ISSN 2312-5160
online ISSN 2786-4502

Current Issues of Mass Communication, Issue 35 (2024)

Journal homepage: https://cimc.knu.ua/index

RESEARCH ARTICLES
ДОСЛІДНИЦЬКІ СТАТТІ

Engaging the Audience: Interactive Features in Ukrainian Online Media

Dmytro Zagorulko

PhD student
Educational and Scientific Institute of Journalism,
Taras Shevchenko National University of Kyiv, Ukraine
https://orcid.org/0009-0006-1024-6292
Email: dmytro.zagorulko@knu.ua

https://doi.org/10.17721/CIMC.2024.35.90-102
UDC 070:004.738.5:316.775.4

ARTICLE INFO
Received: 22 May 2024
Accepted: 17 June 2024
Published: 29 June 2024

KEYWORDS
online media,
digital journalism,
interactivity,
interactive media,
interactive content

ABSTRACT

The purpose of this study was to determine the current state of interactivity implementation in Ukrainian online media. Content analysis encompassed 150 of the country's most popular online media outlets reveals a generally moderate level of interactive feature usage. The most common features are related to feedback, updates access, and communication within the audience. In contrast, the use of participatory features and interactive content is low. The study also found that online-only media emphasize opportunities for audience communication more than media with both online and offline versions. Additionally, the use of interactive features varies by thematic focus, with business and socio-political outlets employing more interactive features on average than other categories of media.

Citation: Zagorulko, D. (2024). Engaging the Audience: Interactive Features in Ukrainian Online Media. Current Issues of Mass Communication, 35, 90-102. https://doi.org/10.17721/CIMC.2024.35.90-102

АНОТАЦІЯ

Метою цього дослідження є визначення поточного стану впровадження інтерактивності в українських онлайн-медіа. З урахуванням досвіду попередніх досліджень запропоновано протокол аналізу використовуваних інтерактивних функцій у векторах взаємодії користувач-медіа, користувач-контент та користувач-користувач. Проведений контент-аналіз 150 найпопулярніших онлайн-видань України виявив загалом невисокий рівень використання інтерактивних функцій. Найпоширеніші функції реалізують можливості, пов'язані зі

ISSN 2312-5160
online ISSN 2786-4502

зворотним зв'язком, доступом до оновлень і комунікацією всередині аудиторії медіа. Натомість надання користувачам партисипативних можливостей, а також використання інтерактивного контенту наразі отримують обмежене поширення в українських онлайн-ЗМІ. Дослідження також показало, що видання, які функціонують виключно в Інтернеті, приділяють більше уваги імплементації функцій для взаємодії між читачами, ніж видання, що мають як онлайн, так і офлайн версії. Крім того, використання інтерактивних функцій варіюється і в залежності від тематичної спрямованості медіа: ділові та суспільно-політичні видання використовують у середньому більше інтерактивних можливостей, ніж інші категорії медіа.

КЛЮЧОВІ СЛОВА: онлайн-медіа, онлайн журналістика, інтерактивність, інтерактивні медіа, інтерактивний контент.

Introduction

Technological evolution and the pervasive digitization of social processes are reshaping the media landscape. With the Internet providing an abundance of opportunities, audience attention becomes increasingly fragmented. Consequently, media outlets are compelled to compete not only with each other but also with alternative forms of content for user attention. This shift forces digital journalism to transform from the mere news delivery to an immersive and emotional experience, making interactivity not just an option, but a necessity.

In exploration of the "added value" of digital journalism, M. Deuze emphasized the importance of interactivity in enriching the media environment and helping to attract and retain audience attention (Deuze, 2003). In the media context, interactivity manifests as the audience's ability to control and influence the process of information consumption, thereby transforming it into active participation rather than passive consumption (Kenney et al., 2000). This concept is realized through a variety of interactive functions, including feedback mechanisms, collaborative opportunities, convenient website navigation, user ratings and comments of publications, immersive experiences facilitated by VR or AR technologies, and other features that enhance user-media-content interaction (Robledo-Dioses et al., 2022).

The purpose of this study is to establish the current state of interactivity implementation in Ukrainian online media, and to gain more insights into the correlation between the level of interactivity and the operational characteristics of the media. Therefore, the research examines the following question and hypotheses:

RQ: To what extent are interactive features used in Ukrainian online media?

H_1: Media operating solely online are more interactive than media that operate both online and offline.

H_2: The level of interactivity of online media depends on its thematic focus.

