

Open-Source Actors and UK News Coverage of the War in Ukraine: Documenting the Impacts of Conflict and Incidents of Civilian Harm

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Open-source intelligence (OSINT) describes the gathering and analysis of public online data sources. The collective endeavours of digital volunteers and investigations conducted by actors such as Bellingcat produce evidence that provide a valuable perspective on events. Open-source investigations verified the culpability of pro-Russian separatists in the downing of Malaysian Airlines MH17 over Donetsk, Ukraine in 2014 by tracking the movements of the Russian Buk missile launcher ([Bellingcat 2014](#)). They also corroborated the use of chemical weapons by the Syrian military in Douma in 2018 by using satellite imagery, architectural details and images from the ground to produce 3D models of the attack sites and cannisters ([Forensic Architecture 2018](#)). Increasingly, the use of these research techniques is an important tool and practice for journalists when researching their stories. Open-source intelligence practices, and the actors that conduct investigations, are now also valuable sources for journalists, shaping the meanings and understanding of significant events.

In a confused and contested media space, these open-source practices and actors are a vital resource in documenting the war in Ukraine. This includes the use of social media geolocation and online data sources to confirm military losses and to map incidents of civilian harm. While existing research has considered the changing practices of journalism that are facilitated by open-source intelligence techniques ([Müller and Wiik 2021](#)) and the contribution

of investigations by Bellingcat to conflict reporting ([Cooper and Mutsvairo 2021](#)), less is known about how open-source actors are shaping the contours of mainstream news coverage.

This chapter documents how open-source actors contribute to mainstream news media accounts of the Russian invasion of Ukraine and its impacts. Through an exploratory content analysis of online news coverage of the initial six months of the war in UK news media, it seeks to map the types and use of open-source actors by UK news organisations. The guiding research questions for the study are as follows:

1. What open-source actors have featured prominently in UK news media coverage of the Russian invasion of Ukraine and its impacts?
2. What prominent stories, events and issues that have occurred during the war feature open-source actors as sources?
3. How are these actors used within news accounts? Are they used as a source, to corroborate or challenge different perspectives on an issue or event, or to introduce readers to open-source intelligence techniques, resources and the different actors?

While it is established that open-source intelligence practices offer new opportunities for newsgathering and verification, the findings from this study suggest that as sources these actors enable coverage that underline the impacts of conflict and presents it in different ways. In news accounts of Russia's invasion of Ukraine, open-source actors provide another layer of access, enabling news accounts to highlight and evidence incidents of civilian harm.

As has followed wider transformations in digital journalism, I argue in this chapter that the insights provided by open-source actors, and the embedding of open-source practices and

tools into in-depth investigations, are reconfiguring news organisations' coverage of war and conflict.

OSINT practices, tools and actors

The war in Ukraine is characterised by information manipulation tactics and disinformation propagated by various actors ([OECD 2022](#)). While propaganda has long existed as a weapon of war, the evolution in the production and dissemination of information, illustrated by the breadth of online sources, have both simplified its creation and amplified its potential. Russia, in particular, has deployed a complex and multi-layered strategy to 'introduce, amplify, and spread false and distorted' narratives about the war and its intentions ([NewsGuard 2022](#): 1). These are capabilities that Russia has developed since the annexation of Crimea in 2014 and deployed through state media sources, such as RT, anonymous websites and social media platforms ([NewsGuard 2022](#)). Trolls and bots on these platforms are a further established feature of pro-Kremlin disinformation ([Aro 2016](#)). The Ukrainian government has also sought to influence the information and narratives about the war, a strategy that is necessary to counter disinformation, galvanise the morale of its own people and enhance support for its cause amongst western publics ([Serafin 2022](#)).

