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The use of digital platforms by citizen aid actors during the Ukraine humanitarian crisis

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Following the Ukraine humanitarian crisis, which was a result of the war in Ukraine, ordinary citizens stepped up to spontaneously coordinate various humanitarian responses to support affected populations. In this article such individuals who founded or coordinated this form of spontaneous humanitarian aid are referred to as citizen aid actors (CAA). This paper explores the work of citizen aid actors in Poland, a country which received many of the people displaced by the war in Ukraine. The study applies the concept of digital affordances to illustrate and argue that citizen aid actors relied on the features available on digital platforms to attain their goals. It is an outcome of a qualitative research approach where interviews, participant observation, and analysis of relevant online material about the studied citizen aid actors were used as methods of collecting data. The findings indicate that these actors used diverse digital platforms at different stages of the humanitarian aid projects, from establishment, organization and sustenance. While this study demonstrates how specific digital platforms contributed to the accomplishment of the work done by CAAs, it also highlights how problematic it can be when the actors largely rely on digital platforms. As such, potential risks associated with overreliance on digital platforms as a way of implementing projects are factored in. Ensuing concerns include the presence of online trolls, the spreading of fake news, and internet disruptions as potential obstacles for the success of the aid projects.

KEYWORDS

digital platforms, citizen aid actors, humanitarian aid, affordances, humanitarian crisis

Introduction

In recent years, the humanitarian sector has seen the rise of new players in the form of citizen aid actors. They emerge and implement a plethora of interventions in a bid to avert what could turn into a humanitarian catastrophe (Dunn and Kaliszewska, 2023). These actors also rely on digital technologies to organize their work. Following Russia's invasion of Ukraine which created the fastest and largest displacement of people in Europe since World War II (OECD, 2022), a humanitarian crisis was born (Chumachenko and Chumachenko, 2022). A humanitarian crisis is an event or series of events that represents a critical threat to the health, safety, security, or wellbeing of a community or other large groups (Jeong and Yeo, 2017). Notably, the invasion of Ukraine and what followed presented threats to the lives of civilians and, for many, fleeing was the only option. Neighboring countries were the most affected by the unprecedented human exodus (Gluszak and Trojanek, 2023).

In the early stages of the crisis, governments and large international aid agencies specializing in displacement were not sufficiently present (Dunn and Kaliszewska, 2023). At border crossings, transit shelters, train stations, refugee feeding centers, and other places where displaced people

were being aided, there was a striking absence of central government and large international aid agencies (Dunn and Kaliszewska, 2023). However, the absence of central government and humanitarian aid agencies did not mean that aid was utterly absent. Instead, various citizen aid actors emerged with diverse initiatives in response to arising needs. Regular people always react faster, and local organizations tend to be much more nimble than massive bureaucracies (Kozłowska, 2022). Furthermore, ICTs in disaster contexts give rise to improvised activities and temporary organizations (Palen and Liu, 2007). Volunteers pooled personal resources, responding to incoming requests for assistance in their area, and gradually expanded their reach as resources allowed (Stoddard et al., 2022). This was the case in Poland where aid was still delivered even at a time when conventional organizations were not visible.

Despite their diverse characteristics and operational methods, CAAs make use of digital platforms. For example, social media is a tool for resource mobilization in times of crisis, but beyond mobilization, it is also used as a platform to portray projects, disseminate popular conceptions of aid, donors, and recipients and to generate funds (Haaland and Wallevik, 2017). Social media plays a significant role in supporting the work of citizen aid actors to get their work done and in tailoring interventions. However, the importance of other forms of digital platforms beyond social media should not be underestimated. Crowdfunding sites, for example, allow citizen aid actors to receive funds from individual donors. With crowdfunding and social media, newly established humanitarian organizations, not well networked in the development industry, reported successes in raising funds (McKay and Perez, 2019). This background presents a point of departure for the main claim in this study: that digital platforms play a pivotal role in the way in which citizen aid actors organize their work.

Digital platforms are a class of IT artifacts that have distinct purposes, which are enabled by specific underlying digital characteristics or properties (Bonina et al., 2012). The artifacts present affordances that can ultimately be utilized to improvise mechanisms for aid delivery, the overreliance on them for aid has its own share of challenges. Connectivity during the war is affected by aspects such as power outages or damaged communication lines and equipment, causing routing changes and congestion along bottlenecks, and in some cases resulting in user performance degradation (Mizrahi and Yallouz, 2022). Digital platforms are mediated by the internet but amid a crisis, the availability of the internet may be geographically restricted due to damage to infrastructure. In a war-related crisis, there are places that will likely lose connectivity thereby imposing limitations on users to access information necessary for the determination of their next steps. Disruptions in connectivity will create a coordination nightmare for CAAs who solely design some of their response activities based on feedback drawn from digital platforms. On the other hand, affected populations reliant on digital platforms for information are likely to be deprived of useful information when they lose their connectivity. Refugees are increasingly using mobile devices and digital interactions on social media to communicate, to facilitate their movements across borders, and to get last-minute information in transit

in and destination countries (Tado, 2022). The success of grassroots aid efforts is connected to digital platforms exemplified by the ways in which social media has become a tool for mutual assistance (Bucur, 2022, p. 523). However, fulcrumming initiatives on digital platforms can be problematic when there happens to be disruption of the internet which undermines real-time updates.

Another downside of building a framework for coordinating aid interventions via digital platforms is that these rely largely on assumptions that everyone is being genuine in times of crisis. Thus, when decisions are taken based on conversations conducted virtually, there is no guarantee that claims made online will turn out to be true. Home seekers were matched with potential providers of accommodation online. Without due diligence, unsuspecting people can fall prey to predatory practices. When citizen aid actors establish contacts online, they may collaborate who have unreliable individuals with bad intentions, and it could potentially destroy an otherwise well-meaning project. In such cases, citizen aid actors are at risk of jeopardizing their reputations. Trolls and fake news present another potential challenge for citizen aid actors using digital platforms to organize their work. In Ukraine, targeted disinformation campaigns shaped local and international perceptions of aid agencies, undermining the fundamental trust between aid agencies and the communities they serve (The New Humanitarian, 2022). In Poland, disinformation operations were quite efficient in drumming up anti-immigrant sentiments and bitterness toward Ukrainian refugees (Rogalewicz, 2023). Fake news shapes perceptions and directly impacts citizen aid actors' abilities to mobilize action and fundraise.

