The many guises of machine translation: A postphenomenology perspective

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Machine translation (MT) tools are widely available. They may be present in different spaces in ways that consumers of the content do not necessarily control or realise, and research to date has paid little attention to these human-MT encounters. This article draws on the philosophy of technology literature to consider implications of MT's permeating presence in online environments as well as in face-to-face interactions. The focus of the article is on two situations where humans can come across MT: while browsing websites and when speaking with figures of authority. The article highlights ways in which humans' relationship with MT transcends conscious decisions to operate an MT tool directly. It argues that the human-MT relationship can also be one of immersion where MT blends with the environment in ways that, on the one hand, break language barriers but, on the other, influence, persuade, and on occasion misinform.

Keywords: machine translation, postphenomenology, MT-mediated communication, website translation, face-to-face interactions, human-technology relations

1. Introduction

Machine translation (MT) tools make mistakes, but they can be effective, and their use is extremely common. Twenty billion web pages were translated by Google Translate in the month of April 2021 alone (Google 2021) while the number of machine translations provided on Facebook runs into the billions every day (Fan 2020). Although a growing number of studies are interested in everyday uses of MT tools (e.g., Nurminen and Papula 2018;

Robertson et al. 2021; Vieira et al. 2022a), the implications of MT's wide availability have received little attention to date, especially in relation to the intricacies of how it is deployed and how individuals are likely to come across it.

MT tools integrate with other interfaces in pervasive yet inconspicuous ways. On some shopping websites, machine translations are provided by default, so visitors to the website do not put the technology to use at all but are rather served with the already translated content (Vorstoffel 2019). Similarly, the websites of some governmental organisations are available in multiple machine-translated versions provided as different options on a language menu (e.g., City of North Vancouver 2022; State of Connecticut 2022a). In synchronous machine translated interactions where individuals communicate in the same physical space, some interlocutors may be provided with translations without having to use an MT tool themselves – for example, if the translations are simply shown on a screen or offered in some other way as a means of communicating. In interactions involving an imbalance of power, control over the technology can reflect the asymmetry of the communication. If officials such as immigration or police officers use MT to interact with the public, the civilian party may have little say in whether or how MT is used even though its potentially negative consequences – e.g., miscommunication or privacy violations (Vieira et al. 2022b) – may affect all individuals concerned. If suitable alternatives are not available, MT may be preferable to no communication at all, and in any case it can be part of a wider range of strategies to overcome language barriers (e.g., Maryns et al. 2021). MT errors may themselves cause harm or exacerbate the situation, however, especially if the use purpose justifies the wait for a professional.

MT deployment therefore involves complex risk-benefit decision-making. Increasingly it also involves important questions related to how the technology is presented, or indeed to awareness that it is in use in the first place. In this article, I examine relationships between

humans and MT by considering some of the implications of MT's permeating presence. The discussion draws on the postphenomenology literature (Ihde 1990; Verbeek 2016). I look at two contexts where humans come across MT: while browsing websites and when speaking with figures of authority. I have selected these two contexts because they cover one- and two-way communication, respectively, but also because, despite their differences, they can involve similar complexities related to MT's appealing convenience. The article's main argument is that as MT becomes more integrated and accessible, humans' relationship with it is not just a matter of setting out to use an MT tool for a defined purpose. It can also be a relationship of immersion where the technology blends inconspicuously with the environment in ways that, on the one hand, break language barriers and, on the other, influence, persuade, and on occasion misinform.

In the remainder of the article, I first provide a brief review of previous research on MT uses in society. I then discuss postphenomenology concepts that are central to the argument I present here, including the understanding of technology itself as well as formulations of human-technology relations. I subsequently examine MT's presence in the two contexts outlined above, and finally conclude the article with suggestions for future research and final remarks on different ways of interacting with and consuming MT.

2. Research on machine translation and society

There are an increasing number of studies on MT's human factors. In the field of translation, most of these studies have focused on how professional translators or translation students interact with MT in the human translation process (e.g., Jia and Zheng 2022; Toral, Wieling, and Way 2018). There are also studies on MT use in language education (e.g., Jolley and Maimone 2015) and in other specialised areas such as healthcare and law (Vieira, O'Hagan, and O'Sullivan 2020), patent processing (Nurminen 2019) and information technology

services (Berbyuk Lindström and Cordeiro 2022). Some studies examine broader implications of MT for multilingualism and communication. So far these studies have focused on MT's algorithmic architecture (Ramati and Pinchevski 2018), on its use on Facebook (e.g., Hendus 2015), on specific MT tools (e.g., Nurminen and Papula 2018) or countries (Vieira et al. 2022a; Yamada et al. 2005), or on practical aspects of machine translated communication, for example how it compares to the use of English as a lingua franca (Pituxcoosuvarn and Ishida 2018; for earlier empirical studies, see Wahlster 2000).

While human translations are not risk-free, in most contexts mentioned above the risk-benefit ratio of MT can be complex since MT errors are not only likely but also hard to identify for those who do not speak both source and target languages. Awareness of and the ability to mitigate the risks of MT are important components of 'MT literacy' (Bowker and Buitrago Ciro 2019). The formulation of literacy proposed by Bowker and Buitrago Ciro (2019) is based on uses of MT for academic publishing. It consists of abilities that MT-literate scholars are expected to have. These abilities refer to specific tasks, such as to "evaluate how (machine) translation-friendly a scholarly text is", as well as broader knowledge components such as to "understand how machine translation systems are or can be used […]" (88). Although the knowledge components of MT literacy do not specifically refer to awareness of what an MT system is or where this technology can be found, interpreted broadly, Bowker and Buitrago Ciro's definition can be taken to encompass that type of knowledge. This more basic understanding may seem obvious, but previous research shows that the scope of MT use can be difficult to define, especially for those who are not already familiar with MT tools.