The collection, analysis and use of publicly available or open-source data, alongside new techniques and tools for data analysis, afford new opportunities for sourcing and verifying information. These sources of data, practices and tools are diverse. In addition to monitoring social media and searching for data published online, the field has expanded to include specialised software that enhances the speed and breadth of sources that can be accessed and enables the visualisation of information ([Bellingcat 2022b](#)). Commercial platforms such as Maltego (2022) allow users to connect to different data sources and identify relationships

between people or organisations. Tools such as Google Earth Pro, which enable users to search and access satellite imagery and geolocate devices used to capture images and video content, are amongst the most frequently used by researchers ([Bellingcat 2022b](#)).

These practices, which have been variously described as internet sleuthing and open-source intelligence, are used by activists, researchers, volunteers and journalists to investigate, provide evidence, corroborate and make sense of the war. The crowdsourced ‘digital labour’ of volunteers and advocacy groups contributed to the geolocation and verification of the BUK video that proved Russia’s involvement in the targeting of MH17, enabling Ukraine to bolster its own discursive reach by presenting a ‘credible and externally vetted’ account that counteracted Russian claims ([Sienkiewicz 2015](#): 215).

Alongside citizen volunteers and activists, there are also the collective endeavours of non-profit groups such as Bellingcat, Forensic Architecture and Airwars that conduct open-source investigations and publish their findings. Some scholars describe these organisations as an interpreter tier, working at the interface between amateur investigations and mainstream news organisations, drawing on the expertise of both volunteers and paid interpreters ([Sienkiewicz 2016](#)). As actors, they have become authoritative voices in the context of ongoing wars and conflict ([Müller and Wiik 2021](#)).

Since the annexation of Crimea and Russia’s support of separatists in Ukraine, these actors have played a crucial role in the conflict. Their research was cited in January 2022, warning of Russian troop mobilisations on Ukraine’s border ([Looft and Adib 2022](#)). Following Russia’s full-scale invasion, they published evidence to corroborate the massacre of civilians in the city of Bucha (Bellingcat), the use of cluster munitions (Airwars and Bellingcat) and attacks perpetrated by Russian forces on civilian communication infrastructure and sites of cultural

significance (Forensic Architecture). These investigations bring together teams with complementary expertise to comb through online data sources, using methodologies, tools and software to verify and triangulate videos and online, public databases, amongst other resources, to piece together and present accounts of events but to also refute Russian claims and disinformation.

In addition to these collectives, there are other open-source actors that use these same methodologies and techniques. New approaches of mining and processing data are transforming responses to humanitarian crises, enabling remote volunteers to monitor social media and map crisis response ([Chernobrov 2018](#)). OSINT techniques are also integrated into the investigative work of prominent human rights organisations and by United Nations investigative bodies¹ ([Murray, McDermott and Koenig 2022](#)). In the war in Ukraine, Human Rights Watch employ OSINT techniques to map the use of cluster munitions ([Human Rights Watch 2022](#)) and Amnesty International's Crisis Evidence Lab collects audio and visual material, such as satellite imagery, video footage and images of spent munitions as evidence of violations of international law ([Amnesty International 2022](#)).

In parallel, news organisations are expanding their capabilities to integrate these techniques into their newsgathering practices and approaches to their in-depth investigations, establishing open-source hubs or allowing journalists to develop their own expertise to conduct open-source research. [Reese \(2022: 262\)](#) argues that the application of OSINT to newsgathering enhances the range of participants that contribute to 'accountable journalism' and enables 'greater credibility, legal protection and resilience against authoritarian intrusion'. *The New York Times* established its own visual investigations team in 2017 that produces powerful investigative journalism drawing on open-source visual evidence. They published the 'Killing Khashoggi'

video investigation that reconstructed the movements of the Saudi hit team that killed the Saudi dissident and journalist Jamal Khashoggi ([Botti et al. 2018](#)). Research has explored how their visual investigations through eyewitness images can serve as a platform for voice in Western news coverage of global wars and conflict ([Ristovska 2022](#)).

