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Role of Translation in Disaster Response

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Abstract: In this article, we highlight and discuss in detail the role of translation transnational during and in response to a crisis. Translation practices and readiness are critical for multilingual and transnational communities to survive during and respond to disasters (Marlowe, 2020). The translation of information is crucial to the survival of the communities that are marginalized within their own countries due to their linguistic diversity. And yet, this is not an area often studied or considered, even though we understand its importance (O'Brien, 2019; Gonzales, 2018; Agboka, 2013). Hence, we present an analysis of the work of “knowledge workers” (Baniya & Potts, 2021) during the current Russia-Ukraine war to showcase how translation work happens at an intersection of digital platforms, multilingualism, and social justice.

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Introduction

On February 24, 2022, Russia launched a war against Ukraine. Russian President, Vladimir Putin, announced a special military invasion in Ukraine. More than a year has passed since the invasion that has killed thousands and displaced millions of Ukrainians across Europe and the world. The constant threat of violence, and bomb threats, have continued in Ukraine, despite the outcry of the world to stop the war. In the midst of the Russia-Ukraine War, there was an increasing demand for translation and learning of the Ukrainian language, as people were being displaced by the war to other countries. Duolingo, a language learning app, released a statement saying that “Since the start of the war in Ukraine, the number of people studying Ukrainian on Duolingo has increased 577% globally (data as of March 2022)” (*Standing with Ukraine*, 2022). Likewise, there has been an increasing demand for volunteers who can translate, professional translators, and interpreters, as they are required for the crucial transformation of the information such as food, transportation, and relief. The high demand for translation required during the current war demonstrates how platforms, organizations, and multilingual people all need to work together to share information for the community. Such information can facilitate accessing relief materials, transportation, and safe spaces for those who are facing the direct impact of war. The translation of information is crucial to the survival of the communities that are marginalized within their own countries due to their linguistic diversity; and yet, this is not an area often studied or considered, even though we understand its importance (O’Brien, 2019; Gonzales, 2018; Agboka, 2012).

Currently, the translation work of participants in the Russia-Ukraine War shows up on popular platforms like Facebook, Twitter, Tik Tok, and Instagram. Even the President of Ukraine, Volodymyr Zelenskyy, and some other ministers, are seen translating their social media feeds mostly into English. Likewise, this war in the current digital world has showcased how the use of internet and digital devices can spread misinformation and also allows people to build communities to resist the war. Drew Harwell and Rachel Lerman argue that “Ukraine has in many ways begun to beat Russia at its own game, using constant, colorful communication to foment a digital resistance and expose its aggression on a global stage” (“How Ukrainians Have Used Social Media to Humiliate the Russians and Rally the World,” n.d.). While the resistance continues, the translation of information has become crucial to the surviving Ukrainians as they move to various countries across the globe. Since February 2022, the everyday lives of many Ukrainians (and a multitude of multilingual individuals) have been dedicated to translation. Given this context of the war, in this article, we highlight and discuss in detail the role of translation during and in response to a crisis. Translation practices and readiness to translate are critical for multilingual and transnational communities to survive and respond to disasters (Marlowe, 2019). The increasing linguistic and cultural diversity of growing communities requires the translation of information to reach these communities across the globe. In the Russia-Ukraine War, volunteers have dedicated their time and expertise to translating official government bulletins, news reports, and first-person accounts of victims. Additionally, there are organizations that are working towards supporting Ukrainians who require translation. Such an increase in translation is seen not only in the integration of people taking refuge into another community or countries but also in health care, education, and/or research (Team, 2022). Such information on where to locate social services, which housing options are available when taking refuge, and how these journeys unfold can help support others within the war and

outsiders who are eager to learn how they can help. Alexander and Pescaroli (2019) argue that “in the so-called information age, much effort has been devoted to the physical mechanisms of communication but, remarkably, much less attention has been given to the use of language and issues of comprehension in crisis situations” (p.145). Even though the translation of technical information is crucial in the midst of a disaster and localization of technologies is important (Dorpenyo, 2019), such work is rarely represented and is often dismissed. Only recently have scholars focused on these ecosystems of disaster communication including translation as an important aspect of disaster response (O’Brien, 2019).

