

## A call for a fair translatosphere in the post-digital era

**Mehmet Şahin & Sabri Gürses**

*Boğaziçi University, Turkey*

---

### **Abstract**

Advances in translation technology in the last century have transformed the translatosphere—the semiotic space where translators work and translations exist—in many ways. The increasingly digital nature of the translatosphere, predominantly controlled by big companies, has repercussions in the social, economic, and political realms, with direct consequences for human translators. In this article, we propose organizing the translatosphere in such a way that we can promote a more equitable and sustainable environment where automation plays an important role. We examine discussions on privacy and data protection, on translation tools, and on the dynamics of building such tools. We observe that the product of a translator’s work, translated text, has become digital data and that there is no guarantee these data will be protected. The intellectual property rights of translators are at risk, as their data are vulnerable to processing and even appropriation by major service providers. We aim to promote a healthy discussion on these pressing issues and propose ways to improve the translation space in the age of artificial intelligence.

### **Keywords**

translatiosphere, data protection, copyright, translation automation, machine translation

## 1. Introduction

### 1.1. Globalization, technology, and communication

Today's global interconnectedness requires translation service at nearly every turn. Despite global crises, regional disputes, and discontent with globalism (Stiglitz, 2017), it is clear that we live and will continue to live in a globalized world. New tensions between capitalist economies will inevitably arise as they compete for resources, but the technological infrastructure demands global interconnectedness. The current postmodern global economy is an economic space where virtually everything has been monetized.

This economy is closely related to the evolution of language teaching and its industry, which, since the 19<sup>th</sup> century, has moved towards globalization and figured into the imperialist and colonialist agenda of domination (Pennycook, 1998, p. 19; Ball, 2012). Today the English language has become the driving force of globalization, acting as the lingua franca of international relations, trade, and culture. After the foundation of the League of Nations in 1920 and then after the Second World War, international relations got more complicated, countries became codependent, and nations began to forge military, political and commercial alliances. Organizations such as NATO, COMECON, UNESCO, and the EU appeared. English has been the cement of almost all these organizations (Crystal, 2019, p. 86).

Still, as the world broke into two power blocks, Eastern and Western, access to and ownership of information became central problems in the language industry. This is why machine translation (MT) became a relevant pursuit; the 1954 Georgetown-IBM experiment was a turning point in this matter. The early years of the 20<sup>th</sup> century witnessed the evolution of wartime cryptography into cybernetics, computer science, and computational linguistics. From this integration of technology and science emerged automation and the basic standards of global mobile communication and production (Kline, 2015; Rubin, 2012). Cryptography studies, spurred by the military and economic competition between the Soviet Union and the United States, evolved into natural language processing, an integral part of which was MT. Computer programming languages were important steps on the long, complex road to creating artificial languages from natural languages, mainly from standard English (DuPont, 2018). The digital environment of data is English-centric:

With Global English as a precursor network and medium of late twentieth-century communication, computer languages maintain a parallel currency and legitimation. Like the reorganization of the *oil industry* after the influx of digital technologies, the old economy of English studies has itself been made new as the market focus for corporations, governments, and schools alike has shifted to functionality and efficiency, and specifically to the means by which information is retrieved, exchanged, and transmitted. (Raley, 2003)

Data, it is said, is the new oil (Humby, 2006), or even “the new nuclear power” (Bridle, 2018). The focus of the Georgetown-IBM experiment was on accessing data from Russian into English and translating it, a goal that continues to be critical in times of political conflict in today's world, be it data from China or Russia or North Korea. It is for this reason that we need to conceptualize today's online translation services—e.g., Google Translate (GT) and Yandex Translate—from a different perspective. The internet space in which they exist, and which makes every online text machine-translatable, has transformed the translatisphere.

## 2. The translatisphere

The translatisphere is the semiotic space where every text is either a translation or a byproduct of translation—be it translated or retranslated—to create new pieces of translation. In other

words, the translatosphere is a global network of texts that are translated or created through conscious or unconscious translational acts. Here, the concept of text is used in the sense that was used in semiotics by Juri Lotman and later developed by Itamar Even-Zohar (1979) and Hans Vermeer and Katherina Reiss (1984; 2014, p. 140) in translation studies. Text is the core unit of translation. Translation is a process that involves a dynamic interaction between source and target texts, and it is this process that creates the translatosphere, where translators, the texts they produce and their reproductions co-exist.

The translatosphere has been with us since the “technologization of the word” (McLuhan, 1962; Ong, 1982), from religious commandments carved in stone to messages carried by NASA’s vehicle to Jupiter. From the days of the Digital Revolution, the translatosphere has been shaped by digital data, which can be created, transferred, modified, and retrieved in ways that were previously unimaginable. The progressive mechanization of work that began with the Industrial Age evolved into an environment that limits or decreases actual human activity in production. By extension, the role of human agents in the translatosphere has also changed. In our post-McLuhan world, we witness humanless working environments that oblige us to accept human-aided machine translation and “cyborg translators” (Robinson, 1999–2000). We observe that the practice of translation involves more and more automation, which gives rise to a variety of problems that create an increasingly inequitable translation space.

Our creation of the term translatosphere was inspired by Juri Lotman’s “semiosphere” (1984), a term he coined to define culture as a semiotic space. We conceptualize translatosphere as the semiotic space of translation where translators work and create texts. It is continuous and historical.

André Lefevere (1990), building on the discussion by Berman (1988), had differentiated *translatio* from *traductio*: to him, *translatio* is the “linguistic side of the translation process ... epitomizing the ideal of ‘faithful translation.’” *Traductio*, on the other hand, is the creative version of the process (1990, pp. 17–18). We find Lefevere’s evaluation historically interesting, but the dichotomy he proposes is unconvincing and inapplicable to today’s global space of translation—the translatosphere— due to its dialectical nature. Therefore, if we consider the global space of translation throughout history, *translatio* seems more practical. We note that Emily Apter (2003) used it in her notion of “global *translatio*.”

The term translatosphere must not be confounded with Cronin’s *tradosphere* (Cronin, 2017), the term he coined to describe the ecological perspective of translation, noting “all the ways in which information circulates between living and non-living organisms and is translated into a language or a code that can be processed or understood by the receiving entity” (2017, p. 71). Cronin gives no hint about the etymology of his *tradosphere*, however. Regardless, the workspace of today’s translators is more mechanized than ever, so if we were to classify machine tools as non-living organisms, we would lose a critical distance from our subject, the human translator. The human translator has worked and created in the translatosphere throughout history.

In today’s translatosphere, the focus is on the datafication of translational content, which has accelerated thanks to technological advancements and what has become ubiquitous connectivity. This is also a period where many tasks are being taken over by AI-based technologies, most of which are owned and controlled by tech giants.

