SERIE
DE CONFERENCIAS

Check for updates

ORIGINAL

Modern Approaches to Journalism in the Digital Media Era: the Role of Multimedia Content and Audience Interaction

Enfoques modernos del periodismo en la era de los medios digitales: el papel de los contenidos multimedia y la interacción con la audiencia

Valentyna Stiekolshchykova[1] ✉, Iryna Putsyata[2], Oksana Lavryk[3], Olga Marukhovska-Kartunova[4], Oleg Marukhovskyi[5]

[1]Pylyp Orlyk International Classical University, Department of Journalism and Philology. Mykolaiv, Ukraine.
[2]Lviv Polytechnic National University, Department of Journalism and Mass Communication, Institute of Jurisprudence, Psychology and Innovative Education. Lviv, Ukraine.
[3]Odesa Polytechnic National University, Department of Information Activities and Media Communication, Institute of Humanitarian Science. Odesa, Ukraine.
[4]University of Economics and Law "KROK," Department of Foreign Languages and General Education Disciplines. Kyiv, Ukraine.
[5]Kuras Institute of Political and Ethnic Studies of the National Academy of Sciences of Ukraine, Department of Global Political Development Problems. Kyiv, Ukraine.

ABSTRACT

Introduction: digital media have become an essential tool for information dissemination and content creation in current journalism.
Objectives: this study aimed to analyse the role of multimedia content in audience engagement and interaction through contemporary journalistic techniques.
Method: the research employed a survey of an experimental group comprising 250 journalists, editors, and Internet users. The survey focused on assessing the impact of multimedia technologies on journalism and identifying specific techniques used in digital content creation.
Results: the results indicate that modern multimedia content significantly influences journalistic practices, enhancing audience engagement and interactivity. Key features of multimedia-based journalism include the integration of podcasts, video storytelling, and the use of graphic editing tools for processing and presenting statistical data. These technologies enable journalists to deliver information more effectively and appeal to diverse audience preferences. The study highlights the growing importance of multimedia technologies in shaping journalistic presentation and interaction strategies.
Conclusions: the use of digital technologies in journalistic content creation is a defining feature of contemporary media practices. By leveraging multimedia tools, journalists can produce engaging, high-quality content that fosters meaningful audience interaction. This integration of digital technologies not only enriches the content but also establishes stronger connections with the audience, making multimedia an indispensable component of modern journalism. The research underscores the transformative role of digital media in evolving journalistic standards and practices

Keywords: Digital Media; Multimedia Content; Journalism; Audience Engagement; Multimedia Technologies.

RESUMEN

Introducción: los medios digitales se han convertido en una herramienta esencial para la difusión de información y la creación de contenidos en el periodismo moderno.

Objetivos: este estudio tuvo como objetivo analizar el papel del contenido multimedia en la participación e interacción de la audiencia a través de técnicas periodísticas contemporáneas.

Método: la investigación incluyó una encuesta a un grupo experimental compuesto por 250 periodistas, redactores y usuarios de Internet. El objetivo fue evaluar el impacto de las tecnologías multimedia en el periodismo e identificar técnicas específicas utilizadas en la creación de contenidos digitales.

Resultados: los resultados muestran que los contenidos multimedia modernos influyen significativamente en las prácticas periodísticas, potenciando el compromiso y la interactividad de la audiencia. Entre las características principales del periodismo multimedia destacan la integración de podcasts, narrativas en vídeo y el uso de herramientas de edición gráfica para procesar y presentar datos estadísticos. Estas tecnologías permiten a los periodistas difundir información de manera más efectiva, adaptándose a las diversas preferencias de la audiencia. Además, el estudio destacó la importancia creciente de las tecnologías multimedia en la configuración de estrategias periodísticas de presentación e interacción.

Conclusiones: el uso de tecnologías digitales en la creación de contenidos periodísticos constituye un rasgo definitorio de las prácticas mediáticas contemporáneas. Al aprovechar herramientas multimedia, los periodistas pueden crear contenidos atractivos y de alta calidad, fomentando interacciones significativas con la audiencia.

Palabras clave: Medios Digitales; Contenidos Multimedia; Periodismo; Compromiso De La Audiencia; Tecnologías Multimedia.

