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Frontline Knowledge: Digital Media Literacy of Older Adults in Ukraine

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Abstract

Digital media literacy becomes crucial in modern conflict zones, as conflicts are increasingly digitized and hyperconnected. While a dangerous environment raises the need for orientation, propaganda and fakes discourage audiences' sense-making efforts. Older adults often experience digital and social exclusion and might be vulnerable to mis- and disinformation. Previous research, focusing mostly on Western Europe, has studied digital media practices of older adults, however, there is very little knowledge on digital media literacy skills and needs of older adults in conflict zones. Drawing on eight focus groups, this article explores Ukrainian older adults' challenges and compensation strategies during the digitized war. An inductive-qualitative analysis identifies three main factors that shape digital practices and dictate the literacy needs of Ukrainian older adults: (a) (lack of) access, grounded in material infrastructure and social ties; (b) self-(in)efficacy that often stems from pre-convictions about one's agency and position in society; and (c) resilience that becomes crucial in the situation of continuous exposure to (mediated) violence. This research contributes to the understanding of the media literacy needs of older adults and lays the foundation for developing digital literacy study programs in conflict zones.

Keywords

conflict; digital literacy; media literacy; older adults; Russian-Ukrainian war

1. Introduction

Digital media literacy becomes a crucial skill for citizens in modern conflict zones, as conflicts are increasingly digitized and hyperconnected (Merrin, 2018). When relatively controllable and contained mainstream

media ecologies break down, audiences need to keep up with an increasingly complex information environment, where a wide range of actors are networking immediately and continuously (Boichak & Hoskins, 2022). The orientation problem during a violent conflict is exacerbated by propaganda and misinformation that promote fear and distrust in official information and mainstream news sources (Pasitselska, 2022). While the need for orientation and digital media literacy exists among all age groups, older adults can be especially vulnerable to digital exclusion and its negative consequences. Some existing research points to older people's lack of ability to understand, analyze, and evaluate media content, including news on social media platforms (Allen et al., 2020; Guess et al., 2019) and algorithmic news curation (Zarouali et al., 2021). However, we lack comprehensive research on older adults' media literacy (Rasi et al., 2021) to draw any substantial conclusions about the vulnerability of older adults in a disrupted information environment. While we have some understanding of the audiences' fact-checking practices and media perceptions in a conflicting environment (Fiedler & Kovats, 2017), we need more research on older adults' media literacy needs in such contexts.

This study explores existing media literacy practices, skills, and perceived needs of older adults during war in the digital age. Taking a user-centric approach, it draws on eight focus groups and descriptive data from the national survey with Ukrainian older adults (60+) across the country. Importantly, the study involves both internet users and non-users to understand the barriers to internet access, as well as more advanced practices of social media and messaging app use. Given its exploratory nature, the study adopts a comprehensive definition of media literacy that covers a wide range of technical and critical skills and competencies. The results of this study, conducted in cooperation with a local NGO, will be used to develop digital literacy study programs for older adults in conflict zones.

2. Theoretical Framework

2.1. Older Adults and Media Literacy

Engaging with the question of older adults' media literacy requires defining two contested concepts in two recent scholarly debates. First, the study needs to define "older adults" and justify singling out this age group when it comes to media literacy needs (Rasi et al., 2021). Second, the study needs to explain the meaning of "media literacy," since this umbrella concept covers several subset literacies and provides a list of competencies constantly expanding in the new media environment (Swart, 2021).

In pan-European surveys of attitudes towards and the use of digital media, older people are commonly defined as being 65 years and older (e.g., European Union Agency for Fundamental Rights, 2023; Eurostat, 2023). National surveys in Central and Eastern Europe treat older age groups somewhat differently: For example, they distinguish "mid-age" (55–63) from "older" generations (64–75; Rožukalne, 2020), distinguish between younger (60–69) and older (70+) adults (Kanižaj & Brites, 2022), or use a 60+ margin (Ivan & Cutler, 2021). Additionally, it is important to account for the national retirement standards: The minimal retirement age in Ukraine is 60 years old for both men and women, and the average life expectancy is 65 for men and 74 for women (with an apparent decrease due to the Russian aggression; see Ministry of Social Policy of Ukraine, 2024).

Current studies of digital technologies and media use indicate the existence of an age-based digital divide (Ivan & Cutler, 2021; Kanižaj & Brites, 2022; Nguyen et al., 2022). The general tendency is that younger age

cohorts are the most intensive internet users and tend to be more computer savvy than older cohorts. However, the studies that consider socio-demographic differences within the "older adults" social group point to intersectional, and not merely age-related divides (Hargittai et al., 2019; Hofer et al., 2019). Education, gender, social class, living situation, and other factors affect digital in- and exclusion: Those in advantaged social positions are more likely to use the internet and do so for activities from which they may benefit (Ivan & Cutler, 2021; Nguyen et al., 2022; Raycheva et al., 2018). Altogether, these studies advise against addressing "older adults" as a homogeneous group. Acknowledging the need for contextualized study of technology and media use in later life, this study accounts for regional (including urban and rural) differences, separately addresses the practices of internet users and non-users, and differentiates between two "older adults" age groups (60–69 and 70+).

