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# The transformation of participatory warfare: The role of narratives in connective mobilization in the Russia–Ukraine war

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## Abstract

The participatory affordances of digital media allow a broad spectrum of new forms of participation in conflicts that go beyond the information domain (Boichak in *Battlefront volunteers: mapping and deconstructing civilian resilience networks in Ukraine*. #SMSociety'17, July 28–30, 2017). This article explores the factors that shape forms of digitally mediated participation in warfare. It highlights the association between narratives of statehood and forms of conflict-related mobilization of volunteers that rely on digital platforms. Rooted in an analysis of a dataset of digital platforms that mediated engagement in the warfare and 31 in-depth interviews with Ukrainian digital activists, it offers a model that helps to explain the diversity of modes of connective mobilization in the context of the war and the shifts in the role of digitally mediated conflict-related mobilization. The analysis does not aim to provide a linear model that explains the forms of mobilization but rather seeks to develop a framework that helps us understand the changes taking place in the scope and forms of participation in wars relying on digital platforms. The model suggests that the strengthening of narratives of statehood is associated with a transformation of conflict-related mobilization away from crowdsourcing and towards the emergence of organizations offering warfare-related outsourcing services and in some cases the incorporation of digital resources into state institutions (insourcing).

**Keywords** Participatory warfare · Crowdsourcing · Connective war · Discursive mirroring

## Introduction: Ukrainian civil society and digital mobilization from the annexation of Crimea to the Russian invasion in 2022

During the night of February 24th, 2022, Russia invaded Ukraine. From the outset, Russian plans for a fast and victorious war failed. Unlike in 2014, when Russia invaded Crimea, the Ukrainian security system was far better prepared. In addition, the Russian aggression triggered the broad-ranging mobilization of Ukrainian society. Some scholars argue that the resilience of Ukrainian civil society in the face of external threat should be considered a key factor of Ukraine's strategic advantage (Boulègue and Lutsevych 2020). Korostelina (2020) considers national resilience an element of military power and defines the resilience of a nation as “a process enhancing a capacity of a

national community to address conflict through adaptation, effectively resisting perpetrators of violence, and positively transforming intergroup relations” (p. 3).

The role of social resilience can be seen in the context of institutional reforms that can either restrict the role of—or empower—the horizontal networks that emerged in response to political and military threats during the Euromaidan events, the annexation of Crimea and conflict in the eastern regions of Ukraine. Romanova (2022) argues that the key factor allowing resilience to flourish was the decentralization reforms that followed the Euromaidan protests. One essential reform was the law “On the Foundations of National Resistance” (adopted in July 2021) that gave local authorities the power to build a Territorial Defence Force based on the engagement of the local civilian population (Brik and Brick Murtazashvili 2022). A new type of political leadership is another factor seen as supporting synergy between the state and civil society. That is, a new generation of tech-savvy politicians (including president Zelensky) were able to become digital influencers who catalysed horizontal bottom-up war-related mobilization that addressed the external threat.

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However, the role of recent legal and political factors in the development of resilience should not be overestimated. Scholars highlight the nature of resilience as “never-ending adaptive cycles of growth, accumulation, restructuring, and renewal” (Holling 2000, p. 7). In that light, the roots of the resilience that emerged in reaction to the Russian invasion in 2022 should be seen in the context of the “adaptive cycles” that started earlier, including the mobilization of Ukrainian civil society in response to aggression in 2014. This indicates that studying the factors that shaped this mobilization, and specifically the role of digital platforms in those contexts, is essential for grasping Ukraine’s capacity to address Russian aggression in 2022. Therefore, to understand the mobilization in 2022 we need to look at the dynamics of previous cycles of mobilization.

The mobilization that followed the 2014 aggression raises several key questions that require attention. The first set relates to the scope of civil mobilization. It is particularly concerned with the scope of conflict-related goals that addressed relying on the digitally mediated mobilization of users’ resources. The second set of questions explores how the scope of digitally mediated mobilization changes over time and what factors may explain these changes.

This article suggests that an exploration of the scope of digitally mediated mobilization of civil society and how it changes over time needs to be conducted within the context of the relationships obtaining between the public and state’s institutional actors. The *structure* of relationships between the public and institutional actors should thus be considered a variable that should help explain the dynamic changes in the *scope* of conflict-related mobilization, and accordingly the role of digital platforms as mediators of the relationship between the public and the exogenous threat. This framework can be summarized in an analytical triangle between the public, state institutions and the external threat. This triangle is constituted in a context of digital affordances that offer different forms of mediation of relationships between all the actors seen in the triangle (see Fig. 1):

Furthermore, it can be argued that in the case of military conflicts this kind of triangle may be seen on each side of the conflict (see Fig. 2). Therefore, a comparative analysis of factors shaping the role of digital platforms in the facilitation of conflict-related sourcing may explain the strategic advantage of either side.

The above-outlined mode of analysis, concerned with the forms of, scope of and changes in digitally mediated conflict-related mobilization, should also enable us to examine a more general set of questions about the role of civil society in addressing external threats, particularly when a democratic country faces a threat from an authoritarian state whose strategic advantage appears to be rooted in traditional military and financial forms of power.

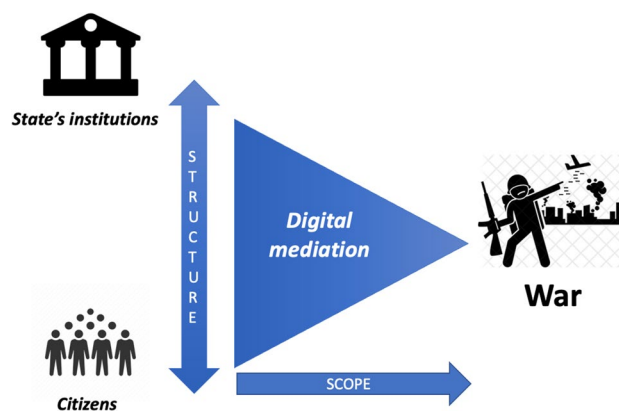
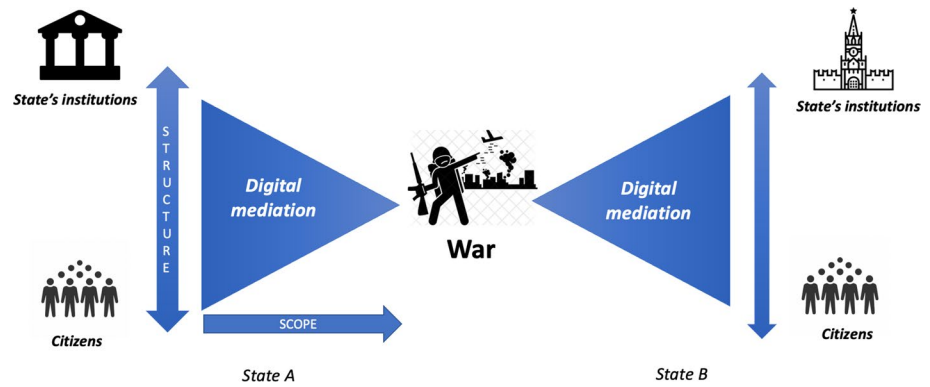