The digital translatosphere dates back to the first MT experiments by IBM in the 1950s, but it only gained momentum when SYSTRAN’s technology was used on the internet by Altavista’s BabelFish translator in 1997. Later, companies such as Yahoo, Microsoft and Google adapted the SYSTRAN technology, and companies such as PROMT, Yandex, Reverso, Baidu, and DeepL, found

that it gave them new ways to compete globally. The internet enabled the non-physical world of machine translation, machine-aided translation, and human-aided machine translation. As we have seen during the evolution of GT, humans have helped the online machine to output increasingly better translations by contributing their own work and data.

This global online workspace, with its flow of translational texts, has grown at an unforeseeable speed. Emily Apter had conceptualized the “translation zone” (2006) with the internet in mind as “an area of intense interaction across languages” (Simon, 2013), but it was still human-centered and physical at the time. Today the zones have become almost exclusively digital, virtual, and mechanized. One can translate a literary text from Russian or Korean at home using online dictionaries and resources; one can also feed a text into an online translation service and post-edit the result; or if one wants just to have an idea about anything—from a literary text, to a billboard along the road or a warning in a restricted ecologically-damaged area—one can simply point their smartphone camera at that text to get an instant translation. It is also possible to turn one’s home into a virtual office space and feed a company’s translational databank without any human involvement. Everything in the world is instantly translatable, either by human translators or by machines, but predominantly by machines. This is a world where we can talk about a digital translationsphere, where literally everything—i.e., any textual entity that can be transferred as data—is potentially machine-translatable and exists as reproduction that can itself be reproduced. These days, everything we put on the internet becomes translational data, regardless of whether that is our intention.

Tech giants’ growing interest in machine translation has put access to data and protecting that data at the center of translators’ discussions. We are not even half a century past the Digital Revolution, yet we are living in a post-digital world, which is, as Berry (2014) argues, “represented by and indicative of a moment when the computational has become hegemonic.” We are living in a transition period where ever more translation work is being carried out using automated translation systems which have achieved a high level of quality, especially with the introduction of neural machine translation (NMT). This transition to automation as part of daily life was foreseen by the United Nations Conference on Trade and Development (UNCTAD) Report (2021), which, in summarizing estimates about the future of jobs, stated that “over the next 20 years, in Europe and the United States 30 to 50 per cent of jobs could be automated.” The translationsphere cannot be excluded from this radical change, because it is the space where the rapid growth in datafication takes place.

### **3. Datafication of translation and consequences for translators**

The means of producing translation are evolving with ever-increasing levels of automation in the post-digital world, and for many translation tasks, dependence on human labor is waning. Van der Meer (2016) speculates that “the future may not need us [translators] but we certainly need a future.” However, the translation sector is vast, and, with the introduction of new translation tools, competition in the market is intensifying. This compels us to consider the role human translators play in in the translation industry during this transition period.

Several researchers (e.g., Olohan, 2011; Ruokonen & Koskinen, 2017) have investigated translators’ stance on the rise of technology in the last decade. The fear of losing jobs to machines has been discussed by both translation scholars and professional translators. Various aspects of translator–computer interaction have also been discussed in the literature in the last decade. These include adoption (e.g., Cadwell et al., 2016), agency (e.g., Olohan, 2011), and ergonomics (e.g., O’Brien, 2012; Ehrensberger-Dow & Hunziker Heeb, 2016). Recently, more complex topics related to translation technologies have entered the research agenda and are making their way to the top, e.g., pricing (Do Carmo, 2020), automation anxiety

(Vieira, 2020), ethical issues (Taivalkoski-Shilov, 2019), power relationships (e.g., Firat 2019; Moorkens et al., 2016) and data protection Moorkens (2017). Moorkens (2017, p. 473), for example, emphasizes that “[a] broad knowledge of translation technology tools is vital, and this also includes understanding the data formats used by translation tools, and the legal status of data ownership, where there may be possibilities for a translator to assert their rights.” Moorkens and Lewis (2019a) underline how insufficient regulation and inconsistent rules for data ownership and reuse put translators at risk. In another study, Moorkens and Lewis (2019b) maintain that translation tools have been used as instruments of control, which is likely to render the translation profession unstable, unsustainable, and unrecognizable with “trust breakdown” and “increased workplace monitoring.” All of these have the potential to create unfavorable ergonomic conditions for translators, both physically and psychologically.

Digital platforms, most of which are now part of cloud-based CAT tools, have become today’s extended workplaces. These platforms have incorporated significant improvements that facilitate translators’ work thanks to the integration of MT engines that harness an artificial neural network and user data. Companies that own these workplaces have profited by mixing and matching fragments of all the human-generated translations that the system stores in its vast repository (Ekbia & Nardi, 2017). This repository, or “gold mine,” as Ekbia and Nardi (2017, p. 219) call it, is used not only for translation purposes but for providing other services as well. Translators or “cyborg translators” (Robinson, 1999–2000), who have various levels of dependency on technology and work as post-editors in many contexts, are either intentionally or unwittingly producing valuable content for MT services. However, when control over their data is lost, translators are alienated from their work (Marx, 1844; 1959) in that they are disconnected from the macro context of the texts they are interacting with and are eventually deprived of their agency. Online services that translators use—e-mail, social media, and other cloud-based utilities—provide only minimal assurance of data protection, so by making use of these convenient tools, translators inevitably relinquish their valuable work. Van der Meer (2013) states that “end users may not realize that they are allowing these new innovative providers to use their translations—not to recreate the original work, but to carry out research in translation technology and generate derivative work.” As Cronin indicates, we need to “critically evaluate the resource implications of current uses of technology and advance alternative scenarios for the development of the translation cyborg in the age of the Anthropocene” (2017, p. 102).

We have already witnessed the use of cheap labor in various sectors. Amazon’s Mechanical Turk, for instance, outsources online tasks for low pay (Semuels, 2018). Such tasks resemble the job of today’s translators, who work on fragmented texts due to digital Taylorist policies (Moorkens, 2020). Translators receive only paltry compensation for creating clean data for multiple-language vendors (MLVs) through post-editing, and most MLVs do not hesitate to voice their desire for clean and usable data to improve their systems (Hickey & Agulló García, 2021, p. 48). In fact, using cheap labor and outsourcing tasks are accepted as capitalism’s creative ways of obscuring the value of labor—translational labor, in our context:

Contemporary capitalism is adept at stimulating activity in which we willingly engage, so that we tend to discount, ignore, or fail to notice the value of our labor. Here we have a manifestation of capitalism’s own creativity. It continually finds new sources of value in labor, new sources “outside itself” (as Marx said it must), and obscures the value of that labor in varied ways. (Ekbia & Nardi, 2017, p. 124).