Importantly, the use of digital platforms can be a double-edged sword, especially when it comes to premising fundraising efforts on crowdfunding. The success of crowdfunding campaigns is closely linked to the campaigner's social media network (Mollick, 2014; Shneor and Munim, 2019). Within the aid industry which citizen aid actors cater for, there is seemingly an emphasis on personalized relations (Haaland and Wallevik, 2017). Thus, those willing to act, yet having a small social network, may experience barriers in growing their projects. However, it is not always the case that those with a vast social network have the will and competence to do good. There are some CAAs with small networks, yet they can carry out great projects.

Although there are previous studies on the rise of CAAs in times of crisis elsewhere, this study is situated in the context of Poland. While some previous studies have noted the use of social media by CAAs (McKay and Perez, 2019; Bucur, 2022), this study looks beyond this. In this study, focus is not limited to social media, emphasis is also placed on other digital platforms such as crowdfunding platforms. It also adds to the discourse of digitalization from the perspective of relatively new players in humanitarian aid. Drawing on different cases of CAAs' practices, this study affirms that their lifecycles are dependent upon several digital platforms that present opportunities for specific tasks to be executed. This study demonstrates how digital platforms contributed to some of the success stories of citizen aid actors and notes that varied affordances were utilized by users to achieve their intended goal of delivering humanitarian aid. This relates to how they raise funds and other in-kind resources, recruit and select volunteers, disseminate information, coordinate interventions, and set up accountability systems. At the same time, this article also highlights the shortcomings that are associated with the overreliance of digital platforms in the direction to be pursued in delivering aid.

Abbreviations: SDG, Sustainable development goal; CAA, Citizen aid actor; CIGS, Citizen initiative for Global solidarity; CI, Citizen Initiative; NGO, non-governmental organization; GINGO, Grassroots international non-governmental organizations; ICT, Information, Communication & technology; OECD, Organization for Economic Co-operation and Development.

Citizen aid actors

CAAs are neither new nor unique to the Polish context. They have been on the rise in Europe, driven by processes of globalization, and facilitated by advances in communication and information technology (Schulpen and Huyse, 2017). Electronic communications have made it possible for amateurs and part-timers to launch their development projects (Schnable, 2016). In fact, CAAs have become a common phenomenon in times of humanitarian crises. Citizens spontaneously set up initiatives in many countries to respond to the refugee crisis (Schulpen and Huyse, 2017). The presence of citizen aid actors can be traced in other parts of the European continent such as Macedonia and Greece among others. Across Europe, there has been an upsurge in spontaneous citizen and civil society-led initiatives in response to the refugee crisis (Wall, 2016). They often take different approaches to doing things and they have been lauded for their flexibility as they are well known “for responding to needs as they arise” (Fechter and Schwittay, 2019, p. 1772). The informal aid sector develops organically, with groups largely following a somewhat similar operational model (Stoddard et al., 2022).

However, different terminologies have been used to define CAAs. These actors have variously been described as the “fourth pillar,” citizen initiatives, private development initiatives (Fechter and Schwittay, 2019), or grassroots international non-governmental organizations (INGOs) (Schnable, 2021). They are also referred to as Citizen Initiatives for Global Solidarity (CIGS) (Haaland and Wallevik, 2019), and they are collectively known to be carried out by independent development volunteers (Fechter and Schwittay, 2019). Notwithstanding the different names or abbreviations, these essentially refer to small-scale development organizations set up by private persons to improve living standards of people (Schulpen and Huyse, 2017). Broadly defined, citizen aid is taken to refer to projects instigated by privately funded individuals who aim to support others in need (Fechter and Schwittay, 2019). What is overlapping in the different definitions is that they refer to projects spearheaded by individuals who are largely privately funded with the aim of filling a gap. Fechter and Schwittay (2019) assert that the focus on “citizens” emphasizes the agency of ordinary people deciding on aiding others. With different names and abbreviations used to describe this fourth pillar, this study uses the term citizen aid actors (CAA). Since this study focused on people, not all, but those who were specifically involved as founders or coordinators of aid projects, it was appropriate to make use of CAA.

Until recently, this phenomenon escaped academic notice for reasons not limited to their local basis, inconsistent registration, and often informal organization of citizen aid groups (Kennedy and Venne, 2023). Therefore, it is evident that this is a growing pillar of aid which warrants further studies seeking an understanding of how they emerge and are sustained. Thus, in this study, a contribution is made toward the understanding of how the work of citizen aid actors is organized, and the discussion is tied to the centrality of digital platforms in their work.

Digital platforms and affordances

A digital platform refers to a service that facilitates interactions between two or more distinct but interdependent sets of users

(whether firms or individuals) who interact through the service via the internet (OECD, 2019). Digital platforms share three common characteristics: they are technologically mediated, enable interaction between user groups, and allow those user groups to carry out defined tasks (Bonina et al., 2012; Cusumano et al., 2019). What is appealing from the definition is that, by design, digital platforms primarily enable interaction between users in a manner that produces a particular outcome and carries characteristics which are purposefully designed to support the attainability of a specific task. Thus, a user’s choice to use one platform ahead of the other is also motivated by what they seek to attain in relation to the platform’s offering, that is the platform’s affordance. In migration, digital platforms play a role in decision-making for those on the move. Decisions about when, how, where, and what to do rely on the available information about the possibilities (Merisalo and Jauhainen, 2021). Digital platforms have a link to sustainable development goals, and there is also evidence that such platforms may link to human development in terms of livelihoods (Nicholson et al., 2021). While my focus in this article is aimed at humanitarian aid, it fits within the broader sustainable development discourse in that the suffering and vulnerability associated with humanitarian crises undermine development. This study shows how digital platforms contributed to alleviating vulnerability by facilitating the implementation of humanitarian aid projects based on their characteristics.

The term *affordance* refers to the potential for action that new technologies provide to users (Leonardi and Vaast, 2017). Affordances are often described as properties of artifacts that can be recognized by users and contribute to their function or as items that present an action possibility (Moreno and D’Angelo, 2019). Therefore, affordances can be contextualized as the specific features that a digital platform possesses that a user can utilize for the achievability of intended activities and tasks. The concept of affordances is used to study or investigate the possibilities that digital platforms offer to democratic and self-organized movements or to study possibilities for action in collective movements (Sæbø, 2017). CAAs lead self-organized collective movements determined to act and attain specific goals; hence, the concept of affordances is befitting to assess the extent in which digital platforms aided their work. With an affordance approach, one can identify the necessary functionalities of an intervention such as the key functions of a platform (Moreno and D’Angelo, 2019).