Fig. 1 A framework for the analysis of the role of digital mediation for participation in warfare

This article does not seek to establish a causal linear relationship between a set of factors and the scope of digitally mediated war-related mobilization. It aims, however, to offer a conceptual framework that allows a critical consideration of factors that may explain the role of digital platforms in conflicts. The article illustrates the value of this framework by drawing on empirical insights from fieldwork conducted in Ukraine. This framework should enable examination of the argument that the structure of the relationship between the public and institutional actors in the context of exogenous threat is associated with the role played by digital platforms in mediating the forms of relationship between the public and the crisis, above all the scope of digitally mediated participation.

The paper first offers a review of participatory trends in conflicts by focusing on how digital platforms have changed the nature of participation in war and the emergence of *connective war*. The second part of the review offers a discussion of factors that help explain the scope of participation. This lays the foundation for the building of a theoretical framework with two goals: to identify the nature of changes in the scope of participation and then to explain it. The subsequent section presents the article’s methodological framework: this enables a tracing of changes in the scope of digitally mediated participation in wars along with an explanation of these changes. This is followed by a two-part empirical section. The first part engages with the dependent variable, namely the scope of participation: this focuses on conflict-related digital sourcing and changes in forms of participation over time. The second part engages with factors that may help to explain the changes in forms of participation. The analysis proposes a model that explains the changing role of digital platforms in the mediation of the user–conflict relationship over time. The conclusion helps us to understand the value of these findings within the context

**Fig. 2** A framework for comparative analysis of the role of digital mediation for participation in warfare



of cycles of the development of resilience and the paper's contribution to digital war literature.

## Literature review

### Wars and scope of participation: historical review

Conflict has been linked, throughout human history, to changes in the scope of people's participation. The separation of the professional army from the general crowd is a recent, modern development (van Creveld 1991). Members of traditional tribes did not distinguish between the army and the people. All male members of a tribe were considered potential warriors. An army would be formed in response to a specific incident. The people of Athens, Sparta and Rome made a collective decision about starting a war and forming an army. During the mediaeval period, war was regarded as the activity of nobles. The crowd served the war but was not allowed to participate in wars.

This structure of participation changed again following the emergence of the Westphalian order. The development of sovereign states with a regular army rested on a contract whereby citizens paid taxes and received security. States also became major agents of citizen mobilization when state resources were regarded as inadequate. Following the French revolution, the mass conscription of French citizens into the French army (*levée en masse*) introduced an unprecedented scale of war-related mobilization. At the end of the nineteenth century, the large-scale mobilization was supported by railways and the telegraph, as well as mass media that framed the need for mobilization (Cronin 2006). It was then that information technologies started to play an essential role in shaping the mobilization scope.

Many scholars, however, note that the second half of the twentieth century has seen the "civilians crowd the battlefield" (Smith 2006, p.17), while the monopoly of state actors on the use of force has been challenged. The notion of fourth-generation warfare (Lind 2004) highlights the reappearance of decentralized pre-modern forms of warfare, a

mode dominated by non-state actors including the general public. The decomposition of boundaries, including a division between combatants and non-combatants, is also identified as a distinctive feature of modern warfare (Beck 2013).

### Role of ICTs and scope of participation: connective war and participatory warfare

A rich literature has already discussed the role of digital affordances in offering new opportunities for people to participate in armed conflicts (Pötzsch 2015; Patrikaros 2017). Some of these affordances offer new opportunities that facilitate people's mobilization by traditional actors. Others support independent forms of mobilization or conflict-related participation without a transparent affiliation with state actors. The notion of 'participative war' (Merrin 2018) suggests that digital platforms enable a reality in which every war zone is transformed into a global battlefield. The increasing scope of digitally mediated participation in conflicts by diasporas has been noted by Chernobrov (2022). State-sponsored participation in warfare is addressed through the notion of participatory propaganda (Asmolov 2019). That said, most of the discussion regarding participative war has related to the informational aspects of warfare. Recent conflicts, however, illustrate how the scope of digitally mediated participation goes beyond the information domain (Boichak 2017). Accordingly, *participatory warfare* can be considered as enlarging the scope of participation in conflict through reliance on the digitally mediated mobilization of human resources.

Although this increase in participation can be seen as a continuation of a historical trend, it may be argued that the essence of participatory warfare is related to a significant change in the relationship between people and conflicts, as well as to a reconsideration of the role of institutional actors in shaping these relationships. These changes can be linked to the specific affordances of digital platforms.

The first set of affordances that merits consideration relates to digital media platforms operating as "organizing agents" (Bennet and Segerberg 2012). In such instances,

participation in war does not require affiliation to any institutional framework. Digitally mediated participation in conflicts that takes place on various online platforms can be considered connective action. Accordingly, *connective war* can be linked to ‘individualized and technologically organized sets of processes’ as a core logic for the mobilization of networks (Bennett and Segerberg 2012). The notion of connective war calls attention to a radical expansion of participation in warfare beyond any organizational framework, though it also offers an opportunity for hybrid forms of warfare that rely on the integration of connective and collective actions.

The second feature of participatory warfare is that the way in which people receive information about wars and participate in wars may rely on the same platforms. This can be considered as a double function of digital mediation, whereby the same digital tools are used to construct a symbolic perception of a conflict and to initiate various forms of activity in relation to this conflict. The user-conflict relationship can also be considered a form of digital sourcing, while the resources of users are mobilized by relying on digital platforms to address conflict-related goals that have been symbolically constructed through the platforms.

The third feature is the blurring between offline and online participation due to the deep mediatization of all aspects of our lives including conflicts and wars (Couldry and Hepp 2017). Digital infrastructure becomes a core element of all aspects of warfare. It is ever more challenging to distinguish between online and offline forms of activity when “the separation between communicative action and physical action becomes blurred” (Hepp 2020, p. 11). New forms of digitally mediated remote participation enable new opportunities to make an impact on the offline battlefield. At the same time, the conflict becomes deeply integrated into the domestic environment (Asmolov 2021). Therefore, we can see that digital media support the convergence of different domains of warfare.