Big data generated by humans in different languages contributes to MT quality, but it is accessed and processed unequally. Individual human translators lack the skill and the means to

process large amounts of data, so they cannot create their own independent MT systems using either their own or public datasets (Forcada, 2017; Vashee, 2013). Under any circumstances, however, mining big data to create customized systems is not cost-effective, which is one reason why small businesses use convenient (and free) online services (Olohan, 2021). The primary beneficiaries of the big data age are the companies who translate it into revenue, not the human translators who “are left out from the recorded traces they produce” (Nony, 2017, p. 132). As the value of data rises, human translators, who have been data producers for centuries, are losing their grip on the translation process, because this new data can be used to do the same job with incremental improvements.

Ostensibly, tech giants work toward fully automatic high-quality translation by hiding human labor. In other words, they are aiming to achieve translatorless translation—i.e., data that is produced by and for data. Tools to accomplish this are currently promoted as free and universally available. But where will this lead? What are the implications for the translation profession? The move towards the left of the famous scale by Hutchins and Somers (1992), illustrated in Figure 1, implicitly works to the detriment of human translators. The companies that own and control the means of production for translation typically increase their profits and influence many aspects of life through the service they provide. Nony (2017, pp. 134–135) argues that “computers structure individuals’ behavior to determine the fulfillment of certain desires that imperceptibly and yet materially support a larger system, thus becoming the most powerful form of neoliberal management.” If this is true, it is not an exaggeration to say that ownership of software and platforms only strengthens this power. Today, in reducing the contribution of human labor to the economy, will the tools that have been indispensable for human labor throughout history play the same role? What is the indirect cost of automated translation and translating with tools, and what is the impact on the translatisphere?

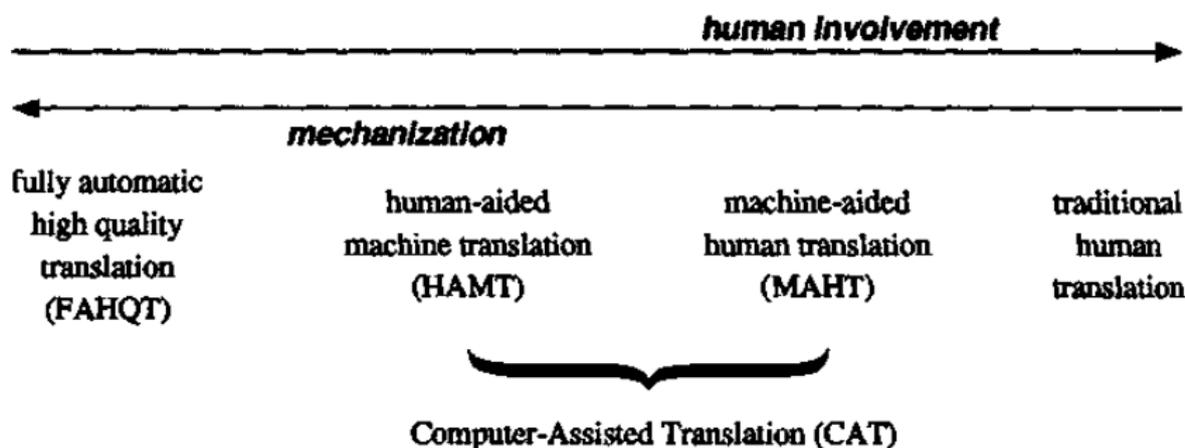


Figure 1. Human and machine translation (Hutchins & Somers, 1992, p. 148)

#### 4. Unfair state of the translatisphere

Today’s translatisphere is not without critical limitations or problems. It is an environment where human translators have become data-feeders who face complex professional problems such as low pay, owing to the devaluation of translation work (e.g., Moorkens & Rocchi, 2020), and in some contexts they face the ramifications of plagiarism and other forms of copyright violation such as instances cited by Gürses & Şahin (2021), where publishers re-publish existing translations under a fake translator name. Such unethical practices devalue the market and violate the copyright of the original translators. The idea of machines replacing humans and creativity becoming mechanized and soulless is no longer a dystopic speculation; there are

serious initiatives that make it a reality. It is also an environment where nations face thorny dilemmas when global internet companies play a significant role in cyberwars or when national governments face conflict with countries where these companies are based, e.g., legal cases against GT and Wikileaks (Cronin, 2012, p. 108). In this environment, social media and even casual internet users inadvertently produce texts for translation and monetization in an endless circuit.

Thus, this translatosphere will exist as long as there is internet and digital communication; in the meantime, new gaps will appear and deeper problems will surface. Most translation services, e-mail providers, and data spaces that are freely available to consumers are ancillary services of global companies for purposes of collecting data, and there is no guarantee that these companies will always be available. Solutions at the local, national, and institutional level are also problematic when websites and services can be censored or used for prosecution or control. Take the global pandemic of COVID-19 as an example: even though the speculated origin of the disease was China, in a time of panic, translations from Chinese did not appear in Western media as often as they might have otherwise; it is also likely that translations from Western sources did not find much place in China. Another example is the crisis in Ukraine: years before Russia invaded, GT precipitated a crisis when it translated Russia as “Mordor,” the land of evil in Tolkien’s mythology; MT was blamed for this and the company claimed that it resulted from a bug in the system.<sup>1</sup> Nevertheless, it was a sign that automatic translation services can be used as ideological weapons during times of crisis. Moreover, there may also be times where interventions by tech giants or political powers interrupt the circulation of such texts in the translatosphere.

Furthermore, low wages and professional devaluation are ever-present problems. Post-editing services operate much like Amazon’s Mechanical Turk, GT gets editorial work for free, and translators have been complaining about low payments by companies like MyGengo.<sup>2</sup> The dream of speaking a common, global language through instant translation has been a utopian ideal for centuries; now that we have the means, translators find themselves forced to work for a globalized (or regionalized) financial market with no visible presence except as data processors for MT. The cost-reducing approach of the market aims for *translatorless translations*, but human translators need to be more visible and should get more involved and assert their key role in this translatosphere.

#### 4.1. The hidden cost of MT

Using MT does not come without risks, which can be considered its hidden cost. Yet it presents a unique opportunity for MLVs in their efforts to reduce translation costs (Vashee, 2013; Esselink, 2019). The Translation Automation User Society emphasizes that the pricing model should be “predictive, fair, and appropriate” (TAUS, 2013). However, the relevance of such guidelines depends on context, and the extent to which they are applied is unclear. What is more, the interpretation of “fair” can be quite subjective, so views will differ greatly. Translators, translation scholars, and other actors in the translatosphere should therefore carefully assess the hidden cost of fully automated translation if they are to achieve a more humane and fair working environment.