In this article, we aim to highlight the importance of translation in crisis communication and to demonstrate how that work exists as a form of transnational technical communication. Issues of trust, understanding, and efficacy are critical to understanding how we can best support those negatively impacted in times of war (Cadwell, 2019). Furthermore, we present an analysis of the work of “knowledge workers” (Baniya & Potts, 2021) during the current Russia-Ukraine War to showcase how translation work happens at an intersection of digital platforms, multilingualism, and social justice. And while our technology systems may not be where we need them to be in terms of usefulness in sharing accurate information via various translating technologies (O’Brien, 2019), our work as technical communicators continues. We ask the following questions:

- How can we recognize translation work as playing a crucial role in communicating complex information and implementing social justice during a crisis? Relatedly:
- What roles can transnational technical communicators play in translating information during a crisis?

Our Positionalities

Our positionalities have a significant impact on the kinds of research we do, the ideas we seek to understand, and the phenomena upon which we focus. In this section, we will outline these positionalities and how they influence our work. We hope that this discussion will shed some light on our own influences, biases, and concerns as researchers and human beings. Although there are significant differences in our approaches, there are several factors that unite us as co-authors according to our author bios. We are academic researchers with PhD degrees, with tenure-stream positions at institutions where we receive support to undertake our research. In the field, Liza has been publishing disaster-focused research since 2007 and has published a monograph and several other publications on this topic. Likewise, Sweta is an emerging disaster researcher who is focused on contemporary conversations about supporting marginalized communities during times of disaster across the globe.

Studying how people communicate during times of disaster without having to be physically in the middle of these disasters ourselves is a point of privilege and safety. When we are writing about a mass shooting, a tsunami, or a massive earthquake, we are doing so from the cloisters of our campus offices. That said, we have survived various disasters and have often dealt with the after-effects from analyzing many of the most heinous ways humans have learned to harm each other. From outside of these blast zones, our work to study disaster as an often emergent, universally urgent, emergency use of technology under extreme pressure has enabled us to call

for better communication tools, more humane policies, and the tearing down of several walled gardens—the closed ecosystems, both technologically and policy-based, that platform owners have relied on for information gatekeeping.

In the case of the Russia-Ukraine War, we are certainly outsiders. Neither one of us is from Eastern Europe, although one of us can trace their ancestry to this area of the world. Neither one of us knows the leaders on either side, although one of us shares similar backgrounds and minority statuses. Finally, neither of us personally knows the journalist and academic whose work outlined in this case study is an example of how translation can change how information flows across digital platforms. As outsiders, our positionalities can certainly influence our own perspectives in this research and analysis of the role of translations; and yet, sharing in our commonalities¹ with leaders, citizens, journalists, and academics can also influence our perspectives in making arguments of how socially-just ways of disaster communication can include translation activities.

Our backgrounds as communicators matter even more with regards to how we experience languages, identities, and translation. Such matters are intrinsically linked to the human condition, especially in terms of disaster communication during times of war. We have worked as journalists and technical communicators, and in that work, we have engaged with translators and localization specialists. Sometimes we were those translators and localization specialists. Through our research groups, we have worked directly with those affected by disasters, sometimes including them as co-authors. We grew up in multilingual households, separated by thousands of miles and many more nations. Across all these experiences, we have gained an appreciation for language and how it is tied to identity, and we have strived to ensure that local, on-the-ground voices are included, if not centered, in our work.

Localization, Translation, Technology in Crisis

Technical communication scholars have stressed the fact that localization is a crucial factor in communication. Globalization has created opportunities for the interaction of multilingual languages, cultures, and contexts; translation and translators become very important in this process. Bruce Maylath et al. (2015) argued that translators and other international professional communicators operate as mediators to facilitate understanding across global and local contexts through diverse communication channels (p. 3). Translation happens in both official and unofficial settings and in a multiplicity of contexts, mediums, and platforms. Tatiana Batova & Dave Clark (2015) defined translation as “an attempt to duplicate meaning interlingually to produce the same meaning in a different language simply by replacing the words from one language with those of another” (p. 3). This attempt at meaning-making and negotiating differs contextually from countries, organizations, societies, and also in people’s everyday lives. Laura Gonzales (2018) refers to such communicative negotiations as “translation moments,” which is a way to better understand how language fluidity is enacted in professional and academic contexts and how the histories, lived experiences, and rhetorical abilities of all communicators are situated and deployed through their cultural languaging practices (5). Translations are rhetorical. The work of translation can be grounded in social justice by localizing translations within

¹ Given the current climate of racism, anti-immigration, and antisemitism, many positionalities are certainly more dangerous to document in detail.

multiple tools and technologies that support linguistically and ethnically diverse community members (Sun, 2020; Agboka, 2013; Gonzales & Bloom-Pojar, 2018). In this article, we describe how grounding translation work in social justice across social media platforms is critical to supporting the most marginalized and vulnerable communities by providing communication channels. Through various examples from use during the Russia-Ukraine War, we seek to explain the importance of translation in context during times of disaster.