New forms of participation in a deeply mediated environment initiate new forms of participation beyond the historical trajectory of participatory practices. This is due to a set of digital affordances that link symbolic construction to activity, contribute to blurring the distinction between online and offline, and enable new forms of connective action. More attention needs to be paid to the new scope of participation, as well to the dynamic nature of participation, namely explaining the factors that may transform the scope of, and particularly the balance between, collective and connective action in the context of exogenous threat. Addressing this goal does not necessarily mean identifying a strong causal relationship between the type of participation as the dependent variable and the factors that shape it as the independent one.

However, presenting a model that may help us exploring these relationships requires, first, to review the literature that addresses the factors behind people’s decision to participate in warfare.

## The drivers of participation in warfare

Research literature offers a rich discussion of the reasons for participation in large-scale violent mobilization. Some discussions focus on the balance between the risks of individual participation in armed conflicts and the opportunities for free-riding, whereby security can be achieved without high risk. Kalyvas and Kocher (2007) argue that the problem of collective action should also be seen within the context of risks related to non-participation in conflict, where free-riding can be considered riskier than participation. Shesterina (2016) argues that ‘the effect of social mechanisms on mobilization depends on the ways in which individuals perceive anticipated risk or threat’ (p. 417).

The importance of threat-framing to participation is particularly significant in a digital environment. The double mediation means that digital platforms, including social media, play a substantial role in framing a threat and also offer opportunities for participation in conflict that relies on the perception of that threat. However, if we want to comprehend the association between participation in conflict and perception of threat we need to consider the social construction of the threat within the context of the relationship between different types of actors, particularly the relationship between the public and the institutional actors who are expected to provide security. We can access this context by shifting from the framing of threats to that of narratives and their role in mobilization in conflict situations.

According to Polkinghorne, “narrative is a meaning structure that organizes events and human actions into a whole, thereby attributing significance to individual actions and events according to their effect on the whole” (1988, p. 18). Griffin (1993) maintains that narrative offers meaning by introducing coherent relations and explaining the meanings of each element/actor in the context of these relationships (p. 1097). According to Davis (2002), focus on narratives allows us to follow “how stories are socially produced and function to mediate action and constitute identities” (p. 22). The role of narratives in enabling social action is important since they assign different degrees of significance to events, help to identify causes that require collective engagement and trigger high-risk participation (Polletta 1998). This can also be applied to the significance of threat in the case of wars.

Narrative can also be considered an instrument of self-reflexivity in specific socio-political settings. According to Davis, “a narrative focuses attention on the evaluative and goal-directed nature of self-understanding” (2002, p. 20). In that sense, narratives of self allow the actor to identify a





possible self within a context of a particular crisis and give rise to “imagined communities” that take part in collective action (Jacobs 1996). One of the essential features of these narratives is the distinction between “us” and “them” (Garrison 1992) that draws boundaries between what is considered to be an internal system that requires defence and an external system that is a source of threat.

A situation of external threat in armed conflict can be seen as a complicated set of actors. This consists of a set of relations between the threat, the actors who are responsible for the threat, the local institutional actors who are expected to address the threat, local non-state actors, the public, and the technologies. This also includes the self-perception of actors in the context of the crisis. No actor can be seen as outside of this temporal, relational and dynamic context that defines their role in relation to the threat. Therefore, an exploration of narratives is essential to explain the drivers of the public’s participation in warfare, as well as the role of digital platforms in the mediation of this participation.

Recent research literature offers fruitful investigations into the intersection of narratives, digital platforms and participation in the context of the armed conflict in Ukraine. For instance, Lokot (2017) explores the role of narratives in the mobilization of the Ukrainian hacktivist community. Boichak and Jackson (2020) explore the role of social media in the construction of the state’s legitimacy in the face of external threat, based on an analysis of online communities in Mariupol. On the one hand, narratives that undermine state legitimacy create ‘favourable conditions for externally backed separatism’. On the other hand, narratives that rearticulate the national identity of users as citizens of Ukraine are considered a key factor in the conflict-related mobilization that prevented military occupation in 2014.

In all cases, narrative analysis highlights the importance of a focus on the state-citizen relationship in a context of external threat: this is a key factor in conflict-related mobilization. The Ukrainian case, however, also highlights the ambivalent role of the state’s legitimacy. On the one hand, a state has to be considered legitimate for people to be willing to defend it. On the other hand, the need to participate in conflict may highlight the fact that a given state is unable to carry out its major functions, including protecting its citizens. In this light, more attention has to be dedicated to the perception of the state’s capacity to perform its core functions.

The paradox to be seen in the case of Mariupol is that of the state as legitimate and absent at the same time. To address this tension around the state, I suggest a narrative analysis informed by the notion of limited statehood (Risse 2011). According to Risse (2011), areas of limited statehood concern those parts of a country in which the central authorities lack the ability to implement and enforce rules and decisions, at least temporarily. Here, I would argue that the key

factor in mobilization in a situation of limited statehood is not the capacity of the state to address the crisis, but the public’s perception of this capacity. In this light, to explore the factors shaping the digitally mediated relationship between users and war, I focus here on narratives that describe the role of state institutions in the context of external threats. Accordingly, narratives of statehood can be considered a set of narratives that address the relationships between citizens and institutional actors in the context of a crisis, as well as narratives about the significance of the threat.

Narrative analysis, however, cannot be restricted to the set of relationships between the public, internal institutions and external enemies. The notion of repertoires of contentious action (Tarrow 1998), indicates that forms of mobilization rely on the “creative imagination of activists” (Cammaerts 2012, p. 120). Digital platforms increase the repertoire of collective and connective forms of actions (Earl & Kimport 2011). The narrative of statehood, therefore, should be seen within the context of the affordances of conflict-related mobilization. How technological affordances are used depends on the perception of these affordances (Hutchby 2001). Therefore, affordances of conflict-related mobilization can also be considered as a set of narratives concerning the available opportunities for participation in a conflict, as well as an assessment of the value and risks inherent in these opportunities.

### Conceptual framework: narratives and the role of digital mediation for participation in wars

The review of the literature indicates that the questions “what drives participation in conflicts and why do forms of participation change over time?” require a framework that addresses two goals. On the one hand, this has to enable to monitor changes in the forms of digitally mediated participation in war. Such monitoring addresses two dimensions: the scope of mobilization and the structure of mobilization within the relationships among the actors, namely either it relies on connective or collective forms of action. On the other hand, recognizing the link between narratives and different forms of action requires a framework that allows narratives be explored as a factor that contributes to our understanding of various forms of participation in warfare and the transformation of participation over time.