<sup>1</sup> Google объяснил ошибку перевода слова “Россия” с украинского языка. (2016, January 5). RIA Novosti. Retrieved March 6, 2022, from <https://ria.ru/20160105/1354895874.html>  
Sharkov, D. (2016, May 1). Google Translate Glitch Turns Russia Into Mordor. Newsweek. Retrieved March 6, 2022, from <https://www.newsweek.com/ukraine-google-translate-russia-mordor-411723>

<sup>2</sup> <https://techcrunch.com/2010/01/11/mygengo-is-mechanical-turk-for-translations/>

MT reduces translation costs and is touted as having “increasing value with long-term volume and repeated use; the greater the volume and usage in a specific domain or subject area, the greater the economic benefits and value to an enterprise” (Vashee, 2013, p. 130). But this tendency might create a situation where the final user “becomes dependent on the translation provided by the MT system, and thus enters into a heteronomous relationship with the system” (Cronin, 2012, p. 135). Such relationships are likely to cause alienation by stripping the human features from the “translatorial action” (Holz-Mänttari, 1984). The long-term effects of machine translation—in terms of the way such texts are perceived and the norms they are likely to change—need to be discussed if any intervention for avoiding this pitfall is sought. Perceptions of the translation profession by those who have never undertaken any translation task will be undermined as well, because some of those tasks are depicted as being as easy as a mathematical calculation.

The translation act might be dehumanized when humans function as instruments for “disintermediating” (Cronin, 2012) it or when they help AI systems reach perfection and acquire “translation knowledge” (D’hulst & Gambier, 2018). The voice and creativity of the translator will surely diminish if MT output is used in the translation process (e.g., Şahin & Gürses, 2019; Kenny & Winters, 2020; Guerberof-Arenas & Toral, 2022).

Today, MT has the potential to create customized versions of entire texts through hybrid models—hybrids like obscenity-free versions for young readers, versions with archaic language, and versions that are ideologically driven. Customized MT output can be exploited for unethical purposes as well. These might include, for example, producing race- or gender-biased versions (Patel, 2019) or generating political discourse to interfere in the internal affairs of another country. In essence, translation results can be controlled by those who own and control the data. The absence of authorship, i.e., anonymity, will create a legal gap in the investigation of such actions, just as in futuristic scenarios where robots commit a murder (Garson, 2019). Canfora and Ottmann (2018; 2020) examine in detail the risks associated with NMT and advise that we should “inform both clients and post-editors about liability issues in the context of NMT [and] improve their awareness of this topic” (Canfora & Ottmann, 2020, p. 63). Bias and manipulation in translated texts are likely to become more visible as automation expands and as translation tools are increasingly controlled by commercially and ideologically motivated parties. Finally, it is claimed that tech giants disregard the environmental impact of building large learning models (Hao, 2019; Kahn, 2020). Cronin underlines the environmental cost of the technologies that we use “to translate and disseminate texts” (2019, p. 520). Thus, our translatosphere comes at a price that future generations will have to pay, and it is not only the environment which is at stake; there are also concerns about privacy and ownership.

#### **4.2. Ownership and privacy**

The foremost question that translators and final users must bear in mind availing themselves of cloud-based services, including CAT tools and MT, is how and by whom their data will be harvested and processed. Translators who subcontract their services to companies are already required to waive their rights to their work, but the use of cloud-based or online services will put other industry professionals—freelancers and non-professional translators, for instance—into the same boat. The work of a translator is manifested in a unique form: text, which is generally presented in digital format that can then be abstracted into data. Today the conversion of source text into target text has gained new dimensions. Text, or the text-corpus, has become part of a larger pool of data for building a system that will create multiple translated works. The data from an individual human translator is anonymized and woven into the texture of

what appears to be a new fabric (Kenny, 2011). This marks the beginning of the estrangement process, which is consolidated in the post-editing phase, where translators confront a product that is isolated from their cognitive habitus.

Google is generally viewed as the best example of a digital environment that benefits translators, but there are concerns (e.g., Larsonneur, 2019). The giant service provider offers most of its services for free, but it maximizes its advertising revenues in diverse ways. Google uses and monitors personal data not only for delivering and improving its services, but also for creating new ones. E-mail messages are scanned for advertising purposes, and users' web behaviors are tracked—also with commercial motivations. This means that most of the free services offered by tech giants are, in effect, commercial products. GT has benefited from parallel texts available on the internet, and the extensive use of GT has created “additional privacy concerns, since material submitted to Google Translate becomes available to Google for other purposes” (Melby & Wright, 2014, p. 675).

### 4.3. (Inter)national politics

As more translation data falls under the control and ownership of service providers, the derivative works produced from such data are not owned by the human translators whose individual work might be the backbone of the copyrighted material. And since we consider translation a political act as well, and since the “[p]olitics of translation are closely interwoven with power relations between communities” (D’hulst & Gambier 2018, p. 152), tensions between nations can influence the nature of the data that is generated at the national level. We have seen scandals where online service providers manage to interfere in national and international political situations. The data leak scandal surrounding Facebook in the manipulation of the 2016 U.S. presidential election is a clear example (Cadwalladr & Graham-Harrison, 2018). Recent crises in the U.S. and the ensuing interventions of tech giants in the crisis through blocking accounts are also good examples. In the same period, an update on a tech giant's terms and privacy policy on a messaging application led to discussions in Turkey on the importance of control over national data.<sup>3</sup>

We also see that political and economic conflicts between nations can lead to changes in the policies of high-tech companies, with detrimental effects on end users: Huawei's decision not to use Google in their 5G mobile phones after the U.S. imposed restrictions in 2019 illustrates this causality (Doffman, 2019). On August 17, 2020, the U.S. administration issued a statement on this problem, depicting Huawei as “an arm of the Chinese Communist Party's . . . surveillance state.”<sup>4</sup> Huawei's decision was symbolic in the sense that it had foreseen that 5G mobile services and data are highly integrated into people's lives: “All that data is already valuable to Google, but it could yield an even greater return once paired with advanced artificial intelligence systems that offer highly customized services, like a souped-up version of Google Assistant” (Popken, 2018).

The Russian Federation tested their technological independence by disconnecting the country from the internet in favor of using their own national software (Reuters, 2019)—a clear indicator of the country's concerns about data privacy and security (Jee, 2019). Similarly, companies like Google, Facebook, and Twitter still face challenges entering the Chinese market, partly because of security concerns. Such situations indicate that data is indeed the new oil, and that

<sup>3</sup> Turkish watchdog probes Facebook, WhatsApp over data sharing. (2021, January 11). Yahoo. Retrieved March 1, 2022, from <https://finance.yahoo.com/news/turkish-watchdog-probes-facebook-whatsapp-184138911.html>

<sup>4</sup> <https://www.state.gov/the-united-states-further-restricts-huawei-access-to-u-s-technology/> is no longer available. Please check the archived version here: <https://web.archive.org/web/20200819043041/https://www.state.gov/the-united-states-further-restricts-huawei-access-to-u-s-technology/>

data mining technologies and services are central not only to professional workspaces but also to political power struggles. When a nation is in conflict with another nation or with a global high-tech company such as Google, and when services that translators use are discontinued (e.g., Google Translator Toolkit) or blocked (e.g., Wikipedia,<sup>5</sup> or MemoQ<sup>6</sup>), translators will likely be unable to maintain their international professional standards. We base such predictions on the fact that working offline is now hardly an option for those in the professional or social sphere.