In a survey of MT use in the United Kingdom, despite efforts to define MT clearly, for instance by mentioning Google Translate as an example, some participants said that they had not used these tools before when in fact later in their answers it was apparent that they had (Vieira et al. 2022a). Similarly, in a previous survey of university students, a subset had to be

excluded from the analysis because it was difficult to establish if the participants were referring to MT or to similar tools like online dictionaries (Gaspari 2007, 15). Although both these studies were conducted in the United Kingdom, and familiarity with MT is likely to vary across countries, this type of ambiguity in the understanding of the technology does not come as a surprise. MT's integration with other tools can blur the lines between where one service ends and the other one begins. When using a search engine to look up a term or phrase, for instance, the output of an MT system may be provided even if using MT was not originally intended. The same applies to other methods of obtaining machine translations such as using large language models like ChatGPT, asking a voice assistant (Baig 2020) or, as mentioned in the Introduction, accessing a website that provides machine translations by default. Some users may, in fact, wish for MT systems to be automatically available in the background and seamlessly provide translations as and when needed (Vieira et al. 2022a).

Awareness that the technology is in use may change how MT-literate individuals perceive the content (Asscher and Glikson 2021). It is increasingly important, therefore, to consider how MT's integrated nature may affect conceptions of the technology, including in relation to those who may be less familiar with it. Surveys conducted by Yamada et al. (2005) in Japan gathered responses by those who had not used MT before. Like studies by Vieira et al. (2022a) and Gaspari (2007), however, Yamada et al. did not provide a broader discussion of what non-users of the technology knew about it or about where they may find it. Liubinienė, Lisaitė, and Motiejūnienė (2022) looked at children's perceptions of MT tools in Lithuania. They found that children's first encounters with MT tended to take place outside of school, which suggests that younger generations start using MT organically rather than in a structured educational environment. Buts (2021) does not look at current MT uses, but rather at future purposes that the technology may serve in advertising. His work touches on MT's persuasive role although, in contrast to the present article, it does not focus on different types

of MT use or of human-MT relations. Asscher and Glikson's (2021) study is based on a communicative scenario involving machine translations of a formal complaint submitted by a migrant worker. This study shows that attributing the message to an MT system rather than a human translator changed assessments of the content, for example in relation to the message's potential to convey cultural and emotional otherness. More recently, Glikson and Asscher (2022) show that artificial intelligence-mediated communication – involving use of MT and of other language tools – affects how authentic an apology is perceived to be and the addressee's willingness to forgive the addresser.

In addition to studies that examine impacts or consequences of MT use, there is also research with a more direct focus on evaluations of MT's efficacy. Empirical MT evaluations do not necessarily consult experienced users of the technology but rather those who may be in a position to consume machine translations in a specific context (e.g., Bowker and Buitrago Ciro 2015), for a specific type of text (e.g., Castilho et al. 2014), or when performing specific tasks (e.g., Ogura et al. 2004). Although examining implications of MT's presence is not a direct objective of these studies, MT evaluations too tend to place little emphasis on the embedded, and sometimes inconspicuous, nature of MT deployment.

In the next section, I review postphenomenology concepts (Ihde 1990; Verbeek 2016) that lend themselves well to analyses of the different ways in which humans and MT tools can cross paths. To the best of my knowledge, it is the first time that this framework has been adopted to discuss uses of translation technologies.

3. Machine translation and human-technology relations

Postphenomenology is a branch of philosophy that is interested in different types of relationships between humans and technologies (Rosenberger and Verbeek 2015, 9). In the seminal works from this tradition, technology is understood quite broadly. It encompasses

analogue tools like a pen (Ihde 1990, 81) as well as technologically produced artefacts such as the clothes we wear (Ihde 1990, 13). Any analysis of the social role of technologies based on this broad conceptualisation will probably conclude that it is difficult to imagine a world where humans can live without some form of technology (11). Postphenomenology examines this close relationship by describing how technologies mediate[i] our perceptions of the environment. Our relationship with them is said to engender specific ways of interpreting what happens around us, so they are considered critical to our understanding of the world and of ourselves.

The work of Ihde (1990) describes four main types of relations between humans and technology: *embodiment*, *alterity*, *hermeneutic*, and *background* relations (72-112). Embodiment relations refer to situations where technologies become physical extensions of the human body – for example, using a hammer or wearing a pair of glasses (73). Alterity relations involve cases where humans and technologies are separate entities which interact with each other – for example, playing a video game, which needs some input from us and may react to that input with animations or behaviour that constitutes something other than ourselves (100). Hermeneutic relations involve situations where technologies provide some sort of 'reading' or 'text' to be interpreted – for example, a compass or thermometer (89). Background relations involve technologies that for the most part function in the background without ongoing human attention – for example, lighting or heating in the home (108).

Ihde also refers to borderline cases as well as to so-called 'horizonal phenomena' that test the limits of what can be considered a technology. An example involves industrialised medicines, which can be considered a technology while at the same time being absorbed and chemically processed by the human body (1990, 113). Similarly, further work has considered cases that outstretched the previous categories. For instance, brain implants can be said to become part of human beings in a way that constitutes more than just embodying the technology. This

type of ‘bionic embodiment’ has been referred to as *fusion* (Verbeek 2015). When technologies occupy the background while also interacting with human input or behaviour – for example, in so called ‘smart’ environments involving the use of sensors and machine learning – the human-technology relationship has been described as one of *immersion* (Verbeek 2015).

While postphenomenology does not exhaust the complexity of how technologies can mediate everyday life (see Ritter 2021; Kaplan 2009), these relationship categories serve as a useful platform for discussing the use implications of different technologies. In relation to MT, when humans see or hear the MT output, they need to interpret it, so hermeneutic relations are arguably central to MT use. Most human-centred MT research to date has considered this hermeneutic dimension of the technology, for example in evaluations of translation quality or of the efficacy of MT as a communication tool (Sections 1-2). Studies that look at the mechanics of interacting with MT systems also touch on alterity aspects of MT by focusing on its otherness or its status as a tool to be operated – for instance, in terms of how different interventions may produce different results (e.g., through pre-editing of the source text) or in terms of what prompts the technology into action, such as pressing buttons or activating it in some other way. Depending on the hardware used to access MT tools, there will also be situations where using MT involves embodiment of other technologies, such as handheld devices, headphones, or earpieces. MT embodiment has featured prominently in science fiction. A common example is the Babel fish in *The Hitchhiker's Guide to the Galaxy* (Adams 1979), a creature which once inserted into the ears gives the host the power to communicate in any language in a type of fusion or symbiotic relationship.