Literature Review

The conceptual framework underpinning research into the interactive capabilities of online media emerged in the early 2000s. However, the challenge of identifying and categorizing interactivity dimensions within the media context, as well as its impact on audience engagement, remain subjects of ongoing debate. M. Deuz identifies three dimensions of media interactivity: navigational, adaptive, and functional (Deuze, 2003). Navigational and adaptive interactivity involve audience-media interaction through site navigation and personalization. While functional interactivity entails audience-audience interaction, allowing users to communicate with others. A similar typology, proposed by E. Bucy, also distinguishes content and interpersonal interactivity in media (user-content and user-user, respectively) (Bucy, 2004). B. Potiatynyk suggests one more interaction vector: user-machine-user, which, according to researcher's logic, presents personalized media reaction based on user behavior analysis (Potiatynyk, 2010). L. Ha and E. James propose a more detailed typology of interactivity dimensions: playfulness, choice, connectedness, information collection, and reciprocal communication (Ha & James, 1998). Summarizing the findings of previous

ISSN 2312-5160
online ISSN 2786-4502

studies, the main dimensions of interactivity in online media can be reduced to three: user-media (both with the editorial office and with the media website), user-content (involving any forms of content, demanding active engagement for consumption), and user-user (communication among the readers).

Analyzing implementation of these interactive capabilities, scholars noted the discrepancy between high expectations of early 2000s and the actual status of the online media landscape. T. Schultz, in particular, argued that at the turn of the millennium online media were merely offering an "illusion of interactivity", largely by transposing textual content from their print versions and exhibiting minimal commitment towards seriously using the inherent potentialities of the Internet (Schultz, 2006). Through an examination of 100 online newspapers K. Kenney reached a similar conclusion, ironically stating that media "consider themselves interactive" if they provide some hyperlinks and e-mail addresses (Kenney et al., 2000). Despite the transformative potential afforded by hypertext, a mere 6% of articles published in online media contained hyperlinks by that time (Tankard & Ban, 1998). Search within the newspaper's archive was available in 19% of the studied outlets, while any feedback options were present in 34% (McMillan, 2006).

Despite the ongoing advancements in information technologies, more recent studies as of 2023 still state the significant scope for enhancement in the field of interactivity in online media (Santos-Hermosa et al., 2023). While some features have become basics (hyperlinking, contact with the editorial staff, commenting, etc.), there still remains a notable deficiency in customization and lack of opportunities for users to contribute their own texts (Baños-Moreno et al., 2017). A study by S. Robledo-Dioses revealed, immersive content utilizing virtual or augmented reality is still rarely used even among the media, which are the world digital subscriptions leaders, and could financially afford its production (Robledo-Dioses et al., 2022).

N. Steblyna was among the pioneers in studying the interactivity of online media within the Ukrainian segment of the Internet. The researcher analyzed the evolution of interactivity development in regional media of Odesa, focusing on newspapers "dumskaya.net" and "reporter.com.ua" (Steblyna, 2019). Steblyna concluded that prior to 2009, both media exhibited minimal signs of interactivity, and by the time of the analysis in 2018, possibilities of audience interaction with the media were largely limited to hyperlinks and a comment section. In a separate study, L. Temchenko and A. Vereskun examined the interactive features of leading Ukrainian online media "pravda.com.ua" and "censor.net". Researchers observed widespread use of hyperlinks, the integration of text publications with video content, and the availability of commenting features (Vereskun & Temchenko, 2023). Additionally, N. Pliuta investigated interactivity in Ukrainian business online media, documenting usage of subscription options, ratings, discussion forums, and opportunities for content contribution (Pliuta, 2014). The study encompassed publications of four business-focused online newspapers. However, the potential for further interpretation of the results from these studies is constrained by the limited sample size (collectively, only eight publications were analyzed across all three studies) and methodological restrictions (incompleteness of the analysis taxonomy). Thus, while these studies provide valuable insights for retrospectively analyzing the use of interactive technologies in Ukrainian online media, the necessity for broader research remains relevant.

Method

Within the study, 150 Ukrainian online media websites were analyzed, focusing on their interactive infrastructure (website features) and content. The selection criterion was media popularity, determined by the monthly number of visits. We relied on statistics provided by SimilarWeb, a service that analyzes the sources, volume, and quality of Internet traffic. The research specifically targeted the "News and Media" category within the Ukrainian internet segment. The study was conducted in January 2024, covering the most relevant available data (from September to November 2023). Exclusions comprised news aggregators, foreign media without Ukrainian editorial presence, and media platforms inaccessible during the analysis period. Based on SimilarWeb

ISSN 2312-5160
online ISSN 2786-4502

statistics for the specified timeframe, the selected media represented 55.36% of the total category traffic within the Ukrainian web, ensuring a representative sample.

During the preparatory stage of the study, media were categorized in accordance with the parameters provided in hypotheses H_1 and H_2. To determine the format of content distribution (media that operate solely online and those that also have an offline version), we analyzed the information provided by outlets on the self-representation pages of the website (usually "About Us"). While, determining the thematic direction of online media (H_2) presented challenges as popular outlets often cover multiple thematic categories. E.g., "pravda.com.ua," one of the most popular outlets analyzed, includes sections on politics, economics, history, tabloid, sports, and more. In such cases, we ascertained the thematic direction of media by analyzing the content of its main page. When media outlets featured thematic sections on separate subdomains, priority was given to the primary, most visited domain. Based on A. Zakharchenko's thematic classification of online media, the sampled outlets were categorized into the following groups: socio-political, business, cultural, sports, tabloid and humorous media (Zakharchenko, 2014). Additionally, regional and military media were also included as separate groups.