All these complications make it imperative to heed futuristic projections and multi-scenarios for the translation field. There may be a future where global cooperation leads to better conditions, or one where globalization disintegrates into regional bodies and where nations use data as a tool for competition. Nevertheless, the fact remains that reliance on automatic translation tools is increasing; both translation companies and individual translators outsource parts of the job. They work on raw MT output using API keys or in-house / customized systems and claim that the translation they submit to the commissioner in digital format is an original entity. A commodity presented as digital text also raises questions of originality and confidentiality.

#### 4.4. Originality and Confidentiality

According to a report prepared for the EU Directorate-General for Translation, MT output “leaves no room for human creativity and would therefore be deprived of originality” (Troussel & Debussche 2014, p. 103); translations are rendered authorless and therefore unoriginal, leaving them unprotected under copyright. Confidentiality and intellectual property rights come into play not only in the process of building MT engines but also in translation memory (TM). Melby and Wright (2014, p. 671) state that “in today’s translation and localization markets, many language service providers . . . control the copyright to TMs by asserting ownership in agreements.” Digital platforms, online MT systems, and cloud-based translation tools are good examples of this kind of transfer of ownership of intellectual property; translators working in such workspaces risk losing their privacy, originality, and confidentiality. Such workspaces are quite convenient and user-friendly, and they offer add-ins and other services that attract novice translators. However, irrespective of warnings about data policies (e.g., Larssonneur, 2019), users tend to disregard the fact that the documents they process may contain data that should not be made public.

Another question we must ask is whether transnational tech companies and MLVs are here to stay. Most of these companies are relative latecomers to the global market; they have been around only since the last decade of the 20<sup>th</sup> century. At some point, Google (founded in 1998) may fail in the market like Yahoo (founded in 1995) did, and then what will happen to the data it has collected? All these entities are interconnected; they all live on cloud servers owned by the GAFAM group of computing companies (namely Google, Amazon, Facebook, Apple, and Microsoft) and by other tech giants such as Yandex, Baidu, and NetEase. Will they continue to live on, and will the global network depend on their ability to survive? Such questions make it necessary for us to understand that the future of data and its environment is a global issue that needs global coordination. We must bear in mind that, as the amount of data amasses, control over that data becomes an even more complicated issue.

<sup>5</sup> Wikipedia was blocked in Turkey from 29 April 2017 to 15 January 2020. [https://en.wikipedia.org/wiki/Block\\_of\\_Wikipedia\\_in\\_Turkey](https://en.wikipedia.org/wiki/Block_of_Wikipedia_in_Turkey)

<sup>6</sup> For a recent announcement by MemoQ that it had stopped selling its products and services in the Russian Federation and Belarus, see <https://blog.memoq.com/memoq-responds-to-the-war-in-ukraine>

Furthermore, no one can guarantee that today's online translation systems will not become more commercialized, turning into paid services as they prove themselves to be indispensable (unless tech giants decide to continue providing their services "free" in return for data). In the same way that people pay to enjoy more online storage, using automated translation for larger volumes of texts may become a premium service even for translators who, by that time, may have grown accustomed to post-editing texts rather than translating from scratch. As the expectations of translators evolve, the time-intensive task of translating from scratch may no longer be preferred in the translation market, and individual translators may be forced to use paid automated services in order to survive. This situation is highly paradoxical, because to train and develop their systems, these services need big data that is of high quality and generated by humans—features that post-edited texts usually lack (see, for example, Kenny & Winters, 2020).

### **5. Reorganizing the translatisphere: What can we fix and how?**

In light of the above discussion, we advance the idea that our global, English-centric, computerized, digitalized internet era has created a digital translatisphere that is both qualitatively and quantitatively distinct from its former forms. Translations have become digital data, and they are in many ways created collectively and mechanically. This situation creates its own problems, ranging from the violation of intellectual property rights to declining wages. But we maintain that today's translational big data and technological advancement should be used for creating a better translatisphere for translators.

Initiatives such as FIT-Europe's (Fédération Internationale de Traducteurs/International Federation of Translators) conference on the theme of intellectual property aim to raise awareness about protecting translators' rights. The Translation Automation User Society published a white paper entitled "Who Owns My Language Data?" (Seinen & van der Meer 2020) that tried to clarify international concepts of intellectual property law and data protection laws as they relate to language and translation data. Although there is a lack of clarity about these issues in the post-digital era, as emphasized in the white paper, translators are considered to be in control of their work in the European context:

If translators give up the exclusive right to their translations in literary, audiovisual or other fields, or to their memories or databases, they are the ones who must say when and where these resources can be used and at what cost. (Translatio, 2019, p. 11)

However, in many other contexts, translators are often unable to make such decisions. In this digital environment, they are not the ones who decide to protect their privacy, originality, and confidentiality, and they are often not the ones who decide what their works are used for and at what cost.

Therefore, we may have to look to a future where international cyber organizations are forged to monitor data flow through the internet, in much the same way that UNESCO functions to protect cultural heritage. Instead of depending on global translation services from Google or Microsoft, automated translation systems could help create a translatisphere where data is used primarily to provide translation as a basic public service that is free of charge. This requires sound planning and significant funding from public resources in individual countries and internationally. The public bodies responsible for managing digital linguistic resources can work in coordination with international cyber organizations. On the other hand, in the process of building their systems and services, global and local internet companies should seek communication and coordination with scholars in the field of translation studies, which should be encouraged at every opportunity. Such a cooperative ecosystem exists in the field

of academic integrity in the struggle against plagiarism; companies work cooperatively with scholars by providing services for educational institutions and benefiting from the data they generate to improve their services. Initiatives such as the “Fair MT” workshop held at the 2019 MT Summit in Dublin<sup>7</sup> present good opportunities for building better communication between the parties. Translation scholars should also pay more attention to issues related to data and intellectual property rights in university education, keeping in mind the implications of the presence of such companies in their local contexts.

In the post-digital era, the translatosphere is the space of big data. Needless to say, storing data on national servers would render the stored data inaccessible and thus unavailable for processing by third parties with commercial motivations; it would, however, make it potentially monitorable and usable by public institutions in the service of society. Using non-commercial servers for storage could therefore hinder swift global exchanges of data. This limitation can be overcome by building a global database under the auspices of an independent, international, specialized agency such as UNESCO. In such a system, the international community might move one step closer to creating a platform where they would not have to fear losing their data as a result of commercial decisions or political conflicts. A good example of such an initiative is the National European Central Translation Memory (NEC TM) Data Consortium, whose stated objective is “to organize unexploited national bilingual assets that can be used as open data and general data for machine learning, in order to lower translation costs at a national level and across member states” (NEC, 2019). However, it can be argued that NEC TM and similar systems contribute to translators losing their jobs to machines. Therefore, systems built with public funds should be designed in such a way that human translators are guaranteed fair compensation.