Digital platforms provide convenient functions to enable a specific task. There are several categories of affordances for digital platforms but for this study, the focus is placed on five: identity, social, cognitive, emotional, and functional (Moreno and D’Angelo, 2019). *Identity* affordances include opportunities on digital platforms for identity development and portrayal and *social* affordances include a sense of belonging to a group. *Cognitive* affordances include using digital platforms to facilitate learning and *emotional* affordances relate to the generation of empathy by seeing personal photographs or names alongside messages or news stories. Finally, *functional* affordances refer to principal functions of digital platforms, that affect how messages can be conveyed and saved. In the progression of this article, the goal is to demonstrate the affordances that digital platforms provided, which CAAs harnessed to achieve specific tasks within their humanitarian aid projects.

Materials and methods

The study is based on a qualitative research approach and employed a hybrid of methods to collect data including interviews, participant observation, and exploration of online content. The expected outcome of research and the conditions involved justify the choice of methodology (Rodrigo et al., 2022). The choice of taking a qualitative approach was motivated by the study's intention to tap into the experiences of those who were practically engaged. Adopting a qualitative research approach allowed me to interface with the participants, inquire more, and get to learn beyond the confines of templates. The study took the standpoint of CAAs, and considered the actors as expert knowers since they are situated in the actualities of their everyday worlds (Smith, 1987). Guided by the research question, *how do citizen aid actors organize their work*, much of the data for this study was drawn from interviews.

Interviews were conducted in person with a total of 12 participants, during a 2-week stay in Poland in early October 2023, 11 of whom were either founders or coordinators of different citizen aid projects. One of the participants was a journalist whose input was helpful because of her experiences covering the situation at the border and neighboring cities during the early days. The occupation of this one participant is shared to clarify that even though the participant was not directly involved in aid projects, her journalistic experiences were valuable perspectives about how digital platforms were used. A semi-structured interview guide with a set of specific questions was used as a starting point, but I would regularly go beyond to follow up on participants' initial responses. All the participants were proficient in English; therefore, all the interviews were conducted in English. The duration of the interviews varied between an hour and a half to 2 h. Written consent and permission to record before interviewing were sought from the participants and all interviews were anonymized.

Oral accounts are valuable sources of direct information and evidence about perspectives, concerns, and the discursive practices of the people who produce them (Hammersley and Atkinson, 2007). Apart from the traditional sources of data such as participant observation and interviews, there are new sources for qualitative data (Alvesson and Sköldbberg, 2018). Websites, social media posts, and similar virtual documents are potential sources of data and can be regarded as potential material for content analysis (Bryman, 2016). In a study by Shults et al. (2021), initiatives that were organized to respond to aspects of crisis were followed online with an emphasis on their activities. Similarly, this study followed CAA on social media platforms such as Instagram and Facebook. I am also a member of Facebook groups that were created for updates on humanitarian aid projects. I observed and collected relevant data from these platforms. The data I found relevant included, but was not limited to updates on activities, locations of the activities, and calls for support.

Participants were selected based on being CAAs with projects founded post-February 2022 when Russian invaded Ukraine. This criterion led to a combination of purposive sampling and snowballing. I purposefully selected those who had founded or coordinated one or more humanitarian projects in Poland. It is difficult to find information about them because there are no established categories or statistics encompassing them and many of them remain unregistered (Haaland and Wallevik, 2017). This

posed a challenge for the study as it was initially difficult to find participants meeting the criteria and willing to participate. Initial contact was made with many potential participants on social media and emails but only a few of the contacted accepted the requests to participate. The sample snowballed from those who initially agreed and therefore the total sample is based on availability.

Having transcribed all interviews, and saved them into separate Microsoft word documents, codes were created and applied to all the transcriptions. Names of six digital platforms were used as codes namely Facebook, WhatsApp, Instagram, Telegram, YouTube, and Teams to separate the data in accordance with the digital platforms available within the collected data. Six keywords namely money, organize, fundraise, talk, communicate, and meet were also included as a second layer of coding. MaxQDA has a function that allows for automatic retrieving of segments, and this specific affordance was utilized to run and auto-code using all the activated codes. Customization of the auto code instructions was set to "only search item" which was each code, and an allowance of five words before and five words after the search item was made. A total of 112 segments were retrieved which I saved in a consolidated document which specified the interview which each section was drawn from. My overall understanding of literature and prior interaction with data during transcription provided foundation for coding and thematic analysis of coded segments in the data. Frequent and dominant patterns were identified and the generation of themes which were looked upon and analyzed. This approach allowed for data to be reviewed and read throughout to understand and create a bottom-up approach instead of application of concepts and codes beforehand to analyze the data.

It is important to note that this is a context-specific study that relies on a limited number of interviews backed up with participant observation. As I have only spent 2 weeks in the field the findings mostly rely on interview material and web-based data. I do acknowledge that there could be potential response bias in that some of the CAAs interviewed were recommended to me by those already interviewed. However, as part of my epistemological positioning, the study takes CAAs as a standpoint and I explore the experiences of CAAs that have come because of the Ukraine–Russia war. I have worked with an interpretivist approach and the findings are thus based on my interpretation of the CAA interpretation of their experiences. The findings coincide with insights from previous research on the activity of CAAs, and even though findings from this study may not apply in other contexts, I do believe that the study contributes to the overall research field of CAAs in the context of humanitarian crisis. I take cognizance of potential limitations of this study in relation to the analysis of the data. MaxQDA is a computer-based tool that follows my instructions, and it is possible that some relevant segments may be missed as they may not fit in the instructions. My choice to use the names of digital platforms as codes may not have been representative of all that were used by the interviewees, with that some could be missed. Here I rely on being transparent about the words used in my search so that readers are aware of what I have included, and furthermore that the reader keeps in mind the dependability between findings from online sources and the interviews that I have dealt with within the context of interpretivism.

Financial and in-kind resource mobilization

To be eligible to receive funding from public sources, official registration for citizen initiatives is crucial in most countries (Pollet et al., 2014). However, CAAs are small-scale, informal operators, and usually operate on the margins of the formal aid and development sector (Fechter and Schwittay, 2019). This means that CAAs do not have access to public and donor funds, accordingly, their activities are often sustained by private funding. Therefore, CAAs are forced to employ innovative measures to attract funding. In response to this challenge, CAAs use digital platforms to generate funds. In Greece, images of refugees' arrival situation were displayed on social media, which helped in the mobilization of resources, and people who offered voluntary labor (Haaland and Wallevik, 2017). This hints to the strength of digital platforms in presenting emotional affordances that appeal to human emotions triggering people to donate in one or more ways.

Crowdfunding sites such as *GoFundMe* as well as *zrzutka.pl*, which is quite popular in Poland, were some of the platforms whose affordances enabled financial donations. Crowdfunding refers to the efforts by individuals and groups to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries (Mollick, 2014). These platforms have been an integral part of enhancing citizen aid actors' ability to pool financial resources and make their various humanitarian interventions possible.

