

Will translators be cyborgs? What would make a cyborg translator?

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Els traductors, seran cyborgs? Què
caracteritzaria el traductor-cyborg?

¿Serán cyborgs los traductores? ¿Qué
caracterizaría al traductor-cyborg?



Abstract

Previous literature on cyborg translators focus mainly on machine translation as the ultimate science fiction. In 2022 it is relevant to talk about cyborg translators beyond just machine translation to picture new challenges. The aim of this article is to invite the readers to reflect on the subject.

Keywords: cyborg translator, machine translation, translation technologies, translator.

Resumen

En la bibliografía existente sobre traductores cibernético, la traducción automática era lo último en ciencia ficción definitiva. En 2022 es pertinente hablar de los traductores cibernético más allá de la traducción automática para imaginar nuevos retos. El objetivo de este artículo es invitar a los lectores a reflexionar sobre el tema.

Palabras clave: traductor cibernético, traducción automática, tecnologías de la traducción, traductor.

Resum

A la bibliografia existent sobre els traductors cibernético, la traducció automàtica era el més avançat en ciència ficció. El 2022 podem parlar dels traductors cibernético més enllà de la traducció automàtica per imaginar nous reptes. L'objectiu d'aquest article és convidar els lectors a reflexionar sobre el tema.

Paraules clau: traductor cibernético, traducció automàtica, tecnologies de la traducció, traductor.

1. Introduction

These thought-provoking questions were presented as open questions in the 20th Issue of *Revista Tradumàtica* in the section #tradumatica20_questions. This article attempts to summarise the answers received and add more food for thought. Several lecturers and professionals shared their views on the first question “Will translators be cyborgs?” Answers to the second question, “What would make a cyborg translator?”, were provided by localization students from the Faculty of Translation and Interpreting at the Universitat Autònoma de Barcelona. Answers submitted in video format can be viewed on the journal platform. The aim of these questions and answers was to open up a debate on the future of translation.

At the time of writing we are celebrating 50 years of translation and interpreting studies (1972-2022) at the Faculty of Translation and Interpreting of the Universitat Autònoma de Barcelona. Many translation practices have changed in these 50 years and I cannot help but wonder if anyone back in 1972 could have guessed exactly how we are translating now. Back in 1972, the idea of translating with a personal computer might have seemed crazy, and the idea of finding just any answer on an internet (instead of books) would have been real science fiction in the absence of machine neural machine translation or mobile phones. Currently there are already specialized human translators who do not write a word unless the target text has been previously machine translated because they prefer to use their brains to find mistakes and not want to write (well, not as much) any more. Who knows how the translation industry will be in 50 years’ time?

Talking about cyborg translators is not new, as the term ‘cyborg’ itself comes from the 1960s. However, it is very interesting to realize that previous publications on cyborg translators focus mainly on machine translation services as the ultimate science fiction challenge (Cronin 2003; Robinson 2003; Shah 2008; Downie 2013). For this reason, in 2022 it is highly relevant to talk about cyborg translators beyond machine translation to picture new visions and new challenges, as machine translation is already here and is no longer science fiction.

Let’s start by defining ‘cyborg’, as some readers may associate a cyborg directly with a robot, and both concepts are not the same. The *Oxford English Dictionary*, defines cyborg as “a person whose physical tolerances or capabilities are extended beyond normal human limitations by a machine or other external agency that modifies the body’s functioning; an integrated man-machine system.” In contrast, a robot is fully automated, not human. On the contrary, a robot is fully automated, not human. Nevertheless, we know these boundaries will become blurred in the future and any kind of cyborg translator will incorporate robot skills, so full automation will be a constant theme in the answers presented here. This article concludes by attempting to open a debate on the degree of integration of technology in human translation and where boundaries between humans and machine will be in the future, if any.

2. WILL TRANSLATORS BE CYBORGS?

Answers to this question were sent to a form placed in the *Revista Tradumàtica* in October 2022. Firstly, I would like to thank all the respondents for participating. Obviously, this is not just a Yes/No question and the answers received will help us to form our own (provisional) opinion on the subject. In this section, contributions have been slightly ordered from the most skeptical to the most acceptive. Interestingly, they coincide also with a sort of chronological line of “things to come” running from the immediate to the furthest hypothetical future, which we do not know when (or if) they will happen. Nevertheless, all contributions have something in common: they all agree that, irrespective of the degree of integration between humans and machines, humanity will prevail and humans will be essential to taking decisions. While some of the answers seem to express opposing views, the truth is that all of them admit to a certain degree of integration between technology and humans in translation. In fact, this article is being written under the orders of a human brain, through a keyboard that displays the words on a screen and looks for information within the immensity of an internet.