Anonymization of data in the current translatosphere creates a challenge to achieving fair compensation for translators. Rapid digitization of the translatosphere means that publishing, media, and translation companies can lower the labor price of translation, because they tend to suppress originality in translation through anonymization. By processing translations as anonymous data, companies remove authorship and blur the limits of copyright. As Moorkens and Lewis (2019a) indicate, in MT training, “the input of any individual translator is unrecognisable and their contribution to a system trained with very large amounts of data is untraceable.” It is unacceptable to allow all human translation work to be exploited without compensation, and we know that MT systems that are built, trained, and fine-tuned by using the products of human translators are likely to undermine translators’ job security in the long term.

We support Moorkens and Lewis’ (2019a, p. 17) suggestion that “a move to a community-owned and managed digital commons would ultimately benefit the public and translators by making the industry more sustainable.” In order to ensure this move, we propose that translational data acquired by private companies should be shared with and administered by an independent body, which will make the relevant data accessible to public partners. If we consider the languages of our world as the common heritage of humankind, linguistic resources should not be entrusted to the hands of a few commercially-motivated entities, although this may well be unavoidable. We have witnessed this in other fields.

## 6. Conclusion

This article has delved into concerns about the repercussions of advances in technology in the translatosphere. We presented a critical perspective on the issues that surround the ever-

---

<sup>7</sup> <http://fairmt.adaptcentre.ie>

growing automation in the profession, such as cost, privacy, ownership, and confidentiality. We may be moving towards translatorless translation, where translation itself will take a form that differs from the one to which we are accustomed. Translatorless translation in the form of data in the translatisphere is likely to pose a multitude of new challenges for human translators.

Removing linguistic barriers has always been an exciting project for humankind. Such endeavors should place the primary actor in the center: translators. In transitioning to a system where some translations are fully automatic, it is important that we ensure fair and equitable conditions for human translators. We need to differentiate between *translation technology* and *translators' technology*. The former is more likely to benefit end users and companies and alienate translators from their work, whereas the latter will benefit translators.

In her 1978 article *Translating and the computer*, Barbara Snell warned that “if translators are to co-exist with computers, we must become actively involved in directing their uses, let us be their masters and they the tools” (1978, p. vi). In the post-digital age, we live in computing environments; we do not simply co-exist with the technology. Most of the time it seems as if we exist only for our data to be fed to machines. In these times, we should advocate for the creation of a more equitable translatisphere, but this will be achievable only through unified action across the globe (Gross, 1990). Translators must take an active role in this endeavor. As individuals, however, they are susceptible to exploitation, and as individuals, they lack the power to change the status quo. Big companies, on the other hand, are highly organized in their efforts to develop new ways to collect and harness their translational data. National and international translators' organizations are already taking steps to protect translators' rights and the translation industry as a whole; in doing so, they need to keep a critical distance from tech giants and encourage its members to do the same.

## 7. Acknowledgements

This article is the final version of an article that we started working on in early 2019. We would like to thank all the reviewers for their valuable comments on earlier versions of the manuscript. We also would like to thank Peggy Alptekin for her copy-editing.

## 8. References

- Apter, E. (2006). *The translation zone: A new comparative literature*. Princeton University Press.
- Apter, E. (2003). Global translatio: The “invention” of comparative literature, Istanbul, 1933. *Critical Inquiry*, 29(2), 253-281.
- Ball, S. J. (2012). *Global Education Inc.: New policy networks and the neoliberal imaginary*. Routledge.
- Berman, A. (1988). De la translation à la traduction. *TTR: traduction, terminologie, rédaction*, 1(1), 23-40.
- Berry, D. (2014, May 19). *Post-Digital Humanities: Computation and Cultural Critique in the Arts and Humanities | EDUCAUSE*. EDUCAUSE. Retrieved March 6, 2022, from <https://er.educause.edu/articles/2014/5/postdigital-humanities-computation-and-cultural-critique-in-the-arts-and-humanities>
- Bridle, J. (2018). *Opinion: Data isn't the new oil — it's the new nuclear power*. July 17. Retrieved February 24, 2019, from <https://ideas.ted.com/opinion-data-isnt-the-new-oil-its-the-new-nuclear-power/>.
- Cadwalladr, C. & Graham-Harrison, E. (2018, March 17). *Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach*. The Guardian. Retrieved March 6, 2022, from <https://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election>
- Cadwell, P., O'Brien, S. & Teixeira, C. S. (2018). Resistance and accommodation: Factors for the (non-) adoption of machine translation among professional translators. *Perspectives*, 26(3), 301-321.
- Canfora, C. & Ottmann, A. (2018). Of ostriches, pyramids, and Swiss cheese: Risks in safety-critical translations. *Translation Spaces*, 7(2), 167-201.
- Canfora, C. & Ottmann, A. (2020). Risks in neural machine translation. *Translation Spaces*, 9(1), 58-77.
- Cronin, M. (2012). *Translation in the digital age*. Routledge.
- Cronin, M. (2017). *Eco-translation: Translation and ecology in the age of the anthropocene*. Taylor & Francis.

