
War and Technologies

Open Access Teaching Case Developed for the Tech for Humanity Pathways Minor

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Prepared by Dr. Sweta Baniya

Background

On February 24, 2022, Russia initiated a war against Ukraine, which is still ongoing at the time of this article's writing. This is not the first time that Russia has invaded Ukraine. In February and March of 2014, Russia occupied and subsequently annexed the Crimean Peninsula from Ukraine. While there was speculation of war, no one had expected that the Russian President, Vladimir Putin, would announce a special military invasion of Ukraine despite an outcry from the world to not do so, and began bombing cities. Volunteers from around the globe, specifically in the border nation of Poland, have dedicated their time and expertise to organizing disaster relief efforts, helping Ukrainian people cross the Polish border, and translating official government bulletins, news reports, and victims' first-person accounts. Ukrainians and their President, Volodymyr Zelenskyy, have persistently fought Russia to defend their homeland. In a 2022 article for *The Washington Post*, Drew Harwell and Rachel Lerman write 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." Larger online communities are supporting Ukrainians in their digital resistance and urging them to flee the war by organizing various campaigns and rescue operations as well as volunteer translation groups and services. This case study highlights and showcases the rise of the need for translation and how online communities have responded to such a need during the Russia-Ukraine war.

During the onset of the war, as with many other disasters, people across the world came together to support the Ukrainians. President Zelenskyy was seen sharing videos and photographs of the ongoing struggles his nation was facing, encouraging the world to support

Ukraine during the crisis. Zelenskyy also launched UNITED24, a global initiative that has become the main venue for collecting charitable donations and support for Ukraine. Their website suggests that the donation will be transferred to the National Bank and explains that donations will be used towards three different efforts: Defense and Demining, Medical Aid, and Rebuilding Ukraine. There is also a section on the website that showcases Ukrainians' urgent needs, which include drones, a rehabilitation center, ambulances, computers and tablets for students, and reconstruction materials. Another website launched by the Ukrainian government has encouraged the international community to enlist in the "International Legion of Defense of Ukraine" (www.fightforua.org). This website asks non-Ukrainian nationals to join Ukrainian forces and fight against Russia under the following conditions:

- If [their] citizenship is other than Ukrainian, but [they] are standing with Ukraine Against the Russian Invasion
- If [they] want to Actively participate in Fighting for European Freedom and Democracy
- If [they] have Combat experience

In addition to creating the websites described above, President Zelenskyy has also utilized international platforms to motivate global leaders to support Ukraine and stop the Russian invasion. Humanitarian organizations, governments, and even celebrities have called for an end to it. This demonstrates that the Ukrainian war has been brought to the forefront of world citizens' minds. Unfortunately, the war continues. More than two years have passed since the invasion that has killed thousands and displaced millions of Ukrainians across Europe and the world. The constant threat of violence has continued in Ukraine, despite the outcry of the world.

Case Study

Translation Technologies During the Russia-Ukraine War

During the Russia-Ukraine war, demand increased for translation and platforms for learning the Ukrainian language, as people were being displaced by the war to other countries. Duolingo, a popular language learning app, released a statement saying, "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 was increasing demand for volunteer translators, as well as professional translators and interpreters, as they are required for the crucial transformation of information such as food, transportation, and relief. The

high demand for translation during the current war demonstrates how technological platforms, organizations, and multilingual people all need to work together to share information with 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; Agboka, 2012).

How Are Technologies Used for Translation?

Currently, the translation work of digital technology users in the Ukraine-Russia War shows up on popular platforms like Facebook, Twitter, TikTok, and Instagram, where the primary language used is English. Even the President of Ukraine and some other Ministers translate their social media posts mostly into English. While the resistance continues, the translation of information has become crucial to displaced Ukrainians as they migrate to various countries across the globe. The everyday life of many Ukrainians and multilingual Ukrainian speakers since February 2022 has been dedicated to translation. 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.

This digital-era war has showcased how the use of the internet and connected devices can help people to build communities of solidarity and resistance. Harwell and Lerman write that "Ukrainians have also shared online tactical guides on how to dodge sniper fire, block roadways and make Molotov cocktails, sometimes alongside memes saying the Russians will find them 'very delicious'" ("How Ukrainians Have Used Social Media to Humiliate the Russians and Rally the World," n.d.).

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, some organizations are working towards supporting Ukrainians who require translation. Such an increase in translation is seen not only in the integration of people taking refuge in another community or country but also in health care, education, and research (Team, 2022). Translating information on where to locate social services, what housing options are available when taking refuge, and how these journeys unfold can help support those affected directly by the war and

outsiders who are eager to learn how they can help. Alexander and Pescaroli (2019) observe 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 crises.” Even though the translation of technical information is crucial amid a disaster and the localization of technologies is important (Dorpenyo, 2019), such work is rarely represented and often dismissed. Only recently have scholars focused on these ecosystems of disaster communication included translation as an important aspect of disaster response (O’Brien 2019).

