

Ethical issues and their justification have always been central to the discourse in media education since its inception. Today, they have become particularly relevant due to the need for ethical standards in the context of digital technologies. Topics such as hate speech and deepfake technologies are being explored at both the national and international levels.

However, the question remains as to which regulatory framework applies and how moral aspects are taken into account in these contexts. Is humanity striving to become a purely digital society? Probably not. It's all about a society based on values that stays strong and keeps growing thanks to its principles, even with the challenges that come with digital tech. Digitalization has introduced new ways of interacting, and political opinions are increasingly formed on social media, which has become the main source of online information for many.

Algorithms determine what content may be relevant to users, such as news. However, hate speech, fake news, and disinformation campaigns increasingly overshadow opportunities, narrowing the debate about the values of the digital society. If public opinion formation becomes impossible, this threatens social cohesion and undermines the free democratic order.⁽²²⁾ Democratic societies have a duty to ensure the formation of public opinion through technology, regulation, and appropriate oversight bodies. At the same time, innovation cycles in networked media often outpace political decisions. The use of artificial intelligence in public communication already heralds the next stage of digital evolution: the use of digital communication to create text and video content will significantly change the exchange of information and the formation of opinions.⁽²³⁾

The problem of information and psychological operations (PSYOP) as a tool of geopolitics and propaganda has become particularly acute. Young people, as the most active part of the online space, are becoming one of the key target audiences for destructive information influence. In this context, in addition to developing media literacy, digital communication culture among the younger generation is equally important. This is not only an

educational need, but also an urgent requirement for ensuring national security and social stability.

In her agenda for Europe, European Commission President Ursula von der Leyen outlined priorities for 2019-2024. In February 2020, the Commission presented a document on shaping Europe's digital future, focusing on the opportunities arising from the development of new technologies such as artificial intelligence and 5G networks, as well as the use of potential data from large amounts of information. In addition to encouraging businesses to develop these technologies, the strategy ensures that innovation is carried out with the trust of citizens in mind (trustworthy technologies, support for an open society, ensuring a sustainable economy, combating climate change, and the green transition). Digital skills indicators are important performance indicators within the Digital Decade, which sets out the EU's vision for digital transformation. The Digital Compass sets a target for 80 % of EU citizens aged 16 to 74 to have basic digital skills by 2030.⁽²⁴⁾ In the field of media literacy, this involves developing cognitive flexibility in young people, enabling them to avoid the trap of confirmation bias, i.e. the tendency to find and interpret information exclusively in a way that supports their existing beliefs.

CONCLUSIONS

The results of the analysis of scientific literature and theoretical generalization indicate that the formation of a responsible attitude towards information, based on ethical principles of honesty, objectivity, and respect, is the foundation of media literacy. The cultural approach to media literacy and digital communication culture emphasizes the importance of considering the sociocultural context in which young people grow up. Understanding the impact of media on identity formation, awareness of cultural diversity in the digital environment, and the development of tolerance are important components of young people's ability to critically analyze media content and distinguish authentic cultural values from propaganda narratives. In the context of information wars, knowledge of cultural characteristics and the ability to establish intercultural dialogue are becoming important tools for countering attempts to manipulate consciousness through the use of cultural symbols and narratives.

The integration of ethical, cultural, and philosophical aspects into the process of developing media literacy and digital communication culture among young people is not only a pedagogical necessity but also an urgent requirement for ensuring national security and social stability in the context of information aggression. Critically thinking, ethically responsible, and culturally aware young people are able to effectively recognize and resist manipulative information influences, consciously shape their information space, and actively participate in building a sustainable and secure information society. Further research could focus on developing and implementing practical methods for integrating ethical, cultural, and philosophical aspects into media literacy curricula for different age groups of young people, as well as studying the effectiveness of various strategies for countering PSYOP, taking into account these interdisciplinary approaches. The results obtained are important for the development of educational policies aimed at improving the level of media literacy and digital culture of Ukrainian youth as an important factor in national security and democratic development.