The localization of translation during a crisis becomes crucial because crises are contextual to the area and people they affect. As Baniya (2022) argues, local disasters are a global concern such that the physical or infrastructural damages of a crisis are localized, and their larger implications are of a global nature that invite the global community to participate in supporting the local. Hence, in such a case, the translation of any information becomes very crucial and a medium to do socially-just work in the community where members cannot understand the language. Technical and Professional Communication (TPC) scholars have stressed how localization is an important element in crafting clear and useful communication. During high-stakes situations, such as disasters, localization is even more important to contextualize information when it is needed most. Batova and Clark (2015) argue that “Localization, in contrast (to translation) is the attempt to meet both linguistic and cultural expectations by transferring the meaning of technical texts interlingually and intralingually such that it adheres to the cultural, rhetorical, and other characteristics of the global audiences” (p. 3). During large-scale disasters, life-saving information should be provided to the survivors and often the most marginalized and vulnerable members of the community need such information. For a disaster like a war, where people need to flee and take refuge in countries where the language, culture, and traditions are completely different, such localizations are imperative for linguistic integration.

Translation in a disaster is a topic that has been discussed often in various fields of social sciences. In technical communication, scholars dedicated to internationalizing the field have focused on the importance of translation in various contexts: entrepreneurial, educational, business settings, human rights, and voting, among others. Translation becomes crucial in communicating emergency messages and warnings because a lot of multicultural communities, which can often comprise Indigenous populations and recent migrants, may not understand the official languages of the state government (Ogie and Perez, 2020). The lack of translation of emergency messages and communications might lead to communities not having access to information that can save their lives, not having food or medical supplies, nor any kind of emergency assistance that is required. For example, undocumented workers, refugees, and recent immigrants are already vulnerable, and sometimes, the local people in multilingual communities suffer from misunderstandings and miscommunication. Santos-Hernández and Morrow (2013) share how the use of the English language in Puerto Rico led to misunderstandings by school students during drills for tsunami evacuation and shooting emergencies. Likewise, there have been issues recently with the messages related to COVID-19 and its effects especially during the first wave when there was a lot of confusion regarding the disease. As a result of this, we have seen a series of literature on misinformation. When the translation is not localized, properly constructed, and contextualized, there is a danger of perpetuating misinformation. Zhang and Wu (2020) state that translation played a key role in helping front-line medical staff and emergency response workers in Wuhan, China to understand the quality standards of foreign medical products so as to accurately judge the application scenarios of donated and procured materials

and quickly put them into disaster relief (519). This shows that translation is not just important in sending messages and information but also in actually using products and materials during a disaster to appropriately and accurately meet the needs of the communities.

Furthermore, we are well aware that technologies and algorithms can be biased and platforms often target those who are able-bodied, English speakers. In these emerging technologies, Halcyon Lawrence (2020) also illustrates that translation not only encompasses the transformation of words from one language to another but also necessitates an awareness of racial biases embedded in emerging technologies (as quoted in Gonzales and Nur Cooley in CFP). New emerging technologies that have allowed humans to communicate with each other have created biases as well and have made the practice of translation difficult while privileging certain races and prioritizing those who speak only a very specific language—standardized White English. Caldwell and O'Brien argue that there are various forces at play during disasters, such as power, network, capacity, infrastructure, location, income, language, and culture that can create an environment where information and communication technologies are used. In addition, when technologies are biased, they create issues of inequity and injustice. Translation technologies, such as google translate and others that are not contextual, often distort syntactical and contextual meaning. While there are technologies that allow voice translation, written translation, translation of web pages, etc., the audiences are bound to make their own meaning in non-disaster situations, that might not be high stakes. However, when there is a high-stake situation like a disaster, then such dysfunctional technologies will actually be harmful to vulnerable communities.