INTRODUCTION

The integration of digital information transmission systems into modern use surpasses the influence of traditional media and requires a detailed reassessment to establish sustainable interaction with the audience, change formats and methods of information transmission. Interactive interaction has contributed to the formation of new standards in communication and information exchange, which has a new impact on the development of media platforms.

The contemporary media ecosystem is developing in line with modern digital trends. Modern scholarship has shown that there are different approaches to the development of journalism in the digital age. First, modern researchers emphasise the importance of an interactive approach, which means that modern journalists use digital technologies to create interactive content to engage a larger audience.[1,2 3] Another important approach is dataification, which involves the use of analytics and the processing of large amounts of data. This helps to create interactive data for media consumers.

Another important approach is the use of social media as a platform for information dissemination. Nser, Alhrahsheh, Alshalabi, and Khasawneh[4] provide a more detailed analysis of the impact of social media on improving journalism in the digital age. Finally, data personalisation is a popular approach to journalism in digital media.[5] With the help of modern technologies, professional journalists and editors can create content aimed at a specific audience.

In general, contemporary scholars have been interested in understanding the role of multimedia content in modern digital journalism. A critical study by Yepez-Reyes and López [6] identified the impact of multimedia technologies on different movements and their interaction with media resources. Contemporary scholars have also drawn attention to the importance of digital technologies in facilitating discourse between journalists and the public.[7,8] Pearce and Rodgers[9] also focused on the study of certain aspects of the role of social media in shaping journalism in the digital age. Perreault and Ferrucci's[10] fundamental work are devoted to clarifying the role of digital journalism in a time of active paradigm shift. Dadakhonov[11] identifies the role of digital literacy in the analysis of modern digital media. At the same time,[12] investigated the importance of social networks and digital journalism in the system of public opinion formation. Thus, contemporary scholars are actively studying various manifestations of digital journalism, but not much attention is paid in modern studies to determining the role of multimedia as an innovative approach in journalism. Therefore, an important area of contemporary research is to understand the role of these technologies in the development of journalism. On the one hand, multimedia technologies have become an important part of high-quality journalistic material, but on the other hand, excessive use can lose the reader in the content of interactive images or videos. For this reason, it is important to investigate the current trends in the development of journalism in the digital media era.

The aim of the article is to determine the role of multimedia content as an innovative approach in modern

journalism.

Before the study, the authors of the article formed several research hypotheses:

1. Modern journalism uses various forms of multimedia content that generally improve the visualisation of information.

2. Multimedia content promotes greater audience engagement and improves the perception of complex information.

3. Multimedia content is valuable for enhancing audience engagement and helps to expand the audience.

METHOD

Type of study

In the current digital era, in which media performs important functions, digital research methods are playing a prominent role. The type of the study is quantitative. The design for the experimental study of the role of multimedia content used an experimental group design of journalists, editors, and media content consumers to find out the role of multimedia tools in journalistic activity and interaction with the audience. Thus, the plan of the control study of the role of multimedia content in modern media was conducted among journalists, editors of publishing houses, and consumers of media in Ukraine using qualitative methods.

Place and date of its realization

Location: Ukraine. The study was conducted remotely to encourage everyone to participate. Date: September 13 – November 13, 2024.

Universe and Sample

The participants of this experiment were people who have experience of active work in the journalistic field or are interested in current news on modern Ukrainian media websites. Preliminary inclusion criteria were developed for them:

1. Activities in contemporary Ukrainian publications
2. Individuals must be professional journalists or editors
3. Skills to actively interact with multimedia content

Other participants were also selected based on their familiarity with contemporary Ukrainian media and understanding of multimedia content.

Exclusion criteria:

1. Individuals with no experience in journalism (students who are just starting their studies and those who have studied related specialties were excluded).

2. Participants who did not have regular access to modern Ukrainian media and do not use media content.

3. Individuals who did not provide informed consent to participate in the study

Research universe: All professional journalists and editors who work or worked at the time of the research in the field of modern Ukrainian media. To find potential respondents who could theoretically meet the main selection criteria, elements of purposive and snowball sampling were used. Participants were initially found in a targeted manner. Subsequently, they were asked to find other potential participants or an audience that would be interested in the study, i.e. snowball sampling was applied. Thus, this approach ensured the diversity of respondents.