Media literacy research and practice are inherently interdisciplinary, drawing on studies in literacy and culture, media education, human–computer interaction, and social studies of technology (Livingstone et al., 2005). The variety of perspectives makes the definition and the research agenda, as well as interventions and policy initiatives contentious. This is exacerbated by the necessity to deal with a hybrid media environment, where the news is an increasingly blurred concept (Edgerly & Vraga, 2020), and the supply and variety of content often become overwhelming (Toff & Kalogeropoulos, 2020). The growth in available platforms, devices, and access points for media content demands from users to acquire new technical skills, including algorithmic curation (Zarouali et al., 2021). Additionally, a distorted information environment increasingly demands that users intervene and actively correct mis- and disinformation (Gagrčin & Porten-Cheé, 2023). Overall, we see a tendency to raise the normative expectations from individual media users (Swart, 2021). From the users' perspective, growing empirical research suggests that there is a discrepancy between competence and performance, so awareness of distortions does not necessarily translate into the application of media literacy skills (Tully et al., 2020). Moreover, in polarized and conflicting environments, users' decisions about content dissemination and correction might be based on normative, ideological, and identity-driven rather than epistemic considerations (Pasitselska, 2022). Finally, the application of media literacy is rarely a solitary endeavor: It is always contingent upon collective perceptions and socially negotiated norms and practices (Gagrčin & Porten-Cheé, 2023; Pasitselska, 2022; Swart, 2021).

Most media literacy-related studies targeting older age groups have focused on older people's access to and basic use of digital technologies and media (Rasi et al., 2021). Instead of taking a holistic approach to media literacy, digital inclusion is often prioritized from a research and policy perspective. The European Union Agency for Fundamental Rights (2023) regarded digital literacy and digital skills of older adults as an important civic competence, however, active digital participation of older adults is often under-emphasized in research (Reuter, 2021). Recent literature reviews find that older adults are mostly regarded as "passive" consumers of digital technology (Serrat et al., 2020), neglecting their abilities for content creation (Reuter, 2021). This perspective also underplays the importance of social connections in information sharing and news consumption: Older adults often act as nodal points in their social circles (Duque & Peres-Neto, 2022). In the framework of the "grey" digital divide, older adults have been mostly studied within the premise of their greater vulnerability to misinformation (e.g., Duque & Peres-Neto, 2022; Kanižaj & Brites, 2022), although empirical evidence is contested (e.g., Erlich & Garner, 2021; Mandache & Ivan, 2022). Some studies also claim that older people have more algorithmic misperceptions (Zarouali et al., 2021). In this framework, digital literacy was positioned as a solution to the "misinformation" and "fake news" problem (Allen et al., 2020; Guess et al., 2019).

During and in the aftermath of the Covid-19 pandemic, multiple studies investigated how older adults were coping with misinformation and lack of digital skills during the health crisis (e.g., Ivan & Cutler, 2021; Kanižaj & Brites, 2022; Mandache & Ivan, 2022). Some of these studies show that, contrary to expectations, seniors regard online and social media sources critically and cautiously (Mandache & Ivan, 2022). This is allowed, in part, by the versatile media consumption of older adults. With that, older adults' established beliefs and stereotypes based on long life experience can impede their critical media reception (Raycheva et al., 2018). Reliance on stereotypes, especially given seniors' formative years during Soviet stagnation and the Cold War (Rožukalne, 2020), might amplify the influence of Russian propagandistic narratives (Alyukov, 2023; cf. Erlich & Garner, 2021). In general, however, Central and Eastern European older adults' media literacy skills and needs are severely under-researched. In these contexts, research as well as NGO- and government-led educational interventions are scarce (Kanižaj, 2017; Ukrainian Media and Communication Institute, 2023).