Understanding the Crisis Landscape

Finding accurate and useful information during times of disaster is crucial, both in terms of those in need, those who can help, and the broader appeals of support made by community organizers, activists, and government officials. To understand how these systems of disaster response operate within social media platforms, we needed to analyze the ways in which technology is driving these discussions and how those implementations can overdetermine user experiences. Often, this work is absent from a broad understanding of how everyday people participate, interact, and expect to communicate online. Examining the platforms Twitter and Facebook as communication tools during disasters, we decided to map some basic use cases, consider the ecosystems that often appear during a disaster, and conduct a Landscape Analysis to compare these structures and experiences. To undertake this work, we relied on a body of knowledge about how disaster communication happens in situ for particular locations, cultures, communities, nations, and peoples.

A Landscape Analysis is “a method for researching user experience architecture in a consistent and comprehensive way” (Alvarez et al, 2021). Sometimes referred to as a comparative or competitive analysis, this method is often used when assessing technologies, considering new features, or reviewing existing markets. Given the scope of the analysis, the researcher begins by collecting publicly available information about their competitors, such as market data, rankings, and reach. For example, if a company wanted to improve its music streaming platform, they would gather information on these competitors specific to how they might want to improve their experience and increase their market share. Focusing on particular heuristics, or guidelines for interfaces and experiences, the analyst can measure whether (or not) a given process, feature, or

overall technology measures up to their competitors and expectations. Examples include comparing the accessibility of a site, the style and form of social media posts, or the representation of diverse voices across platforms. Researchers can ask questions about what each competitor is doing and compare it to their own site. Often, the results of these exercises are delivered in slide decks or documents as methods for understanding the landscape of an organization's competitors or partners.

In order to look at how translation happens, we needed to map the ecosystem of activity across multiple social media platforms. We focused on Twitter, Facebook, and several independent websites that were providing content related to the Russia-Ukraine War. This mapping included pinpointing activity in terms of scale (how many participants, posts), as well as interest (what posts were garnering attention from other participants and even the mainstream media). We mapped out several ways in which technologies, peoples, places, organizations, etc. intersect during these moments of extreme crisis and concern as noted later in this article (see Fig 4). As technical communication researchers concerned with online communication, the larger ecosystem is at the core of our focus, although we spend more time describing this use from the perspective of platform use.

After this mapping exercise, we looked across multiple digital spaces to understand the various mechanisms employed by translators. In examining the content and experiences across these platforms, we focused on 1) consistency of translations, 2) varieties of English type, and 3) reliability of these translations during a moment of crisis. To collect this data, we examined how each site handled language settings within their interfaces, what options they presented to the users, and whether the platform owners acknowledged their translation mechanisms. We also looked at how volunteers were translating and sharing content across these platforms, independently of whatever the platform was attempting to translate (often automatically without context).

Examining the Landscape

Looking across these platforms, it is evident that technology leaders are trying (and failing) to create automated systems to translate content. There are a variety of engines they are using to do this work, in addition to many starts and stops for crowd-sourcing translation of the platforms themselves and using artificial intelligence to translate user-generated content. Across all of these experiences, people are often left without clearly-translated content, much less content that is contextualized for a given moment, a particular community, or a specific culture. Hence, that is when the knowledge workers step in. Below, we present the results from the Landscape Analysis:

1. Inconsistent Translation Mechanisms

Based on our analysis, we found that there is inconsistency in translation across the platforms and that such inconsistency reveals that different meanings are presented via different platforms, which makes the meaning-making process during a crisis extremely difficult. Moreover, the lack of contextual information about very specific disasters creates barriers to accessing and comprehending such information. In addition, when we consider marginalized and vulnerable

communities who need translated content for their immediate survival and their future well-being, inconsistent translation hinders their access and survival. Additionally, our analysis found out that since most of these translations are mediated via machines, there is a lack of contextualization and such lack of contextual information creates friction. Rich Rice and Kirk St. Amant (2018) highlight that while working with global audiences there are three main points of friction that can affect access, comprehension, and action. Inconsistent translation mechanisms can create higher levels of friction regarding how users access the information, how they will comprehend when translations give different meanings on different platforms, and how they can act if they are unable to make meaning out of what is communicated to them. For example, Facebook seems to understand limitations and issues:

“Automatic translations aren’t available for ads about social issues, elections or politics. We recommend that you review all translated text because we don’t guarantee the quality of automatic translations.”