A total of 250 people were recruited.

Study variables

This study plans to examine several types of variables that determine the professional experience of journalists and their interaction with media content. The independent variables will be: professional experience, qualifications, education, type of media in which the participant works, professional direction.

The dependent variables are determined by the frequency of news consumption, the share of multimedia content and the level of involvement in multimedia elements. The control variables will be the age of the participants, access to the Internet, devices.

Data collection and Instruments

To qualitatively collect quantitative data, a survey based on a pre-designed questionnaire was used. It covered the demographic data of people willing to participate and their professional experience. The second part was about identifying the main tools used to create multimedia content. The survey also sought to identify

the main forms of images and video content used in contemporary journalism (table 1).

Table 1. Questionnaire for specialised journalists and editors	
Question	
Part 1: Finding out the demographics of the participants	1. What is your education? Where do you work?
Part 2. Defining the main tools	2. How can you assess the impact of modern digital technologies on Ukrainian journalism?
	3. What is the role of multimedia technologies in modern journalism?
	4. What goals do you pursue when using different multimedia technologies?
	5. To what extent do modern media resources use multimedia tools?
	6. What forms of images are used in modern media resources?
	7. What forms of video or audio files are used in modern media?
	8. What forms of infographics are currently used to increase interaction in media resources*?

A separate survey was conducted for the audience, for which questions were formulated to clarify the role of multimedia.

1. How do you see the role of multimedia content in modern media resources?
2. How often do you use the media?
3. To what extent do you assess the impact of multimedia content?
4. Do you think multimedia technologies are effective in attracting attention and engagement?

It should be noted that the research material was collected between 03.12.2023 and 25.03.2024.

Statistical techniques and procedures

The descriptive statistics method was used for the purpose of detailed processing and subsequent analysis of the main quantitative data (obtained using a questionnaire). This analysis included a summary of the demographics of the participants and their media activities and practices of using multimedia content. At the same time, the data were processed using Excel software - they were entered into a table and the relevant indicators were found using special functions (summation, statistical average).

Another method - comparative analysis - was used to compare the material obtained with the results of scholars. A separate place was also found for thematic analysis, which is based on finding common themes and forms of using multimedia content.

Ethical Considerations

All participants gave their consent to the processing of their answers. Participants' anonymity is ensured. There are no different manifestations of any discriminatory policy.

RESULTS

Studying the demographic data of the interviewees, 16 % of the interviewees were 21-25 years old. The vast majority of people are 26-35 years old (45 %). Many study participants had a bachelor's degree - 41 %. There were 36 % masters, and 18 PhDs (table 2).

Table 2. Demographic information of the respondents				
Age	**21-25 years old**	**26-35**	**36-45 years old**	**46-60**
%	16 %	45 %	29 %	10 %
Education	Bachelor's degree	Master	Incomplete higher education	PhD
%	41 %	36 %	5 %	18 %

At the same time, the journalists and editors had different lengths of service in the media sector. After that, the authors of the study obtained informed consent from all potential respondents. Table 3 shows the summary data of the participants.

When asked how often they read and interact with the media, respondents under the age of 21 from the "general audience" group mostly answered that they do so several times a week (45 %), daily (35 %), and several times a month (20 %). At the same time, participants over 35 years old use media resources more often - daily - 43 %, and several times a week - 37 % (table 4).

Table 3. Summary data of participants				
Group of participants	Journalists	Editors and heads of editorial departments	General audience	Overall
Quantity	50	40	110	250
%	25 %	20 %	55 %	100 %

Table 4. Frequency of use of media resources				
Category	Young people under 21 Frequency	Participants aged 21-35 Frequency	Participants aged 35-50 Frequency	Over 60 years old Frequency
Daily	20 %	36 %	43 %	35 %
Several times a week	35 %	28 %	37 %	37 %
Once a week	18 %	26 %	15 %	22 %
Several times a month	22 %	8 %	5 %	5 %
Once a month	4 %	2 %	0 %	1 %
Overall.	100 %	100 %	100 %	100 %

The most recognisable multimedia resource is interactive images, which were mentioned by most respondents (78.57 per cent of journalists and 79 per cent of the audience). Video, audio and podcasts were also mentioned as important media (table 5).