Financially, I also set up a website, which I think may still be running even now which was like a crowdfunding website for people from other countries who know me to donate. It wasn't like much; I think at the time I managed to raise about 1000 euros or 1500 euros altogether, but this is money I spent on a big batch of humanitarian aid. (Participant 06)

This confirms how digital platforms were utilized to enhance financial resources through crowdfunding and could go beyond what they could have pooled if the funding sources were limited solely to the context of their physical location. The sentiments shared by the respondent quoted above indicate how crowdfunding allowed for targeting of potential donors from countries other than Poland. For several reasons, CAAs face limitations in accessing public funding. This explains why many of them use crowdfunding sites as a primary arena for raising funds to support their interventions.

As digital platforms' affordances allow wide and instant sharing of situations, nowadays, people have instant access to information and are quickly moved to contribute. Compassionate individuals no longer need to wait for their national government or the blessing of their religious denomination to act (Schnable, 2016). This is echoed in this study as one participant described how in the absence of other people's contributions, they must dig into their own pockets just to ensure that action is taken.

People will be thinking, oh I got the fire truck and it's amazing, but they don't know that though I got the fire truck, I had to pay from my pocket, from my private money to change the registration plate. I also paid for the insurance from my pocket because we don't have the money, but I needed to do that because it's the law and at law,

I got 14 days to change the registration plate and the name. If I don't do that one, I'll be penalized so I didn't have a choice. (Participant 12)

The above quotation from a founder of an aid project who had acquired a fire truck at the time of the interview signifies how personal will and resources sustain projects of this nature. However, personal resources have a ceiling, and reliance on such resources has its own limitations. Hence, in a bid to meet project expectations, individuals look beyond their personal finances and extend a begging bowl. Under such circumstances resorting to crowdfunding became prevalent for many to ensure that work was carried forward.

While crowdfunding platforms afforded an opportunity for CAAs to enhance their financial capacities, the successes of the affordances are also reliant on other factors. Social media engagements are integral to the very nature of fundraising, where fundraisers are tasked with reaching, informing, and persuading members of the crowd to contribute (Shneor and Munim, 2019). Crowdfunding campaign success is associated with a fundraiser's network size and number of social media contacts (Shneor and Vik, 2020; Baah-Peprah and Shneor, 2022).

We had some financial resources, I'm very good in crowdfunding, and mobilizing people to give money for a cause was easy because I was quite a well-known journalist. And the Actor who helped me at the centre was also very well-known in Poland. So, when we started it, you know, many people heard about it, so they started to volunteer and donate. (Participant 10)

While crowdfunding comes in handy in bridging the gap for resources their successes are also closely tied to other digital platforms. Social networking sites have become indispensable platforms for organizing humanitarian fundraising as they allow for the easy sharing of messages through personal networks on behalf of the fundraisers' cause (Pantti, 2015). Beyond the broadness of social networks as a prerequisite for crowdfunding success, with social media the world is effectively borderless meaning that calls for donations reach places that a person could not have otherwise reached in person.

Sometimes, yeah, people hear about us on social media, as you did.... And help us, mostly churches, as I said. They are not only giving money, but they are also giving us stuff, so it's easier. For example, for this second Church from Slovakia, they gave us 10,000 zloty, for example, and we have to have many such examples. (Participant 09)

The geographical location of a person willing to contribute ceases to be a cause for concern as the existence of digital platforms eases the crossing of borders. In essence, digital platforms ease the flow of both financial resources and specific information necessary in soliciting financial resources.

Social media channels hold value in coordinating transnational networks of resources, while crowdsourcing platforms aggregate the actions of geographically dispersed individuals to work together on enacting a form of virtual care (Fechter and Schwittay, 2019). Credit should be given to digital platforms for somewhat increasing the fundraising abilities of citizen aid actors that would have otherwise not excelled in that area. It is also worth indicating that crowdfunding methods are not a preserve of websites only, they go beyond that.

During my stay in Poland, I observed that a vehicle used by one of this study's participants had the following words affixed on its windows; "you want to support us with pennies? Send us by Blik 4** *** **1" (Translation from Polish). Blik is an online payment solution used in Poland that facilitates instant transfers to a person just by using their phone number and it is free of charge. The phone number displayed on the vehicle which is regularly mobile implies an ongoing crowdfunding plan which is aimed at generating small contributions from different individuals.

Information, dissemination, and coordination of interventions

New technologies have facilitated a new type of civil society communication and engagement, allowing for the participation of many more actors in the production and mediation of humanitarian aid (Haaland and Wallevik, 2019). Thus, digital platforms are central in sustaining citizen aid projects as they afford swift and wide information dissemination, not only by the CAAs but also by affected populations. Most social media platforms allow for replicability of messages, meaning that others can reuse the content, this can allow initiatives to deliver booster doses of intervention messages by resharing previous content (Moreno and D'Angelo, 2019). Thus, with affordances of digital platforms, engagement between players has been made easy and timely as such platforms, mainly social media, facilitate resharing of information and distance ceases to be a factor. Refugees usually have substantial and diverse informational needs ranging from legal advice, transport, and accommodation issues to advice on accessing services and healthcare (Lee et al., 2023, p. 43). To address these needs; a range of apps, most of them multilingual, have been designed to aid refugees, offering information about social services, language courses, application procedures, and local information in general (Eriksen, 2020). Similarly, during my data collection visit, it was evident that there were multiple digital solutions in place earmarked for disseminating and receiving information. When I was at the main train station in Przemyśl, a city in the south of Poland close to a Ukraine–Poland border crossing, I saw a car in the parking lot which had promotional stickers for a citizen aid project. The sticker had a QR code which, upon scanning, directed me to a website which had more information about the project, contact details, and how one could get involved. Inside the train station in Przemyśl, there was a reception point set up to assist those arriving and in need of assistance. At this reception desk, there were informational materials from various citizen aids, including transport schedules, housing, and other information. The information on the sheets of paper displayed at the desk had brief information but upon scanning a QR code on the papers, one would be directed to more details available online. This confirms how digital solutions brought cognitive affordance and played a part in addressing informational needs in a manner beneficial for both those in need of support and CAAs.

New technologies have allowed people to communicate and engage directly on a global scale (Pantti, 2015). Innovations have been made and smartphone applications were introduced to enable translations and interpretations (Lee et al., 2023). Thus, the significance of digital platforms is seen through the way some of the affordances enable communication beyond borders and mitigate challenges emanating from differences in language. Language barriers

were minimized using translation applications such as *google translate* and *DeepL*, as two participants echoed.