This study adopts a broad approach to media literacy based on two considerations: First, the focus on digital literacy would be limiting in an area of scholarship where little is known; and second, digital media use represents only a fraction of the versatile media practices of older adults. The most general and widely used definition of media literacy is the ability to access, analyze, evaluate, and create media content (Aufderheide, 2018). The definition, however, should be adapted to the precarious war context (Fiedler & Kovats, 2017) and hybrid Ukrainian media environment (Hoskins & Shchelin, 2023; Nedozhogina, 2019; Yanchenko et al., 2023). Next, the study recognizes the importance of the "media locus of control" that foregrounds audiences' agency and ability to exercise at least some control over their information environment (Tully et al., 2022). Finally, in the digital age, it is necessary to account for a skills component of media literacy (Guess & Munger, 2023; Hargittai et al., 2019): A user often must access and navigate multiple devices, apps, and programs, whether for routine media consumption or specific informational needs. Access to devices might also be restricted due to blackouts, power shortages, internal displacement, and the absence of a permanent place to live—when people find themselves "in-between spaces" (Neag & Berger, 2020). Material access, as a precondition for staying digitally active and informed, is critical here (Bozdağ, 2024; Pavlova & Rohozha, 2023). Therefore, the study synthesizes several previous definitions of media literacy as *the ability to partially control one's information environment through access to diverse and reliable sources, technical skills, and adaptive sense-making practices.*

2.2. Media Literacy During the Russian-Ukrainian War: Overview of the Challenges

The Ukrainian population remains the primary target for Russian disinformation campaigns and psychological warfare (Hoskins & Shchelin, 2023). With that, the impact of Russian disinformation is sometimes exaggerated (Bokša, 2022; Erlich & Garner, 2021). Interestingly, when compared with the rest of the EU, the societies in Central and Eastern Europe are highly aware of disinformation while being less concerned about its potential implications (Bokša, 2022). These societies also often view the authorities as responsible for taking the lead in tackling disinformation (Bokša, 2022). According to the Media Literacy Index, Ukraine traditionally gained lower ranks, joining other Central and Eastern European countries in the 4th out of five clusters. However, in 2023, Ukraine was ranked in the 3rd cluster, demonstrating improvement in media literacy skills (Lessenski, 2023). This might also indicate growing awareness and resilience to disinformation of Ukrainians during the full-scale war.

Before the regulatory changes following the Russian invasion in 2014, the Ukrainian media landscape was to a large extent shaped by oligarchic ownership and political power struggles, as well as by Russian efforts to penetrate and control the Ukrainian media market (Ryabinska, 2017; Szostek & Orlova, 2023; Yanchenko et al., 2023). The persistence of contested narratives and profound media distrust (Pasitselska, 2022) played into the efforts of Russian propagandists, whose goal is to confuse the Ukrainian and international publics and to persuade them of the justness of Russian state narratives (Pomerantsev, 2019). In response to a massive propaganda effort, Ukrainian authorities restricted access to media content and websites (including social media and search engines) of Russian origin and sanctioned some "pro-Russian" Ukrainian news sources (Szostek & Orlova, 2023). After the full-scale invasion, together with a state of emergency and martial law, the news programs of the main Ukrainian TV channels were unified into a daily, single, hours-long news broadcast focused on the war. This new platform balances the wishes and needs of the state in times of war with journalistic integrity and the trust of the audience and provides a large share of official information about the war and the economy (Ekman & Nilsson, 2023). Consequently, media literacy education should adapt to the conditions where enemy propaganda disguises under "the alternative point of view" (Yanchenko et al., 2023), and where state censorship can be justified if it protects national ontological security and democracy (Szostek & Orlova, 2023).

The Russian-Ukrainian war is a digitally networked war on an unprecedented scale, shaped continuously through personalized information feeds across multiple platforms (Hoskins & Shchelin, 2023). The news media environment is increasingly hybrid, with (anonymous) Telegram news channels gaining a multi-million audience at the beginning of the full-scale invasion (Ukrainian Media and Communication Institute, 2023). Citizens can constantly check the official news broadcast against social media, messaging groups, and word of mouth from the increasingly connected soldiers (Horbyk, 2022) and relatives living close to the frontline (Pasitselska, 2022). This mediatized context links people's everyday practices to the war unraveling in their smartphones (Boichak & Hoskins, 2022). Witnessing digital war means using (or refusing to use) multiple digital and mainstream sources; knowing what kind of media ecology is represented by each of these; and being able to adjust this ecology to one's own needs.

The Ukrainian hybrid media environment's unique characteristics, along with propaganda, confusion, and censorship in times of war, present a constellation of media literacy challenges for Ukrainian older adults. In these circumstances, the key aim is the control over the information environment: First, the users need control to stay informed, and second, they need control to avoid manipulation and disinformation. In this light, the study asks:

> RQ: What media literacy practices and skills (would) allow Ukrainian older adults to exercise and retain some control over their information environment during the war?

3. Method

3.1. Survey

The survey was conducted by the Kyiv International Institute of Sociology (KIIS) from May to July 2023, as a part of a national public opinion poll: 1,186 respondents aged 60 and older, residing in all regions of Ukraine, were polled via computer-assisted telephone interviews based on a random sample of mobile phone numbers.