While Facebook has this disclaimer, this disclaimer is not helpful in the context of when people require support in a crisis. Moreover, our analysis of Twitter reveals that Twitter is more of a black box of translation. It has the following information about the translation of the tweets in the form of bullet points:

- If a translation is available for a Tweet, a Translate Tweet prompt will be visible directly under the Tweet text.
- If you see the link, click or tap the link to expand the Tweet.
- A translation of the text in the Tweet will appear below the original Tweet.

These three vague bullet points ask the users to infer language knowledge and use with zero context or understanding of behavior or the use. Moreover, the function of Twitter asks you to manage the languages on Twitter based on your activity and the accounts you follow or the tweets with which you engage. Figure 1 showcases the settings of Twitter in how the platform suggests languages based on how you interact. However, the mechanism of translation is not as robust and it also depends on machine translation, similar to Facebook. We know that there is evidence and research that suggests a lot of people use social media during a crisis (Potts, 2014; Baniya, 2022). In this case, it would be beneficial for the community to have consistent translation mechanisms that would make it easier for the community surviving disasters. Such social injustice requires “coalitional action, collective thinking, and a commitment to understanding differences that are not necessarily demanded by other technical communication problems (Walton et al.). While everyday people, activists, and first responders are working to improve these situations, most of these improvements are in the hands of platform owners. Most of these improvements are in the hands of the platform owners, who benefit from the people using their technology. Therefore, it is these platform owners who need to work collaboratively in order to tackle this global issue of needed translation improvement.

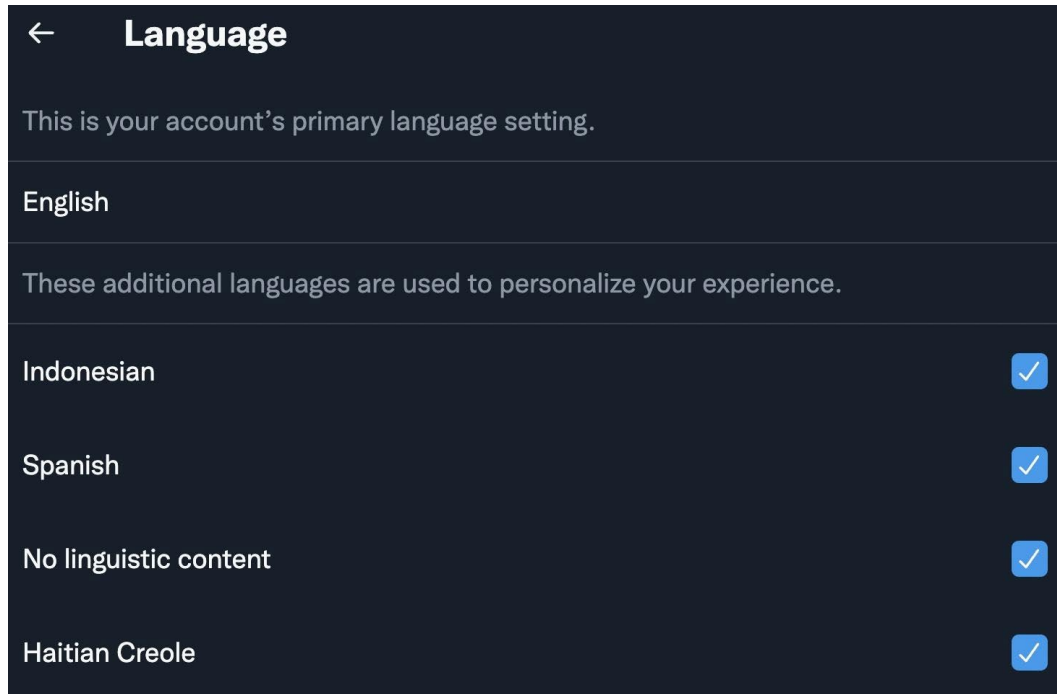


Fig 1: Twitter's language setting

Furthermore, challenging these inconsistencies (such as on Twitter and Facebook), the knowledge workers are using platforms to support communities by translating. Figure 2 showcases an example of the translation of Ukrainian to English from a Facebook group established by Polish volunteers. The examples of automated translations showcase that if the sentences are short, then the translation is accurate; however, if sentences are long, then translations are not that accurate and actual humans need to jump in to provide context. We can see that there are multiple types of translation needs that have been requested in the group, such as marriage certificate translation and medical needs. However, the last automated translation does not seem clear on what is being requested.