The content analysis of sampled media was conducted, limited to content published in the year 2023. The analysis protocol was developed with consideration of previous studies, particularly the research structure proposed by R. Rodríguez-Martínez (Rodríguez-Martínez et al., 2010) and its expanded version by M. Baños-Moreno (Baños-Moreno et al., 2017). However, the final list of analyzed features was updated to reflect the modern landscape of Ukrainian online media and the focus of this study. With advancements in technology and the widespread use of smartphones, the need for a separate mobile version of a media website has diminished, so this feature was replaced in the research protocol with media's own mobile application, which becomes commonplace. Additionally, the influence of platformization has narrowed the range of popular social networks, leading to the elimination of excessive detail in the study protocol (thus, ability to subscribe to a media profile across various social networks or messengers was considered a single feature). Previously popular chat functions have become obsolete and were excluded from the protocol. However, it was expanded to include interactive content features, as previous studies have only addressed this dimension of interactivity indirectly or partially. For instance, Schultz and Oblak mentioned only surveys, Chung and Zamith examined the presence of audio and video elements in textual content, and Robledo et al. focused on immersive content. Thus, to develop a comprehensive research protocol in this dimension of interactivity, we combined features mentioned in aforementioned studies along with findings of researchers who directly studied interactive content (Foxman, 2015; Zagorulko, 2018). Taxonomy of interactive content of online media proposed in the study includes surveys, quizzes, interactive infographics, interactive cartography, VR or AR content, and news games.

Table 1. Dimensions and parameters of interactive features in the online media.

Interactivity dimension	Parameter	N°	Feature
User - Media	Feedback	1.1	Ability to contact newsroom
		1.2	Ability to contact articles' author
		1.3	Ability to rate article
	Participation	1.4	Ability to submit a story (blogs)
		1.5	Ability to correct article

ISSN 2312-5160
online ISSN 2786-4502

	Updates access	1.6	Updates subscription (email, RSS, Google News)
		1.7	Social media subscription
		1.8	Media application
	Personalization	1.9	Interface adaptation
		1.10	Search feature
User - User	Communication	2.1	Ability to share content on social media or messengers
		2.2	Comments section
		2.3	Discussion forum
User - Content	Interactivity as content element	3.1	Hyperlinks in articles
		3.2	Usage of audio and video in articles
	Interactivity as content key characteristic	3.3	Quizzes
		3.4	Polls
		3.5	Interactive infographics
		3.6	Interactive maps
		3.7	Panoramic, VR or AR content
		3.8	News games

As a result, the proposed research protocol includes 21 interactive features of a media website and its content across three abovementioned dimensions of interactivity (user-media, user-user, and user-content). The analyzed features reflect the implementation of interactivity across various parameters, determining its specific functional direction, including feedback, participation, access to updates, personalization, and communication (Table 1).

To assess the interactivity of websites, we analyzed the features accessible on the media homepage and randomly chosen publication pages. To find and analyze the interactive content we employed keyword search within the internal archive of the outlet and through the publications indexed by the Google News. The utilized keywords corresponded to the interactive content taxonomy outlined earlier (test, quiz, survey, poll, infographic, map, VR, AR, 360, game, play, etc.). Subsequently, articles identified through this method were examined to ascertain the presence of interactive content. Each feature provided two evaluation options: 1 if utilization of the corresponding feature was observed, and 0 if the analysis did not reveal its usage.

Results

Analysis revealed that 65.33% of the 150 examined digital media are available solely online, while 34.67% also maintain an offline version. The thematic distribution of the media is as follows: socio-political (82 outlets; 54.66%), regional (49; 32.67%), business (9; 6%), tabloid (6; 4%), and military (4; 2.67%). The overall level of utilization of interactive features in the analyzed media is at 40.1%. In terms of interaction dimensions, the most prevalent vector is user-media (45.6%), followed closely by user-user (44.67%), while the least distributed is the user-content interaction

ISSN 2312-5160
online ISSN 2786-4502

vector, with only 31.5%. Breakdown of the results by the dimensions is presented in Tables 2, 3 and 4. Subsequently, we delve into a detailed examination of the results, presented by interactivity parameters.

Table 2. Findings on user-media interactivity.