Table 5. The use of multimedia in modern media									
Participants	Figure		Video		Audio Video Podcasts		Infographic		Overall
	No.	%	No.	%	No.	%	No.	%	No.
Journalists, editors	110	78,57 %	67	47,86 %	69	49,29 %	43	30,71 %	140
Audience	87	79,09 %	51	46,36 %	42	38,18 %	28	25,45 %	110
Overall									250

These findings from the respondents indicate a general diversity in the use of multimedia resources, which in turn contributes to a richer media experience and caters to the different tastes and preferences of the contemporary Ukrainian audience. The authors believe that the use of images and videos that are of good quality and perfectly match the text can improve audience engagement and overall understanding. At the same time, video tools play an important role in multimedia in modern journalism due to their ability to visually represent any event and provide a certain context. On the other hand, the active use of infographics dismantles the intention of modern media resources to highlight complex data through visualisation, which contributes to a better understanding of the materials for readers. At the same time, the use of various podcasts indicates an innovative approach to audience engagement. In general, modern media use different types of images, videos, or infographics, which can be studied to better understand the ways of audience engagement in modern journalism (table 6).

Table 6. Forms of images in contemporary media										
Participants	Archival photos		Current events		Painted images		Sketch		Caricature	
	No.	%	No.	%	No.	%	No.	%	No.	%
Journalists, editors	67	47,86 %	89	63,57 %	69	49,29 %	39	27,86 %	25	17,86 %
Overall										140

Therefore, table 6 describes the different types of images that are predominantly used in the materials published in modern media. The issue of covering current events tops this ranking in terms of the number of responses from respondents (i.e., almost 64 %). This is followed using various archival photos (almost 48 %) and drawings (49 %), from a total of 140 journalists. On the other hand, infographics also play a prominent role in journalistic materials, as they help to clarify data, make reading the text more understandable, and illustrate the usefulness of the data for the audience. According to the experiment, infographics are most often used

in modern media to display statistics (almost 66 %), or to describe a certain infographic process (almost 64 %) and to display chronological data (58 %). At the same time, informational infographics are also important for modern journalism (table 7).

Participants	Information infographic		Process infographic		Chronology		Statistics	
	No.	%	No.	%	No.	%	No.	%
Journalists, editors	78	55 %	89	63,57 %	81	57, 86 %	92	65, 71 %
Overall								140

Table 7. Forms of infographics in modern media

Therefore, modern media use various forms of infographics, which allow them to present complex statistical or informational information through visualisation. In journalism, this can be done with the help of graphs, charts, statistics, etc. In this way, information becomes more accessible to readers. A separate part of the study was to obtain responses and reactions from the audience about the value of multimedia content to find out its effectiveness in practice. In particular, 65 % of respondents confirmed the positive impact of multimedia content, emphasising its usefulness in interpreting and explaining information. At the same time, 30 % of respondents emphasised an unbiased (neutral) attitude to multimedia technologies in journalism. Only 5 % of respondents expressed a negative attitude to the use of multimedia technologies in journalism, pointing out that they distract from important information. Thus, even though the authors of the article received different answers, many participants pointed to the importance of multimedia technologies in the representation of information in the media. The respondents also emphasised that multimedia content in modern media promotes greater audience interest and improves their interaction with information (over 85 %). Thus, it is difficult to imagine modern journalism without multimedia content.