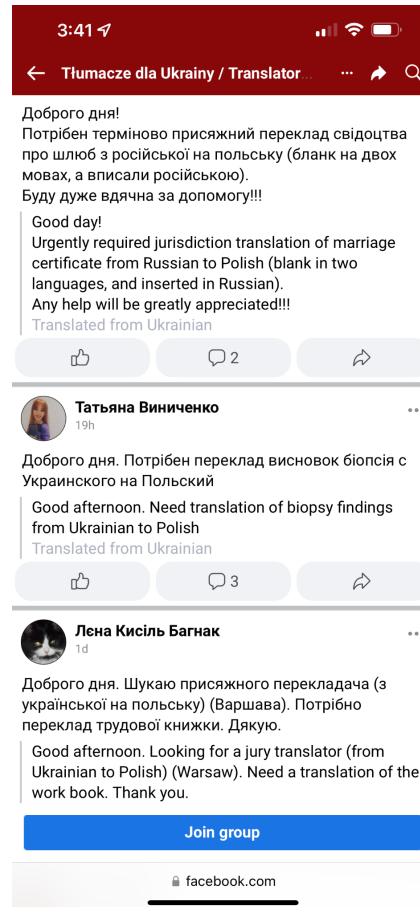


Figure 2: An example of Facebook’s automated translation of the Ukrainian language, a work of knowledge workers. The Facebook group is an initiative of Polish volunteers (<https://tlumaczedlaukrainy.pl/kontakt/>).

In the context of the Russia-Ukrainian War, such translations are required not just for informational purposes but also for navigating health, citizenship, refuge, and surviving the consequences of war. There are knowledge workers who step in to provide translation services. One such organization, “Translators for Ukraine,” was formed immediately during the Russia-Ukraine War. The website was developed in 2022 and it states, “An initiative of Polish associations of translators, aimed at linguistic assistance in contacts with people affected by the war in Ukraine” (“Translators for Ukraine”). Figure 3 showcases a screenshot of their homepage, where they have a list of public volunteers. There are organizations such as Translators Without Borders, crisis translation, and a list of translation volunteers that are available for translation of information, medical documents, etc. At the time of this writing, over 1300 volunteers were listed on the Translators for Ukraine site. As well, their website provides information about various bilingual documents and contains Facebook and LinkedIn groups. However, there is no mention of the Twitter account. These knowledge workers are either volunteers or service providers who aim to support the communities in crisis.

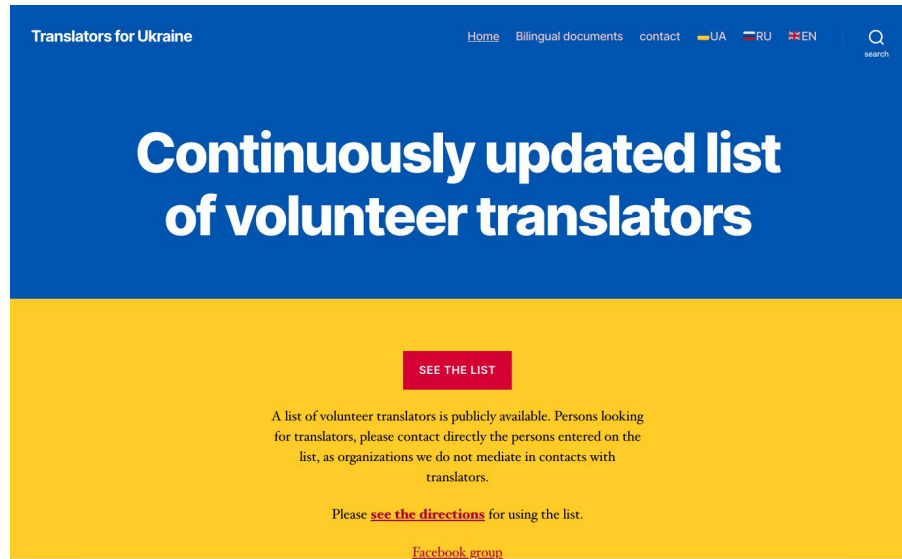


Figure 3: Screenshot of a web-based platform. “An initiative of Polish associations of translators, aimed at linguistic assistance in contacts with people affected by the war in Ukraine” (About <https://tlumaczedlaukrainy.pl/kontakt/>)

Technologies are able to play the mediating role of translating information quickly. However, in many respects, while it is excellent that these features exist, technology leaders have much more that they need to consider to translate, localize, and globalize their platforms. In this context, they require actual humans who can use these technologies to translate and work swiftly across the platforms. The examples demonstrate that people are not relying on the technologies alone, but that they are relying on each other and creating communities across borders to offer support.