Feature	Media category					Content distribution		Average
	Socio-political	Regional	Business	Tabloid	Military	Online only	Online and offline	
1.1. Ability to contact newsroom	97,76%	97,96%	100,00%	100,00%	100,00%	100,00%	94,23%	**98,00%**
1.2. Ability to contact articles' author	43,90%	26,53%	33,33%	50,00%	0,00%	35,71%	38,46%	**36,67%**
1.3. Ability to rate article	9,76%	8,16%	0,00%	16,67%	0,00%	10,20%	5,77%	**8,67%**
1.4. Ability to submit a story (blogs)	6,10%	16,33%	22,22%	0,00%	0,00%	10,20%	9,62%	**10,00%**
1.5. Ability to correct article	21,95%	30,61%	22,22%	0,00%	0,00%	22,45%	25,00%	**23,33%**
1.6. Updates subscription (email, RSS, Google News)	67,07%	55,10%	88,89%	50,00%	50,00%	60,20%	69,23%	**63,33%**
1.7. Social media subscription	93,90%	100,00%	100,00%	100,00%	100,00%	94,90%	100,00%	**96,67%**
1.8. Media application	24,39%	16,33%	0,00%	33,33%	0,00%	13,27%	32,69%	**20,00%**
1.9. Interface adaptation	14,63%	4,08%	22,22%	0,00%	0,00%	10,20%	11,54%	**10,67%**
1.10. Search feature	90,24%	89,80%	88,89%	66,67%	75,00%	87,76%	90,38%	**88,67%**
	46,95%	**44,49%**	**47,78%**	**41,67%**	**32,50%**	**44,49%**	**47,69%**	**45,60%**

Feedback. The ability of direct communication between media and its audience is one of the pivotal parameters of interactivity. As the results show, Ukrainian media are generally open to feedback from readers, with 98% of the outlets provide *the ability to contact the newsroom (1.1).* This feature provided for indicating the contact information of the media, including the editorial office email. However, the *ability to directly contact article's author (1.2)* is less prevalent, occurring in only 36.67% of cases. Another poorly implemented feedback feature is user's *ability to rate article (1.3).* The monitoring revealed that only 8.67% of the analyzed media offer the audience to express their opinions on specific publications. Two types of this feature have been recorded: single-option evaluation (typically a "like"), and multiple-option evaluation, which may include

ISSN 2312-5160
online ISSN 2786-4502

options such as “like” or “dislike”, emoji reactions, or a selection from several options. For example, after reading publication on “prm.ua”, the user is asked “What do you think about this?” with three answer choices: “Treason,” “Victory,” and “The fight continues,” drawn from popular memes within the Ukrainian internet sphere (“*Зрада*”, “*Перемога*”, and “*Боротьба триває*”). Since feedback can foster interaction, enhance the authority both of the author and the outlet, and demonstrate the transparency, Ukrainian newsrooms possess significant potential to spread the adoption of these important interactive features.

Participation. This parameter refers to the extent to which the audience can participate in the media content creation, thereby transforming their role from passive recipients to co-authors. The study showed a generally modest level of participation features implementation in Ukrainian media. Merely 10% of the analyzed outlets afford the readers *the opportunity to submit a story (1.4)*, and 23.33% providing *ability to correct article (1.5)*. Primarily, the avenue to submit user content is facilitated through blogs. Although blogs are featured on the pages of a significant number of online media, only 10 of the 150 analyzed outlets have open blogs that transparently invite users to become authors (notably, just one out of ten most popular Ukrainian online media permits the audience to contribute their own texts, images, and videos within the blog section). In most instances, blog posts are authored by opinion leaders or experts in specific fields, depriving ordinary users of content submission opportunities. An alternative format for receiving content from the audience is the “Report news” form, which was recorded in 3 of the analyzed outlets. The extent of audience participation in content creation varies significantly depending on the thematic focus of the media. Regional (18.37%) and business outlets (22.22%) demonstrate the highest rates, whereas only 4.87% of national socio-political media grant users this opportunity.

Updates access. Convenient access to media updates and the ability of its personalization is another major perspective of media interactivity. Upon assessing this parameter, we found that a prevalent approach adopted by media outlets involves converting readers into regular *subscribers on social networks and instant messaging platforms (1.6)*, this practice was observed in 96.67% of the outlets. Additionally, 63.33% of media offer readers the option to *subscribe via email, RSS feeds, or Google News (1.7)*, which provides wider opportunities of personalization of news mailings. Due to the predominant share of mobile traffic (as per SimilarWeb, within the sample 76.37% of visits to media websites originate from mobile devices, versus 23.63% from desktops), Ukrainian online media also encourage their audience to continue consuming content in their *mobile applications (1.8)*. This feature is implemented in 20% of the analyzed outlets. Notably, there exists variability in application implementation across media: outlets operating both online and offline are more than twice as likely to utilize applications compared to those functioning solely online (32.69% versus 13.27%, respectively).

Personalization. The ability of users to adapt the content and to tailor appearance of the website to their preferences and needs was tested. Using night mode (dark background and light letters for easier reading in the dark) and changing the font size are among the most spread features of *interface adaptation (1.9)*. However, only 10.67% of the analyzed media provide such customization options. Among these, “detector.media” website stands out as a leader in adaptability, offering an extensive “Accessibility Menu”. This customization feature not only includes options like night mode and font size adjustment but also provides users with control over contrast, color saturation, text spacing, alignment, etc. Such comprehensive features are vital for ensuring a fully accessible user experience, yet they remain underutilized across Ukrainian online media websites. *Search feature (1.10)*, allowing users to explore previously published content on topics of their interest, despite its apparent significance for media interactivity, is provided only by 88.67% of the analyzed outlets.

