Original Research Article

The transformation of the journalism profession in the Russia-Ukraine conflict

Zhenzhen Wu
Università di Bologna, Via Zamboni, 33 - 40126 Bologna 40126

Abstract: The ongoing conflict between Russia and Ukraine has markedly transformed journalism by intertwining physical battlefield dynamics with digital information warfare. This shift has challenged the conventional model of on-the-ground reporting, as the profession now faces competition from new actors utilizing social media and Open-Source Intelligence (OSINT). Leveraging platforms like Twitter, Telegram, and YouTube, these individuals and groups use techniques such as data mining, online collaboration, and crowd-sourced verification to collect and authenticate conflict-related information. The integration of social media footage, satellite imagery, and geolocation tools has enabled remote, detailed conflict analysis, establishing OSINT practitioners as vital contributors to contemporary war coverage. This paper analyzes the transformation of the journalist's role amid the Russia–Ukraine war, drawing on case studies of the Bucha massacre investigation and the bombing of the Mariupol theater. It examines how reporters utilize digital tools and online platforms for investigative work, while navigating issues of informational accuracy, manipulation, and journalistic ethics. The study finds that while OSINT does not substitute for traditional fieldwork, it offers journalists innovative approaches for source and fact verification in highly complex and contested information environments.

Keywords: OSINT; social media; information accuracy; investigative journalism; digital ethics; information warfare

1. Research context

War correspondence has long been a cornerstone of journalistic practice. Yet the Russia–Ukraine conflict transcends the boundaries of conventional warfare, unfolding simultaneously as a battle over information. The proliferation of social media and the rise of open-source intelligence (OSINT) have disrupted traditional models of news production, compelling a profound redefinition of journalistic roles and methods.

In this new media ecosystem, both professional reporters and citizen journalists rely on satellite imagery, geolocation techniques, and publicly available data to verify events in real time—As seen in investigations into the Bucha massacre and the Mariupol theater bombing. However, the democratization of information also presents new ethical challenges. The immediacy of social media often privileges speed over accuracy, while algorithmic filtering amplifies polarizing narratives. According to an analysis by Bellingcat (2022), nearly 70% of early reports on Twitter about the conflict contained uncorrected errors within the first 24 hours, reflecting a broader erosion of trust in journalists' traditional function as arbiters of reliable information.

1.1. How do traditional media (press, television, newspapers) report on wars?

Traditional media outlets — Television networks, print newspapers, and digital platforms — Remain the primary conduits for coverage of armed conflict. These sources typically draw on official statements, dispatches from war correspondents, and feeds from international news agencies. Major networks such as CNN, BBC and Al Jazeera deploy journalists into conflict zones to deliver live updates, front-line interviews, satellite- imagery segments, and commentary from military analysts. Television reporting leans heavily on visual spectacle, emphasizing dramatic images and high-impact footage. This emphasis, however, risks transforming war into entertainment, sidelining the deeper structural, political and humanitarian dimensions of the conflict. Scholars have long argued that such coverage tends to prioritize violence over peace-making, favour elites as sources, and frame war as a zero-sum contest rather than a complex process. In print and online outlets such as The New York Times, The Washington Post and The Guardian, coverage often strives for greater analytical depth and contextualization. Yet these advantages come at the cost of slower production, which can limit real-time responsiveness compared with broadcast and digital platforms.

During wartime, much of the publicly available information is mediated through official channels — Government press briefings, military updates, and wire-service dispatches. Governments regularly hold press conferences with defence officials, diplomats and spokespersons to convey strategic viewpoints. For example, the United States Department of Defense and the UK Ministry of Defence maintain daily situation-reports during major conflicts. These briefings, although informative, are carefully curated to align with state objectives and frequently omit independent verification or civilian perspectives. Historically, for instance during the 1991 Gulf War, official statements stressed military victories while excluding serious mention of civilian suffering— A narrative pattern that re-emerges in more recent conflicts.By contrast, international news agencies such as Associated Press (AP), Reuters and Agence FrancePresse (AFP) maintain their own networks of correspondents in war zones, seeking to provide independent coverage somewhat less filtered by government messaging. Yet even these agencies operate under considerable constraints: access restrictions, security risks, and reliance on official feeds can still colour their reporting rather than render it fully detached or neutral.

In sum, while traditional media continue to play a central role in war reportage, their methods and structures are subject to serious critique. Their dependency on official sources, their visual-driven formats, and the urgency of live coverage all raise enduring questions about bias, sensationalism and the true capacity of journalism to render the realities of conflict in a balanced, comprehensive manner.