DISCUSSION

Modern digital technologies have influenced the way journalism is conducted, and consequently, have changed the way audiences receive and consume current affairs news [13]. At the same time, digital tools allow for a completely new way of interacting with potential audiences. Their use promotes the use of interactive videos, images, infographics, etc., which in turn affects the audience's interest in the news. The findings highlighted the value of using multimedia content in modern journalism in the digital age. In particular, the hypothesis that journalists, article writers, and editors use various forms of multimedia content that generally improve the visualisation of information was confirmed. Important forms of multimedia interaction include the use of infographics, interactive images, video, and audio resources. Other fundamental works also emphasise the diversity of the use of modern multimedia content. For example, the study by Nser, Alhrahsheh, Alshalabi, Jarrah, Khasawneh[4] emphasises the interaction of video and audio, and visual materials based on the analysis of social media materials. Although this study contributes to the detailed study of visual data in journalism, Wulandari, Apsari and Hapsari[1] provides valuable information on the use of audio data, which is important for the integrated development of modern journalistic materials. There are various statements in modern scholarship about the multimedia interaction of journalism. An important approach is to emphasise the attention-grabbing and emotional connection between the author and the audience, while increasing reader or listener participation is important.[14] Finally, multimedia content can contribute to greater memorability of information.[15] Abdallah, Abokhoza, and Aissan[16], based on the study of multimedia content in newspapers, also emphasised the diversity of multimedia and found that modern newspapers and their online pages use infographics (both informational and statistical), audio, video, and various forms of interactive images. At the same time, this study confirms the previously formed hypothesis that multimedia technologies contribute to improved audience engagement and facilitate the perception of complex information (in particular, statistical information). For this reason, modern experimental studies that evaluate the role of interaction between multimedia content and the audience are important. [17,18] Modern authors have also emphasised the particular importance of such technologies in the space of online interaction.[19,20,21,22,23,24]

Thus, the study confirmed the latter hypothesis that multimedia content is important for improving audience interaction and helps to expand the audience. Nevertheless, recent work also emphasises that multimedia technologies are important when experimenting with different media content formats (e.g. podcasts, video reports, animation, or infographics).[25,26,27,28] However, according to Cheruiyot[29], some media resources, to attract new audiences, may pay too much attention to emphasising various multimedia, integrative effects, or spectacle. That is, instead of focusing on the basic analysis of events and subsequently on textual interpretation, some media emphasise only interactive tools for presenting material (without delving into textual analysis and presentation), which generally devalues the work of journalists.[29] Nevertheless, contemporary scholars

actively advocate the thesis of the wise use of multimedia technologies. In modern works by Holman and Perreault[30] and Lipschultz [31], it is proved that certain visual and interactive multimedia elements help to better understand complex events and topics. Therefore, the novelty of this study is to introduce into the scientific field an understanding of the importance of multimedia in modern journalism in the digital age through a survey of specialised journalists and stakeholders (audience).[32]

CONCLUSIONS

Therefore, the use of modern digital technologies has had a significant impact on journalistic activities they have also influenced the change in the ways of interacting with the audience and providing it with current news. It has been established that the implementation of digital content involves a new understanding of the use of interactive videos, images, graphics, etc., which significantly increases the interest of a wide audience and facilitates the process of reading information for readers. As the survey shows, most young people under the age of 21 use this method of interacting with journalistic information. In addition, the respondents noted the democratic nature of modern work with multimedia content, which provides for a free choice of information sources, the ability to compare several positions on the same issue, and the ability to choose the way to interact with the content (in the form of text, audio or video materials, etc.).

An additional incentive is the visual appeal of multimedia content, which makes it more interesting to work with. For example, the development and use of modern infographics shows that modern journalists are striving to demonstrate certain data in a way that will interest the audience and make the material more accessible. On the other hand, the opposite effect - digital tools are also developing in line with the demands of the journalistic environment, offering ample opportunities to integrate heterogeneous material into a single story or investigation. The issue of such a backlash is a very interesting subject for future research, opening prospects for rethinking the topic.

REFERENCES

1. Wulandari LP, Apsari DD, Hapsari A. Development of educational media for adolescent reproductive health. Futurity Medicine [Internet]. 2023;2(4):17–27. Available from: https://doi.org/10.57125/FEM.2023.12.30.03

2. Sixto-García J, Silva-Rodríguez A, Rodríguez-Vázquez AI, López-García X. Redefining journalism narratives, distribution strategies, and user involvement based on innovation in digital native media. Journalism [Internet]. 2022;146488492110627. Available from: https://doi.org/10.1177/14648849211062766

3. Salaverría R. Digital journalism: 25 years of research. Review article. El Profesional de la Información [Internet]. 2019;28(1). Available from: https://doi.org/10.3145/epi.2019.ene.01