Much less prominent in discussions of MT to date is its potential background or immersive dimension. When MT tools detect languages automatically or when they interact with browser settings to offer translations to users (see Section 4, below), they fit Verbeek’s

(2015) formulation of immersion. In this article, I use background and immersion interchangeably to refer to the more general phenomenon of being surrounded by technologies that are constantly active or available in ways that do not necessarily rely on direct control. This availability matters not least because it can have particular persuasive properties (Verbeek 2009), which in postphenomenology are often treated as a matter of intentionality.

Intentionality concerns the way in which consciousness is always directed at some type of target – i.e., humans "cannot simply 'think,' but they always think *something*" (Verbeek 2008, 388). Not unlike other socially oriented theories that can be applied to technology (e.g., Latour 2005; see also Olohan 2011), postphenomenology assumes that technologies too have their own type of intentionality. They are often predisposed to, geared towards or compatible with 'something'; they "give direction to people's actions and experiences" (Verbeek 2009, 235). This type of technological influence originates in human consciousness, but it is not only shaped by design. It is also shaped by the different uses that are made of the technology, so human and technological intentionalities co-exist and often interact.[ii] A detailed analysis of intentionality is outside the scope of the present article, but it is enough to highlight that both human and technological intentionalities are relevant to the understanding of how the presence of MT tools can prompt behaviours and shape specific ways of interpreting information. I consider some of these properties of MT below in the two contexts previously mentioned, namely website translation and interactions with figures of authority.

4. Website translation

When using MT to browse a website, the procedure for obtaining the translations varies in how much deliberate attention it requires from the website visitors. In the simplest or most 'manual' use of MT to translate a website, users may just copy the content and paste it into

the interface of their MT system of choice. MT in this case is a foreground technology that is overtly operated by those who consume the translations. The discussion below is more directly concerned with two other ways of machine-translating the contents of a website: when the translations are obtained through a browser and when they are provided 'at source' by the website publishers.

Subject to context- and language-dependent fluctuations in MT quality (see Bowker 2020), MT-powered browsers widen the range of websites that a user can understand. This enhanced browsing functionality is often available by default and can be experienced automatically. On Google Chrome, for instance, users are prompted to translate pages displayed in languages that are not selected in their settings (Google 2022b). MT-powered browsers therefore interact with browsing behaviour by suggesting a translation whenever one is presumed to be necessary. This is significantly different from the manual method of pasting content into the MT tool's interface. To obtain translations from an MT system manually, users are likely to know what MT is or at least to have heard of it before and know how to find it. They may have a preferred system or may even compare the output of different ones. Browser-integrated MT, on the other hand, does not necessarily rely on users' decision to use the technology or their knowledge of it. This integration therefore moves the website visitors away from the status of autonomous users of MT and closer to the status of consumers of machine-translated content.

While the website visitors may appreciate this integrated experience, it is worth noting that multilingual browsing is of interest to at least two other parties: those who provide the browsing tool and those who provide the content to be browsed. Browsing data is valuable for targeted advertising, which is central to the financial interests of many internet companies (Zuboff 2019). The convenience of browser-integrated MT is part of a complex network of purposes where the easier it is for users to access websites multilingually, the more browsing

data they are likely to generate, and the more they are likely to serve the interests of the browser provider. This is not necessarily a conscious design rationale for browser-integrated MT, but the fact remains that MT fits these purposes.

As for those who provide the content to be browsed, they bring me to the other MT access route mentioned above, namely when MT is provided at source. The motivation for MT deployment in these cases can be quite explicit. The shopping platform Etsy, for instance, makes the following recommendation to those who sell products on their website:

> With Etsy's automatic translations enabled, buyers will automatically see your listings in their preferred language while browsing. Automatic translation is turned on by default for all shops, and we recommend leaving it on to work its magic (Vorstoffel 2019).

At first glance there is nothing unusual about this statement. The purpose of shopping websites is to sell products, and MT does enable sellers to reach a wider audience. What is noteworthy is how MT is deployed to fulfil this goal. As mentioned in the Introduction, the intention here is for visitors to be given the translations by default. The only overt indicator that an MT system is in use in these cases is a message in small print at the top of the page that says, 'translated by Microsoft' together with 'See in original language' (e.g., Brauthaarschmuck 2022). Here the website visitors can again be more clearly described as consumers of machine translations than as active MT tool users. MT in this case is a feature of the website that is activated based on the website visitors' location and/or language preferences.[iii]

In most cases, this type of automatic MT provision is likely to be harmless. It is also likely to be useful and indeed welcome (see Section 2). Automatic provision should also raise questions about transparency and consumer autonomy, however. When website developers

use MT integration, they are usually required to display attributions like the one mentioned above, such as ‘translated by Microsoft’ or ‘translated by Google’ (Microsoft 2022; Google 2022a). At least in principle, referencing the MT system in this way may mitigate the risks posed by mistranslations. If MT-literate individuals are aware that MT is in use, they may expect errors and be prepared to work around them. If all possible interpretations are unlikely or entail significant risk, they will adjust their level of trust in the text accordingly. Awareness of the technology’s presence can therefore play a part hermeneutically in the reception of its output, which is one reason why those who deploy MT may want to try to indicate to others that it is in use. Whether attributions fulfil this role in practice is uncertain, however. In the example above users are left to infer that ‘translated’ means ‘machine translated’ and that ‘Microsoft’ means Microsoft’s machine translation system, which may seem obvious to most users but is not necessarily evident to those who are unfamiliar with the technology or with how it works. Some MT attributions therefore arguably miss opportunities to better inform consumers in ways that include those with low MT literacy.