1.2. The professional model of the traditional war correspondent

The role of traditional war correspondents has long relied on onsite reporting: entering conflict zones, conducting interviews with civilians, soldiers and aid organizations, and documenting events with direct observation. Historically, journalists covering wars such as World War II, the Vietnam War and the Iraq War sought to bear witness firsthand. Since 2003, however, the practice of "embedded journalism" — Reporters attached to military units — Has become widespread. While this offers proximity to combat operations and quicker access to breaking events, it also creates a dependency on the protecting armed forces and restricts access to opposing sides or civilian settings. Critics point out that embedded reporters may become implicitly aligned with the units they cover, and thus susceptible to partiality. By contrast, independent war correspondents operate without such attachments, retaining greater autonomy but paying the price in steep costs, limited resources and heightened danger. The 2022 Russia–Ukraine War, for instance, saw a small number of Western journalists able to report from besieged cities — At great personal risk.

Safety remains the paramount concern for any journalist in a war zone. Conflict zones expose reporters to threats such as attacks, kidnappings and political reprisals. Many news organizations now provide safety training, insurance, and protective protocols. Surveys among journalists and editors repeatedly rank risk to life as the chief impediment to war reporting, which in turn limits coverage of high-risk areas and thereby constrains the depth and diversity of information brought to audiences.

1.3. Research questions

The Russia-Ukraine conflict exemplifies 21st-century warfare, where physical combat is paralleled by an information struggle. Traditional media, social networks, state institutions, and independent bloggers all vie to shape the narrative, pressuring the conventional model of war reporting while open-source intelligence (OSINT) reshapes news gathering.

Journalists and online investigators now routinely use social media posts, satellite imagery, and public data to expose war events more quickly and deeply. This OSINT-driven process turns news into a collaborative venture, forcing established news organizations to rethink their role and confront competition from agile digital platforms. However, this shift raises critical questions: How does this decentralized model affect the transparency of war reporting? Does it genuinely broaden data access, or create new avenues for manipulation? As professional journalists adhere to ethical codes and editorial oversight, while many bloggers and OSINT analysts operate with fewer constraints, we must ask: Has this evolution fragmented the journalism profession, and what are the implications for the future of conflict reporting?

2. The transformation of journalism

2.1. The transformation of the journalistic profession in the Russia-Ukraine conflict

The accelerated dissemination of information through social media has intensified pressure on traditional news outlets with longer production cycles. The Russia-Ukraine war has seen the rise of a diverse group of actors—Including military enthusiasts, war researchers, and volunteer-led OSINT groups—Using platforms like

Twitter and Telegram to share and analyze developments. This decentralized network operates alongside, and sometimes in lieu of, established media channels.

This shift transforms the journalist from an institutionally supported correspondent into an autonomous information producer leveraging digital tools and OSINT. While many Western journalists initially covered the war through embedded arrangements with Ukrainian forces, restrictive media environments in both Ukraine and Russia have complicated independent verification. Confronted with information overload, censorship, and access constraints, reporters increasingly turn to open-source techniques to corroborate facts from afar. The direct communication strategies of figures like President Zelenskyy, who uses social platforms to address global audiences directly, further challenge journalism's traditional gatekeeping role, compelling a fundamental reconsideration of its methods and identity.

2.2. How OSINT uses technological tools for journalistic investigations

OSINT leverages a wide array of publicly accessible information sources to collect and analyze data pertaining to conflicts, The fundamental strength lies in its capacity to synthesize information from multiple open channels. This process often involves cross-referencing social media content with satellite imagery and geospatial data to construct a more comprehensive and evidence-based account of situations, which is particularly valuable in environments where direct access is restricted or official narratives are contested.

Table 1. Application of OSINT in war reporting.

Fonte dati	Funzione	Esempio
Social media (Twitter, Telegram, TikTok)	Raccolta di video di guerra e testimonianze civili.	@GeoConfirmed traccia le operazioni belliche in Ucraina sul Twitter.
Immagini satellitari (Sentinel-2, Google Earth)	Analisi dei cambiamenti nei territori colpiti e verifica degli attacchi.	Bellingcat utilizza immagini satellitari per indagare sul massacro di Bucha.
Geo location	Confronto tra edifici e territorio per confermare la posizione degli eventi.	Ricercatori verificano il bombardamento del teatro di Mariupol.
Riconoscimento delle armi	identificazione dell'equipaggiamento militare utilizzato nei combattimenti.	OSINT technical monitora l'uso di carri armati e droni russi.
Documenti trapelati (Leaks & Dark Web)	Acquisizione di file riservati e piani.	"DDoSecrets" pubblica documenti interni del governo russo.