The statistical sampling error does not exceed 3.2%. Due to budget constraints, the number of questions was limited, and the scales were not applied. Thus, the survey can demonstrate only a descriptive overview of the participants' media literacy competencies, as a supplement to the focus group data. The survey design was based on the Deutsche Welle Akademie media literacy program questionnaire. Some variables were also adapted from Hofer et al. (2019). Supplementary File A contains the table (Table 1) of average percentages and the table (Table 2) of percentages by gender, age group (60–69 and 70+), type of dwelling (urban or rural), and macro-region (West, Centre, South, East).

3.2. Focus Groups

3.2.1. Participants and Recruitment

The study draws on six online and two offline focus groups, conducted in eight Ukrainian oblasts (regions), involving 65 people (31 men and 34 women) aged 60 to 77. Two offline focus groups (in the Kyiv and Ternopil oblasts) were convened of internet non-users and six online groups involved participants with different levels of internet use proficiency. The recruitment of participants and focus group discussions were organized by KIIS. Prospective participants were contacted based on the KIIS pool of mobile phone numbers. The screening procedure was used to ensure gender and background diversity within groups and to assign the participants to online and offline groups. During the screening, participants were asked about their gender, age, financial situation, regional location and settlement type, displacement status, as well as their news consumption and digital technology (computer, smartphone, and internet) use. The respondents represented Kyiv (8), Ternopil (8), Mykolayiv (9), Dnipro (8), Kharkiv (8), Odesa (8), Khmelnytskyi (8), and Cherkasy (8) oblasts in Ukraine. Some of the focus groups' participants were displaced from other regions. To protect their privacy, the information from which region they were displaced was not collected in the study. The author participated in online focus groups as a second moderator. Participants received remuneration ($\pm$ 15 USD).

3.2.2. Data Collection

After getting acquainted with educational materials (e.g., about types of devices and digital platforms), focus group participants discussed their news consumption, digital devices and app use, and attitudes towards journalistic media. They were also asked to conduct a sorting exercise to choose which news pieces they trust more, including a newspaper article, a Facebook post, a post in the anonymous Telegram channel, and a mock message from a WhatsApp group (participants were asked to imagine that this is their WhatsApp family chat). There was no graphic content or descriptions of violence in the news items. The average focus group duration was around two hours. The focus groups were videotaped.

The videos were transcribed by the KIIS and checked by the author, then the videos were deleted, and the transcripts were pseudonymized. Pseudonymization retained information on the gender, region, and displacement status of the participants. The study design was approved by the Institutional Review Board at the University of Groningen.

3.2.3. Data Analysis

Qualitative-inductive analysis was employed to identify central themes relying on the grounded theory iterative procedure (Corbin & Strauss, 1990). Analysis was conducted with the Atlas.ti software. The first round of reading included familiarization with the data and formulation of codes and categories (Braun & Clarke, 2006). During the subsequent iterative coding and comparison of the codes within and between the categories, five final categories were formed: digital literacy, infrastructure, news consumption, information search, and privacy. The "digital literacy" category describes participants' broad understanding of the internet, their perceived needs, and feelings about digital inclusion/exclusion. The "infrastructure" category describes technical aspects of internet access, for example, the distribution of devices in the family. The "news consumption" is the broadest category, further divided into "news routines," "news fact-checking," "news values and folk theories," and "news overload." The "information search" category describes the available sources of information and search procedures across platforms. Finally, the "privacy" category describes attitudes towards privacy and measures undertaken to protect personal data in banking, social media, devices, and messaging apps. As a next step, the categories were synthesized, and three central themes (access, efficacy, and resilience) were identified. Each theme includes obstacles, coping strategies, and needs of older adults.

4. Findings

The study found that news plays a central role in the everyday lives of Ukrainian older adults, especially since the full-scale invasion. The survey data shows that respondents use the internet predominantly for news (88.5%), keeping in touch with family and friends (85.1%), and information search (83.2%). In focus groups, participants similarly shared the experience of perpetual news consumption and information overload since the start of the full-scale invasion, and the impression that the news and politics became much more central in their daily lives. This forced participants to come up with new "filtering" strategies and more sophisticated news consumption routines. While the challenges were similar across the sample, the practices and coping strategies differed between village and city dwellers, as well as between older (70+) and younger (60–69) participants. Older and rural study participants tended to consume traditional media sources (mostly TV and radio) and more often relied on family and relatives to provide them with additional information. Younger and urban participants were more eager adopters of new technologies, including messaging apps. While many of them also relied on their children and family members to install the apps and to choose the news channels for them, they gradually got used to the new media environment and often further tuned it to their needs (e.g., reducing the number of channels, adding local or national channels). The findings overall demonstrate the partial autonomy of Ukrainian older adults in their media use and point at several "weak" or "blind" spots that can be addressed with media literacy interventions. In what follows, I will discuss media literacy obstacles, coping strategies, and self-assessment of needs in three key domains: access, efficacy, and resilience.