4. Nser K, Alhrahsheh R, Alshalabi N, Khasawneh MAS. Multimodal social network analysis: Exploring language, visual, and audio data in online communities. Stud Media Commun [Internet]. 2024;12(2). Available from: https://doi.org/10.11114/smc.v12i2.6666

5. Martynenko M, Lysytsia N, Martynenko A, Us M. Design as a key factor in brand building: Value congruence and brand identity through design. Futurity Economics and Law [Internet]. 2023;3(3):32–48. Available from: https://doi.org/10.57125/FEL.2023.09.25.02

6. Yepez-Reyes V, López JT. Digital generations: A multidimensional analysis of media ecology. In: Communication and applied technologies. Springer Nature Singapore; 2024. p. 463–73. Available from: https://doi.org/10.1007/978-981-99-7210-4_43

7. Maniou TA, Photiou I, Ketteni E, Seitanidis I. Political reporting in the digital media era. In: Journalism, society and politics in the digital media era. Intellect Books; 2020. p. 112–35. Available from: https://doi.org/10.2307/j.ctv36xw03x.9

8. Ordóñez K, Punín MI, Suing A, Herrero-Gutiérrez J. Digital native media in the face of journalistic security. In: Communication and applied technologies. Springer Nature Singapore; 2022. p. 487–96. Available from: https://doi.org/10.1007/978-981-19-6347-6_44

9. Pearce SC, Rodgers J. Social media as public journalism? Protest reporting in the digital era. Sociol Compass [Internet]. 2020;14(12):1–14. Available from: https://doi.org/10.1111/soc4.12823

10. Perreault GP, Ferrucci P. What is digital journalism? Defining the practice and role of the digital journalist. Digital Journalism [Internet]. 2020;8(10):1298–316. Available from: https://doi.org/10.1080/21670811.2020.18

48442

11. Dadakhonov AO. Analysis of media and information literacy definitions: A qualitative approach. Stud Media Commun [Internet]. 2024;12(2):116. Available from: https://doi.org/10.11114/smc.v12i2.6659

12. Krap A, Bataiev S, Bobro N, Kozub V, Hlevatska N. Examination of digital advancements: Their influence on contemporary corporate management methods and approaches. Multidiscip Rev [Internet]. 2024 Jun 12 [cited 2024 Dec 27];7:2024spe026. Available from: https://doi.org/10.31893/multirev.2024spe026

13. Safarli C, Kolach S, Zhyvko M, Volskyi O, Bobro N. Considering Globalisation Risks in the Formation and Implementation of International Investment Strategies. Pak J Life Soc Sci (PJLSS) [Internet]. 2024 [cited 2024 Dec 27];22(2). Available from: https://doi.org/10.57239/pjlss-2024-22.2.00776

14. Degen M, Olgemöller M. German political journalists and the normalization of Twitter. Journal Stud [Internet]. 2021;22(10):1317–1338. Available from: https://doi.org/10.1080/1461670x.2021.1952472

15. Silva DS. Cultural journalism in a digital environment: New models, practices and possibilities [Doctoral thesis]. RUN – Repositório da Universidade Nova de Lisboa; 2016. Available from: http://hdl.handle.net/10362/17022

16. Abdallah R, Abokhoza R, Aissani R. The use of multimedia in newspapers: A study on the websites of Emirati newspapers. Stud Media Commun [Internet]. 2024;12(2):241. Available from: https://doi.org/10.11114/smc.v12i2.6645

17. Bo WC. Multimedia content of digital media "Big Asia." Ideas Innov [Internet]. 2021;9(3):106–112. Available from: https://doi.org/10.48023/2411-7943_2021_9_3_106

18. León-Zevallos L, Casco RJE, Macha-Huamán R. Digital marketing positioning in a retail sector company. Edu - Tech Enterprise 2024;2:11–11. https://doi.org/10.71459/edutech202411.