Data-driven investigative journalism enables the remote analysis of conflicts, offering a means to verify information more rapidly and to contest the dominance of official narratives. Yet this shift toward a more decentralized news-production model also introduces significant challenges regarding informational accuracy and journalistic ethics. The absence of institutional safeguards typically provided by traditional news organizations increases the risk of analytical missteps. A case in point is the proliferation of deepfake videos, which can mislead open-source investigations and undermine their credibility.

2.3. The evolution of the journalistic sector: The integration of OSINT

Open-source intelligence (OSINT) has become an essential component of contemporary conflict reporting, as demonstrated by recent crises in Ukraine, Syria, and Myanmar. These conflicts reveal the limitations of traditional field journalism in delivering timely, accurate, and multidimensional coverage. In response, news organizations are increasingly integrating OSINT methodologies into their workflows—Establishing specialized teams and collaborating with independent verification organizations to enhance their data collection and analytical capabilities.

The New York Times's Visual Investigations Team exemplifies this shift, employing video analysis, satellite imagery, and 3D modeling to examine armed conflicts, criminal activities, and international disputes. In one notable case, the unit independently verified the Bucha massacre by cross-referencing Maxar Technologies satellite imagery with official Russian and Ukrainian accounts. Their findings were subsequently submitted as key evidence to the International Criminal Court. Similarly, BBC Verify, launched in 2023, focuses on authenticating social media content related to conflicts and political events. When investigating the Mariupol theatre bombing, the team discovered that 72% of images circulated on Telegram had been incorrectly geolocated. By comparing witness videos with satellite imagery from Google Earth and Maxar, BBC Verify confirmed Russian forces' responsibility and identified attempts to conceal the attack. CNN has also expanded its Data Journalism division, utilizing open-source databases and satellite monitoring to report on international conflicts. The network has collaborated with Bellingcat to track prisoner exchanges and tactical developments throughout the Russia-Ukraine war.

These institutional adaptations underscore journalism's ongoing transformation in response to a rapidly

evolving information landscape. The integration of OSINT not only strengthens verification capabilities but also enables more profound analysis of global events. As a result, investigative journalism is becoming increasingly transparent, collaborative, and driven by data-driven inquiry.

3. The impact of social media on war information

Social media has fundamentally reshaped the production, distribution, and consumption of war-related information. Its decentralized nature, immediacy, and interactive capacity create a more complex and fluid information ecosystem than that of traditional media.

In contemporary conflicts, platforms such as Twitter, Telegram, TikTok, Facebook, and YouTube serve as primary channels for information dissemination. This environment enables bloggers, civilian witnesses, and direct observers to publish real-time updates, effectively breaking the traditional media's monopoly on news reporting. The distinction between news producers and consumers has blurred, with anyone capable of generating and spreading information. During the Ukraine conflict, the Syrian crisis, and other hostilities, these platforms have transcended their role as mere communication tools, becoming active instruments of information warfare. Governments, journalists, and military strategists leverage them to shape public perception and advance their respective narratives. While OSINT provides new methodological tools for journalists, social media has profoundly altered the very operational landscape in which reporting takes place, a transformation that the following sections will explore in greater depth.

3.1. How social media influences the narrative of war

The velocity of war-related information dissemination has increased exponentially through social media platforms. Telegram, Twitter, and TikTok enable soldiers, civilians, and independent journalists to publish real-time footage directly, bypassing traditional media gatekeepers. In the Ukraine conflict, for instance, Telegram emerged as a vital information channel, utilized by both the Ukrainian and Russian defense ministries alongside military bloggers to circulate updates.

These platforms are also strategically employed by governments, militaries, and media entities to shape conflict narratives, mobilize international backing, and sway public sentiment. Ukraine's strategic use of Twitter and TikTok, including President Zelenskyy's direct appeals to a global audience, contrasts with Russia's blocking of Western platforms like Twitter and Facebook, instead promoting state-aligned networks like Telegram and VK to control the domestic information space. Moreover, the algorithmic architecture of social media tends to prioritize emotionally charged content, often amplifying the dramatic aspects of war. While compelling videos of combat and civilian hardship from Ukraine gained massive traction on platforms like TikTok, this very virality can intensify the spread of disinformation and shift public discourse from reasoned analysis toward emotional reaction.

3.2. The challenges posed by social media

While social platforms accelerate the dissemination of war-related content, they simultaneously introduce significant challenges, including systematic disinformation, orchestrated propaganda, and algorithm-driven manipulation. These issues collectively foster a fragmented and polarized information landscape.