Rudy Loock from Université de Lille thinks that translators will not become cyborgs. He states that, “as for many other professions, translators will need to learn how to work with technological developments, learn the use of Artificial Intelligence to produce machine translation output, and they will need to make sure that they understand what their added value is as human beings. The relationship between humans and machines is definitely a topic for the 21st century in many different fields.” Moreover, Rudy Look explains that, as a translation trainer, he tries, “to focus on what students can do better than the machine (meaning machine translation) so that they can define their added value and understand where they have a crucial role to play by being in the centre of the translation activity.”

Juanjo Arevalillo from Hermes Traducciones believes that there will always a need for humans and human intervention will always exist. He reminds us that, so far, technology has not implied the disappearance of human translation. In this sense, Pablo Muñoz Sánchez, professional translator, coincides that, “even though we use a lot of translation technologies or even machine translation, the human brain is still necessary to translate well.”

Peter Sandrini from University of Innsbruck firmly states that, “translators will never be cyborgs”. He clarifies that, “automation is indeed necessary for efficiency and thus the responsibility of the future translator will shift from mere production of a target text to the management of multilingual tasks and translation.” Sandrini envisions that, “the future role will be more of a supervisor, and an advisor to employers as well as a specialist in the use of technology such as the deployment of machine translation including preparation and evaluation of language data, multilingual corpora, translation memories, terminology for the training of machine translation engines.”

Patricia Rodríguez from Universitat Autònoma de Barcelona (UAB) reminds us that despite all advances in translation technologies, there are still many translators that use simple MS Word files and technology has not arrived yet to all translation specialties. Many customers ask for an unformatted translation, so “translators might not need yet

to manage all technological tools and platforms but make the most of a few ones they really need to offer more QUALITY.”

Other contributions focus specifically on the integration between technology and humans. Lynn Bowker, from University of Ottawa, states that, “if cyborg means technology physically implanted into translators, then I’m not sure... But if cyborg = a human translator’s dependence on technology in order to meet the market demands, then I think we are already there! To do their job well in the current market (and for the foreseeable future), translators MUST work with technology. The market has forced translators to become technologically dependent in order to meet client expectations (e.g., increased speed/productivity while maintaining quality).”

Vicent Briva-Iglesias from Dublin City University states that “I do not think that translators will be cyborgs in the future but that the translation profession no longer can be understood without considering a symbiosis between technologies and humans. For instance, in current interaction with CAT tools, we no longer know which sentences have been human-translated and which have been machine-translated, as matches and machine translation are linked and merged. For this reason, what will be important in the future will be to distinguish and value what will be valuable human contributions in comparison to machines.”

Estella Oncins from Universitat Autònoma de Barcelona (UAB) states that, “the use of technology in translation has contributed to the cyborg image of translators. Interaction human-computer is an essential part of translator. I’d say that a cyborg translator would be able to analyse and evaluate data obtained from this interaction in order to take decisions and thus improve efficiently in their job”. In this sense, Anna Aguilar-Amat from Universitat Autònoma de Barcelona (UAB) states that, “there are more and more available resources, and we must learn how to manage them and value their usefulness. For instance, there are resources for denominative variation. These resources allow us to find different points of view on concepts. In this case, a translator’s task will not be to interchange conceptual labels but reflect on which label is the most accurate in each case while researching the concept. This means that eventually humans could develop more arms and hands departing from the body to manage all this information with just one brain.”

Richard Samson from University of UVic-UCC, thinks that “In a more general sense when we talk about cyborgs we are talking about the integration between biology and technology. If we look at it from that perspective, then the cyborg movement is already happening. We’ve seen it, gradually, in recognition of identities, for example, face recognition or fingerprint recognition and also in augmented reality publications and in things like the glasses.” In his answer, Richard Samson makes a reference to a presentation of Google Live AR Translation Service Glasses Prototype from May 2022, where research participants tested out prototype glasses with a live translation service built in with subtitles. With examples like this one, Richard Samson does not think “we need necessarily think of implants or part-machine bodies but we are certainly moving in a direction where we are seeing an integration between biology and technology.”