I didn't speak Ukrainian, but I was able to communicate with refugees using DeepL. (Participant 05)

Most of the people I supported returned to Ukraine after a few months, but I am still in contact with them via Facebook messenger and we are using Google translate. (Participant 06)

Social media has become an important channel for directing humanitarian communication, furthermore, aid organizations increasingly use social networks and there has been an emergence of self-organizing volunteers who take on a variety of humanitarian tasks (Pantti, 2015). Haaland and Wallevik (2019) share a case of someone whom they say established a Facebook profile and found a name for her initiative, which made people notice it as well as provide economic support. This is an indication of how digital platforms are central in the coordination of the interventions done by citizen aid actors as they afforded an opportunity for both information gathering and collection of necessary resources. In the case of two different citizen aid actor's projects, which specialized in providing housing for home seekers during the time of crisis, they credited digital platforms for affording them with coordination solutions.

We even organized a website with a Google form so that people could come over and offer their housing, like if they had a spare room or a spare couch or a spare apartment for people coming from Ukraine. So, this was like a community hub for matching refugees versus Polish people living in Warsaw. (Participant 06)

I'm sort of an influencer, I have quite a big reach on social media. So, it was quite easy to appeal to people, you know, we need money, and we need your houses, please bring it to our center. If you are interested to welcome Ukrainian family under your roof, let us know. This is a Google form, please fill it out and there will be two volunteers going to your place to check if everything is okay. (Participant 10)

The two cases above offer examples of some of the cases in which the implementation of projects by citizen aid actors was aided by the existence of digital platforms relevant to specific tasks like in this case, creating a database of what was needed at the time. This database would be valuable in quickening the process of supporting home seekers with information about available accommodation. These two examples are supportive of the main proposition that digital platforms played a pivotal role in the coordination of projects spearheaded by CAAs.

With digital platforms, efficiency is enhanced, social networks are maintained and expanded, and awareness of rights and whereabouts is improved (Eriksen, 2020). In the advent of the Russia–Ukraine war it became evident that "refugees" used social media to solicit help and forward proposals on what they thought could be helpful. Facebook groups were created, some with tens of thousands of members, and posts with requests were made, and this would alert CAAs and well-wishers alike who were part of the group thereby leading to respective

responses. *Hey, can anyone offer a small room with a mattress for 1–2 people, maximum three days?* (Extracted from Facebook). Observations made under this post showed an overwhelming instant response from individuals or groups who were able to render the required support. Digital platforms transcend beyond localities, enabling distant parties to gain knowledge about one another. Digital platforms enable affected populations to easily contact specific CAAs offering what they need based on information readily accessible to them. This can also be linked to CAAs' swiftness in responses, assuming that the required support is readily available, it will be immediately taken to where it would be required.

Many people contacted me through Facebook Messenger because this is the fastest way to contact people from other cities. Either through Facebook Messenger or WhatsApp Messenger. That's how they would send the information to me of what they needed, where they needed it. I would then respond also to. (Participant 08)

News about us was spread that we are giving solar panels and people started to make requests and write directly to my colleague via Messenger or WhatsApp, asking if it would be possible to get a solar system. (Participant 07)

Weick (1988) argues that to make sense out of a situation, there is a need to place attention in engaging stakeholders meaningfully and early (Sengputa et al., 2023). Possibly with the recognition of the importance of stakeholder engagement, many CAAs used digital platforms to open lines of communication and engagement. In addition to receiving requests, they also received useful information about what ought to be done.

We have a lot of subscribers on our social media. So, now we have a big Ukrainian community around us. Our Telegram channel has almost 1,400 subscribers and on our Instagram and Facebook we also have more than 1,000 followers. So, we really have a big community and some women come to us and say I have an idea for creativity workshops. Let's try to do it and then we create registration forms on Google platform to recruit participants. (Participant 11)

CAAs are guided by a great deal of flexibility and pragmatism, often paying little attention to overall aid policies or national policies in the country they operate in Haaland and Wallevik (2019). The credit given to citizen aid actors when it comes to flexibility are tied to their constant utilization of digital platforms. They capitalized on the affordances to learn about changing needs and locations and develop swift response mechanisms. As one participant stated:

On a regular day we woke up and made calls to the dispatch centre which was at the train station in Przemyśl and enquire on what was needed, where we are needed, where there are not enough people where can we be supportive, and every day was something different, so it was kind of depending on the necessity. (Participant 06)

This indicates how needs were changing during times of crisis, justifying why placing a constant eye on possible changes was crucial and why digital platforms were important in communicating and

monitoring changing needs. For conventional aid organizations, their processes for determining what displaced people need are long and slow, yet the needs continue to shift dramatically (Dunn and Kaliszewska, 2023). Refugees were a disparate population with multiple needs that were not static but evolved over time, this led to considerable complexity which required adaptation of responses accordingly (Lee et al., 2023). Since the needs were varied and frequently changing, an effective and appreciated response required a certain level of agility, and, in this case, digital platforms were useful. Digital platforms offer the possibility to be informed about topics of interest (Sæbø, 2017), and helped citizen aid actors to learn about situations (Haaland and Wallevik, 2019). Thus, affordances presented by digital platforms contribute toward the success and the uniqueness of CAA work, especially regarding their adaptability by tracking real-time changes.

While needs were continuously shifting, citizen aid actors stayed up to date through the affordances of digital platforms, which assisted with information about changing needs. Citizen aid actors take pride in their adaptability attributed to real-time communication which is facilitated by digital platforms.

They would send me photos of what was needed, and we would send exactly that. I remember that one moment when we got a phone call that in Medyka, they needed medicine. I immediately called for the Driver to pick it up and we just sorted out the specific things that will go to Medyka. (Participant 01)

International humanitarian agencies struggle with flexibility when it comes to adapting to context, changing the type and quantity of support at the right time, or responding quickly and appropriately to unexpected crises or challenges (Obrecht, 2019). However, CAAs in the context of this study can be applauded for their flexibility and swift response to tailored needs. The internet has allowed for a flexible response regarding food for people and animals, hygiene products, basic medicines, and other items necessary to provide what can be called "a flash relief" (Byrska, 2022, p. 4). While the flexibility of citizen aid actors can be attributed to many other factors, the adaptability is also tied to their use of digital platforms which facilitate the tracking and learning of immediate needs as soon as they are communicated.