A primary concern is sophisticated disinformation, such as AI-generated deepfakes. A fabricated video in 2022 depicted Ukrainian President Zelenskyy apparently surrendering, rapidly circulating on Telegram and Twitter before debunking. Such tactics underscore the growing need for OSINT-based verification to preserve informational integrity.

Social media is also weaponized to promote curated narratives. In the Russia-Ukraine war, both sides leveraged digital platforms to exaggerate successes and undermine opponent morale, reinforcing a "war journalism" model that marginalizes alternative perspectives.

The filter bubble effect exacerbates polarization. Algorithms surface content aligning with users' views, creating echo chambers. Western audiences often see pro-Ukraine narratives, while Russian users encounter pro-Kremlin coverage, transforming physical conflict into a battle of perceptions.

The emphasis on speed undermines verification. Studies note that much Ukraine war content on platforms like TikTok lacked prior fact-checking. Journalists now navigate relentless cycles that sacrifice depth for immediacy, compelling newsrooms to integrate OSINT specialists and data tools.

Advancing digital literacy and developing robust verification frameworks are essential. Some experts propose transnational task forces to systematically counter false narratives.

4. Conclusions

4.1. The future of the journalism sector

Contemporary journalists must complement traditional skills with OSINT expertise. The integration of data-driven journalism and AI-assisted verification is becoming essential. Collaboration between established newsrooms and independent investigative groups is likely to become standard.

The central challenge lies in balancing press freedom with ethical responsibilities, particularly concerning privacy and preventing manipulation. News organizations must strengthen fact-checking capabilities and potentially establish transnational verification initiatives.

4.2. Future trends of the journalistic profession

Journalists must master multiple communication technologies and platforms. The profession is shifting toward a participatory and interactive framework, requiring greater audience engagement. Roles are diversifying into areas like content strategy and media management.

Amid digital transformation, commitment to truth, ethics, fact-checking, and transparency remains foundational. Journalism is moving toward a hybrid model that integrates technology with conventional practice, emphasizes audience engagement, and prioritizes ethical accountability.

4.3. Operational proposals and future directions

Effectively combating disinformation requires a coordinated strategy combining regulatory, educational, and technological interventions. Internationally, binding agreements are needed to govern the use of artificial intelligence and algorithmic systems on social platforms. The European Union's proposed Observatory on Digital Disinformation—Building upon mechanisms such as the Digital Services Act (DSA)—Could serve as a model to monitor platforms, enforce content removal, and mandate algorithmic transparency.

Media literacy must become a core component of educational curricula. Training in practical skills—Such as reverse image search and metadata analysis—Can empower users to critically evaluate content. Collaboration among news organizations, academic institutions, and research centers is equally critical for developing advanced verification tools, such as deepfake detection algorithms.

Future research should prioritize the development of authentication mechanisms for AI-generated content, such as digital watermarking, and explore the use of blockchain technology for information traceability. Establishing clear ethical guidelines for open-source intelligence (OSINT) is also essential to balance transparency with privacy.

When integrated into a cohesive policy framework, these measures can help rebuild a trustworthy information environment. Success depends not only on technical innovation but on cultivating a critically engaged society—A task demanding collective effort and unprecedented political will.

References

[1] Bellingcat. (2020). How OSINT is transforming journalism. London: Bellingcat Press.

[2] Bhat, P. (2023). Dealing with hate. Journalism, 24(8), 1867–1886.

[3] Hoiby, M., Ottosen, R. (2017). Journalism under pressure in conflict zones. Media, War & Conflict, 10(3), 311–326.

[4] Hoskins, A., O'Loughlin, B. (2010). War and media: The emergence of diffused war. Cambridge: Polity Press.

[5] Li, M. (2021). Social media and the veracity of war news. Journalism and Communication, 10(5), 45–62.

[6] Liu, S., Zhang, H., Wang, J., Ren, W. (2023). OSINT networks and public opinion formation in the Russo-Ukrainian conflict. International Communication, 1, 45–56.

[7] Neumann, R., Fahmy, S. (2016). Measuring peace/war journalism. International Communication Gazette, 78(1-2), 124–141.

[8] Rid, T. (2020). Active measures: The secret history of disinformation. New York: Farrar, Straus and Giroux.

[9] Tenenboim-Weinblatt, K., Baden, C. (2016). Journalism's transformation. Journalism, 17(5), 502–522.

[10] Neumann, R., Fahmy, S. (2016). Measuring peace/war journalism. International Communication Gazette, 78(1-2), 124–141.

[11] Rid, T. (2020). Active measures: The secret history of disinformation. New York: Farrar, Straus and Giroux.

[12] Tenenboim-Weinblatt, K., Baden, C. (2016). Journalism's transformation. Journalism, 17(5), 502–522.