The ever-increasing scope of digitally mediated forms of participation is particularly visible through the lenses of activity theory (CHAT) and the mediational perspective (Kaptelinin 2014). These highlight that digital platforms can be considered artefacts that mediate the relationship between users (subjects) and their environments (objects). Activity theory allows us to map the role played by digital mediation in shaping the structure of user-conflict relationships and identify new forms of relationships that rely on digital



affordances. In this context, various types of information technologies can be approached as digital tools that mediate participation in a conflict, and that suggest a particular structure of relationship between the subject (the digital user) and the external object (the conflict). Digital platforms that offer various opportunities for engagement around conflict-related objects can be approached as artefacts that mediate warfare-related activity and form systems of collective human activity (Engeström 1987) around a conflict.

Focus on sourcing as a digitally mediated process for the mobilization of a crowd's resources in relation to conflict offers a fruitful way of following the scope of participation in warfare. Different types of mediating tools constitute various forms of conflict-related activity systems that allow users to join communities of people seeking to achieve common conflict-related objects. The resources of digital crowds that are mobilized relying on digital mediation include, among other things, sensor resources; intellectual resources (users' knowledge); analytic resources (e.g. to classify data); financial resources (also known as crowdfunding); social resources (e.g. users' networks to achieve a particular goal); and physical resources for offline activities.

Given Jacobs' argument that "people understand themselves and the world around them by placing events into stories" (2016, p. 382), the role of digital tools in the mediation of activity and the emergence of digitally mediated activity systems will be illuminated when they are placed within the context of stories. The construction of the subject (the public), the object (the threat) and the role of digital tools in the mediation of the subject-object relationships are linked to narratives that offer a context for these relationships, as well as narratives contextualizing the relationships between different actors. As such, the structure of activity systems that rely on different forms of digital mediation should be examined in the context of narratives that shape the perception of different elements in these systems including the actors, the tools and the threats.

In light of the above, this article integrates activity theory with narrative theory to help us follow forms of participatory warfare adopted during the war in Ukraine. Further, to help to explain the changes taking place in the structure of mobilization, the article undertakes a narrative analysis that addresses the interrelation between the self-perception of the public, the perception of institutional actors, the perception of threat and the perception of digital affordances. In this way, the framework allows us both to identify the nature of the transitions occurring in forms of digitally mediated mobilization and helps us explain these transitions.

## Methodological framework

This section presents a framework that supports the analysis of two issues. First is the analysis of the scope of digitally mediated participation and the change in the structure of digitally mediated mobilization over time. Second is an exploration of factors that may explain changes in forms of war-related mobilization that rely on digital platforms, namely the association between narratives and the modes of digitally mediated participation in war. To meet this goal, the research design undertook the following two tasks:

1. Mapping the forms of digitally mediated participation in war, and following the changes in these forms of participation over time.
2. Investigating the narratives that describe a set of relationships in the context of the war including the role of institutional actors, the significance of the threat, self-perception of the public and the perceptions of the affordances of mobilization.

## The empirical case and data collection:

This study rests on an analysis of the first phase of the Russia–Ukraine conflict and the role of digital platforms in the Ukrainian public's participation in war-related activities. The first phase of data collection started in 2014. It explored the scope of digitally mediated participation in war-related activities. This was based on mapping different forms of digital sourcing in relation to the conflict relying on an activity theory. Accordingly, it focused on identifying and archiving different types of digital tools that mediated participation. Forty-four platforms that have been involved in the mediation of different forms of war-related participation that rely on digital sourcing have been identified based on desk research.

The second phase of data collection took place as a part of fieldwork in Ukraine between 2016 and 2019. The purpose of this data collection was to examine the link between the role of digital platforms and the narratives of war-related mobilization. The fieldwork included 31 in-depth in-person interviews with key conflict-related activists, leaders of volunteer communities and military officers of the Ukraine army. The interviews were conducted in Kyiv, Dnipro and Odesa. The selection of interviewees relied on a two-phased approach (Bauer and Gaskell 2000). The first set of interviewees was selected on the basis of desk research and for the second set "snowball sampling" and recommendations by other interviewees were used.



Semi-structured in-depth interviews involved four sets of questions including the perception of the threat, the self-perception of the volunteers, the perception of institutional actors and the perception of the role of digital platforms for war-related mobilization. In addition, the interviews examined how these perceptions, and accordingly the narratives that link these elements within the context of an ongoing war, changed over time. The interviews took place in person and lasted from 30 min to two hours. The interviews were recorded and transcribed to conduct narrative analysis.

## Data analysis

The data analysis relies on the integration of narrative analysis with a thematic analysis informed by activity theory. Mapping the role of digital platforms for participation relied on the notion of an activity system (Engeström 1987). It approached digital platforms as mediating artefacts that offer new forms of relationships between subjects and objects, namely between users and the war. Accordingly, the analysis of digital platforms was concerned with mapping the full scope of the forms of digitally mediated conflict-related activity and monitoring how the scope of these activities changed over time.

The narrative analysis explored mutual perceptions and the relationship system between a set of actors in the context of external threat based on data from interviews. In the case of this study, all subjects and objects are considered within a broader context, including that of an external threat; the set of relationships among different actors in relation to this threat; and to the affordances to address the threat. The notion of narrative comes into play to accommodate this complexity within a single framework.

The narrative analysis of a crisis is informed by three elements: character portrayals, plots, and/or genre (Jacobs 1996). The examination of a narrative's plot should help establish the significance of crisis situations. The portrayal of characters in various narratives enables an examination of "their relationship to one another". (1996, p. 1244–45). Finally, the narrative analysis of genre offers a context within which to understand the relationship between the plot and the characters. Focus on differences in character portrayals should help us to identify the contradictions in the mutual perception of the actors in the context of crisis, and offer an opportunity to follow how these contradictions can be resolved through actions in relation to crisis and other actors. While some narratives may allow different actors to collaborate to address the crisis, others lead to an absence of synergy and various forms of contested relationships.

The narratives were conceptualized as a thematic framework (Boyatzis 1998) which explores this set of relationships among different actors within the context of conflict,

and also narratives around threat and the affordances to address the threat within the context of the relationship among the actors. The coding book relied on the four sets of topics (institutional actors, self-perception of the public, the threats and digital affordances) that were informed by the conceptual framework. The thematic framework was uploaded to NVivo to finalize the analysis. The personal data of the interviewees were anonymized due to ethical considerations.

## Digital sourcing and conflict-related mobilization: mapping forms of participation and the transition of crisis-related activity systems

This section offers an overview of different forms of participatory warfare that could be seen in the context of the Russia–Ukraine war based on an analysis of digital platforms as mediators of user-conflict relationships. The analysis relies on the dataset that was collected from 2014 to 2017.