There are also recent examples where open-source actors collaborated with major news outlets to present their investigations to a wider audience. Bellingcat, for example, worked with the BBC on investigations into political assassinations in Russia (BBC 2022) and its Africa Eye team to expose atrocities in Cameroon (Scott 2018). *The Guardian* published an award-winning investigation in cooperation with Forensic Architecture detailing the circumstances of a police shooting in the UK ([Siddique et al. 2020](#)). These partnerships reflect the increasingly collaborative and international approach, which bring together a breadth of expertise, to investigative journalism that would otherwise go unreported ([Sambrook et al. 2018](#)).

Alongside the security apparatus of states, open-source actors also include policy research centres, such as the Centre for Emerging Technology and Security (CETaS), established at the Alan Turing Institute (UK) to develop and use expertise outside of government in using open-source intelligence ([Corera 2022](#)). OSINT, in particular when used by state authorities, does raise issues of privacy protection and intellectual-property enforcement. While open-source data are publicly available, they include private and sensitive information, such as data sourced from social media accounts, and can comprise leaked user data. Moreover, the reuse of online audio and video content may infringe their terms of use and breach copyright ([Koops, Hoepman and Leenes 2013](#)).

While it has been acknowledged that open-source actors are becoming important and frequently cited sources in conflict and crisis journalism and that journalism practices are

evolving to incorporate source intelligence techniques, in particular for investigative journalism ([Cooper and Mutsvairo 2021](#); [Müller and Wiik 2021](#)), less is known about how these actors shape the contours of mainstream news coverage. This is of particular significance during a war that scholar Matthew Ford (cited in [Nast 2022](#)) describes as the ‘most digitally connected in history’ and illustrative of the influence digital infrastructure has on conventional military conflicts ([Ford and Hoskins 2022](#)).

Study and method

To evaluate the presence and use of open-source actors, an exploratory content analysis of UK news outlets coverage of the first six-months of the war in Ukraine was conducted. The period for data collection were from 24 February 2022, the date that Russia launched its full-scale invasion, running up until 24 August 2022.

The study focuses on the presence of open-source actors, as defined by [Müller and Wiik \(2021\)](#) in four major UK online news outlets: *The Guardian* (www.guardian.com/uk); *The Telegraph* (www.telegraph.co.uk); *Mail Online* (www.dailymail.co.uk); and *the Daily Mirror* (mirror.co.uk). These selected outlets reflect the ideological spectrum of UK news, including left of centre (*The Guardian* and *the Daily Mirror*) and right-leaning outlets (*The Telegraph* and *Mail Online*). The four selected outlets include both quality news providers, which traditionally devote more space to current affairs foreign news coverage, and tabloid news outlets, which allocate more space to celebrity, human-interest and sport ([Skovsgaard 2014](#)). All are amongst the top twenty most frequently visited English-language news outlets by UK audiences ([Ofcom 2022](#)).

An initial search for articles in the four outlets reporting on the invasion of Ukraine and making reference to open-source actors was conducted using the text search function of the

LexisNexis news database. Various combinations of search terms were used to identify relevant articles. All articles include a reference to 'Ukraine' and at least one of the additional search terms of 'open source', 'Bellingcat', 'Oryx' or 'Airwars'. The last three terms represent specific open-source actors, as non-profit collectives, as discussed above that collaborate with news organisations, conducted previous investigations into war and conflict zones and appeared as sources within news reports. No references to Forensic Architecture, which has conducted extensive investigations into the conflict in Syria, appeared in the initial text search and so was excluded as an actor for this study. Commercial providers of open-source intelligence, such as Janes were also excluded from the analysis. In addition, the generic search term 'open source' was used to identify the presence of other actors, such as NGOs, that are cited as providing information derived through open-source investigative techniques and that are identified as such in news articles. This search term also captures references to investigations conducted by other news organisations and identified in articles. Open-source databases, such as Dattalion, although valuable for journalists, providing access to verified eyewitness footage and accounts of the war, are resources rather than actors and were not captured by this study. All types of online articles, including news, analysis, comment and opinion, were included. A first sift was conducted to remove duplicates and irrelevant articles. This produced an initial sample of 267 articles from the four news outlets (*The Guardian*: 78, *The Telegraph*: 67, *Mail Online*: 90 and *the Daily Mirror*: 32).