Recruitment and selection of volunteers

CAAs have comparative advantages such as low overhead costs, voluntary spirit, and great enthusiasm (Haaland and Wallevik, 2019). Citizen Initiatives are mostly associated with volunteerism, although professional staff are not by definition excluded (Pollet et al., 2014). One thing distinguishing CAA operations from other organizations is the sustaining of their work activities through volunteers. Digital communication technologies have enabled the emergence of self-organizing volunteers (Pantti, 2015). Here, we learn how digital platforms enable the emergence of CAAs and how the different platforms carry different affordances making them capable of organizing volunteers. Social media and social networking websites have been the most important developments in the field of digital attraction (Nikolaou, 2021). Building on this, this study argues that CAAs can embrace the use of digital platforms to attract potential

volunteers by widely sharing their work. New volunteering provides opportunities to individually participate, choose the organization, field of action, activity, duration, and type of engagement (Basinska and Jeran, 2014). Volunteers engage based on a self-understanding or from a cost–benefit analysis of the impact they can potentially make (Briones et al., 2021). It is from the shared work that potential volunteers will learn about how much of their interests are represented by a CAA, and those willing to get engaged can instantly reach out. Additionally, for one to choose to volunteer for a specific initiative, s/he must have found a reason that resonates with his or her interests. Citizen aid actors operate on small budgets and rely mainly on individual donations; therefore, it is imperative for them to ensure attraction of volunteers for work to be done.

There is no doubt that emotions have always played a central role in the communication of solidarity, the motivation for our actions, and the interactive possibilities of online media (Chouliaraki, 2013). Thus, for volunteers to be motivated to commit their time and resources, they should at the very least find something that draws their interest whereas on the other hand, citizen aid actors must find ways of attracting potential volunteers. In the latter instance, online platforms have affordances that enable such kind of communication to happen and reach a larger audience, transcending beyond geographical borders. Digital platforms expand space and personalize time by creating the possibility of building and maintaining networks in the form of “imagined communities” of people who may not know each other personally but have a shared agenda and similar backgrounds (Eriksen, 2020). This was echoed by one participant who said:

And as you can see, we also have a very helpful organization of volunteers here, they are from America. They are really helpful to us. They also did a restructuring of this place, and they are great. But they are going to Ukraine next year, so we will be without them. (Participant 09)

The above excerpt was in reference to a team of volunteers who had traveled from America and were in Poland volunteering in projects that were coordinated by the participant quoted above. The two countries are miles apart, but it was through social media contact that it became possible for people from the two different countries to be under the same roof and collaborate on a cause.

This study reveals that citizen aid actors used digital platforms as arenas to attract volunteers to come and participate in a cause. Digital platforms were convenient tools for citizen aid actors when it came to bringing more people on board to participate in responsibilities that arose, in this case. Public calls inviting volunteers were made through social media posts or platforms such as Microsoft Teams. Users who read the message and were interested in joining would instantly respond and register their interest and availability.

I used Messenger or Teams. Because, you know, that was right after, soon after COVID lockdown and every student had Teams. So, we had contact via Teams, we would also use Teams to organize everything. I would normally create a group, and those willing to join would join the group. (Participant 05)

People utilize social networking technologies to accomplish tasks such as selecting a potential mate, to purchasing goods and services,

facilitating social meetings, and engaging in various forms of social support, among many others (Van Der Heide et al., 2012). Many GINGOs have websites that target an audience much like volunteers themselves, to whom they offer narratives about the causes and solutions (Schnable, 2021). Digital platforms afford an opportunity for CAAs to attract volunteers and voluntary collaborations that could be beneficial for the entirety of projects. By sharing their work on online spaces there is a possibility of raising awareness to interested individuals on possible ways of getting involved.

There are some Americans who came to me and helped me fix the car and to buy tires, now they also ask me if they can cover some fuel costs and therefore, this is why I have their flag on the car to show the world that Americans are also helping with me. (Participant 12)

The work of CAAs relied on digital platforms, and, in this case, close cooperation was fostered through Facebook. They met online, communicated, and eventually partnered to implement humanitarian projects together, but of course, with different voluntary contributions. This is one of many stories where actors implementing humanitarian projects are approached online with proposals for collaboration.

The growth of citizen aid actors is likely also due to a reduction of state action and resources (Haaland and Wallevik, 2017). In the face of such lack, when citizen aid actors emerge, innovation to provide solutions and resources is a prerequisite if they are to stay long. Apart from how digital platforms aided citizen aid actors in the attraction and recruitment of volunteers or collaborators, selection solutions premised on digital tools were improvised. Citizen Aid actors embraced technological tools to ease and quicken their selection processes. Some projects that specialized in matching refugees and hosts for housing, designed a Google form, and with a few follow-up phone calls, refugees would secure a roof over their head.

The city aid and government aid were not working, so we were the main players for two first months, we were the first centre. If someone was willing to help with housing, we would issue a Google form and say please fill it out and there will be two volunteers going to your place to check if everything is okay. I believe 23,000 people received help from our organization by getting a roof at least for 30 days. (Participant 10)

Against this backdrop, it is worth noting that CAAs embraced technological tools for solutions to fill in gaps.

Transparency and accountability measures

Citizen aid actors can also be viewed as brokers of humanitarian aid. Brokers are actors who draw together and facilitate exchanges between disparate systems, peoples, and spaces. But for this work, they need their clients to trust that they will deliver the service they have promised them (McKay and Perez, 2019). Indeed, CAAs are brokers, their brokering role manifests in that they are at the center of receiving resources for aid from various well-wishers and taking the donated resources to the ones in need of aid. On one hand, there is a person with an inclination to support a cause, and on the other hand, there is a person seeking specific support based on their situation and CAAs stand in-between. CAAs follow fundamental principles of fundraising,

which say that fundraisers need to convince potential donors that they are deserving of their donations as they are doing volunteer work or have already made their contribution (Pantti, 2015). In doing so, they utilize digital platforms' affordances to raise funds and proceed to identify needs and find solutions in some ways as alluded to in preceding sections. For the CAAs' brokering to succeed, private citizens willing to support should be convinced that their donations will be used for the intended purpose. This is where CAAs would harvest the affordances of digital platforms, they would use social media platforms to constantly upload pictures of donations made. This was an accountability method, but this would also serve to legitimize their work and gain trust of those who donate convincing them that their contribution would go toward a good cause.