The use of MT is even more consequential on public sector websites, and many of them deploy the technology in similar ways. When public sector organisations use MT online, they tend to issue explicit disclaimers about the risk of translation errors, although even in these cases the presentation of MT can blur important distinctions. Figure 1 shows the settings menu for the website of the government of the State of Connecticut (2022a) in the United States (US). At the time of writing in July 2022, the website is available in eight languages other than English, namely Arabic, Simplified Chinese, French, Italian, Polish, Portuguese, Russian, and Spanish.

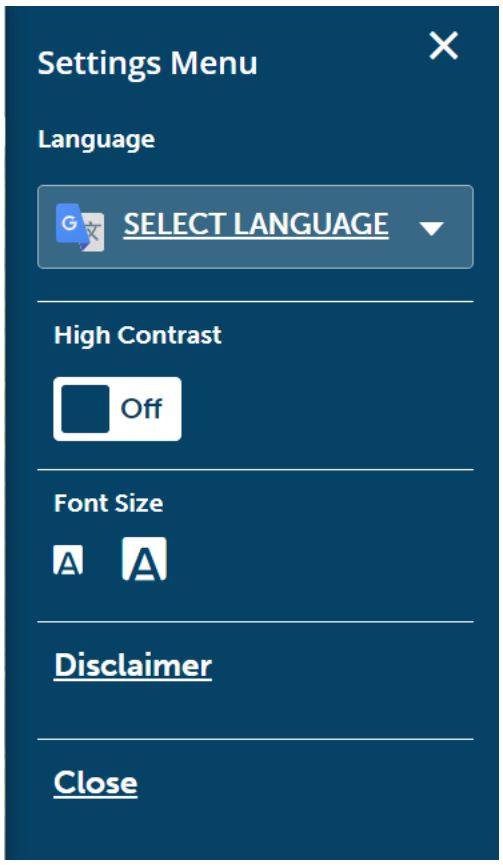

Figure 1 – Screenshot of the settings menu of the State of Connecticut government website (accessed 19 July 2022). Reproduced with permission.

By clicking on the 'disclaimer' link shown in Figure 1, the website visitors are taken to a message that states:

> By your selection of a language from the drop-down menu, you will translate the State of Connecticut website into the selected language using the Google Translate online service […] the Service may not accurately translate the website due to the limitations of Google's machine-generated translation […] The official text is the English language version of the website (State of Connecticut 2022b).

While the message clearly indicates that using a language other than English involves risks, the website visitors need to click on the disclaimer in order to see it. For those who miss or

bypass this message, the Google Translate icon shown next to ‘select language’ is the only sign that MT is in use. Notably, by selecting a language other than English, English itself becomes one of the options on the same menu, so not only is it possible for the use of MT to go unnoticed, but it also risks presenting the English version as equivalent to the others.

The State of Connecticut is a particularly clear example, but many other websites use MT in the same way. Among websites of US state governments, at the time of writing the ones for Pennsylvania and Oregon provide Google-powered translation options without disclaimers that I could find near the translate or language buttons (Commonwealth of Pennsylvania 2022; State of Oregon 2022). The same applies to organisations in other countries, especially where the original content is in English, for instance the website of the London transport network (Greater London Authority n.d.).[iv]

The examples above point to a need to consider how MT can be deployed in ways that can raise doubt about which version of the content is being presented as the official one. For users who are provided with MT by default and do not overtly operate it, MT has many properties attributed to background and immersive technologies. As worded in Ihde’s description of background human-technology relations, MT in these cases can be said to be “a piece of the immediate environment” (Ihde 1990, 109); it is always ‘there’ and forms part of the experience of accessing the website, even if just as an icon in the corner or through the expectation that translations may be available on a pop-up message or drop-down menu. In all these cases, automatic availability of MT makes presentation of the information more complex if the audience is to be sufficiently warned of the risks.

5. Figures of authority and machine-translated interactions

The second MT use context I consider is when figures of authority call on MT as a face-to-face communication tool. Given the availability of MT on mobile devices, it should not come

as a surprise that MT has found its way into this type of context. Official sources show that MT tools have been used by immigration officers in the United Kingdom to conduct screening interviews with asylum applicants (Bolt 2020). They have also been used by US police forces, for example to obtain consent to search a vehicle (Grosdidier 2019). Cases where figures of authority call on the technology are also easily found in the press. For example, MT has allegedly been used for police questioning in Iceland (Iceland Monitor 2017) and Italy (Di Cori 2022), while in one case in Brazil it was used by municipal guards to understand a tourist who needed help (Extra 2021). Where these cases are described in the news based on personal accounts they should be approached with caution because the information can be difficult to verify. News items of this nature nevertheless demonstrate that the presence of MT in these contexts is not an isolated occurrence.

In many ways, these uses of the technology are drastically different from the ones discussed in the previous section. Here MT leaves the environment of a website to play a role in a physical space involving more than one individual. Among other differences, use of the technology in these cases may be marked by urgency or a surprise element. It is also likely to be supplemented by gestures, sounds and body language. In addition, the presence of MT in face-to-face interactions is harder to miss. In a case discussed by Grosdidier (2019), a Spanish-speaking motorist was pulled over by a police officer and brought into the police car so that the officer could use the vehicle's laptop to ask questions through Google Translate. A court ruling associated with this case shows that the officer typed the questions in English and the motorist read them on screen in Spanish (USA v Cruz-Zamora 2018). The ruling does not specify if the motorist at any point used MT to speak back to the officer, but in the parts of the interaction described in more detail the motorist answered the questions out loud either in basic English or in Spanish. Based on his use of MT, the officer could establish the purpose for the motorist's journey and who owned the car. He also asked for consent to

search the vehicle, but the consent was later challenged in court and ultimately quashed because MT was considered insufficient to overcome the language barrier. Here I am more interested in the nature of the interaction than in its legal outcome. The conversation inside the car was video recorded, and the ruling includes a transcript for the moment when the officer sought consent for the search (USA v Cruz-Zamora 2018, 7), which I reproduce below:

> Officer: [Background Sound: Typing on Keyboard]
> Defendant: Okay…*it is in front of the car because I'm going to look for it … How?*
> Officer: *Do you understand?*
> Defendant: *No, how?*
> Officer: [Background Sound: Typing on Keyboard]
> Defendant: Ah, okay. Yeah…yeah. Go. *Yes.*

The italics in the passage above indicate Spanish utterances translated into English by a professional interpreter heard by the court. The original utterances in Spanish are not available, but the ruling clarified that 'how' is a direct translation of 'como', in Spanish, which in this context means 'what' or 'what do you mean?' (USA v Cruz-Zamora 2018, 7).[v]

Several aspects of this interaction are noteworthy. First, it was the police officer who decided to use MT rather than the motorist. Second, this use was overt. The officer typed questions and directly interacted with MT on a laptop inside the car in the presence of the motorist. Third, the motorist (i.e., the defendant) did not have to actively participate in the MT use procedure. All that he had to do was to read the translations and answer the questions, which he did out loud. The relationship with MT is therefore fundamentally different for the officer and for the motorist.