### Mapping the forms of participation

The first set of digital mediated practices that address conflict-related goals includes participation in the creation, proliferation and verification of content about the war. For instance, in 2015 the Ukrainian Information Ministry created an I-army website (<http://i-army.org>) that offered citizens the opportunity to join a network of volunteers that performs different types of content-related tasks. A statement from the website highlights the value of online participation: "Every Ukrainian who has an access to the Internet can contribute to the struggle. Every message is a bullet to the enemy's mind." Other initiatives included the mobilization of volunteers for the identification of fakes as in the case of the Stopfake.org project.

Digitally mediated forms of participation that are directed towards online conflict-related objects also include participation in diverse forms of cyberwarfare. A variety of hacktivist groups took a part in attacks on and the defacement of Russian government websites. Some of these activities were set up to enable the participation of that section of the general public without advanced technical skills. These included a participatory D-DoS attack, where anyone could contribute their computer to a botnet and a participatory analysis of leaked e-mails from Russian officials, that were released by hacktivists into the public domain.

A substantial set of digitally mediated participatory practices is linked to different forms of analysis of data





about conflicts and the gathering of intelligence. The participatory intelligence included digital sourcing to perform open-source intelligence (OSINT) tasks and support conflict mapping. The users had the opportunity to address both military and information goals. For instance, Open Source Investigation projects engaged users in the analysis of data that could either contribute to situational awareness of the military on the ground or/and support addressing strategic communication goals e.g. proving the presence of the Russian military on Ukrainian soil (e.g. in case of Inform Napalm, one of the leading Ukrainian OSINT initiatives). An additional form of participation is conflict mapping. This entails using different tools for geolocation and visualization, which allows it to deal with information overload and create a consistent real-time picture of the war.

Intelligence gathering was also supported by communities of drone owners. Some of the drones were initially used to cover the Euromaidan protests. Later, Facebook was used to create an Aerorozvidka group of drone enthusiasts who started to use drones to collect intelligence and develop air reconnaissance capabilities. Some online activists started to engage in conflict-related activities to help military units develop situational awareness and to support their C4ISR systems.<sup>1</sup> Initially, simple amateur drones were upgraded for military purposes. Crowdfunding platforms started to be used to purchase more advanced drones. Later, Aerorozvidka grew into an NGO that “promotes creating and implementing netcentric and robotic military capabilities for the Ukrainian security and defence forces”.<sup>2</sup>

The two most popular venues of digitally mediated participation focused on supporting Ukraine’s military and volunteer battalions through crowdfunding and logistical support. A broad range of crowdfunding initiatives mobilized the financial resources of users to address war-related goals and cover the needs of military units and volunteer battalions. These initiatives allowed targeted fundraising around specific needs including military ammunition, protective equipment, drones, and medical supplies. The crowdfunding platform—the “People’s Project”—became one symbol of civic engagement. At the same time, volunteers created an online group to offer direct support to Ukraine’s military and volunteer battalions. This support included providing not only food, water, clothes and medical equipment, but also bulletproof vests, night-vision devices, camouflage mesh, and drones. Specific volunteers took care of the needs of specific military units, relying on horizontal communication with soldiers and officers in specific regions.

Some volunteers created informal groups that relied on closed messenger chats or Facebook communities. Others sought to launch charity funds. Overall, the broad range of activities mapped above can be considered to be digital sourcing that provides logistical support to forces on the

ground. Together, this set of digitally mediated practices can be considered participatory military logistics. In addition, digital tools also supported engagement in offering medical assistance and creating tactical medical volunteer groups.

### Transition in the forms and the structure of digitally mediated participation

Most forms of engagement described above can be considered as crowdsourcing that relies on connective action, without a link to organizational structures. As the conflict developed, the role of non-state forms of mobilization started to be transformed. The Ukrainian authorities attempted to embed the volunteer battalions within military units or within Ministry of the Interior managed forces. The transformation of various digital sourcing initiatives appears to have been more sophisticated. For instance, the Ministry of Defence and relevant government organizations sought to create a volunteer council as an intermediary between volunteers and the authorities. In some cases, specific volunteer leaders were also invited to join state institutions.

Changes in forms of engagement undertaken by drone and IT enthusiasts clearly illustrate the nature of the transition. Regarding air reconnaissance initiatives, some members of the drone amateur Facebook group launched organizations offering drone training. These NGOs offered their services to military personnel, facilitated crowdfunding and developed new technological solutions. Simultaneously, some volunteers from among those who had initially started online self-mobilization were invited to join the Ukrainian military to establish units within the military that addressed the need to use drones and support the development of C4ISR systems. The first Ukraine military C4ISR unit was founded by users who were initially members of online communities of drone amateurs.

Changes in the structure of mobilization seem to follow a particular trajectory. First, people operate independently when digital media can be considered the main organizing agent. Then, they start to collaborate with traditional institutions from the outside. Eventually, some individuals are invited to join and become part of the state’s institutions, while others remain as NGOs or return to their everyday lives. Here, a tension between three models of digitally mediated resource mobilization becomes visible. The first model is *crowdsourcing*, a digitally mediated mobilization of user resources that relies mostly on connective action. Second is *outsourcing*, where a group of digital users constitute an organizational structure to offer their resources with specific conflict-related goals. The last model is *insourcing*, where users’ resources are integrated into state institutions. These three models of sourcing can also be addressed as three distinct models of activity systems that offer more or



less room for connective action and embed different power relations between actors.

A diversity of opportunities for conflict-related mobilization at the beginning of the war included various types and frameworks of connective participation in war beyond mobilization as a part of the military. In this context, analysis of the Ukrainian case allows us to explore why people selected a particular form of conflict-related mobilization, and whether this choice supported connective or collective forms of action. The next section offers a narrative analysis that explains the transformation in forms of war-related participation (the scope of goals addressed by digital tools) and the structure of participation (how participation fits into the context of relationships between the public and state institutions).

### **Narrative analysis: factors shaping the scope and the structure of war-related participation**

This section presents key findings regarding narratives of threat, narratives of statehood and narratives of affordances among users who can be considered key actors in digitally mediated participatory warfare during the war in Ukraine.

#### **Narratives of external threat**

Most of the interviewees identified their perception of the Russian invasion of Crimea in spring 2014 as the key factor shaping their attitude towards participation in the conflict. From their point of view, the annexation of Crimea sent a message that the state and the military were unable to protect their citizens. For instance, a volunteer coordinator from Dnipro highlighted how the lack of response by the Ukrainian military to the invasion of Crimea made him realize that they were on their own. Another volunteer described the invasion of Crimea as follows: 'The Russians took it under their control without resistance. It was so scary. That's why I decided to volunteer'. According to a medical volunteer from Dnipro, 'The volunteer movement in Ukraine in 2014 acquired a national-wide dimension amid fear and panic due to the threat of a full-scale Russian invasion'. Another volunteer mentioned that he had mobilized to protect his family in the face of an immediate existential threat and so that 'they [the Russians] do not come to Kyiv'.