The second stage of the analysis involved a close reading of the articles to identify the types of stories, events and issues where open-source actors feature as sources and the different actors cited in reports. To answer the third research question, notes were taken about how these actors are used within news accounts. This included identifying whether actors, their

investigations or evidence they provide are the subject of the story, for example if reporting, commentary or analysis consider the use of open-source intelligence and its role in conflict. Conversely, if actors feature as sources, conveying information journalists draw on to develop a story or to support or challenge different perspectives on an issue or event ([Fisher 2018](#)). Other aspects also noted include whether primary source material, such as videos and images, from these actors were incorporated into reports and how sources are used, for example, to substantiate reports or provide alternative perspectives on events. The key findings emerging from this analysis are presented and discussed below.

Challenging disinformation and verifying incidents of civilian harm

The analysis shows that open-source actors were referenced more frequently in the quality news outlets, with a total of 145 articles or 54 per cent of the sample drawn from either *The Guardian* or *The Telegraph*. Across the four outlets, however, there were more articles from the *Mail Online* (90) than *The Guardian* (67) and *The Telegraph* (67). It is to be expected that the quality outlets would devote more coverage to the war in Ukraine and, as a consequence, there are more articles from these outlets citing open-source actors. It is also known that open-source actors, including Bellingcat, work in partnership with quality news providers to publish the outcomes of their research and investigations. In addition, it is the quality news outlets, those that have supported and promoted in-depth investigative journalism, that are recognising the value of open-source information and how it can be used to provide evidence to support reporting and analysis. This has included establishing dedicated open-source teams.

It is important to note that while the *Mail Online* featured more articles that made reference to open-source actors than other outlets, research has shown that the *Mail Online* reposts agency copy more often than other outlets ([Nicholls 2019](#)). Within the sample from the

Mail Online, a number of articles reference open-source actors but quote other publications, including *The Guardian* and *The Times*. This was not evident in the articles sourced from the other three outlets.

Within the sample, there were articles from all four outlets that included references to the search term open-source. For the specific actors used as search terms, however, these were not present in all outlets. References to Bellingcat were the most prominent and were found in a significant proportion (51 per cent) of articles obtained from each outlet (137 of the 267 articles, 23 in the *Daily Mirror*; 33 in *The Telegraph* 37 in *The Guardian*, and 44 in the *Mail Online*). This shows that Bellingcat is the most frequently cited open-source actor in UK news accounts of the invasion of Ukraine. Oryx featured as an actor in all of the news outlets, except the *Daily Mirror*. It was a prominent actor in the *Mail Online*, cited in 23 articles included in the sample. References to Airwars were less frequent than other actors and only found in one article from *The Telegraph* and two from *The Guardian*. It was not present in any articles from the *Daily Mirror* or the *Mail Online*.

Other open-source actors identified in articles or that made reference to open-source information and practices in reporting on the war included, the Conflict Intelligence Team (CIT), an independent organisation based in Russia that conducts open-source investigations. It was a significant actor prior to the invasion, providing information about the movements of Russian troops, and has collaborated with others including Bellingcat. There were also references to the open-source intelligence used by Space Review, an online publication, in providing information about Russian hypersonic missiles (*Mail Online*, 12 July) and work carried out by independent Russian journalists to identify the perpetrators of war crimes (*Mail Online*, 6 August).

From the first day that Russian forces crossed the border into Ukraine, articles in the sample made reference to open-source actors. Reports from the 24 and 25 February cited ‘open-source research group, CIT’ (*The Guardian*, 24 February) and Bellingcat (*The Telegraph*, 24 February) as sources confirming the locations of missile strikes, including the targeting of residential apartment blocks in Kyiv and Kharkiv. References were also made to ‘open-source data’ in early reports, cited as evidence that Vladimir Putin’s televised address announcing the start of a ‘special military operation’ in Ukraine was prerecord rather than delivered live (*The Telegraph*, 25 February). In this example, attribution was not made to a specific actor but to open-source data and *The Telegraph’s* Moscow correspondent.