Looking at the officer first, he interacted with MT by typing his questions, clicking on buttons, and waiting for the tool's response. In the technological mediation framework, this way of interacting with the technology is consistent with a relationship of alterity. MT here is

not embodied and is not in the background either. Like in most uses of it, it provides a text to be interpreted, although this text (the MT output) is directed at the motorist and not at the officer, who did not have fluent Spanish (USA v Cruz-Zamora 2018, 1). For figures of authority who find themselves in this position, the decision to use MT is likely to be deliberate and overt, but it is not fully autonomous. The officer needs to follow governance and professional conduct guidelines, and these guidelines may allow, prohibit, or fail to mention MT. Authority figures will therefore be subject to collective decision-making frameworks, which is an important difference in their relationship with MT compared to the motorist. Governance frameworks do not exempt officials from individual accountability but are likely to influence their actions. In the example above, the officer "testified that there was no department policy against using Google Translate" (USA v Cruz-Zamora 2018, 2). Despite the lack of a policy, compared to members of the public, the standard expected of authority figures is higher. Their organisations should foresee and prepare for challenging communicative contexts. Preparation in this case does not necessarily mean banning MT altogether. Depending on the context or urgency of the communication, alternatives to MT could pose challenges of their own, although in this instance, by the officer's own account, "he had other options beyond using Google Translate" and "a live interpreter would be a more reliable source" (USA v Cruz-Zamora 2018, 11).

For those who are interviewed by figures of authority, the complexity of the human-MT relationship is particularly striking. In their case, the relationship with MT is even less autonomous because they will be subject to the authority of the interviewer. If an immigration or police officer proceeds to communicate using MT, the interviewee may feel compelled to comply even if they are aware of the risks. The interviewee may not directly operate the MT tool and may simply need to confirm that they understand the question or to consent to a specific action, like in the example above. They still need to assimilate

(read/hear/understand) the translations, so they will have a hermeneutic relationship with the tool. This relationship is nevertheless indirect. Despite the distinct characteristics of face-to-face communication, the presence of MT in these contexts involves complexities that are not dissimilar from the ones discussed in Section 4. Like those who are provided with machine translations on shopping websites, those who are addressed by figures of authority through MT can be more clearly characterised as passive consumers of the content than as active users of the tool.

At a broader level, all those involved in the interaction will also be influenced by MT's inherent availability and the affordances of modern internet and communication infrastructure. The current version of Apple's iOS system, for instance, includes an MT tool by default. This means that iPhone owners no longer need to install an MT application themselves. The application's privacy notice warns users that "Translate should not be relied on in circumstances where you could be harmed or injured, in high-risk situations, for navigation, or for the diagnosis or treatment of any medical condition" (Apple 2022). Much like website disclaimers, however, warnings of this nature can easily go unnoticed, and the persuasive presence – or intentionality – of the technology cannot be ignored in discussions of its social implications.

6. Conclusion

The MT access situations discussed in the previous two sections hopefully show that 'MT use' is not a straightforward concept. Users can encounter the technology in different capacities. They may be the ones who actively integrate it into an online environment or who actively deploy it in some other context. Individual decisions in these cases may be subject to high-level policies or professional guidelines, and the first-hand deployment of the technology will in turn engender other types of contact with it, whether it be visitors to a

website who select a specific menu option or the interlocutor in a conversation who is prompted to communicate through it. In addition to asking questions such as who MT users are, what they need, how satisfied they are with the technology, and what they use it for, it is increasingly important for researchers to also ask how MT tools are integrated into the environment – technologically but also socially – and what types of human-MT relationships are associated with this integration. Questions of this nature are likely to be sensitive to a wider spectrum of purposes that MT may be expected to serve, thereby helping to enhance the capacity of researchers, policymakers and other stakeholders to deal with its conundrums. Postphenomenology provides a useful framework for addressing these questions since it looks at tools not just as instruments to be used but also as mediators of perception and of everyday life.

At the heart of some of the questions discussed above is the distinction between active use and passive consumption of MT. In other words, when MT is used to distribute information to others, those who receive the information will consume the product of the technology rather than use it directly. This distinction is not always this simple, however. Individuals may be put in the position of passive consumers while having to assume responsibilities usually associated with active users. As mentioned, they may just select a language option, look up a term, or speak to their smart assistant all the while being bound by disclaimers that instead of informing are arguably more likely to just exempt those who are responsible for placing the technology in that specific context or location.

Issues of accountability and risk should not, however, preclude use of the technology altogether. In many contexts MT is likely to play roles that would be difficult to be fulfilled by professional human translations, which may be related to urgency and speed or to content that can be considered ephemeral or inconsequential. Even in these cases, it is important to consider the different types of influence exerted by the presence of the technology or the

ways in which it is deployed, and here too questions around the nature of human-MT relations are likely to play a part. In the same context of deployment, MT may involve different types of users whose needs do not necessarily align. Sellers on a shopping website may need to reach large customer bases but some customers may prioritise certainty and content accuracy over multilingual purchases. Depending on how MT is presented in these cases, it may be difficult for consumers to make an informed decision on their use of it. MT therefore is not just a foreground tool. It is also a technology that is presented potentially inconspicuously or through the legitimating authority of others, which merits more attention in professional guidelines, governance frameworks and more generally in efforts to promote MT literacy. While human translations can also be inconspicuous (see House 2014, 252), when they are that is usually because they work as an independent product, which is likely to entail high-standard expectations and quality assurance checks that are not normally applied to MT when used unedited. MT's inconspicuous presence is therefore likely to involve more risks than professional human translations deployed in the same manner.