#### **Narratives of statehood**

The perception of an existential threat coming from outside seems to be linked to narratives of limited statehood. It should be noted, however, that these narratives do not represent an objective assessment of political, military and

security institutions, but rather a perception of the role of these institutions in the context of the threat posed during the early stage of the war, in 2014. The absence of a military response in Crimea was a major element in the construction of narratives regarding the failure of the Ukrainian military to meet its responsibilities. However, the narratives differ depending on whether the events in Crimea were seen as a failure of the army or blamed on political leaders. One of the interviewees highlighted how for a long time the Ukrainian military asked for permission to open fire, but 'there was a power vacuum in Kyiv and permission wasn't given'.

One volunteer maintained that 'from the very beginning the army just showed its inability to defend the country'. A volunteer from Dnipro argued that the military leadership had been educated in Soviet military institutions, and therefore they were mentally unable to fight against Russia. In addition, the security apparatus, including the military and the police, was described as corrupt and unwilling to take sides until the outcome of the conflict became clear. At the same time, the interviews also revealed alternative narratives that highlighted the central role of the Ukrainian military in defending the country, but argued that the army had limited capabilities, as illustrated in the following statement:

It's not that the army was ineffective; it was poorly equipped. It was like a patient in A&E who needs blood to pour life into him. The citizens were this blood that simply helped the body survive this illness. (interview excerpt, 2017)

A key facilitator of volunteer assistance from Kyiv highlighted the organizational limits of the Ukrainian military in addressing the threat:

The army is the most conservative organization. They were not able to act fast to purchase the required ammunition. This created the opportunity for external volunteers to fill the hottest niches. (interview excerpt, 2017)

The tension between the negative framing of the military as an organization and the need to offer help to the army was in part resolved through a distinction being drawn between the state and soldiers:

Volunteers did not help the state. Volunteers helped the serviceman directly. When I, as a volunteer, dragged bulletproof vests to the brigade, I wasn't helping the state, I was helping individual fighters who used these vests to protect both me and the state. (interview excerpt, 2016)

The interviews allow us to identify one more set of narratives about the Ukrainian military. These were constructed around the idea that portraying the Ukrainian military as incapable was part of the information warfare managed by



Russia to thwart mobilization. The interviewees argued that to demoralize soldiers, information warfare against Ukraine emphasized the terrible conditions of service and the incompetence of the military leadership. In that light, the head of a volunteer organization from Kyiv argued how while highlighting the needs of the military, they avoided sharing negative criticism of the military.

To sum up, there are contradictory narratives about the army in the context of conflict-related mobilization. One may argue that different narratives may lead to different types of mobilization. Narratives that focus on existential threat and military failure can be linked to alternative forms of conflict-related mobilization that seek to replace the army. Narratives that portray the army as a weak organization requiring assistance can be linked to various forms of mobilization that support the army.

### Self-perception of volunteers

The volunteers were portrayed as an alternative resource needed to counter the threat: ‘an active society was able to compensate for a poor state and [the state] somehow let us use our money and resources to compensate for what the generals were stealing’. This was also highlighted by arguments relating to the scope of the needs addressed by the civic mobilization: ‘The only thing that the army gave us was weapons. Everything else, from food to bulletproof vests and night-vision devices—came from volunteers’. The relationship between the role of the military and the role of civil society was described as a symbiotic structure composed of a strong and a weak actor:

Civil society in Ukraine is strong. It drives forward everyone else and replaces a weak state. <...>. Since the start of the war, thanks to the mobilization of civil society, the state has become stronger. (interview excerpt, 2017)

Another volunteer addressed the relationship of volunteers to the state based on its capacity to address specific needs in the light of the external threat:

The army is a structure and volunteering is a function. The shape of volunteering was function-driven. If a function needs a structure of a certain kind, volunteers are able to create this structure. That allows us to address needs faster and offer more resources compared with the state. (interview excerpt, 2017)

The head of a volunteering organization from Dnipro objected to this mobilization being called volunteering: ‘No one called this volunteering. It is now a buzzword. A problem arose, and everyone rushed to solve it’. In this light, volunteers are portrayed as more flexible and goal-driven, while the state institutions are rigid.

At the same time, some of the interviewees noted the existence of counter-narratives offering a negative account of the volunteers’ role. This included describing volunteers as corrupt actors who used the war to increase their own wealth. In addition, volunteers are portrayed as driven by political and PR goals. Lastly, some narratives describe volunteers as actors who lacked sufficient knowledge to offer meaningful assistance, as well as those who exaggerate their own role. It should be highlighted that the negative portrayals can be linked to internal tensions between some of the organizations. These narratives play a marginal role compared with the self-narratives that praise the role of volunteers. In addition, some of these counter-narratives can also be considered as part of Russia-sponsored information warfare directed at de-mobilization.

### Narratives of affordances

The mapping of the narrative of mobilization affordances addresses the perception of available channels for conflict-related mobilization, including the perception of institutional and alternative opportunities for mobilization.

In countries of the former USSR, the wartime mobilization system depends on *Voenkomats*—military commissariats responsible for the organized mobilization of troops. However, according to interviewees, this traditional system of military mobilization was not operational in Ukraine during the first phase of the conflict. Even if people wanted to sign up at regional military enlistment offices, these were not open for mobilization. One interviewee described that the failure of the Voenkomat in Dnipro was overcome through a Facebook post about the creation of a national defence regiment by a member of local administration.

Accounts describing the failure of traditional institutional systems of mobilization are related to descriptions of self-mobilization relying on alternative channels. This includes both alternative mobilization that relied on offline horizontal networks and digitally mediated mobilization relying on different types of online platforms. According to some accounts, digital platforms allowed immediate mobilization around specific tasks based on open online calls for help. For instance, a key activist described how Facebook pages and different messengers allowed the mobilization of resources around a broad range of issues including the development of software, the construction of drones and the fixing of a car that had broken down on the way to a military unit:

Online mobilization relied on a snowball system, whereby one person links to another who may help. People come with private messages saying ‘I can do this’, and offer their resources. (interview excerpt, 2016)



Alternative forms of mobilization described also included an account of non-digital affordances. A major set of narratives address the Euromaidan protests as a space for conflict-related mobilization. According to one interviewee, 'The mobilization relied on word of mouth' among those who were present at Maidan and formed their relationships there.