From the 28 February 2022, open-source actors started to appear in articles as providing or corroborating evidence of possible war crimes and human-rights abuses perpetrated by Russian forces. This is a recurring pattern in the use of open-source actors in the sample. The initial reports cited these actors as confirming cluster bomb attacks in populated areas of Ukraine, the use of which are prohibited by the 2008 convention² on cluster munitions, and their indiscriminate effects contravening the Geneva Conventions. Prominent actors were Bellingcat, with its founder Eliot Higgins quoted as having video footage and stills that provided evidence that Russia was bombing civilian areas with cluster munitions. These online reports embedded excerpts of dashcam, security camera and video footage captured by Ukrainians on their mobile phones showing bombing and missile strikes (*The Guardian*, 28 February; 2 March; *The Telegraph*, 28 February, *Mail Online*, 2 March).

Subsequent allegations of war crimes and the targeting of civilians emerged across the six-month period of the study. Most significant were the attacks on the Mariupol maternity hospital on 9 March and Mykolaiv hospital on 4 April and the massacre of civilians in Bucha,

evidence that came to light on 1 April after Russian forces withdrew from the city, and the uncovering of mass graves and burial sites in former occupied areas of Ukraine. In articles reporting these events, all of which are significant episodes in the timeline of the invasion, open-source actors were prominent in articles from the four outlets. Harrowing pictures of the destruction of the Mariupol maternity hospital and the civilians caught up in the attack made headlines worldwide. It was an act that was widely condemned by the international community ([Trevelyan 2022](#)). Russian actors, including Russian embassies, however, released images through their Twitter accounts that claimed to show an image of a tank in front of the hospital to support their claim that the hospital was a legitimate military target occupied by the Ukrainian Azov battalion. Assertions were also made by the Russian state, and across conspiracy forums, that the attack was staged due to one of the injured women photographed by the Associated Press being a Ukrainian beauty blogger ([Milmo and Farah 2022](#)). In subsequent reports that condemned these accounts as further examples of Russian disinformation, open-source actors, in particular evidence and comments attributed to Bellingcat, were used to demonstrate that these were false claims. These included photos and links to earlier Instagram posts. They also reported comments by Elliot Higgins that called on Twitter to remove the ‘propaganda-spewing accounts’ from the platform (*The Guardian*, 10 March). This example shows how representatives of open-source actors were given a platform as sources to respond to claims. It also illustrates how open-source actors provide direct evidence that journalists use within their reports to challenge disinformation, through verifiable, clear evidence, much of which is linked to or embedded within online news articles.

Evidence of the killing of civilians in Bucha was attributed to open-source actors in a number of subsequent reports. Drone footage verified and shared by Bellingcat that showed a

Russian tank opening fire on a civilian and satellite images featured prominently in reports (the *Mail Online*, 5 April; *The Telegraph*, 6 April; *The Guardian*, 5 April). This material was significant in disputing Russian claims that bodies found in the city streets were staged and left by the Ukrainian military after the withdrawal of Russian forces. *The Guardian* report made explicit reference to the analysis and publication of satellite images by *The New York Times*, and work conducted by its visual investigations team. This was not apparent in the other reports. However, all presented a detailed exposition of the processes employed in obtaining satellite and drone imagery and for substantiating images, for example, by matching locations with images available online. Importantly, the articles also noted the value of this evidence not only for journalists but in gathering and documenting evidence of the human rights abuses occurring in the war in Ukraine.