Humans, Technologies, and Translation

Responding to increased necessity for translation, various crowdsourced multilingual communities have stepped in to provide translation services. One such organization, “Translators for Ukraine,” was formed immediately when the Russia-Ukraine war began in 2022. The website describes the group as “An initiative of Polish associations of translators, aimed at linguistic assistance in contacts with people affected by the war in Ukraine” (Translators for Ukraine: <https://tlumaczedlaukrainy.pl/kontakt/>). They offer a list of public volunteers who are ready to support Ukrainians for translation of information updates, medical documents, and other items, and they also link to Translators without Borders. At the time of this writing, over 1300 volunteers were listed on the Translators for Ukraine site. Their website also provides information about various bilingual documents and contains Facebook and LinkedIn groups.

Focus Questions

- 1) In your opinion, what is the role of translation technologies? What could the technology platforms do to support translation during the war?
- 2) Why do you think humanistic grounding is needed for translation technologies? Can you think of examples of where vulnerable groups might need translation during any kind of crisis?
- 3) As noted above, various translation technologies are based on a top-down model with very specific ways that make automated translations easy, but this might not be as useful for the communities who need translation to survive their daily life. In your opinion, what can the technology designers, and platform leaders (e.g., Facebook, Twitter, Google) do to design functional technologies?
- 4) What translation technologies have you come across in your daily life?
- 5) How have you used the translation technologies and in what context?

- 6) What has your experience been in using such translation technologies?
- 7) If you are provided with volunteering opportunities like translation in war and using technology to support communities, what would you be willing to do?
- 8) How do you think you can use technologies from afar to support communities in need?

Thematic Reflection and Discussion

Technology, Humans, and Translation

Technologies can play the mediating role of translating information quickly. While it is excellent that these features exist, technology leaders have factors besides speed to consider when translating, localizing, and globalizing their platforms. In this extremely sensitive context, they require actual humans who can use these technologies as a tool to translate and work swiftly across the platforms. The examples demonstrate that people aren't relying on the technologies alone, but they are relying on each other and creating communities across borders.

- 1) How do we support communities suffering through a war with the help of technology?
- 2) Describe the importance of human and technological actors in the case of the Russia-Ukraine War with a specific focus on translation technologies.

Inconsistent Translation Technologies

There are various translation technologies available currently on, for example, Twitter and Facebook. However, the translation technologies are inconsistent because they are automated and not contextual to how humans translate. Minako O'Hagan argues,

“Facebook Translations is essentially organized in a top-down approach in so far as its translation system is concerned and provides transnational functionality by breaking down the content into small chunks called strings (made up of words, phrases, or short sentences) that make each translation component a minimum unit of meaning so as not to daunt volunteer user translators” (938).

As a result of the “strings” approach, the automated translations are most accurate if the sentences are short; however, if sentences are long, then translations become less accurate. Human mental labor is required to translate more complex sentences correctly. People displaced by the Russia-Ukraine war need access to highly specific texts, including marriage

certificates, health records, and other family records, in order to navigate numerous bureaucratic processes.

- 1) Do you think this issue of translation hinders the rights of people? If you think yes, then please elaborate on why translation is linguistic right?
- 2) Search for the term "linguistic justice" and discuss how technologies can be enhanced to provide linguistic justice to communities that have been systematically harmed.

Facebook Activism in Translation

At the very beginning of the 2022 invasion a Facebook group was formed where people shared resources and information that allowed for material exchanges to happen. The Pomoc Dla Ukrainy group, created February 24, 2022, is a private group established by Polish volunteers to support people from Ukraine who have been forced to seek refuge outside of their own country, and to solicit help from others to support Ukrainian refugees in any way they can. The group now has over 576,000 members from all around the globe. What started as a volunteer group has grown into an online space where volunteers and refugees alike can either provide or receive help and information.

- 1) Read through various Facebook posts and discuss translation activities. Do you see what is happening within this Facebook group? Discuss.

Usability Testing of a Translation Technology

For the following exercise, please choose one of the various translation technologies available online. For example, you can choose Google Translate, Twitter, or Facebook. To conduct usability testing, partner with a friend and pretend that they are the representative users; then do the following:

- 1) **Find representative users** from the target population. Who is this translation application targeting?
- 2) **Ask the users to perform representative tasks** on the application. For example, if the end goal is a translation from one language to another, what are the small tasks that need to be done to complete the translation? For example: Opening the app, finding the language, adding the language, hitting translate, or taking a photograph?
- 3) **Observe what the users do.** Write down all the steps the users take, and whether they succeed or fail in performing the requested task. Don't provide any assistance to the

users - just let them solve any problems on their own and write down how they go about doing so.

- 4) **Summarize your results and write a 300-word report.** By observing several users, what have you learned about the design of this application? How might it be improved?

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