4.1. Access

On the level of access to devices and sources, the study found two sets of obstacles to exercising informed and autonomous control over older adults' information environment: material conditions and preconceptions about the internet.

The first set of obstacles comes from the problematic material and infrastructural conditions, exacerbated by the war. The obstacles include the absence of electricity (especially on the previously occupied territories), lack of certain devices (some people have only a radio or a TV set, or a "dumbphone"), weak TV broadcasting signal and weak bandwidth connection, limited number of TV channels, and high costs of internet connection or newspaper subscription. According to survey data, two-thirds (60.6%) of Ukrainian older adults have access to a mobile phone with an internet connection and 39.2% have access to a personal computer or tablet. A mobile phone is the device most frequently used to connect to the internet (43.1% use a mobile phone, compared to only 17.8% who use a computer). Access to the internet is significantly lower among older (among 70+ 50.1% do not use the internet) and rural respondents (50.1% do not use the internet). In the focus groups, some participants emphasized that they do not consider the internet a survival need, and so they do not spend their limited resources on it. These obstacles cannot be resolved with media literacy interventions and should be addressed on a societal level.

The second set of obstacles concerns people's understanding of the internet as unsafe or unworthy of time or attention. These "folk theories" or collective perceptions were especially prominent in the two non-user focus groups. Among these perceptions, the following categories were identified: fear of scammers, awareness of surveillance, fear of addiction, and belief that the internet is an "information junkyard." Awareness of surveillance specifically pertains to the living experience of hybrid warfare where, according to the participants, domestic and foreign security are constantly monitoring civilian communication channels:

> M, Ternopil oblast: I think that Viber is not securely protected. The program [software] is written in this way. When I hear on the radio how they record those rus-shists' phone talks and then put them on air...

How would participants compensate for the lack of (especially digital) access when they need to find or check information? The two most common solutions are distributed access and reliance on close others' help. In the first case, older adults typically use the devices available at home (their children's or grandchildren's smartphones or laptops); in the second case, they either ask their family, friends, or neighbors to find certain information for them or just wait to be informed. For example:

> F, Kyiv oblast: Once I needed an address, urgently, and I have this "dumbphone," so I asked my son, and he sent me an SMS where this address is.

However, in times of war, the system of distributed access and mutual help is especially precarious. Families are often separated, and extreme situations require fast and reliable information (for example, from governmental services or local administration), which is sometimes disseminated through grassroots digital networks (see Pavlova & Rohozha, 2023). Autonomous connection and navigation of digital devices and communication channels therefore can be considered as one of the critical media literacy competencies in times of war.

How do participants reflect on their lack of access? Some are satisfied with having their support networks in place, so they feel no need to improve or diversify their media access. In a few cases, participants limit their internet access out of the conviction that the internet or online news exposure is harmful to them. In most focus groups, however, participants concluded that not simply access, but autonomy should be a priority when it comes to media literacy education (see also Reneland-Forsman, 2018). For instance, the Kyiv oblast focus

group (non-users) agreed that while family assistance is available for them, they do not always feel comfortable asking for it:

> F1: …So not to bother them, because my son is always busy, "leave me alone."

> F2: They have no time.

> F1: Nor willingness. They have their own lives.

> F3: Yes. They also show me so fast. Here, one-two-three, everything clear?

> M1: If it's your son or grandson explaining, they have no patience.

> M2: If you live together, it is doable. I don't have anyone, my niece is far away, and she's always…Vilnius, Brussels, here and there. How will I manage?

> F1: Only courses can help.

> F4: Only courses.

4.2. Efficacy

After gaining stable and autonomous access to digital media, older adults should also be able to navigate the media environment. The study shows that the participants' perceived ability to control their media environment affects their motivation to use the media and the effort they invest into fact-checking. Following Ashley et al. (2017), the study further distinguishes between the participants' internal and external efficacy. Internal efficacy here means the ability to control one's own media use (e.g., by having the right skills), while external efficacy means the ability to influence the broader public sphere with one's activity (e.g., by voicing opinions online). In terms of external efficacy, if one thinks their informed opinions do not matter to society, they will not invest their time and effort to consume or fact-check news (see also Pasitselska, 2022). Hence, perceiving oneself as a citizen would entail using the media's civic and not only domestic functionality (see also Caliandro et al., 2021).