REFERENCES

1. Byrkovych T, Denysiuk Z, Gaievska L, Akimova L, Prokopenko L, Akimov O. State policy of cultural and art projects funding as a factor in the stability of state development in the conditions of globalization. *Economic Affairs* (New Delhi). 2023; 68(1):199-211. <https://doi.org/10.46852/0424-2513.1s.2023.23>
2. Krupskyy I, Zykun N, Mitchuk O, Sushkova O, Sypchenko I. The role of mass media in the social orientation of the masses and social management. *Scientific Herald of Uzhhorod University. Series "Physics"*. 2024; 55:2988-3001. <https://10.54919/physics/55.2024.298wt8>
3. Chmyr Y, Moshnin A, Tsymbal B, Shchokin R, Balashov A. Societal Content and Main Determinants of "National Security" Phenomenon in the Information and Communication Context. In: O. Radchenko V, Kovach I, Semenets-Orlova A, Zaporozhets, editors. *Contributions to Political Science. National Security Drivers of Ukraine. Information Technology, Strategic Communication, and Legitimacy*. Cham: Springer. 2023. p. 25-41. <https://doi.org/10.1007/978-3-031-33724-6>
4. Mitchuk O, Penchuk I, Podluzhna N, Malovichko O, Shirobokova O, Tregub A. Changes in Social Communication as a Tool of Social Work under the Influence of Digitalization. *Studies of Applied Economics*. 2021; 39(3):2-11. <https://doi.org/10.25115/eea.v39i3.4717>
5. Dempsey J, Saniuk-Heinig C. *Cybersecurity Law Basics*. IAPP25. ResourceCenter, 2025. <https://iapp.org/resources/article/cybersecurity-law-basics/>

6. Oral U. Netiquette: Fundamentals of Etiquette in Digital Communication. *European Journal of Theoretical and Applied Sciences*. 2023; 1(5):833-847. [https://doi.org/10.59324/ejtas.2023.1\(5\).70](https://doi.org/10.59324/ejtas.2023.1(5).70)
7. Bidzilya Y, Haladzhun Z, Solomin Y, Georgiievska V, Sydorenko N. Ukrainian journalism and media security in conditions of full-scale Russian aggression. *Salud, Ciencia y Tecnología - Serie de Conferencias*. 2024; 3:769. <https://doi.org/10.56294/sctconf2024.769>
8. Media and digital culture. Shaping Europe's digital future. European Commission, n. d. <https://digital-strategy.ec.europa.eu/en/policies/media-and-digital-culture>
9. Mncube S. Cyberbullying a desecration of information ethics: Perceptions of post-high school youth in a rural community. *Journal of Information Communication and Ethics in Society*. 2016; 4(4):313-322. <https://doi.org/10.1108/JICES-04-2016-0009>
10. Cohen-Almagor R. Cyberbullying, moral responsibility, and social networking: lessons from the megan meier tragedy. *European Journal of Analytic Philosophy*. 2020;16(1):75-98. <https://doi.org/10.31820/ejap.16.1.4>
11. Pazer S. The Impact of Social Media Use on Identity Formation among Adolescents. *International Journal of Advance Research, Ideas and Innovations in Technology*. 2024;10(5)-V10I5-1307:299-304. https://www.researchgate.net/publication/384893227_The_Impact_of_Social_Media_Use_on_Identity_Formation_among_Adolescents
12. Agarwal A. The effect of social media in identity formation in adolescence. *World Journal of Advanced Research and Reviews*. 2024;23(03):775-779. <https://doi.org/10.30574/wjarr.2024.23.3.2685>
13. Flannery B, Vanterpool M. A Model for Infusing Cultural Diversity Concepts Across the Curriculum. *To Improve the Academy: To Improve the Academy: A Journal of Educational Development*. 1990;159-175. <https://doi.org/10.1002/j.2334-4822.1990.tb00173.x>
14. Mihailidis P. Media Literacy and the Emerging Citizen: Youth, Engagement and Participation in Digital Culture. New York; Peter Lang, 2014. https://www.researchgate.net/publication/330888821_Media_Literacy_and_the_Emerging_Citizen_Youth_Engagement_and_Participation_in_Digital_Culture
15. Kaprisma H. Psychological operations: from the communication, media, propaganda, and social-culture perspective. *Jurnal Pertahanan Media Informasi ttg Kajian*. 2020;6(2):225-238. <https://doi.org/10.33172/jp.v6i2.492>
16. Shulska N, Kostusiak N, Mitlosh A, Pavlyuk I, Polyvach M, Mudryk A, Sushkova O. Information and Psychological Operations (IPSO) as a Discovery of False Narratives in the Conditions of Military Conflict in the Med. AD ALTA: *Journal of Interdisciplinary Research*. 2023;13(1):Spec. Issue XXXIV:156-162. <https://evnuir.vnu.edu.ua/handle/123456789/22192>
17. Talishinsky E. Information and psychological warfare in the context of the war between Azerbaijan and Armenia. *Eminak: Scientific Quarterly Journal*. 2024;4(44):231-247. [https://doi.org/10.33782/eminak2023.4\(44\).684](https://doi.org/10.33782/eminak2023.4(44).684)
18. Radchenko O, Kriukov O, Kovach V, Semenets-Orlova I, Zaporozhets A, Kostenko V. Mental and Value Features of Ukrainian Society in the Context of "Civilizations Clash" as the Main Object of Information War in Ukraine. In: O. Radchenko V, Kovach I, Semenets-Orlova A, Zaporozhets, editors. *National Security Drivers of Ukraine Information Technology, Strategic Communication, and Legitimacy*. Cham: Springer. 2023. p. 301-316. <https://doi.org/10.1007/978-3-031-33724-6>
19. Chakure A. 52 Tricks to Media Manipulation. *DEV Community*, 2024, December 19. <https://dev.to/afrozchakure/52-tricks-to-media-manipulation-3i5k>
20. Butyrina M, Hyrina T, Penchuk I, Bondarenko I, Skurtul G, Tiapkina N. The Development of Innovative