As a 40-mile-long Russian convey of military vehicles stalled on the outskirts of Kyiv in early March, in addition to citing British and US intelligence sources, open-source actors featured prominently in articles. They provided evidence of the poor state of repair of Russian military equipment, with assessments from Oryx highlighting the number of tanks destroyed, damaged or seized in the invasion and supported by images and videos embedded into articles (*The Guardian*, 10 March; *The Telegraph*, 3 March; the *Daily Mirror*, 11 March; the *Mail Online*, 11 March). Bellingcat was also cited in articles as verifying video footage of a drone strike on the convey through the use of geolocation techniques (*The Guardian*, 10 March). This example demonstrates how these open-source actors, in this instance and, in particular when referring to Oryx, can supplement and verify the accounts provided by state intelligence sources. Reports about the lack of progress by Russian forces often cited UK Ministry of Defence intelligence updates. OSINT actors, however, not only corroborated these accounts by

confirming military losses from social media ([Hambling 2022](#)), but their multimedia content was embedded into online stories, enriching news accounts.

Across the 6-month period, other prominent stories where open-source actors featured included allegations reported in March that attendees of informal peace talks between Russian and Ukrainian delegates, brokered by Russian oligarch and former owner of Chelsea Football Club, Roman Abramovich, suffered symptoms that were consistent with poisoning (*The Guardian*, 28 March; *The Telegraph*, 28 March; the *Mail Online*, 28 March). Claims that were attributed to investigations conducted by Bellingcat. As Russian losses in the war continued to mount, open-source actors were also cited naming senior Russian officers that had been killed in the invasion (the *Mail Online*, 8 and 9 March; *The Daily Mirror*, 12 March; *The Telegraph*, 11 March) and providing details of the losses of military hardware and equipment (*The Daily Mirror*, 30 May; the *Mail Online*, 12 August; *The Guardian*, 11 August).

The final point to note from the analysis of coverage is that while the majority of articles used open-source actors as sources to provide information that is cited within an article or to support a particular viewpoint, there was also space within reports to introduce readers to open-source intelligence techniques, resources and the different actors. Specifically, there was an emphasis on considering the role for this type of information in discrediting claims and disinformation shared by Russian actors and to gather evidence of possible war crimes. Articles in the sample detailed how open-source verification was used to identify the perpetrators of the massacre in Bucha by using social media (*Guardian*, 5 April; the *Mail Online*, 10 April) and approaches used by other news organisations to confirm the location of videos (the *Mail Online*, 5 May). There were also pieces, both news and comment, that discussed how open-source actors provided ‘insights to rival state intelligence agencies’ (*The Telegraph*, 1 March), its significance

to contemporary warfare and ability to challenge disinformation (*The Telegraph*, 1 June; *The Guardian*, 4 April). In others, they reflected on how open-source intelligence and actors contribute to the conflict being defined as the first ‘social media war’ (*The Telegraph*, 5 March; *The Guardian*, 19 March) or discussed open-source approaches through an interview with Bellingcat founder, Eliot Higgins (*The Telegraph*, 17 April).

Discussion and conclusion

This chapter has evaluated how open-source actors contributed to UK online news coverage of the invasion of Ukraine. From the exploratory analysis presented here, it is evident that a range of different actors featured prominently as sources. They are used to illustrate the impacts of the conflict, in particular to provide evidence of war crimes and the targeting of civilians by Russian forces, but also dispute spurious claims made by the Russian state. The most common source cited in reports was Bellingcat, arguably the most well-known and established open-source actor.

These open-source actors offer another layer of access within news coverage of the invasion of Ukraine. While major news organisations have correspondents embedded in Ukraine, open-source actors are able to offer insights that would previously have been almost impossible to obtain without a significant number of researchers working within a conflict zone and the risks and restrictions this demands. The examples introduced above show how open-source actors, and the practices and tools that they deploy in their investigations, enable new possibilities for documenting war and conflict. Their value to the coverage of the war in Ukraine is their contribution to substantiating evidence of war crimes and human rights violations but also offering alternative perspectives on the impacts of the war, through video records and innovative visual presentations.