## Transition

The final set of narratives addresses the transformation of relationships between the state and civil society. This transformation took place within the context of a change in the perception of external threat and of the affordances available to mobilize against this threat. According to a volunteer, who joined up as a military officer, over time the number of volunteers fell:

There are fewer volunteers because there are fewer needs. People grew tired. However, there is still a need for volunteers since the army hasn't reached the point where it can completely rely on state. (interview excerpt, 2018)

Some volunteers highlighted how over the course of the conflict the army made progress, from being chaotic to stable. Some volunteers see this development as an outcome of their activity. A head of one volunteer organization argued that their purpose was to force the state authorities to start doing what they had not done at the outbreak of the war: 'We wanted to ensure that the state took over what we were doing now and that we could stop doing it'.

The interviewees also offered different accounts of the transformation of volunteer roles. Some interviewees argued that the government had invited volunteers to hold political office to diminish their political impact as independent actors. Some volunteers decided that the best way to continue their activity was to integrate with the military and drive the change from within. However, this type of transformation has been rejected by others. For instance, a volunteer from Dnipro argued that 'volunteers refused to enter the state system because it reduces their freedom and makes performing their functions inefficient'.

## Analysis

This article has focused on exploring factors that may shape the structure of digitally mediated mobilization in wartime and the transformation of war-related mobilization over time. The analysis of empirical data should be seen mainly as an illustration of a theoretical model that contributes to an understanding of the factors that shape the role played by digital platforms in the rise of a new

forms of participatory warfare. The analysis does not aspire to offer proof of causality.

To explain the role of digital platforms in the development of participatory warfare, this article suggests that we look into the triangle of relationships between an external threat, the internal actors that may participate in addressing this threat and the affordances available for internal actors to address an external threat. The conceptual framework used here highlights how all angles of the triangle are socially constructed and therefore should be seen in the context of narrative analysis.

Analysis of the data suggests that the role of digital technologies in participation in warfare is broad in the case of three conditions existing that seem to be interrelated:

- A threat is constructed as significant, with the risk of non-participation in conflict higher than the risk of participation.
- Institutional actors, specifically the military and the government, are portrayed as having limited or no capacity to address the threat.
- Digital and connective forms of mobilization are considered to be more available and effective than institutional collective forms of mobilization.

This combination of narratives creates the conditions for the proliferation of a broad diversity of forms of participation relying on connective action, while digital tools play a central role in the mediation of relations between users and threat. A narrative construct that relies on these three elements also creates favourable conditions for digital innovation to develop new forms of conflict-related mobilization and can be considered as a context for the manifestation of the generative potential of digital platforms (Zittrain 2006).

This analysis also highlights the fragile balance that obtains between narratives that support mobilization and those that can create a favourable environment for demobilization. This is because, on the one hand, narratives that highlight limited statehood may stress the need for participation to substitute for the state. However, on the other hand, these narratives may also lead to demoralization. In this case, the role of narratives of limited statehood may depend on the strength of national identity, as highlighted by Boichak and Jackson (2020), and on the construction of the external threat. If the threat is considered insufficiently existential, we may expect more passivity. If the threat is constructed as existential, then we may expect a broad and diverse scope of participation.

Considering participatory warfare in terms of activity systems helps us to follow the changing roles of digital platforms in participation in a conflict. On the one hand, we may see a gradual discursive restoration of statehood, and institutional affordances of mobilization. On the other



hand, the scale of the external threat gradually diminishes. This narrative context may be associated with a shift from connective to collective forms of mobilization. It also creates less favourable conditions for the independent participation of users in war. Therefore, it may support the transition of conflict-related crowdsourcing either to outsourcing that relies on NGOs or to insourcing where external resources have been incorporated into state organizations.

An additional finding suggests that the transitions in dominant forms of conflict-related mobilization can be associated with the discursive contradictions that emerge in narratives depicting the relationships between institutional actors and civil society members. With the gradual narrative restoration of statehood, we may see an increasing presence of narratives that offer a negative framing of volunteers. The data discussed here show that the same critical discourses that were key elements in the construction of limited statehood (e.g. that the military was unprofessional, corrupt and driven by interests unrelated to security) have also been applied to volunteers (e.g. they are also portrayed as unprofessional and as driven by corruption, PR and political interests).

This narrative situation can be described as a *discursive mirroring*, where the same critical discourses are mutually applied by actors to each other in the context of a common external threat. Once the construct of the external threat becomes less salient, more space is available for internal contradictions and polarization between institutional and non-institutional actors who previously collaborated to address a common goal. Further collaboration is not possible without a resolution of this contradiction.

This contradiction, as seen in the case of discursive mirroring, can be resolved in several ways. On the one hand, it may lead to an integration of volunteers within traditional institutions, if the volunteers are ready to join these (insourcing) and/or to the emergence of NGOs that are open to collaborating with state actors (outsourcing). The decentralization reforms also offer a resolution to this challenge through offering a space for new state-sponsored frameworks of war-related mobilization. On the other hand, this contradiction may lead to a narrowing of the scope of legitimate participation in warfare, a delegitimization of war-related independent volunteering, and a shift of those excluded from mobilization against an external threat to internal political activism.

## Conclusion

This paper argues that exploring the role of digital platforms in the construction of the relationship between users and their environment should take place within a broader context that examines the process of social construction. To

illustrate this argument, it suggests how changes in narratives of statehood, external threat and digital affordances for mobilization may lead to a transformation of war-related digitally mediated activity systems. The article contributes to digital war literature by presenting a model that allows us to follow the role of digital platforms in participation in war and identify the factors that address changes in the scope and forms of participatory warfare. Specifically, it explains these transformations by looking at how different resources have been mobilized in relation to external security threats, from crowdsourcing to outsourcing and insourcing.

This process can be seen as part of the cycle of the development of social resilience. It highlights the role of digital platforms in the development of social resilience in the face of future exogenous threats and state capacity building. In this sense, the discussion contributes to the analysis of the new phase of the Russia–Ukraine war and provides the groundwork for further research into the role of digital platforms in this conflict. That said, the Russian invasion of 2022 also demonstrates that narratives of limited statehood do not necessary means that the public negatively assesses state institutions, but simply that they recognize that the state does not have sufficient resources due to the scale of the exogenous threat. Therefore, the full mobilization of a society's resources is required to address the challenge. While from 2014 onwards many forms of participation in war were institutionalized, since 2022 narrative conditions have enabled an accelerated process of digital innovation that has led to the development of new forms and a new scope of participation, both of which need to be addressed by further research.