4.2.1. Internal Efficacy Obstacles: Gender Roles, Censorship, and Disrupted Media Sphere

Survey respondents were overall rather confident in their ability to distinguish false from truthful news (70.2% in traditional media and 60.5% on the internet) and to assess the quality of information (71.3% in traditional media and 62.7% on the internet). The focus group discussions confirmed these findings, demonstrating awareness of propaganda and censorship and understanding the differences between opinions and facts. Study participants mentioned a range of fact-checking techniques, including cross-checking sources (e.g., comparing TV and Telegram news), consistency heuristics, and diversification of sources. With that, there were some factors, such as gender, that seemed to influence the level of confidence. The survey finding that men are more confident in their internet use than women (see Supplementary File A, Table 2, Q7–8) was also reflected in the responses of some of the female focus group participants:

F, Kyiv oblast: Well, we are girls, let's put it that way. We don't want to go deep into it.

Statements about not having enough time for news and media use were also coming predominantly from female participants:

F, Odesa oblast: I don't have time to sit and watch TV. We live in the village, so we need to dig up potatoes and harvest, and water everything....My vegetable garden is 12 "hundreds" [0.12 hectares]. I need to harvest and feed my grandchildren and great-grandchildren.

Having to care about their families and their homes, some women consider media consumption as a leisure activity. While traditional media consumption can accompany household duties (e.g., listening to the radio or TV while cooking), digital media consumption requires attending to screens and hence is incompatible with other household activities. Podcast is still a medium largely unexplored by older adults in Ukraine.

Perceptions of censorship affect older adults' news consumption as well as expression online. On the one hand, older adults are acutely aware of state censorship of TV news and feel the need to augment this limited picture by using alternative sources:

F, Ternopil oblast: Before the war, there were other TV channels, and I could compare. Now it looks like—I understand that there is a war, but it's not an argument for me—it looks like "Glory to the Soviet Union and the Labor Union, and the head of the Labor Union."

On the other hand, the respondents in many instances agree that state censorship is necessary, and they wish to join the collective effort to keep the enemy blind. For instance, they would refuse to communicate information about their neighborhood being shelled online or to talk about Ukrainian military affairs with their relatives in Russia or Belarus. The tension between the willingness to be informed and to comply with the state regulation of wartime is sometimes resolved by letting go of the control over their information environment:

F, Ternopil oblast: We are allowed to know as much as they give us this information. We don't have another choice, and we all understand perfectly well that it's not the whole picture. We should not know the whole picture either. We must believe what we are told. And the truth we will find out many years later.

This coping strategy might be a viable alternative to extensive fact-checking, especially given the challenges of information overload and exposure to large amounts of emotionally triggering content. In any case, media literacy educators need to account for the informed choice of "governmental censorship care" and to respect such choice.

Lastly, the perceptions of the disrupted media sphere make respondents more reluctant to invest their time and energy into news consumption and fact-checking:

F, Kharkiv oblast: When the war began, I started to watch the news, and I felt such apathy, so I stopped. I switched off Telegram channels and stopped watching anything.

These perceptions might be exacerbated by the abundance of Telegram and Viber news channels (many of them anonymous) that do not adhere to any journalistic standards (see Ukrainian Media and Communication Institute, 2023). While users can sense that the channels are not trustworthy, they often continue using them, because they need to stay informed:

> F, Dnipro oblast: I think that in Telegram there is a lot of disinformation [*vkidov*]. And I filter some of them. I deleted the app three or four times during the war already but then installed it again.

Some users, though, while acknowledging the ongoing disruption (due to the Russian propaganda efforts, information influx, or abundance of different media and platforms) also establish filtering techniques that they apply consistently in their media use:

> M, Kharkiv oblast: I throw away bloggers and some dubious Telegram channels, and Facebook channels. I throw away all the "analysts" because they are just self-appointed experts. I will go to some online news websites, Ukrainian ones, or if it's about foreign news, then BBC if it's about Britain, or Washington Post and New York Times if it's about the US.

These users have established a routine that enables them to regain control over their information environment. Other users, however, might distrust journalistic and official sources, and then find themselves amidst the "information junkyard" where "everything can be fake." Such perceptions foster helplessness and disconnection from the news. Potentially, these perceptions also influence the way older adults see their role in society—as "an ordinary person" who cannot judge the information well and by extension cannot participate in a political process:

> M, Mykolayiv oblast: There's a lot of information, too much. We can't in our heads…how to say, filter it, right? Whether it is true or not—I am not an analyst, I can't tell. I am an ordinary person, an ordinary retired person.

4.2.2. External Efficacy Obstacles: Lack of Agency, Surveillance, and Algorithms

External efficacy assessment decides whether a more extensive media use (like expressing one's opinions online or taking measures to ensure one's privacy) is worth the effort. Except for a few civically active participants (i.e., who defined themselves as "activists"), older adults in this study did not talk much about their experiences of creating content or expressing opinions online. In most cases, they were "passive" consumers of information. Online fora were perceived as spaces imbued with uncivil and negative expressions, and unfit for sharing private thoughts and experiences:

> F, Kharkiv oblast: I do not stop myself from writing something. I just don't have a negative mindset, so I don't have anything to write. Political issues are all open now. I don't have any deep political insights; I don't have any intelligence information. I don't have anything to sell, and I don't worry about it. So, it's just my domestic….Or my thoughts. It's nobody's business.