ISSN 2312-5160
online ISSN 2786-4502

Table 3. Findings on user-user interactivity.

Feature	Media category					Content distribution		Average
	Socio-political	Regional	Business	Tabloid	Military	Online only	Online and offline	
2.1. Ability to share content on social media or messengers	93,90%	75,51%	100,00%	83,33%	100,00%	85,71%	92,31%	**88,00%**
2.2. Comments section	41,46%	40,82%	55,56%	16,67%	75,00%	47,96%	30,77%	**42,00%**
2.3. Discussion forum	3,66%	6,12%	0,00%	0,00%	0,00%	5,10%	1,92%	**4,00%**
	46,34%	**40,82%**	**51,85%**	**33,33%**	**58,33%**	**46,26%**	**41,67%**	**44,67%**

Communication. Within the "user-user" dimension we analyzed the opportunities that online media outlets offer for interaction among their readers. In general, Ukrainian media predominantly provide users with the opportunity for external communication, such as *sharing content on social networks or instant messengers (2.1)*, which is available in 88% of the analyzed media. It is noteworthy that regional outlets exhibit the lowest utilization rate of this feature (75.51%), which could be attributed to budgetary and technical limitations. The internal communication within outlets' websites is considerately less common – only 42% of media provide *comments section (2.2)* for users' discussions. Furthermore, in 54.84% of cases it is impossible to leave a comment without being authorized through social networks (while 45.16% of media provide this feature without mandatory authorization or through internal registration on the outlet's website). The uneven utilization of this feature across different thematic categories was also observed. E.g., in the tabloid media commenting is available in only 16.67% of cases, whereas in military outlets, this figure stands at 75% (approximately half of media of other categories offer commenting facilities, as detailed in Table 3).

Promotion of community formation through *discussion forums (2.3)*, where media readers can engage in active communication on topics related to the outlet's focus, is rarely utilized in Ukrainian online media. Forums were found to be in use by only 4% of the analyzed media, in socio-political and regional outlets. The limited distribution of this option is also reflected by lack of the audience interest. E.g., on the forum of "pravda.com.ua", a national socio-political outlet with over 48 million monthly visits, as of January 2024, only around one thousand forum participants were noted. However, forum appears to attract the most active core of the audience. Beyond the news, users of "pravda.com.ua" forum discuss mobilizing assistance for military units where readers of the outlet are serving to repel Russian aggression against Ukraine, which can be viewed as a tangible success of the media in organizing interaction within its audience and fostering a sustainable community.

ISSN 2312-5160
online ISSN 2786-4502

Table 4. Findings on user-content interactivity.

Feature	Media category					Content distribution		Average
	Socio-political	Regional	Business	Tabloid	Military	Online only	Online and offline	
3.1. Hyperlinks in articles	100,00%	97,96%	100,00%	66,67%	100,00%	97,96%	98,08%	**98,00%**
3.2. Usage of audio and video in articles	96,34%	100,00%	100,00%	100,00%	100,00%	97,96%	98,08%	**98,00%**
3.3. Quizzes	21,95%	16,33%	44,44%	33,33%	0,00%	21,43%	21,15%	**21,33%**
3.4. Polls	7,32%	18,37%	0,00%	0,00%	0,00%	10,20%	9,62%	**10,00%**
3.5. Interactive infographics	13,41%	4,08%	55,56%	0,00%	0,00%	12,24%	11,54%	**12,00%**
3.6. Interactive maps	18,29%	4,08%	11,11%	0,00%	0,00%	9,18%	17,31%	**12,00%**
3.7. Panoramic, VR or AR content	1,22%	0,00%	0,00%	0,00%	0,00%	0,00%	1,92%	**0,67%**
3.8. News games	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	**0,00%**
	32,32%	**30,10%**	**38,89%**	**25,00%**	**25,00%**	**31,12%**	**32,21%**	**31,50%**

Interactivity as content element. In the dimension of user-content interaction two primary parameters were examined: integration of content with interactive elements and the intrinsic interactivity of content. The overall adoption of interactivity within the content of Ukrainian online media remains relatively low, with only 32% of the assessed opportunities being utilized. Among the analyzed media, 98% incorporate *hyperlinks into their content (3.1).* Since implementation of this parameter enables nonlinear navigation within the content, allowing users to explore topics based on their interests and needs, researchers consider hyperlinking as a fundamental interactive characteristic of online media (Deuze, 2003). It facilitates deeper audience engagement by providing links to related publications or broader contextual information, and can offer a personalized content selection based on users' reading history. Similarly prevalent (98%) is *usage of audio and video in articles (3.2)*. However, it is important to note that in most cases, this multimedia content in Ukrainian online media consists of borrowed materials rather than original content produced by the outlet.