Media Education Styles in the Era of Information and Communication Technologies. *Journal of Curriculum and Teaching*. 2022;11(1):Special Issue 2:195-207. <https://doi.org/10.5430/jct.v11n1p195>

21. Poplavska N, Synorub H, Yordan H, Medynska O, Kushnir O, Dragan-Ivanets N. The Use of Binary Online Lessons in the Context of Forming Critical Thinking in Future Journalists. *Journal of Curriculum and Teaching*. 2022;11(1):273-285. <https://doi.org/10.5430/jct.v11n1p273>

22. Tkachenko O, Zhylenko I, Poplavska N, Mitchuk O, Kuzmenko H,, Zolyak V. Personnel Behaviour Management Through Social Communications. *Estudios de Economia Aplicada*. 2021; 39(5): 1-10. <https://doi.org/10.25115/eea.v39i5.4837>

23. Neuberger C. Was erwartet die Gesellschaft vom Internet - und was erhält sie? Printed in Germany. Gedruckt mit finanzieller Unterstützung der Bundesrepublik Deutschland, 2018.

24. Young people - digital world. Eurostat. Statistics Explained, 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Being_young_in_Europe_today_-_digital_world&oldid=564756#Source_data_for_tables_and_graphs

25. Anti-FakeUNITED Media 24, n. d. <https://united24media.com/anti-fake>

26. Recommendations. Cyber police. National Police of Ukraine, n.d. <https://cyberpolice.gov.ua/articles/>

27. Center for Antivirus Protection of Information. State websites of Ukraine. Centre for Anti-Virus Information Protection, n. d. <https://cazi.gov.ua/uk>

28. Jiménez Pérez GA. Benefits and challenges of using AI in heritage education. *EthAlca*. 2024; 3:102.

29. Gonzalez-Argote J, Maldonado E, Maldonado K. Algorithmic Bias and Data Justice: ethical challenges in Artificial Intelligence Systems. *EthAlca*. 2025; 4:159.

30. Ethics in Digital Communication. Guidelines developed by the Austrian PR Ethics Council (PR Ethik Rat) and recommend by the International Communications Consultancy Organisation (ICCO), 2017. <https://iccopr.com/wp-content/uploads/2017/10/Ethics-in-Digital-Communications-Guidelines.pdf>

31. Understanding propaganda and disinformation. At a glance, November. European Parliament, 2015. [https://www.europarl.europa.eu/RegData/etudes/ATAG/2015/571332/EPRS_ATA\(2015\)571332_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2015/571332/EPRS_ATA(2015)571332_EN.pdf)

32. Berlo DK. The Process of Communication. New York: Holt Rinehart and Winston. 1960. <https://archive.org/details/dli.ernet.235577/mode/2up?view=theater>

33. Twetman H, Pamment J, Nothhaft H., Fjällhed A. The Role of Communicators in Countering the Malicious use of Social Media. NATO Strategic Communications Centre of Excellence, 2019, March, 13. <https://stratcomcoe.org/publications/the-role-of-communicators-in-countering-the-malicious-use-of-social-media/101>

34. Arengas Acosta JM, Lopez Ramirez M, Guzman Cabrera R. Impacto del preprocesamiento en la clasificación automática de textos usando aprendizaje supervisado y reuters 21578. *Revista Colombiana De Tecnologías De Avanzada (RCTA)*. 2024;1(43):110-8.

35. Declaration by the Committee of Ministers on Internet governance principles (Adopted by the Committee of Ministers on 21 September 2011 at the 1121st meeting of the Ministers' Deputies). Council of Europe. Committee of Ministers, 2011. https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805cc2f6

FUNDING

This research did not receive any financial support.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Anastasiia Bessarab, Inna Penchuk.

Data curation: Galyna Volynets.

Formal analysis: Galyna Volynets.

Research: Galyna Volynets, Andrii Pihura.

Methodology: Andrii Pihura.

Project management: Andrii Pihura.

Resources: Galyna Volynets.

Software: Vitalii Babenko.

Supervision: Galyna Volynets.

Validation: Andrii Pihura.

Display: Andrii Pihura.

Drafting - original draft: Anastasiia Bessarab, Inna Penchuk.

Writing - proofreading and editing: Anastasiia Bessarab, Inna Penchuk.