The sources that journalists use to inform story selection and the information that they report will have their own agendas ([Grant 1999](#)). Amid the chaos of war and conflict, with claims, counterclaims and fake news, functional truth is difficult to ascertain. This has been a feature of the war in Ukraine. Russian disinformation is well documented, but Ukraine has also engaged in its own propaganda. The use of open-source actors in reporting on the war, however, represents, not only a different type of source, able to verify and offer alternative perspectives, but one that may also offer greater transparency. There are various factors that contribute to this. First, for these actors, as organisations, collectives or teams of researchers, as they variously describe themselves, transparency in their methods is a guiding value of their work, one that is consistent with journalistic principles ([Reese 2022](#)). Airwars, for example, describes itself as a ‘transparency organisation’ ([Airwars 2022](#)) and transparency and its principles are set out in Bellingcat’s editorial standards and practices ([Bellingcat 2022a](#)). Second, when cited in news reports, the approaches, tools and techniques that these actors use in their investigations are discussed alongside the information that they provide. Third, in many of the news accounts, as demonstrated from the sample of articles, still images and the original source video material, are embedded within online reports. This provides a degree of transparency and clarity for readers, and in turn accountability for sources and the information that they provide. It also offers insights into the processes and techniques for verifying content.

Recent research shows that digital sources, namely entities accessed from the internet but not identified as individuals are less likely to be cited in news reports ([Barnoy and Reich 2021](#)). One limitation of this study is that it is only identifying named open-source actors cited in news. The increasing use, however, of open-source actors may also be indicative of the shift towards enhanced transparency in news, enabling audiences to understand the process of source selection

and to access materially directly through links and embedded content ([Karlsson and Clerwall 2018](#); [Phillips 2010](#)). This principle is significant to the coverage of war and conflict, where alongside the professional norms of objectivity and impartiality, it can enable audiences to understand war, its impacts and the different actors and their interests ([Somerville 2017](#)).

As news organisations further integrate open-source tools and approaches into their own investigations, it is unclear whether this may hinder these transparent practices. The use of publicly available material from social media, satellite images, video content and databases and tools for cross-checking and verifying its provenance, will become an established approach to support in-depth investigative journalism ([Elvery 2022](#)). In UK mainstream media coverage of the war in Ukraine, alongside open-source actors, there were stories and material attributed to the work of other news organisations, most notably *The New York Times*, and its visual investigations unit, and *The Washington Post*. As these innovations become standardised and incorporated into investigative journalism practice, with a possible shift away from the open-source actors that are the focus for this chapter, then transparency in these approaches and their contribution to storytelling may reduce. It is important, however, that this transparency remains as it enables audiences to evaluate the authenticity of information and understand how these tools and publicly available resources are contributing to news production. This is even more significant to the coverage of war and conflict where there is a need to provide reliable information and assess truth claims amongst the flood of disinformation that circulates in the contemporary media environment. It enables journalism to maintain its authority and its status as a knowledge-producing practice ([Carlson 2020](#)).

Finally, as citizen journalism, user-generated content, and social media have now become integral to war and conflict reporting ([Balabanova and Parry 2014](#)), open-source actors and the

digital tools and approaches that are being integrated into investigative practice, are enabling news accounts to enhance the breadth and depth of perspectives on war and conflict. As citizen journalism transformed the witnessing of conflict, enabling news to give voice to those affected by war and conflict (Chouliaraki 2015), and in turn contributing to more authentic representations (Pantti 2013), open-source actors and practices are shaping the contours of coverage of war and conflict. The actors highlighted in this chapter, alongside the new tools, data and practices they use, are empowering citizens, activists and journalists to document and challenge the dominant narrative to the war in Ukraine. Importantly, they are enabling rich and critical investigative insights that uncover and substantiate alleged war crimes, human rights abuses and the terrible toll of this war on civilians. This is of critical importance and why there is a need for further empirical research to consider how these actors and practices are leading to shifts in investigative journalism in the context of war and conflict.

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¹ The Commission of inquiry on the protests in the Occupied Palestinian Territory, the UN Independent Investigative Mechanism for Myanmar (IIMM) and the UN International, Impartial Independent Mechanism for Syria have all engaged open-source experts in these investigations ([Murray, McDermott and Koenig 2022](#)).

² Both Russia and the United States are presently non-signatory states.