Interactivity as content key characteristic. Quizzes (3.3) emerge as the most prevalent form of interactive content in Ukrainian online media, appearing in 21.33% of the analyzed outlets. The spread of quizzes can be attributed both to the ease of development (requiring minimal technical expertise) and to the popularity of this content among the audience. Typically, quiz comprise a sequence of questions with multiple-choice answers, often themed around specific topics and characterized by a humorous tone. Quizzes on awareness of current news, popular among Western media, were not detected in Ukrainian outlets. Most often, quizzes were found in business (44.44%) and tabloid (33.33%) media, with no instances observed in military outlets. The popularity of the quiz format in Ukrainian digital landscape is also evidenced by the spread of so-called "psychology

tests". While publications of this format often present a form of testing, they lack true interactivity. Typically, these tests take the form of visual puzzles, prompting users to examine images and mentally answer questions related to what they observe, with the goal of revealing "psychological" insights. A transcript of the test result is provided in the text of the publication below. This content format was recorded in 18.67% of the analyzed outlets and, since it lacks genuine interactive possibilities, these findings were not considered in the overall assessment.

To establish audience opinion on specific issues, media outlets commonly employ *polling (3.4)*. Despite recorded popularity of such content in previous research (Oblak, 2005; Schultz, 2006), only 10% of analyzed Ukrainian outlets were found to utilize this feature. Polling is most prevalent in regional media (18.37%), while its distribution among socio-political outlets is relatively lower, at only 7.32%. Within other thematic categories adoption of polls was not recorded. Most of the media use internal options for surveying the audience, but external polling with usage of Google Forms was also recorded.

Interactive infographics (3.5), comprising tables and graphs that users can manipulate (changing size or color, object movement, hover-based identification, and customization), were found in use by 12% of the analyzed media. Adoption of this feature varies depending on the media's thematic category, interactive infographic is more prevalent in business media, with 55.56% utilizing it, compared to 13.41% in socio-political outlets and only 4.08% in regional media. While this discrepancy can be partly attributed to the nature of the distributed content (business media are more frequent in publishing numerical statistical information), however, we believe, that the lower prevalence of interactive infographics in regional outlets may also be associated with technical limitations of their capabilities. Most of the illustrations for analytical content in such media is copying static infographics (images) of government agencies or other external sources.

Interactive cartography (3.6) allows users to interact with visually presented geographic information. The demand for this format of content in Ukrainian segment of Internet has notably increased since the onset of the Russian invasion, as it enables clear visualization of the situation along the whole front line (Zagorulko, 2023). The rise of interactive military map resources like "alerts.in.ua", "deepstatemap.live", and "liveuamap.com" underscores growing audience interest. The use of interactive maps was observed in 12% of the analyzed outlets, with higher prevalence in socio-political (18.29%) and business outlets (11.11%). While most media produce their own interactive cartography, some also utilize built-in maps from external sources.

No *news games (3.7)* were found in the sampled media content for the year 2023. However, this type of content, characterized by gamification of current topics typically in arcade genre, occasionally appear in Ukrainian media. Among the analyzed outlets, news games were previously published in the "liga.net" ("Tushkolov", 2012) and "texty.org.ua" ("Manipulator", 2018; "Declarations-GO", 2016). The only case of *immersive content (3.8)* (employing virtual, augmented reality, or 360° content) within the analyzed sample is the "The Coronation through the Eyes of Charles III" by the "bbc.com", produced however by the foreign editorial team of this media. Adoption of such a content format in the Ukrainian media has also been exceedingly rare in previous years. Within the sample, instances of immersive content were recorded in "tsn.ua", "radiosvoboda.org" and "hromadske.ua" (Kyrylova, 2020).

ISSN 2312-5160
online ISSN 2786-4502

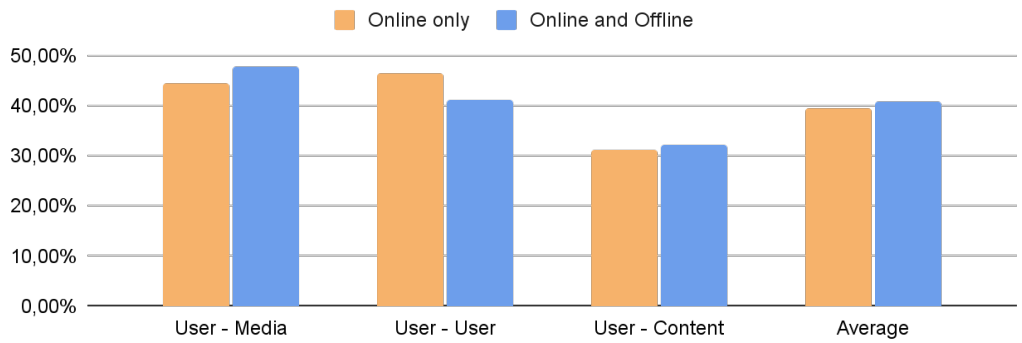

Figure 1. Interactive features implementation by types of content distribution.

H1: Media operating solely online are more interactive than media that operate both online and offline.