2. U.S. English-Centric Translation

Technologies and algorithms are biased (Noble, 2018). During times of war, such biases can lead to excruciating circumstances that can at best cause difficulties in communication and at worst endanger people’s lives. Our analysis of the translation mechanism further validated this concern that all the machine-oriented translations were U.S. English centric (standardized White American English) and there was a lack of culturally-specific translation. Lack of culturally-specific translation means that localization in translation is not happening. The localization approach is expensive for these companies, even though this approach has clear rhetorical and financial advantages over translation alone, as Batova and Clark (2015) argue. Such localization actions should be embedded in the translation practice that is required during the time of disaster. This is because it helps in developing socially just communication practices that take into account linguistic variations, cultural nuances, and will help support the most marginalized and vulnerable populations during a disaster. This approach supports disasters such as war as it can help in the transformation of the information that eliminates the need for increased user support (McCool, 2006). When a translation is not localized, it creates a bigger barrier for the users to access, understand, and act. The lack of context for this information creates such at a time when such barriers must not exist. Therefore, we need a socially-just mechanism that can support translation, rather than create further roadblocks for these communicators.

On the surface, Facebook is providing more ways in which content strategists can deliver content to a diverse set of audiences. Through their translation systems, authors can not only select particular languages but can also focus on individual regions. The options on Facebook are far more complex than what we are seeing on Twitter, but the tools are most robust in professional accounts, often for advertising. People experiencing disasters, and those who are trying to provide support to these people, are typically everyday individuals and not professional or brand accounts. We need use cases for this kind of knowledge work, undertaken in situations where the account holder is someone with local knowledge communicating to those who may or may not share that same understanding, language, and dialect. In this case, the knowledge workers who emerge in disasters like war can help and support communities to contextualize such information. In the case of the Russia-Ukraine War, we have seen not only volunteer experts but also actual translators who have translation work as their profession. Additionally, we have seen organizations like the Institute for Translation and Interpreting from the UK which are raising awareness about the linguistic integration of the refugees and their children. They provide an abundance of educational, legal, and social resources for the knowledge workers. While the platforms are not thinking of such linguistic integration and justice-oriented translations, knowledge workers are using these platforms and modifying them and conducting the work of translation.

Approaching International Disaster Communication

Our results reconfirm that when we require swift, easy, and instantaneous translation in disaster, our technologies fail. In particular, social media platforms see major spikes in usage during disasters, as those affected seek out information. Unfortunately, so many of these platforms have clunky systems that make attempts at rudimentary translation, with few interventions based on localization and cross-cultural communication. While such translation mechanisms do exist (such as Google Translate or other platform's automated translations), oftentimes such meaning-making helps people communicate. That said, these mechanisms could not keep up with the needs of the millions of displaced Ukrainians forced to relocate during the war. As a result, a lot of volunteer organizations, entities, and groups are constantly requiring the support of translators who are able to provide support as people take refuge in various countries. In this case, we can see translation as being a social justice work that invites people to engage with injustice, challenge it, and possibly end it. (Gonzales, Bloom-Pojar 2018; Walton et al., 2019)

In Figure 4, we illustrate how we can map out these kinds of use cases, ones where a multitude of people, organizations, systems, technologies, locations, places, and spaces collide during times of disaster. We use the placeholder of "things" to account for variables in particular disasters, not to discount these issues or add to an already vague situation. By examining these extreme use cases - how translation happens during times of disaster, technology experts can work to create digital experiences that support survivors, family, friends, interested parties, and emergency personnel - we can begin a conversation about issues of power, equity, and justice. When there is no guarantee of translation of the information from one language to the other, then how do we ensure that the information posted is actually serving the communities? Hence, we need to rethink how applications conduct machine-oriented translations and how we need people-centric and contextualized applications that support justice-oriented translation during disasters. Social justice-oriented translation during a disaster helps in prioritizing linguistic integration and linguistic justice by localizing translation (Walton et al., 2018; Baker Bell, 2020).