This general attitude corresponds with survey findings, where only 31.2% of respondents acknowledged expressing their opinions on social media, and even less (18.6%) said they commented on materials on news

websites. However, many older adults are active Viber and Telegram group users, and not just in a "lurking" capacity. For example:

> F, Cherkasy oblast: The first thing I do in the morning, I open Viber, and check whether my brother was online. He is at the frontline....If yes, then thank God everything is fine. Then I turn on the news....I talk to my former classmates, we send each other messages on Viber about what happened, and about the news.

Another consideration that limits participants' expressions online is the awareness of the pervasive enemy and domestic surveillance. Most of the respondents were sure that they should limit their war-related communication on electronic devices because they can be hacked. Some also had theories regarding the protection of specific apps, for instance, given the origin of the apps' creators:

> M, Kharkiv oblast: I don't chat at all on WhatsApp and Viber, only about kittens and flowers. Because WhatsApp is a Belarusian-made app, and Viber is Russian-made.

However, the perception of pervasive surveillance can also lead to feelings of helplessness when trying to protect their online privacy, and some of the respondents might just give up on trying to protect their devices:

> M, Cherkasy oblast: I'm not afraid. I know and I am sure that they can listen to information, track, and hack. If you use the internet, everyone can know it.

Almost all the respondents were vigilant when it came to protecting their bank accounts and other financial information. In contrast, respondents were rather indifferent towards protecting social media accounts, or their devices. Many responses to the question about the measures they take to ensure their privacy sounded the same: "I am an open person; I do not have anything to hide." This unanimity might point to a generational norm according to which protecting and hiding personal information is perceived as suspicious. Additionally, some participants were sure that since they are "just pensioners" who do not possess "secret information" or large sums of money, nobody can have malevolent intentions toward them:

> M, Odesa oblast: Nothing is password-protected, neither smartphone nor Facebook, nothing. Only if it requires a password, my children will put in something and I'm content with that. I don't see any point in it. I'm not a millionaire.

Another "blind spot" for the respondents was the algorithmic curation of search engines and social media. According to the survey, information search is among the highest priorities for internet use among older adults (83.2% use the internet for the search of information and advice, and 67.9% use search engines). However, most of the focus group participants could not come up with clear strategies for information selection from their search. The only criterium concerned the origin of the source: whether it was a Ukrainian or a Russian source, since many of the participants recognized that Russian sources are blocked on Ukrainian territory. The most common strategy was to click on the first link on the page, then the second, and so forth. Nobody acknowledged, though, that the first link can often lead to sponsored pages and advertisements. While 74.9% of the survey respondents agreed with the statement "I understand that social

media suggest information for my news feed," only 49% could agree that they understand how to set up their social media feed to get the information they need. In focus group discussions, participants acknowledged frequent use of recommendations from their YouTube feed, but they seldom questioned or reflected on the algorithmic selection of these recommendations.

4.3. Resilience

Navigating the media during the war is mentally exhausting. It requires developing strategies and techniques to stay up to date with the news about attacks on a civilian population and other war crimes while taking care of one's safety under lack of sleep due to constant air raid alarms. The participants shared very similar accounts about the beginning of the full-scale invasion, when they were "glued to their phones" and experienced anxiety and information overload. For example:

> F, Dnipro oblast: When the war started, I switched off work completely. I couldn't do anything; I was just sitting in front of the TV and on my smartphone and watching how it would evolve.

During this time many of the participants started watching the news (some of them ignored political news before the full-scale invasion) and installed Telegram or Viber on their devices or added broadcasting news channels and local groups to family chats they had before. Some also installed a home internet connection. Gradually, the participants elaborated coping strategies that they often refer to as "filtering." Filtering includes selecting trustworthy sources, excluding suspicious sources, diversifying the sources, reducing the sources to strictly official information, or reducing the time for consuming news:

> F, Kharkiv oblast: All these events in Kharkiv, we live so close to everything that was happening, and there was no other information. This [Telegram] channel quickly informed us. Then I got disappointed, I don't like this swiftness. One second, and they already write about what has been destroyed, how many killed....Even before the explosion the information is already coming, and who knows.

However, even after filtering the sources and reducing news exposure, some participants still find it challenging to cope with the inner demand to be constantly attentive to news, especially during the air raid alarms. Perpetual news consumption is a notable practice among many of the study participants, which sometimes leads to negative effects on their mood:

> F, Ternopil oblast: But when air raid alarms sound across the country, I can turn my phone on even at night, because...I'm worried. This feeling...not of guilt, but of helplessness that I can't change anything, can't help.