Based on the findings, a clear correlation between the type of content distribution and level of media interactivity was not established. Outlets presented solely online exhibited a 39.65% coefficient of interactive features usage, whereas those with print, radio, or TV versions showcased a close figure of 40.93%. The hypothesis assumed that solely online media might display a higher interest in interactivity given that the Internet serves as their only avenue for contact with audience. This is partially supported by the fact that media operating exclusively online utilize user-user interactive features 5.19% more frequently than those operating both online and offline. By actively fostering communication among their audience, these outlets can contribute to the formation of an online community and prolong the attention retention. However, the hypothesis was not confirmed in other dimensions of interactivity; online media with offline version utilize interactive functions marginally more often in the user-media and user-content dimensions.

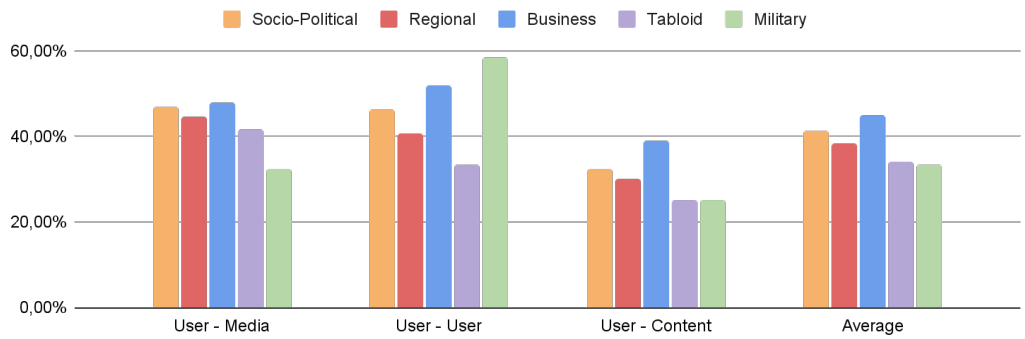

Figure 2. Interactive features implementation by media categories.

H2: The level of interactivity of online media depends on its thematic focus.

Considering the limited sample size for certain thematic categories of media (tabloid (6) and military (4)), drawing statistically reliable conclusions solely from Ukrainian online media landscape becomes challenging, necessitating broader research. However, the study findings still indicate some discrepancy in the level of interactivity among thematic categories: across all the three dimensions of interactivity, business media exhibit above-average results, and national socio-political media are more interactive than regional ones. This discrepancy becomes particularly evident when analyzing specific interactive features. The highest utilization of surveys, discussion forums, and the content submitting option by regional outlets may preliminarily indicate the greater importance of local community engagement for this category of media. While higher utilization of

interactive content formats among with the variety of subscription options in business media may reflect efforts to compete for the attention of a limited audience.

Conclusion

The content analysis of 150 of the most popular Ukrainian online media revealed a generally moderate level of implementation of interactive capabilities. The overall usage rate of the analyzed features is 40.1%, aligning with previous studies that have highlighted lack of interactivity in the digital media environment. Ukrainian online media demonstrate rather formal interest in engaging with the audience, primarily implementing the simplest interactivity features such as providing the opportunity to contact the newsroom, share articles or subscribe on social networks. However, more complex features across all three dimensions of interactivity remain rare, particularly opportunities for user participation, content creation, and personalization. The distribution of interactive content also remains low. Therefore, "new horizons" of audience participation in digital journalism, suggested in previous years, are still forthcoming.

Continued advancements in technology, particularly the rise of artificial intelligence, are facilitating the implementation of interactive features, thus easing the workload of online media professionals. The widespread adoption of interactivity will enable Ukrainian media to compete more effectively for audience attention amidst the information and communication overload. Exploring the typology and peculiarities of interactive features in online media, as well as understanding audience interests in it, are promising avenues for future research.

References

Baños-Moreno, M.-J., Pastor-Sánchez, J.-A., & Martínez-Béjar, R. (2017). Interactivity features of Online Newspapers: From a facsimile model to a multimedia model one. Interactivity in online journals. Anales de Documentación, 20(2). https://doi.org/10.6018/analesdoc.20.2.282401

Bucy, E. P. (2004). Second Generation Net News: Interactivity and Information Accessibility in the Online Environment. The International Journal on Media Management, 6(1 & 2), 102–113. https://doi.org/10.1207/s14241250ijmm0601&2_12

Chung, D. (2008). Interactive Features of Online Newspapers: Identifying Patterns and Predicting Use of Engaged Readers. Journal of Computer-Mediated Communication, 13(3), 658–679. https://doi.org/10.1111/j.1083-6101.2008.00414.x

Craig, R. D. (2007). Internet-zhurnalistyka: Robota zhurnalista i redaktora u novykh ZMI [Internet journalism: work of journalist and editor in new media]. Kyiv: Kyiv-Mohyla Academy Publishing.