- Crystal, D. (2012). *English as a global language*. Cambridge University Press.
- D’Hulst, L. & Gambier, Y. (2018). A General introduction. In L. D’Hulst & Y. Gambier (Eds.), *A history of modern translation knowledge: Sources, concepts, effects* (pp. 1-14). Benjamins.
- Do Carmo, F. (2020). ‘Time is money’ and the value of translation. *Translation Spaces*, 9(1), 35-57.
- Doffman, Z. (2019). *Huawei Sends Defiant Message To Google And Trump With New ‘HarmonyStudio’*. September 22. Retrieved October 1, 2019, from <https://www.forbes.com/sites/zakdoffman/2019/09/22/huawei-sends-defiant-message-to-google-and-trump-with-new-harmony-studio/>.
- DuPont, Q. (2018). *The Cryptological Origins of Machine Translation: From al-Kindi to Weaver*. January. Retrieved October 1, 2019, from <http://amodern.net/article/cryptological-origins-machine-translation/>.
- Ehrensberger-Dow, M. & Hunziker Heeb, A. (2016). Investigating the ergonomics of the technologized translation workplace. In R. Muñoz Martín (Ed.), *Reembedding translation process research* (pp. 69-88). Benjamins.
- Ekbia, H. R. & Nardi, A. B. (2017). *Heteromation, and other stories of computing and capitalism*. MIT Press.
- Esselink, B. (2019). Multinational language service provider as user. In M. O’Hagan (Ed.), *The Routledge handbook of translation and technology* (pp. 109-126). Routledge.
- Even-Zohar, I. (1979). Polysystem theory. *Poetics today*, 1(1/2), 287-310.
- Firat, G. (2019). *Commercial translation and professional translation practitioners in the era of cognitive capitalism: A critical analysis*. Unpublished master’s thesis. Boğaziçi University, Istanbul, Turkey.
- FIT (International Federation of Translators). 2019. “Translatio.”” March. Retrieved April 18, 2019, from [https://wa1.fit-ift.org/wp-content/uploads/2019/03/translatio\\_2019\\_1\\_EN.pdf](https://wa1.fit-ift.org/wp-content/uploads/2019/03/translatio_2019_1_EN.pdf).
- Forcada, M. L. (2017). Making sense of neural machine translation. *Translation spaces*, 6(2), 291-309.
- Garson, J. (2019). *Who is responsible when robots kill?* February 11. Retrieved October 1, 2019, from <https://www.forbes.com/sites/jackgarson/2019/02/11/who-is-responsible-when-robots-kill/#630da7bc6b82>.
- Gross, A. (1990). First International Strike of Translators (FIST). *Translation News*, 2-6. Retrieved March 14, 2022 [https://www.netaweb.org/Resources/Documents/Newsletters/Time%20Capsule/Ken%20Kronenburg/Vol.\\_1\\_No.\\_7.pdf](https://www.netaweb.org/Resources/Documents/Newsletters/Time%20Capsule/Ken%20Kronenburg/Vol._1_No._7.pdf) (Translation in Turkish by Sabri Gürses, available at <https://ceviribilim.com/2006/10/03/birinci-uluslararası-cevirimen-grevi/>)
- Hao, K. (2019). Training a single AI model can emit as much carbon as five cars in their lifetimes. Retrieved January 3, 2021, from <https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/>.
- Guerberof-Arenas, A. & Toral, A. (2022). Creativity in translation: Machine translation as a constraint for literary texts. *Translation Spaces*. <https://doi.org/10.1075/ts.21025.gue>
- Gürses, S. & Şahin, M. (2021). Dostoevsky in translation: Past, present and future prospects. In F. Yücel & M. T. Öncü (Eds.) *Zur Geschichte der Übersetzung in der Türkei. Themen und Perspektiven* (pp. 47-65). Logos.
- Hassan, H., Aue, A., Chen, C., Chowdhary, V., Clark, J., Federmann, C., ... & Zhou, M. (2018). Achieving human parity on automatic Chinese to English news translation. *arXiv preprint arXiv:1803.05567*.
- Hickey, S. & Agulló García, B. (2021). *The NIMDZI 100: The 2021 Ranking of the Largest Language Services Providers in the World*. Nimdzi. Retrieved January 14, 2022, from <https://www.nimdzi.com/nimdzi-100-top-lsp/>
- Holz-Mänttari, J. (1984). *Translatorisches Handeln: Theorie und Methode*. Helsinki: Akateeminen Kirjakauppa.
- Humby, C. (2006). Data is the new oil. *Proc. ANA Sr. Marketer’s Summit*. Evanston, IL, USA.
- Jee, C. (2019). *Russia wants to cut itself off from the global internet. Here’s what that really means*. March 21. Retrieved October 1, 2019, from <https://www.technologyreview.com/s/613138/russia-wants-to-cut-itself-off-from-the-global-internet-heres-what-that-really-means/>.
- Kenny, D. (2011). The ethics of machine translation. In: New Zealand Society of Translators and Interpreters Annual Conference 2011, 4-5 June 2011, Auckland, New Zealand.
- Kenny, D. & Winters, M. (2020). Machine translation, ethics and the literary translator’s voice. *Translation Spaces*, 9(1), 123-149.
- Khan, J. (2020). Google’s ouster of a top A.I. researcher may have come down to this. Retrieved January 3, 2021, from <https://fortune.com/2020/12/09/google-timnit-gebru-top-a-i-researcher-large-language-models/>.
- Kline, R. R. (2015). *The cybernetics moment: Or why we call our age the information age*. John Hopkins University Press.
- Larsonneur, C. (2019). The disruption of neutral machine translation. *spheres: Journal for Digital Cultures*, 5, 1-10.
- Lefevre, A. (1990). Translation: Its genealogy in the West. In S. Bassnett & A. Lefevre (Eds.), *Translation, history, and culture* (pp. 14-28). Burns & Oates.
- Lotman, Y. M. [Юрий Михайлович Лотман]. 1984. *О семиосфере [On the semiosphere]*. (Translated by Wilma Clark in 1992)
- Lotman, Y. M. [Юрий Михайлович Лотман]. 1990. *Universe of the mind: a semiotic theory of culture*. (Translated by A. Shukman) I. B. Tauris & Co Ltd.