These feelings can lead to disconnection from the news, which entails redistributing news-watching responsibilities in the family (e.g., "I live with a relative, she watches the news and retells me what's going on"), limiting news channels to only local news, watching only the censorship-approved news program, or reading only "positive" news (e.g., based on emojis responses under posts in the Telegram feed).

To sum up, the study participants came up with a range of strategies and techniques that enabled them to cope with information overload that followed the beginning of the full-scale invasion. However, they would

still benefit from resilience-boosting interventions that would address the tension of staying both informed and sane, especially as the full-scale war keeps citizens constantly alert.

5. Discussion

This research set out to explore media literacy practices and skills that older adults apply to control their information environment in times of war and to assess their existing needs. It demonstrates that Ukrainian older adults developed fact-checking routines, limited their consumption, and increased reliance on governmental sources to cope with information overload, anxiety, and grief, while also keeping up to date with the news. In the following, I discuss the study's takeaways in the domains of access, efficacy, and resilience.

Confirming that media literacy, in practice, is a distributed competency (Rasi & Kilpeläinen, 2015), this study emphasizes the precarity of mutual help networks. It points to the need to further develop older adults' autonomy when it comes to "borrowed knowledge" (Reneland-Forsman, 2018). Autonomy should be prioritized to mitigate the risk of (digital) disconnection and its consequences for older adults' physical safety. Importantly, media literacy training cannot solve material and infrastructural problems: Sometimes governmental investment is needed to provide older adults with devices, internet access, and time and safety to focus on anything beyond immediate survival.

Complementing previous studies that focused on digital divide determinants, such as education and socio-economic status (Ivan & Cutler, 2021), the study shows that gender stereotypes and the lack of civic agency can affect older adults' application of media literacy skills (see also Caliandro et al., 2021; Pasitselska, 2022). With that, this study points to overall older adults' self-efficacy in the face of swarming disinformation (cf. Rasi & Kilpeläinen, 2015; Reneland-Forsman, 2018). Their described practices and competencies, such as general skepticism, cross-sources consumption, knowledge about media ownership, and understanding of journalistic norms, demonstrated a good level of media literacy (Erlich & Garner, 2021; Mandache & Ivan, 2022). Despite that, from the descriptive survey and (partially online) focus group discussions, we cannot fully understand the application of media literacy (Tully et al., 2020). A broader survey and experimental or ethnographic studies should be conducted to confirm these conclusions and expand our understanding of older adults' competencies.

Older adults' media literacy knowledge and skills can be improved by transferring existing competencies from the traditional to the new media environment. Participants' confidence may be partially unfounded when it comes to the use of social media, messaging apps, and search engines as information sources. The abundance of Telegram and Viber channels, and the need to develop filtering techniques to distinguish between governmental, journalistic, and anonymous sources were challenging for many. Similarly to Zarouali et al. (2021), the study found older adults' weak understanding of algorithms, including those that operate search engines. Search engines have been recently identified as a source for spreading disinformation and conspiracies, especially when googling in Russian (Toepfl et al., 2023). These threats, together with older adults' inability to explicate their information search and validation criteria, necessitate adding search engine use to media literacy curricula. While it is clear that older adults perceive search results as a bundle without differentiating page outline elements such as advertised content, future studies should unpack other aspects of their intuitive use.

Information overload and the pressure to constantly keep up with gruesome news required an additional set of skills, related to informational and psychological resilience. Importantly, Ukrainian older adults are not traumatized only due to exposure to mediated suffering (Pinchevski, 2019), they are experiencing shelling, air raids, and forced displacement as embodied witnesses. From the media literacy point, affective proximity to conflict clashes with the need to verify information from an objective distance (Al-Ghazzi, 2023). Moreover, collective witnessing of war creates a shared existential situation of a community "linked by their common predicament of subjection to a fate they cannot control but have to endure" (Chouliaraki, 2010, p. 70). In this state of mind, normative, ideological, and identity-driven readings are prioritized over epistemic considerations (Pasitselska, 2022). But even when epistemic engagement is possible, can we demand from citizens to fact-check, considering that verification can result in additional traumatization? As everyday media saturation forces citizens into a perpetual state of crisis-readiness (Frosh & Pinchevski, 2009), installing barriers to media exposure might be necessary. The tension between epistemic and affective engagement poses a specific challenge for media literacy application during crisis and war. Staying informed while staying sane is one of the most important and complex tasks for Ukrainians in times of war, and media literacy programs have yet to design interventions that could tackle this challenge.

Conflict of Interests
The author declares no conflict of interest.

Data Availability
The survey data is available in the supplementary material.

Supplementary Material
Supplementary material for this article is available online in the format provided by the author (unedited).

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