MT's wide availability, especially when inconspicuously deployed, calls for further empirical research. Scholars may wish to check MT consumers' ability to notice disclaimers or the extent to which they might be influenced by those who put the technology to use. Findings of this nature may shape MT presentation methods as well as strategies for enhancing or promoting MT literacy. There are also more specific types of content that I have not covered here and which call for future investigation, including social media posts and product reviews. Like in the shopping example discussed in Section 4, MT is often applied by default to product reviews in ways that also complicate presentation of the content, for example in relation to information about what the source language is. More broadly, any information we supply or make available on the internet is subject to being translated, and given MT's wide availability, this translation is increasingly likely to be generated by an MT system or, more

recently, a large language model. For those who just publish content that is later machine translated by someone else, the relationship with the technology arguably does not constitute 'use' at all. However, just the fact that individuals co-inhabit online spaces with MT (e.g., on social media) can subject them to its use outcomes, whether positive (e.g., linguistic diversity) or negative (e.g., misrepresentation).

MT's level of integration and convergence with other technologies is likely to increase, and indeed some users would like seamless automatic availability. The more portable, available, and multimodal the technology becomes, the more, I would argue, we are likely to be immersed in MT-mediated environments in ways that transcend deliberate decisions to operate an MT tool. At a practical level, it is worth considering MT's permeating presence more explicitly in relation to official uses of it. Discussion of this presence is likely to better equip those who need to anticipate the different contexts in which MT can be consumed or called upon. At a conceptual level, there is room to consider MT's presence in relation to differences between those who actively deploy it and those who passively consume it. This distinction is particularly relevant to risk-benefit assessments of the technology, since deployers and consumers may not have the same level of autonomy to mitigate MT's risks or to engage critically with its use.

References

Adams, Douglas. 1979. *The Hitchhiker's Guide to the Galaxy*. Basingstoke: Pan Macmillan.

Apple. 2022. "Translation & Privacy." Apple. Accessed 19 July 2022. https://www.apple.com/legal/privacy/data/en/translation/.

Asscher, Omri, and Ella Glikson. 2021. "Human evaluations of machine translation in an ethically charged situation." *New Media & Society*. https://doi.org/10.1177/14614448211018833.

Baig, Edward C. 2020. "Translate this: How Real-Time Translation Breaks down Barriers When You Don't Speak the Language." *USA Today*, 2020, Tech. Accessed 18 January 2022. https://eu.usatoday.com/story/tech/2020/02/05/translation-tech-solutions-language-barriers-google-translate-interpreter/4596091002/.

Berbyuk Lindström, Nataliya, and Cheryl Cordeiro. 2022. "'Just Google Translate It!' ICT Use of Migrant IT professionals for Mitigating Workplace Integration Challenges." In *AMCIS 2022 Proceedings*. Association for Information Systems. Accessed 01 October 2022. https://aisel.aisnet.org/amcis2022/sig_lead/sig_lead/1.

Bolt, David. 2020. An inspection of the Home Office's use of language services in the asylum process. Independent Chief Inspector of Borders and Immigration. Accessed 25 January 2022. https://www.gov.uk/government/publications/an-inspection-of-the-home-offices-use-of-language-services-in-the-asylum-process.

Bowker, Lynne. 2020. "Fit-for-purpose translation." In *The Routledge Handbook of Translation Technology*, edited by Minako O'Hagan, 453-468. London: Routledge.

Bowker, Lynne, and Jairo Buitrago Ciro. 2015. "Investigating the Usefulness of Machine Translation for Newcomers at the Public Library." *Translation and Interpreting Studies* 10 (2): 165-186. https://doi.org/10.1075/tis.10.2.01bow.

---. 2019. *Machine Translation and Global Research: Towards Improved Machine Translation Literacy in the Scholarly Community*. Bingley: Emerald Publishing Limited.

Brauthaarschmuck. 2022. "Earrings Beads Jewelry earrings jewelery Wedding Bride Wedding Bridal Earrings Hoops [automatically machine-translated from German]." Etsy. Accessed 01 October 2022. https://www.etsy.com/uk/listing/1130361796/earrings-beads-jewelry-earrings-jewelery?ga_order=most_relevant&ga_search_type=all&ga_view_type=gallery&ga_search_query=jewelry&ref=sr_gallery-1-7&frs=1&sts=1&organic_search_click=1.

Buts, Jan. 2021. "Targeted individuals: Personalised advertising and digital media translation." *Translation Spaces*. https://doi.org/10.1075/ts.20048.but.

Castilho, Sheila, Fabio Alves, Sharon O'Brien, and Morgan O'Brien. 2014. "Does Post-Editing Increase Usability? A study with Brazilian Portuguese as Target Language." In *Proceedings of the seventh annual conference of the European Association for Machine Translation*, 183-190. European Association for Machine Translation.

City of North Vancouver. 2022. "City of North Vancouver Official Website." City of North Vancouver. Accessed 26 May 2022. https://www.cnv.org/.

Commonwealth of Pennsylvania. 2022. "Commonwealth of Pennsylvania's Website." Commonwealth of Pennsylvania. Accessed 18 July 2022. https://www.pa.gov/.

Di Cori, Arianna. 2022. "Il 118 non parla inglese, turista tedesca muore a 25 anni. Il compagno: 'Mi facevano le domande con Google Translate'." *La Repubblica*, 04 April 2022, 2022, Cronaca. Accessed 18 August 2022. https://roma.repubblica.it/cronaca/2022/04/04/news/il_118_non_parla_inglese_turista_tedesca_muore_a_25_anni-344015324/.

European Commission. n.d. "Eurostat: Your Key to European Statistics." European Commission. Accessed 16 August 2022. https://ec.europa.eu/eurostat/.