19. Choi JP, Yang S. Investigative journalism and media capture in the digital age. Inf Econ Policy [Internet]. 2021;100942. Available from: https://doi.org/10.1016/j.infoecopol.2021.100942

20. Weber MS, Napoli PM. Journalism history, web archives, and new methods for understanding the evolution of digital journalism. In: Journalism History and Digital Archives. Routledge; 2020. p. 74-93. Available from: https://doi.org/10.4324/9781003098843-6

21. Sayed R. Exploring cultural influences on project management approaches in global business development. Futurity of Social Sciences [Internet]. 2023;1(4):38-60. Available from: https://doi.org/10.57125/FS.2023.12.20.02

22. Jacinto-Alvaro J, Casco RJE, Macha-Huamán R. Social networks as a tool for brand positioning. Edu - Tech Enterprise 2024;2:9–9. https://doi.org/10.71459/edutech20249.

23. Borysenko O, Marukhovska-Kartunova O, Volkova V, Baran A, Maraieva U. The influence of social networks on the formation of modern culture and its relationship with philosophy. Futurity Philosophy [Internet]. 2024;3(3):80–94. Available from: https://doi.org/10.57125/FP.2024.09.30.05

24. Huda O. Use of the Moodle platform in higher education institutions during training masters: Experience under martial law. E-Learning Innovations Journal [Internet]. 2023;1(2):4-20. Available from: https://doi.org/10.57125/ELIJ.2023.06.25.01

25. Eldridge SA, Hess K, Tandoc E, Westlund O. Editorial: Digital journalism (studies) – Defining the field. Digital Journalism [Internet]. 2019;7(3):315–319. Available from: https://doi.org/10.1080/21670811.2019.1587308

26. Nicolaou C. Generations and branded content from and through the Internet and social media: Modern communication strategic techniques and practices for brand sustainability—The Greek case study of LACTA chocolate. Sustainability [Internet]. 2022;15(1):584. Available from: https://doi.org/10.3390/su15010584

27. Katerynych P. Comparative analysis of the information security environment in Ukraine and Poland (survey of journalists and editors). Commun Soc [Internet]. 2022;35(4):37–53. Available from: https://doi.org/10.15581/003.35.4.37-53

28. Fidel WWS, Cuicapusa EEM, Espilco POV. Managerial Accounting and its Impact on Decision Making in a small company in the food sector in West Lima. Edu - Tech Enterprise 2024;2:8–8. https://doi.org/10.71459/edutech20248.

29. Cheruiyot D. Comparing risks to journalism: Media criticism in the digital hate. Digital Journalism [Internet]. 2022;1–20. Available from: https://doi.org/10.1080/21670811.2022.2030243

30. Holman L, Perreault GP. Diffusion of innovations in digital journalism: Technology, roles, and gender in modern newsrooms. Journalism [Internet]. 2022;146488492110734. Available from: https://doi.org/10.1177/14648849211073441

31. Lipschultz JH. New and mobile media technologies, innovation, and investment. In: Social Media Communication. Routledge; 2020. p. 183–204. Available from: https://doi.org/10.4324/9780429202834-7

32. Thompson JD, Weldon J. Digital journalism. In: Content Production for Digital Media. Springer Singapore; 2022. p. 21–34. Available from: https://doi.org/10.1007/978-981-16-9686-2_3

CONFLICT OF INTEREST
The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION
Conceptualization: Valentyna Stiekolshchykova, Oksana Lavryk.
Data curation: Iryna Putsyata, Oksana Lavryk.
Formal analysis: Olga Marukhovska-Kartunova, Oksana Lavryk.
Research: Oksana Lavryk, Valentyna Stiekolshchykova.
Methodology: Valentyna Stiekolshchykova, Olga Marukhovska-Kartunova.
Project management: Oleg Marukhovskyi, Valentyna Stiekolshchykova.
Software: Oleg Marukhovskyi, Iryna Putsyata.
Supervision: Valentyna Stiekolshchykova, Olga Marukhovska-Kartunova.
Validation: Olga Marukhovska-Kartunova, Oksana Lavryk.
Display: Iryna Putsyata, Oleg Marukhovskyi.
Drafting - original draft: Iryna Putsyata, Valentyna Stiekolshchykova.
Writing - proofreading and editing: Olga Marukhovska-Kartunova, Oksana Lavryk.