Deuze, M. (2001). Online journalism: Modelling the first generation of news media on the World Wide Web. First Monday, 6(10). https://doi.org/10.5210/fm.v6i10.893

Deuze, M. (2003). The Web and its Journalisms: Considering the Consequences of Different Types of Newsmedia Online. New Media & Society, 5(2), 203–230. https://doi.org/10.1177/1461444803005002004

Foxman, M. H. (2015). Play The News: Fun and Games in Digital Journalism. https://doi.org/10.7916/D8J67V59

Ha, L., & James, E. L. (1998). Interactivity reexamined: A baseline analysis of early business web sites. Journal of Broadcasting & Electronic Media, 42(4), 457–474. https://doi.org/10.1080/08838159809364462

Kenney, K., Gorelik, A., & Mwangi, S. (2000). Interactive features of online newspapers. First Monday, 5(1). https://doi.org/10.5210/fm.v5i1.720

Kyrylova, O. (2020). Ukrainian perspectives of immersive journalism. Communications and Communicative Technologies, 20, 49–55. https://doi.org/10.15421/292007

McMillan, S. J. (2006). Who Pays for Content? Funding in Interactive Media. Journal of Computer-Mediated Communication, 4(1). https://doi.org/10.1111/j.1083-6101.1998.tb00090.x

Oblak, T. (2005). The Lack of Interactivity and Hypertextuality in Online Media. Gazette, 67(1), 87–106. https://doi.org/10.1177/0016549205049180

Pliuta, N. (2014). Interaktyvni mozhlyvosti ukrainskyh dilovyh Internet-mediy [Interactive capabilities of Ukrainian business Internet media]. Visnyk Lvivskoho universytetu. Seria: Zhurnalistyka [Visnyk of Lviv University. Series Journalism], 39(2), 253–258.

Potiatynyk, B. (2010). Internet-zhurnalistyka: navchalny posibnyk [Internet journalism: tutorial].

Robledo-Dioses, K., Tejedor Calvo, S., Pulido Rodríguez, C., & Torres Espinoza, G. (2022). Cyberjournalism and participation: Taxonomy of interactivity in digital media. Comunicación y Sociedad, 2022, 1–24. https://doi.org/10.32870/cys.v2022.8192

Rodríguez-Martínez, R., Codina, L., & Pedraza-Jiménez, R. (2010). Cibermedios y web 2.0: Modelo de análisis y resultados de aplicación. El Profesional de la Informacion, 19(1), 35–44. https://doi.org/10.3145/epi.2010.ene.05

Santos-Hermosa, G., Lopezosa, C., & Codina, L. (2023). Interactividad, buscabilidad y visibilidad web en periodismo digital galardonado. Cuadernos.info, 54, 269–292. https://doi.org/10.7764/cdi.54.51731

Schultz, T. (1999). Interactive Options in Online Journalism: A Content Analysis of 100 U.S. Newspapers. Journal of Computer-Mediated Communication, 5(1). https://doi.org/10.1111/j.1083-6101.1999.tb00331.x

Steblyna, N. (2019). The emergence of multimedia, hypertextuality and interactivity on local sites: how Odesa electronic editions domesticate WWW (on the material of "Reporter" and "Dumskaya" sites). Dialog: media studios, 24, 180–209. https://doi.org/10.18524/2308-3255.2018.24.153399

Tankard, J., & Ban, H. (1998). Online newspapers: Living up to their potential. *AEJMC*.

Van der Nat, R., Müller, E., & Bakker, P. (2023). Navigating Interactive Story Spaces. The Architecture of Interactive Narratives in Online Journalism. Digital Journalism, 11(6), 1104–1129. https://doi.org/10.1080/21670811.2021.1960178

Vereskun, O., Temchenko, L. (2023). Interaktyvnist, yak kliuchova rysa tsyfrovykh media [Interactivity as a key feature of digital media]. Scientific Collection «InterConf» (180), 202–205.

Zagorulko, D. (2018). Heimifikovanyi informatsiinyi produkt v onlain-media: Spetsyfika ta typolohiia [Gamified information product in online media: Specificity and typology]. Naukovi zapysky Instytutu zhurnalistyky [Scientific notes of the Institute of Journalism], 1, 62–66.

Zagorulko, D. (2023). Interaktyvni karty yak innovatsiynyy instrument vysvitlennia podiy rosiys'koho vtorhnennia v Ukrayinu [Interactive maps as an innovative tool for covering the events of Russian invasion of Ukraine]. Ukrainska zhurnalistyka u svitovomu informatsiino-komunikatsiinomu konteksti: zdobutky i perspektyvy (Kyiv, 24 lystopada 2023 roku). Zbirnyk naukovykh prats [Ukrainian journalism in the global information and communication context: achievements and prospects (Kyiv, November 24, 2023). Collection of scientific works].

Zakharchenko, A. (2014). Internet-media: Interaktyvnyy navchalnyy posibnyk dlia kursu "Pidtrymka saytu" dlia studentiv viddilennia "Vydavnycha sprava ta redaguvannia" [Internet media: Interactive tutorial for the course "Maintenance of the website" for students of the "Publishing and editing" department]. https://document.kdu.edu.ua/info_zab/061_101.pdf