## Notes

1. C4ISR—Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance.
2. <https://aerorozvidka.xyz/>.

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## References

- Asmolov, Gregory. 2019. The effects of participatory propaganda: From socialization to internalization of conflicts. *Journal of Design and Science* 6: 1.
- Asmolov, Gregory. 2021. From sofa to frontline: The digital mediation and domestication of warfare. *Media, War & Conflict* 14 (3): 342–365.
- Bauer, Martin W., and George Gaskell. 2000. Individual and group interviewing. In *Qualitative researching: With text, image and sound*, ed. Martin W. Bauer and George Gaskell, 38–56. London: Sage Publications.
- Beck, Teresa Koloma. 2013. *The normality of civil war: Armed Groups and Everyday Life in Angola*. Frankfurt am Main: Campus Verlag.
- Bennett, W. Lance., and Alexandra Segerberg. 2012. The logic of connective action. *Information, Communication & Society* 15 (5): 739–768.
- Boichak, Olga. 2017. Battlefield volunteers: Mapping and deconstructing civilian resilience networks in Ukraine. #SMSociety' 17, July 28–30.
- Boichak, Olga, and Sam Jackson. 2020. From national identity to state legitimacy: Mobilizing digitally networked publics in eastern Ukraine. *Media, War & Conflict* 13 (3): 258–279.
- Boulègue, Mathieu and Orysia Lutsevych. 2020 Resilient Ukraine Safeguarding Society from Russian Aggression Ukraine Forum, Chatham House. <https://www.chathamhouse.org/sites/default/files/2020-06-09-resilient-ukraine-boulegue-lutsevych.pdf>.
- Boyatzis, Richard E. 1998. *Transforming qualitative information*. Thousand Oaks, CA: Sage.
- Brik, Tymofii and Jennifer Brick Murtazashvili. 2022. The Source of Ukraine's Resilience How Decentralized Government Brought the Country Together June 28, Foreign Affairs, <https://www.foreignaffairs.com/articles/ukraine/2022-06-28/source-ukraines-resilience>.
- Cammaerts, Bart. 2012. Protest logics and the mediation opportunity structure. *European Journal of Communication* 27 (2): 117–134.
- Chernobrov, Dmitry. 2022. Diasporas as cyberwarriors: infopolitics, participatory warfare and the 2020 Karabakh war. *International Affairs* 98 (2): 631–651.
- Cronin, Audrey K. 2006. Cyber-mobilization: The new *Levée en masse*. *Parameters* 36 (2): 77–87.
- Couldry, Nick, & Hepp, Andreas. (2017). *The mediated construction of reality*. Cambridge, UK: Polity Press.
- Davis, Joseph E. 2002. Narrative and social movements: The Power of Stories. In: Davis, Joseph E (Ed.) *Stories of change: Narrative and social movements*. Albany: State University of New York Press, pp. 1–20
- Jennifer, Earl. 2011. *Katrina Kimport*. Digitally Enabled Social Change: Activism in the Internet Age. MIT Press.
- Engeström, Yrvo. 1987. Learning by Expanding: An Activity-Theoretical Approach to Developmental Research. Helsinki: Orienta-Konsultit Oy.
- Gamson, William A. 1992. *Talking Politics*. Cambridge: Cambridge University Press.
- Griffin, Larry J. 1993. Narrative, Event-Structure Analysis, and Causal Interpretation in Historical Sociology. *American Journal of Sociology* 98: 1094–1133.
- Hepp, Andreas. (2020). *Deep mediatization*. Abingdon, UK: Routledge.
- Holling, Crawford Stanley. 2000. Theories for sustainable futures. *Conservation Ecology* 4 (2): 7.
- Hutchby, Ian. 2001. Technology, texts and affordances. *Sociology* 35 (2): 441–456.
- Jacobs, Ronald N. 1996. Civil society and crisis: Culture, discourse, and the Rodney King beating. *American Journal of Sociology* 101 (5): 1238–1272.
- Jacobs, Ronald N. 2016. Media, Culture, and Civil Society. *Questions De Communication* 29: 379–393.
- Kalyvas, Stathis N., and Kocher Mathew Adam. 2007. How “free” is free riding in civil wars? Violence, insurgency, and the collective action problem. *World Politics* 59 (2): 177–216.
- Kaptelinin, Victor. 2014. The mediational perspective on digital technology: Understanding the interplay between technology, mind and action. In Price, Sara et al. (Eds). *The Sage Handbook of Digital Technology Research* (pp. 203–217). London: Sage.
- Korostelina, Karina V. 2020. National Resilience to Protracted Violence in Ukraine. *Peace and Conflict Studies* 27 (2): 4.
- Lind, William S. 2004. Understanding fourth generation war. *Military Review*, September–October 2004, pp. 12–16.
- Lokot, Tetyana. 2017. Public networked discourses in the Ukraine–Russia conflict: ‘patriotic hackers’ and digital populism. *Irish Studies in International Affairs* 28: 99–116.
- Merrin, William. 2018. *Digital War: A Critical Introduction*. Abingdon: Routledge.
- Patrikarakos, David. 2017. *War in 140 Characters: How Social Media is Reshaping Conflict in the Twenty-First Century*. New York: Basic Books.
- Polkinghorne, Donald E. 1988. *Narrative Knowing and the Human Sciences*. Albany: State University of New York Press.
- Polletta, Francesca. 1998. Contending stories: Narrative in Social Movements. *Qualitative Sociology* 21 (4): 419–446.
- Pötzsch, Holger. 2015. The emergence of iWar: Changing practices and perceptions of military engagement in a digital era. *New Media & Society* 17 (1): 78–95.
- Risse, Thomas. 2011. Governance in areas of limited statehood: Introduction and overview. In *Governance Without a State? Policies and Politics in Areas of Limited Statehood*, ed. Thomas Risse. New York: Columbia University Press.
- Romanova, Valentyna. 2022. Ukraine's resilience to Russia's military invasion in the context of the decentralisation reform, IdeaForum, Stefan Batory Foundation. <https://www.batory.org.pl/publikacja/ukraines-resilience-to-russias-military-invasion-in-the-context-of-the-decentralisation-reform/>
- Shesterinina, Anastasia. 2016. Collective threat framing and mobilization in civil war. *American Political Science Review* 110 (3): 411–427.
- Smith, R. 2006. *The Utility of Force: The Art of War in the Modern World*. London: Penguin.
- Tarrow Sidney, G. 1998. *Power in movement: Social movements and contentious politics*. Cambridge University Press.
- van Creveld, M. 1991. *The Transformation of War*. New York: The Free Press.
- Zittrain, Jonathan. 2006. The generative Internet. *Harvard Law Review* 119 (7): 1975–2040.

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