- Marx, K. (1844). Economic and philosophical manuscripts; 1959, Progress Publishers, Translated by Martin Milligan.
- McLuhan, H. M. (1962). *Understanding new media*. UMI.
- Moorkens, J. (2017). Under pressure: translation in times of austerity. *Perspectives*, 25(3), 464-477.
- Moorkens, J. (2020). "A tiny cog in a large machine": Digital Taylorism in the translation industry. *Translation Spaces*, 9(1), 12-34.
- Moorkens, J. & Lewis, D. (2019a). Research questions and a proposal for the future governance of translation data. *Journal of Specialised Translation*, 32, 2-25.
- Moorkens, J. & Lewis, D. (2019b). Copyright and the reuse of translation as data. In M. O'Hagan (Ed.), *The Routledge handbook of translation and technology* (pp. 469-481). Routledge.
- Moorkens, J. & Rocchi, M. (2020). Ethics in the translation industry. In K. Koskinen & N. K. Pokorn (Eds.), *The Routledge handbook of translation and ethics* (pp. 320-337). Routledge.
- Moorkens, J. et al. (2016). Translation resources and translator disempowerment. Conference paper. *Ethi-CA Workshop, LREC 2016* in Portorož, Slovenia.
- NEC. 2019. *NEC TM Data Project*. Retrieved April 20, 2019, from <https://www.nec-tm.eu/>.
- Nony, A. (2017). Nootechinics of the Digital. *Parallax*, 23(2), 129-146.
- O'Brien, S. (2012). Translation as human-computer interaction. *Translation spaces*, 1(1), 101-122.
- Olohan, M. (2011). Translators and translation technology: The dance of agency. *Translation studies*, 4(3), 342-357.
- Olohan, M. (2021). Post-editing: A genealogical perspective on translation practice. In M. Bisiada (Ed.), *Empirical studies in translation and discourse* (pp. 83-105). Language Science Press.
- Ong, W. J. (1982). *Orality and literacy: The technologizing of the word*. Methuen.
- Patel, R. (2019). *Unbiased Neural MT*. February 1. Retrieved March 14, 2019, from <https://iconictranslation.com/2019/02/issue-23-unbiased-neural-mt/>.
- Pennycook, A. (1998). *English and the discourses of colonialism*. Routledge.
- Popken, B. (2018). *Google sells the future, powered by your personal data*. May 10. Retrieved February 23, 2019, from <https://www.nbcnews.com/tech/tech-news/google-sells-future-powered-your-personal-data-n870501>.
- Raley, R. (2003). Machine translation and global English. *The Yale Journal of Criticism*, 16(2), 291-313.
- Reiss, K. & Vermeer, H. J. (2014). *Towards a general theory of translational action: Skopos theory explained*. Routledge.
- Reuters (2019) <https://www.reuters.com/article/us-russia-internet-software/putin-signs-law-making-russian-apps-mandatory-on-smartphones-computers-idUSKBN1Y61Z4>
- Robinson, D. (1999-2000). Cyborg translation. In S. Petrilli (Ed.), *La traduzione*. Special issue of *Athanos: Semiotica, Filosofia, Arte, Letteratura*, 10(2), 219-33. Retrieved February 2, 2019, from <http://home.olemiss.edu/~djr/pages/writer/articles/html/cyborg.html>.
- Rubin, A. (2012). *Archives of authority: Empire, culture, and the Cold War* (Vol. 32). Princeton University Press.
- Ruokonen, M. & Koskinen, K. (2017). Dancing with technology: Translators' narratives on the dance of human and machinic agency in translation work. *The Translator*, 23(3), 310-323.
- Seinen, W. & van der Meer, J. (2020). Who owns my language data? Realities, rules and recommendations. A White Paper. February.
- Samuels, A. (2018). *The Internet Is Enabling a New Kind of Poorly Paid Hell*. January 23. Retrieved October 1, 2019, from <https://www.theatlantic.com/business/archive/2018/01/amazon-mechanical-turk/551192/>.
- Simon, S. (2013). Translation zone. In Y. Gambier & L. van Doorslaer (Eds.), *Handbook of translation studies*, 4 (pp. 181-185). Benjamins.
- Sin-wai, C. (2014). Translation memory. In A. Melby & S. E. Wright (Eds.), *Routledge encyclopedia of translation technology* (pp. 662-677). Routledge.
- Snell, B. M. (1978). Translating and the computer. <https://aclanthology.org/1978.tc-1.0.pdf>
- Stiglitz, J. E. (2017). *Globalization and its discontents revisited: Anti-globalization in the era of Trump*. W. W. Norton & Company.
- Şahin, M. & Gürses, S. (2019, August). Would MT kill creativity in literary retranslation? In J. Hadley, M. Popović, H. Aflı & A. Way (Eds.), *Proceedings of the qualities of literary machine translation* (pp. 26-34). <https://aclanthology.org/W19-7300>.
- Taivalkoski-Shilov, K. (2019). Ethical issues regarding machine (-assisted) translation of literary texts. *Perspectives*, 27(5), 689-703.
- TAUS (Translation Automation User Society). 2013. *TAUS Best Practice Guidelines Pricing MT Post-Editing*. October. Retrieved April 16, 2019, from <https://www.taus.net/academy/best-practices/postedit-best-practices/pricing-machine-translation-post-editing-guidelines>.
- Toury, G. (1995). *Descriptive translation studies and beyond*. Benjamins.

- Translatio (2019). FIT Newsletter. No:1. Retrieved October 1, 2019, from [https://wa1.fit-ift.org/wp-content/uploads/2019/03/translatio\\_2019\\_1\\_EN.pdf](https://wa1.fit-ift.org/wp-content/uploads/2019/03/translatio_2019_1_EN.pdf).
- Troussel, J. & Debussche, J. (2014). Translation and intellectual property rights. *Studies on translation and multilingualism*. European Commission (2014). September 8. Retrieved February 24, 2019, from <https://op.europa.eu/en/publication-detail/-/publication/e079e290-e250-482d-9d4f-dae566ba67ff>.
- Van der Meer, J. (2013). *Clarifying Copyright on Translation Data*. January 16. Retrieved February 12, 2019, from <https://www.taus.net/think-tank/articles/translate-articles/clarifying-copyright-on-translation-data>.
- Van der Meer, J. (2016). *The Future Does Not Need Translators*. February 24. Retrieved February 23, 2019, from <https://blog.taus.net/the-future-does-not-need-translators>.
- Vashee, K. (2013). Understanding the economics of machine translation. *Translation Spaces*, 2(1), 125-149.
- Vermeer, H. (1978). Ein Rahmen für eine allgemeine Translationstheorie. *Lebende Sprachen*, 23(3), 99-102. <https://doi.org/10.1515/les.1978.23.3.99>
- Vieira, L. N. (2020). Automation anxiety and translators. *Translation Studies*, 13(1), 1-21.
- 



 Mehmet Şahin

Boğaziçi University

Department of Translation and Interpreting Studies

34342 / İstanbul

Turkey

[mehmet.sahin5@boun.edu.tr](mailto:mehmet.sahin5@boun.edu.tr)

**Biography:** Mehmet Şahin is professor in the Department of Translation and Interpreting Studies at Boğaziçi University in Istanbul. He completed his undergraduate studies in Translation and Interpretation at Bilkent University in Ankara, Turkey, where he also received a master's degree in Teacher Education. He holds a PhD in Curriculum and Instruction with a concentration in Applied Linguistics/TESOL from Iowa State University. His doctoral research focused on computer-assisted language learning and educational technology. His current research interests include translation studies, translation and interpreting technologies, machine translation, and translator and interpreter education.



 Sabri Gürses

Boğaziçi University

Department of Translation and Interpreting Studies

34342 / İstanbul

Turkey

[sgurses@ceviribilim.com](mailto:sgurses@ceviribilim.com)

**Biography:** Sabri Gürses is a writer, translator, and researcher. He graduated from Istanbul University's Department of Russian Language and Literature and then earned his master's degree in Translation Studies from the same institution. His thesis was on Nabokov's Pushkin. He received his PhD in Russian Language and Literature from Erciyes University, with a thesis on Russian semiotics and Juri Lotman. He is the editor of Çeviribilim, an online translation journal, and runs the Çeviribilim Publishing House. He has worked on plagiarism issues in translation since 2005 and has published numerous articles on the topic. He is currently a postdoctoral researcher at Boğaziçi University. His research interests include translation studies, the history of translation and translation technology, comparative literature, and Russian culture and literature. In 2018 his translation of Eugenie Onegin was shortlisted for the Read Russia (Читай Россию) Prize, and in 2020 he received the Prize for his Tolstoy translations.



This work is licensed under a Creative Commons Attribution 4.0 International License.