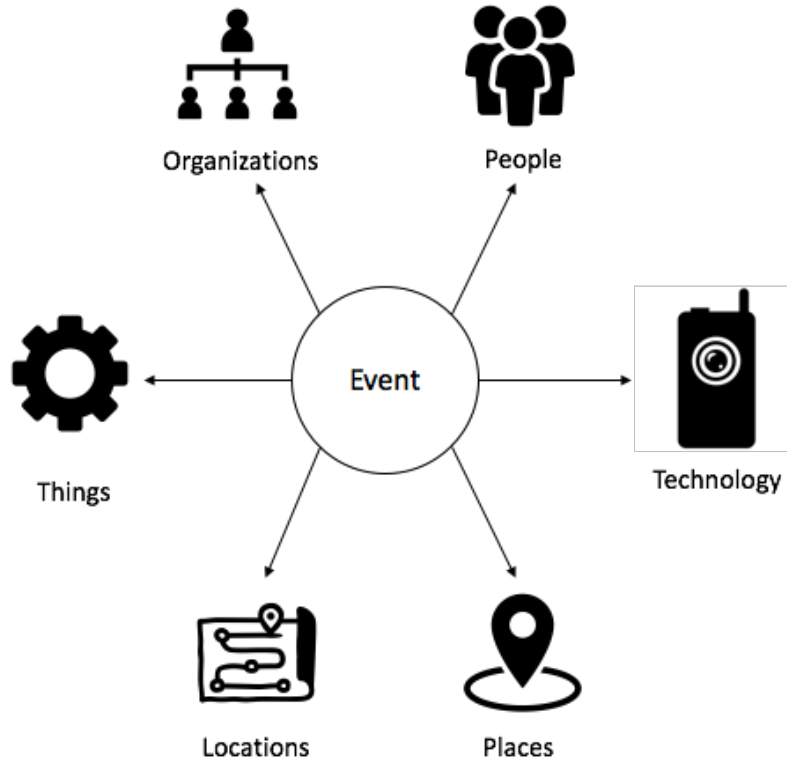


Figure 4: Mapping organizations, people, technology, things, locations, places can help us better see who is affected during a disaster, what locations are connected, the technologies available, and the spaces where people are collaborating online.

Our results suggest that the systems design of social media platforms is not inherently open to translation. The primary behaviors are very U.S.-centric, often prioritizing that use over other populations, cultures, groups, and peoples. This is inherently problematic because when communities, their cultures, linguistic variations, and contexts are not prioritized, injustice prevails. Rachel Bloom-Pojar's concept of translation spaces, which integrates textual spaces, as written and spoken discourses helps language users to negotiate between different modes (spoken/written, verbal/non-verbal), languages, and institutional and communal discourses (25). Integrating translation spaces by Bloom-Pojar and translation moments by Gonzales will help how decisions are made by a user via their lived experiences and cultural knowledge to enact rhetorical strategies that will help in the accuracy and clarity of information that audiences need during disasters (Gonzales & Bloom-Pojar, 2018). Such integration might be able to identify differences, create space for marginalized communities to thrive and survive, and help in establishing easy mechanisms for disaster relief efforts. In the design of social media platforms, the focus on translation with localization and incorporating the communal discourses of the local places, the culture can look like inclusion of the dialects, cultural nuances, images, and descriptions. Platforms can target communities and incorporate their linguistic variations and culture into the design process and integrate them into translation applications.

Conclusion

While translation plays a significant role in disaster and crisis communication, our technologies do not support accurate translation. However, technical communicators who have expertise in multiple languages can support this kind of work by grounding themselves in an act of translation in crisis as a social justice action. Contextualizing experiences based on disaster, crisis, and urgency, translation systems are often out of step during disasters and create more complexity in how messages are spread on various platforms. Hence, while we wait for the platform leaders to act, we believe that technical communicators who assist in mediating and translating during disasters can play a greater role in supporting translation spaces and translation moments while communicating information. Such a role can be envisioned by understanding the linguistic needs of the community suffering from disasters and implementing communications that include linguistic variations in order to address the needs of the communities. Additionally, creating and adopting social justice-oriented translation practices that localize the translation by considering cultural, linguistic, and the disaster context is very important. Hence, technical communicators can create such deliberate strategies to tackle the issue of translation in times of disaster.

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