Extra. 2021. "Guardas municipais usam tradutor do Google para socorrer tailandesa abandonada pelo namorado ucraniano no Parque Madureira." *Extra*. Last Modified 25 December 21. Accessed 19 July 2022. https://extra.globo.com/noticias/rio/guardas-municipais-usam-tradutor-do-google-para-socorrer-tailandesa-abandonada-pelo-namorado-ucraniano-no-parque-madureira-25332193.html.

Fan, Angela. 2020. "Introducing the First AI Model That Translates 100 Languages Without Relying on English." Meta. Accessed 19 May. https://about.fb.com/news/2020/10/first-multilingual-machine-translation-model/.

Gaspari, Federico. 2007. "The Role of Online MT in Webpage Translation." PhD Thesis, School of Informatics, University of Manchester.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.100.840&rep=rep1&type=pdf.
Glikson, Ella and Omri Asscher. 2022. AI-mediated apology in a multilingual work context: Implications for perceived authenticity and willingness to forgive. *Computers in Human Behavior*, 107592. https://doi.org/10.1016/j.chb.2022.107592.
Google. 2021. "Google Keynote (Google I/O '21)." Google. Accessed 20 May 2022. https://io.google/2021/session/88b34a4e-6170-4f18-a321-4260fb559e60?lng=en.
---. 2022a. "Attribution Requirements." Google. Last Modified 14 July 2022 UTC. Accessed 18 July 2022. https://cloud.google.com/translate/attribution#disclaimer.
---. 2022b. "Change Chrome Languages and Translate Web Pages." Google. Accessed 30 June 2022. https://support.google.com/chrome/answer/173424?hl=en-GB&co=GENIE.Platform%3DDesktop.
Greater London Authority. n.d. "Transport for London." Greater London Authority. Accessed 16 August 2022. https://tfl.gov.uk/.
Grosdidier, Pierre. 2019. "Lost in Translation: Google Translate Might Not Always Be the Best Way to Obtain Search Consent." *Texas Bar Journal* 82 (2): 94.
Hendus, Ulrike. 2015. "'See Translation': Explicit and Implicit Language Policies on Facebook." *Language Policy* 14: 397-417.
House, Juliane. 2014. "Translation Quality Assessment: Past and Present. In *Translation: a Multidisciplinary Approach*, edited by Juliane House, 241-264. Basingstoke: Palgrave Macmillan.
Iceland Monitor. 2017. "Interrogation via Google Translate." *Iceland Monitor*. Last Modified Wed 16 Aug 2017. Accessed 19 July 2022. https://icelandmonitor.mbl.is/news/nature_and_travel/2017/08/16/interrogation_via_google_translate/.
Ihde, Don. 1990. *Technology and the Lifeworld: From Garden to Earth.* Indiana: Indiana University Press.
Jia, Yanfang, and Binghan Zheng. 2022. "The Interaction Effect between Source Text Complexity and Machine Translation Quality on the Task Difficulty of NMT Post-Editing from English to Chinese: A Multi-Method Study." *Across Languages and Cultures* 23 (1): 36-55.
Jolley, Jason R, and Luciane Maimone. 2015. "Free Online Machine Translation: Use and Perceptions by Spanish Students and Instructors." *Learn Languages, Explore Cultures, Transform Lives*: 181-200. Accessed 01 October 2022. https://silo.tips/download/this-article-reports-the-results-of-a-survey-based-study-on-the-use-of-and.
Kaplan, David M. 2009. "What Things Still Don't Do." Review of What Things Do: Philosophical Reflections on Technology, Agency, and Design, Peter-Paul Verbeek. *Human Studies* 32 (2): 229-240. http://www.jstor.org/stable/40270691.
Latour, Bruno. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. *Clarendon lectures in management studies*. Oxford: Clarendon.
Liubinienė, Vilmantė, Donata Lisaitė, and Jurgita Motiejūnienė. 2022. "A Snapshot of Children's Attitudes toward Machine Translation." *Information* 13 (7): 317. https://www.mdpi.com/2078-2489/13/7/317.
Maryns, Katrijn, Philipp Sebastian Angermeyer, and Mieke Van Herreweghe. 2021. "Introduction: Flexible Multilingual Strategies in Asylum and Migration Encounters." *The Translator* 27 (1): 1-11.
Microsoft. 2022. "Attribution." Microsoft. Accessed 18 July 2022. https://www.microsoft.com/en-us/translator/business/attribution/.

New York State. n.d. “The Official Website of New York State.” Accessed 01 October 2022. https://www.ny.gov/.

Nurminen, Mary. 2019. “Decision-Making, Risk, and Gist Machine Translation in the Work of Patent Professionals." In *Proceedings of the 8th Workshop on Patent and Scientific Literature Translation*, 32-42. Accessed 01 October 2022. https://aclanthology.org/W19-7204.pdf.

Nurminen, Mary, and Niko Papula. 2018. “Gist MT Users: A Snapshot of the Use and Users of One Online MT Tool.” In *Proceedings of the 21st Annual Conference of the European Association for Machine Translation, Alicant, Spain, May 2018*, edited by Juan Antonio Pérez-Ortiz, Felipe Sánchez-Martínez, Miquel Esplà-Gomis, Maja Popović, Celia Rico, André Martins, Joachim Van den Bogaert and Mikel L. Forcada, 199-208. European Association for Machine Translation.

Ogura, Kentaro, Yoshihiko Hayashi, Saeko Nomura, and Toru Ishida. 2004. “User Adaptation in MT-Mediated Communication.” In *Proceedings of The First International Joint Conference on Natural Language Processing (IJCNLP-04)*. Association for Computational Linguistics. Accessed 01 October 2022. https://www.researchgate.net/publication/228985292_User_Adaptation_in_MT-mediated_Communication.

Olohan, Maeve. 2011. “Translators and Translation Technology: The Dance of Agency.” *Translation Studies* 4 (3): 342-357. https://doi.org/10.1080/14781700.2011.589656.

Pituxcoosuvarn, Mondheera, and Toru Ishida. 2018. “Multilingual Communication via Best-Balanced Machine Translation.” *New Generation Computing* 36 (4): 349-364. https://doi.org/10.1007/s00354-018-0041-7.