We have a Facebook page and a Facebook group. After every trip, we try to either just write a few words and add the photos or sometimes we do a movie summarizing where and what we delivered, and how the things look in Ukraine. Yeah, so we try to report every trip, what was done, what was taken to Ukraine, what was delivered and to whom. (Participant 07)

Social media is central to advancing donor-sponsored transparency and accountability initiatives (McKay and Perez, 2019). Cellphone photography is another means of constituting trust, recipients take pictures of aid delivered to them and send them back to the donor to prove it has arrived (Dunn and Kaliszewska, 2023, p. 7). This form of accountability falls out of the confines of conventional methods because according to Schiffing and Piotrowicz (2022), conventional organizations publish detailed information about their work and finances on their websites. This is also complemented by regular reports often sent to donors within specific timelines as a primary accountability procedure. CAAs have been criticized for limited practice of the perceived standard of accountability within their life cycle. Well-intentioned amateurs can bring harm to local communities for reasons which include a lack of accountability (Walker and Russ, 2010; Kennedy and Venne, 2023). Limited reflection of accountability standards that are practiced by conventional NGOs within the work of CAAs does not mean a complete lack of accountability in the operation as there are alternative practices instead. A common practice among CAA was to post pictures online accompanied by brief captions and in some cases, they would tag those that would have contributed. Digital platforms bring convenience through their affordances in advancing accountability and transparency in the work of citizen aid actors in combination with digital tools.

For them to construct legitimacy, in the eyes of their audience, CAA must consider their profile (Pantti, 2015). Platforms like Facebook carry identity affordances enabling citizen aid actors to be known publicly. It also presents cognitive affordances that citizen aid actors can use to spread knowledge about their work, grow their brand, and solicit legitimacy. Likely, it is based on this need to build legitimacy that CAA would regularly update about what they would have done and tag some of those who would have been involved as seen in the extract of a Facebook post below.

Busy Saturday ... Today we hosted a wonderful team from Brazil. With the joy and energy of Brazilian samba, they cooked Ukrainian borscht. We received wonderful gifts from wonderful donors. A

*reliable group from **** filled our fridges with soup for those in need. Such still motivates us. Thank you! (Extracted from a Facebook group, translated from Polish)*

The post was accompanied by pictures of cooked soup and other donated items, they tagged another Facebook page (anonymized) run by a team of volunteers who had donated the items and spent their time volunteering. Uploading pictures of items received illustrates the accountability and transparency affordances facilitated by digital platforms. The posts would work as sufficient evidence to donors that their contribution was received. Furthermore, tagging specific partners or donors would bring them to the attention of the post for transparency's sake. This can be considered as a way of building trust but also a way of attracting future support.

Another way digital platforms were central in enhancing CAAs' accountability and transparency was how some crowdfunding websites compelled them to account by providing information about the intention in the description. Thus, if donations are received, it would be expected that they would be used for the indicated purpose. It is safe to say that CAAs have less of a national footprint and, hence, a reputation to maintain (Schnable, 2016; Appe and Telch, 2019). However, once information is digitally available, it inflates their reach. Therefore, a concern to protect a reputation will arise. The utilization of digital sites as platforms to raise funds afforded a purpose to be accountable and transparent as well as mechanisms to get it done. Crowdfunding sites somewhat oblige users to do what they said, lest they attract scrutiny from the private citizens who would have donated or would have seen the information on the fundraiser as one participant expressed.

The websites we used are reliable websites because they also check us. So, I had to provide a breakdown of bills to them to show that, altogether we crowdfunded let's say 200,000 euros and this is how I used it. If not, I could buy an apartment for myself. (Participant 10)

Given that the crowdfunding websites show the total amount collected, it meant that upon withdrawal of the contributions, the reported interventions would be expected to correspond with what was indicated as the total amount drawn from the fundraising campaign. In general, private funding is regarded as the most important source of income for Citizen Initiatives (Pollet et al., 2014). In the interest of gaining trust from contributors and securing their commitment to future contributions, CAAs would not risk misappropriating the contributions if their intentions were good. Their failure to meet the stated goals would invite a backlash hence they are compelled to use resources wisely if they were to maintain goodwill. Another participant explained how they valued accountability and used affordances that were provided by digital platforms such as websites to present their spending.

*I accounted for what I received, and I even have receipts on my website and for instance I got some money from **** I think £300 or £400, and I also shared a receipt for the medicine that I purchased, so I did a little bit of accounting. (Participant 06)*

CAAs incorporated affordances available through digital platforms to enhance accountability and transparency validating this study's assertion that digital platforms were pivotal in their work.

Team forming and mobilization for action

Online communities (OCs) are a virtual organizational form in which knowledge collaboration can occur in unparalleled scale and scope, and collaboration can occur among people not known to each other, who share different interests, and without dialogue (Faraj et al., 2011). The convenience of online spaces for knowledge sharing relates to the cognitive affordances that are brought by digital platforms and such affordances played a role in the work of citizen aid actors. The coming of smartphones and messaging apps, brought possibilities to expand horizons, people can quickly construct groups of varying sizes to chat or coordinate specific tasks (Ling and Lai, 2016). While preceding research has documented how digital platforms enable the construction of groups, this article illustrates how the available options were used to mobilize action by CAAs. One of the characteristics of CAAs is that they do not want to follow traditional scripts, rather they are non-domain-specific aid organizations (Develtere and De Bruyn, 2009). Citizen aid actors are usually self-organizing and come about in crises to meet some unmet needs and microblogging platforms serve as a new arena for self-organizing (Starbid and Palen, 2011). Applications such as Signal, WhatsApp, and Facebook became the initial meeting points for those who spontaneously laid the foundation for the humanitarian aid structure in Poland (Byrska, 2022). Advantageously, digital platforms allow users to bypass geographical boundaries, decoupling the actions of individuals from their geographical location (Sæbø, 2017). By their nature, CAAs often establish projects as a response to an emerging crisis, and in such cases, there is usually no readily built physical infrastructure. In such instances, digital platforms will be an alternative allowing CAAs to organize their work online and respond to arising needs during times of crisis.

I was approached by like a start-up from the Netherlands and they wanted me to be a country coordinator and them being a humanitarian aid agency. I was trying to build like a whole project from scratch based on the realities of Central and Eastern Europe and to find some stakeholders and collaborators from Ukraine. After two months of like Zoom calls and talking, we were even looking at like renting a warehouse in Przemysł and opening an office here in Warsaw.... (Participant 06)

It is evident that even though there was no office space in place, that did not stop coordination of meetings. Meetings were arranged online, over ZOOM, which is yet another example of a digital platform. The quote above is one of many examples indicating how CAAs utilize digital affordances to get work done, even in the absence of physical meetings.

In times of crisis, public response is garnered in the form of blogs, photos, and video sharing on online venues where people make offers of housing, jobs, and emotional support (Palen and Liu, 2007). Digital platforms offer possibilities for coordinating individuals' actions and transferring them to specific individuals (Sæbø, 2017). In Lesvos where citizen initiatives were implemented, within a matter of days, interest in Facebook groups intensified and attracted thousands of members (Guribye and Mydland, 2018). Haaland and Wallevik (2019) also suggest that a steady stream of volunteers went to the Greek islands to start their own CAA or to work with others they had discovered online through their social

media activities. This indicates how the intentional or unintentional use of digital platforms can result in the mobilization of people. In the most recent Polish case, it is also acknowledged that a huge part of the work took place online and, it is argued that it is the internet that allowed all forms of responses (Byrska, 2022). Findings also reveal that Facebook drew people together for a common cause based on shared interests and it led to people getting mobilized to act, below are two illustrative responses from participants:

*For example, there was a great initiative called ***. And this organization was invented in Kraków. And they wrote posts on Facebook saying that anyone in Kraków can help because all we need is for you to cook soup and put it in jars and bring it to us. So that's what we did. Some people would cook 500 litres of soup per week and more people kept on coming and giving. It was so successful; many people joined the group. Right now, there are many thousands on Facebook in this group. That's why it was possible to run it throughout the whole year. Because people would go on holiday, but still some people would stay. This is because the group was so huge, it was possible to have the soup running all the time. (Participant 08)*

I think that most of the organization happened via social media, Facebook groups mostly. I was in a Facebook group for that and following, then people were organizing everything through social media. It was like, this is what we need for this day, and we need people here. (Participant 02)

Notably, citizen aid actors quickly embraced digital platforms and utilized the affordances that come with them to invite and mobilize other citizens to act in response to specific humanitarian needs.

Beyond Facebook, YouTube was also another arena that citizen aid actors embraced in mobilizing citizens to act. Beyond its interactive, participatory potential, YouTube can boost remarkably large audiences, and even amateur productions and viral videos can attract tens of millions of views (Pantti, 2015).

One of the YouTubers who was running a channel made a lot of films about the situation in the Ukraine, but also about different historical events. And I have the impression that his followers, the people who watch his content trust him and the content he creates is of very good quality. He offered that he could support us and at the end of his films, he just briefly mentioned that, please support this and this group, they are doing a good job. Most people who donated to our fundraising were probably the viewers of this YouTube channel. (Participant 07)

The participant's belief that part of the reason why people acted in support of their cause was that the initiative was promoted by a YouTuber who had a huge following shows the extent to which digital platforms help spread the word. In many cases, citizen-driven projects start with one person and an idea, and then it snowballs (Wall, 2016). They are usually founded as a reaction to what I refer to as a trigger, and against such a background those who start projects must popularize their initiatives to generate involvement. Digital platforms then play a central role in enabling the growth of projects by spreading information, both textual and visual, enabling wide reach and activating other players to contribute.

Digital platforms put people in contact with one another, offering the opportunity to build relationships or construct alliances for collective action among users (Kietzmann et al., 2011). They become increasingly important in the mobilization of collective action by ordinary citizens, also in the context of the refugee crisis (Haaland and Wallevik, 2019). They facilitate self-organizing fostered in the information space of a microblogging environment, where collaborators are newly found and distributed across continents (Starbid and Palen, 2011). That digital platforms in the form of social media afford users an opportunity to communicate and build alliances that were previously non-existent is proof that such platforms were key in the establishment of teams and mobilization for collective action. The technologization of action, which is the use of the internet as a vehicle for public action has simplified engagement with humanitarian causes and birthed solidarity (Pantti, 2015).

*I knew *** and I had her on Facebook. Before it started around friends, she was writing that she needs someone who can cook. And someone who drives the soup to the main station. It was natural, I wanted to help, so I joined the people who I know. (Participant, 9)*

At the core of digital platforms is information creation and movement which is the basis for social connection and subsequent collective action (Starbid and Palen, 2011). People were initially mobilized to be part of different teams attributable to their social media engagement and would move from online engagement to practical collaborative action. A repertoire of images and stories about distant suffering legitimizes the imperative to act on vulnerable others as the moral order of modernity (Chouliaraki, 2013). CAAs used social media affordances to share images and stories thereby getting results in the form of development of teams for collective action.

Conclusion

There are five main areas on which a humanitarian organization may focus: delivery, targeting, output, service, and strategy (Obrecht, 2019). Notably, CAAs successfully met these focus areas largely through their active utilization of different digital platforms and technological solutions. Part of their strategies to sustain their activities was reliant on digital platforms and their affordances. Some of the activities attained by CAAs would not have been achieved in the same manner in the absence of digital platforms' infrastructure. Affordances are understood to be descriptive of the interplay between humans and social or technical items and how they either facilitate or constrain actions to attain specific goals (Bygstad et al., 2015). However, these possibilities for or possibly constraints to action can only turn into actual actions when affordances are actualized (Sæbø et al., 2020). CAAs interviewed in this study understood the possibilities that arose within digital platforms and utilized them to attain the goal of delivering aid to affected populations. Digital platforms' usability by citizen aid actors proved convenient as they provided them with an arena to fundraise and disseminate information necessary for coordination of interventions. They also facilitated the recruitment and selection of volunteers, fostered transparency and accountability as well as mobilized people to act and build teams.

Digital platforms evidently played a central role in the life cycle of CAAs who responded to the Ukraine war-induced humanitarian crisis in

the Polish context. There is empirical evidence showing that CAAs embraced digital platforms and capitalized on their affordances to produce results. Whereas digital platforms can be credited for facilitating the establishment and operation of CAAs work, it is crucial to underscore that overreliance on digital platforms can equally be problematic in more than one way. All aid programs are prone to risks, and here is a risk of misdiagnosis or oversimplification of development problems (Schnable, 2016). However, largely relying on digital platforms for the ultimate output of humanitarian aid may not be sustainable.

Given that digital platforms are now inherent globally and that their affordances cannot be wished away, an arising question is how best they can be utilized in a manner that ensures the sustainability of humanitarian aid. Rather than overlooking the role of digital platforms in the lifeworld of CAAs based on how problematic they can potentially be, considerations should be made to equip and strengthen citizen aid actors with better and less risky ways of incorporating digital platforms in their work. Safety measures must be established when assessing potential allies, bearing in mind that in times of crisis, cases of abuse and trafficking will also go on the rise. Users' resolve should be enhanced online to push back in the face of trolling and fake news for the maintenance of positive perceptions which are of assistance for garnering public support and fundraising.

Data availability statement

The datasets presented in this article are not readily available because the raw data used to support this paper are not publicly available and this is due to restrictions concerning information that may compromise the anonymity and privacy of research participants. Requests to access the datasets should be directed to <https://sikt.no>.

Ethics statement

The studies involving humans were approved by the Norwegian Agency for Shared Services in Education and Research. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

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