Ramati, Ido, and Amit Pinchevski. 2018. “Uniform Multilingualism: A Media Genealogy of Google Translate.” *New Media and Society* 20 (7): 2550-2565. https://doi.org/10.1177/1461444817726951.

Ritter, Martin. 2021. “Postphenomenological Method and Technological Things Themselves.” *Human Studies* 44 (4): 581-593. https://doi.org/10.1007/s10746-021-09603-5.

Robertson, Samantha, Wesley Hanwen Deng, Timnit Gebru, Margaret Mitchell, Daniel J. Liebling, Michal Lahav, Katherine Heller, Mark Díaz, Samy Bengio, and Niloufar Salehi. 2021. *Three Directions for the Design of Human-Centered Machine Translation.* Google (Google). Accessed 01 October 2022. https://research.google/pubs/pub50504/.

Rosenberger, Robert, and Peter-Paul Verbeek. 2015. “A Field Guide to Postphenomenology.” *Postphenomenological Investigations: Essays on Human-Technology Relations*, edited by Robert Rosenberger and Peter-Paul Verbeek, 9-41. Lexington Books.

State of Connecticut. 2022a. “Connecticut's Official State Website.” State of Connecticut. Accessed 18 July 2022. https://portal.ct.gov/.

---. 2022b. “Disclaimer.” State of Connecticut. Accessed 18 July 2022. https://portal.ct.gov/portal/policies/disclaimer/#translate.

State of Oregon. 2022. “Oregon.gov.” State of Oregon. Accessed 18 July 2022. https://www.oregon.gov/Pages/index.aspx.

Toral, Antonio, Martijn Wieling, and Andy Way. 2018. “Post-editing Effort of a Novel With Statistical and Neural Machine Translation.” *Frontiers in Digital Humanities* 5 (9). https://doi.org/10.3389/fdigh.2018.00009.

USA v Cruz-Zamora. 2018. United States District Court for the District of Kansas. Accessed 01 October 2022. https://www.govinfo.gov/app/details/USCOURTS-ksd-5_17-cr-40100/USCOURTS-ksd-5_17-cr-40100-0.

Verbeek, Peter-Paul . 2008. “Cyborg intentionality: Rethinking the Phenomenology of Human–Technology Relations." *Phenomenology and the Cognitive Sciences* 7 (3): 387-395. https://doi.org/10.1007/s11097-008-9099-x.
---. 2009. “Ambient Intelligence and Persuasive Technology: The Blurring Boundaries Between Human and Technology.” *Nanoethics* 3 (3): 231-242. https://doi.org/10.1007/s11569-009-0077-8.
---. 2015. "Beyond Interaction." *Interactions*. Accessed 01 October 2022. https://interactions.acm.org/archive/view/may-june-2015/beyond-interaction.
---. 2016. “Toward a Theory of Technological Mediation: A Program for Postphenomenological Research.” In *Technoscience and Postphenomenology: The Manhattan Papers,* edited by Jan Kyrre Berg O. Friis and Robert P. Crease, 189-204. London: Lexington Books.
Vieira, Lucas Nunes, Minako O’Hagan, and Carol O’Sullivan. 2020. “Understanding the Societal Impacts of Machine Translation: A Critical Review of the Literature on Medical and Legal Use Cases." *Information, Communication & Society*: 1-18. https://doi.org/10.1080/1369118X.2020.1776370.
Vieira, Lucas Nunes, Carol O’Sullivan, Xiaochun Zhang, and Minako O’Hagan. 2022a. “Machine Translation in Society: Insights from UK users." *Language Resources and Evaluation*. https://doi.org/10.1007/s10579-022-09589-1.
Vieira, Lucas Nunes, Carol O’Sullivan, Xiaochun Zhang, and Minako O’Hagan. 2022b. “Privacy and Everyday Users of Machine Translation." *Translation Spaces*. https://doi.org/10.1075/ts.22012.nun.
Vorstoffel, Annette. 2019. “Tips for Optimising your Shop’s Language Settings." Etsy. Accessed 20 May 2022. https://www.etsy.com/uk/seller-handbook/article/tips-for-optimising-your-shops-language/679881202901.
Wahlster, Wolfgang, ed. 2000. *Verbmobil: Foundations of Speech-to-Speech Translation*. Berlin: Springer-Verlag.
Yamada, Setsuo, Syuuji Kodama, Taeko Matsuoka, Hiroshi Araki, Yoshiaki Murakami, Osamu Takano, and Yoshiyuki Sakamoto. 2005. “A Report on the Machine Translation Market in Japan.” *The 10th Machine Translation Summit, Phuket, Thailand*. Accessed 01 October 2022. https://aclanthology.org/2005.mtsummit-papers.8.pdf.
Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. London: Profile Books.

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[i] Postphenomenology can also be referred to as the study of technological mediation (Verbeek 2016). In translation and interpreting, 'mediation' often means linguistic and/or cultural mediation between individuals. In postphenomenology, it refers to technologically mediated experiences of our surroundings. Although conceptions of mediation are not my focus here, I would argue that this broader acceptation of the term encompasses communicative mediation between human beings, so the two senses are compatible.

[ii] In other words, technological intentionality can only exist because of human intentionality (Verbeek 2009, 235). The two combine to give rise to hybrid forms of intentionality which can themselves be referred to as "technologically mediated" (ibid.).

[iii] Any website descriptions provided in the article reflect the website configurations in July 2022 based on my experience of accessing the websites from the United Kingdom on a laptop web browser. Given the dynamic nature of the content, details of how the websites are presented may change.

[iv] For a different example, the website of the New York State government superimposes a banner on any machine translated pages warning of the risks of mistranslations (New York State n.d.). European Union websites use a similar tactic, even if their disclaimer does not specifically mention what MT is or the risks it poses (European Commission n.d.).

[v] The case document does not explain why 'como' was translated literally. I hypothesise that this is an attempt to closely reproduce the Spanish rather than an issue with the interpreter's language competency.