Oscar Nogueras from OnTranslation comments that the question seems science fiction, but we are not that far from reality. Oscar envisions, “in the future devices inside our body that allow us to communicate with each other without boundaries. Obviously, everything related to automatization and artificial intelligence will be essential in the metaverse and/or the real world. However, in order to achieve a more persuasive communication, full automation is not near and services like transcreation and SEO-SEM translation, related to digital marketing, will be essential for human translators. There is still a long road to go for human translation.”

Sabri Gürses from Bogaziçi University has a firm opinion on this question: “Today all translators are cyborgs. Even if you refuse to use MT, you become a cyborg, by living in a mechanised-digitalised translation sphere, in an environment where every social and business interaction is digital. The problem is how augmented you are.”

Gys-Walt Van Egdom from Utrecht University shares the view that he has been “trying to salvage deconstructionist theory for profit lately and one of the main tendencies is that a human being is in essence a prosthetic being. And I think we can draw a parallelism between a human and a translator because cybernetics has always been part and parcel of the translatorial DNA. So, surprise, we have always been cyborgs!”

Finally, Félix do Carmo from University of Surrey says that “the term cyborg translator reminds me of the film *Minority Report*. In that movie, there are sophisticated ways of interacting with technology. One of them is achievable and desirable for translators and was used by the policemen of that movie. The character has a huge, sophisticated, virtual display in which he selects information, combines it, separates it, identifies patterns, outliers and makes decisions based on that. I think translators would need that kind of flexibility in their tools. The other characteristics embedded in technology are the precogs, capable of predicting violent crimes. They have connections to their brains, and they are in sleep mode all the time. [Imagine that this system was used by] translators to make decisions. This system is far more sophisticated and dangerous and I don’t think we want that to be developed for translators.”

Will cyborg translators be able to translate intentions (to commit crimes)? Thoughts? Sentiments? Dreams? The unwritten? The unsaid? Will cyborg translators be able to translate communication between machines? Between any kind of living being? Communication between body cells? Between brain neurons? Will cyborg translators be able to translate not only human languages but any kind of act of communication irrespective of the agents and items involved?

3. WHAT WOULD MAKE A CYBORG TRANSLATOR?

Answers to this question have been collected from localization students at the Faculty of Translation and Interpreting at Universitat Autònoma de Barcelona (UAB) for the last few years. In my localization class, we talk about the present (neural machine translation) and then we forecast the future. A silhouette of a cyborg translator is drawn in the whiteboard with the expression What if? above the silhouette and students are given post-its. In pairs, they have some minutes to imagine how would a cyborg translator be

in a science fiction movie. No restrictions. No wrong answers. They imagine the future with open minds. In the answers, cyborgs and robots coexist as the boundaries between them dilute, just like in science fiction, and they think also of robots with human features. We have been told that one of the roles of Humanities Studies in society today is to imagine and reflect on future scenarios before they become real in order to analyse the consequences and be prepared. As members of a humanistic community themselves, translators could contribute to the task of imagining the full integration between technology and humanity in translation. If we do not, who will?

Technology in the brain

Incrustations in the brain are by far the device most mentioned by students. In a science fiction scenario, microchips are not perceived as negative, as they would improve a translator's brain without the current effort needed to learn a language. Microchips could have different uses depending on the task. For instance, special microchips would be used to analyse source texts in depth: they would detect ironies, double senses, idioms, cultural specificities, etc.

Other microchips would be used to look up information. For instance, microchips would be fed with terminological multilingual glossaries, encyclopaedias, multilingual translation memories, etc. In these developments, students particularly value multilingual resources and not just bilingual resources. Another suggestion is a microchip that does not translate literally but rather has a lot of creativity and capacity for resolution and individual adaptation. Another microchip would be able to carry out total quality control for a translation and it would be able to detect mistakes as a translation mistakes detector. Finally, a microchip what would allow the user to know and speak infinite languages.

Currently we have access to resources that do all this, but they are outside of our body, i.e., as a prosthesis. As a matter of fact, some students say that they would gladly accept these developments if they would be safe and they would not affect their health negatively.

Technology in the eyes

Students have plenty of ideas for augmented reality glasses. Glasses that highlight translatable text, or any special text, glasses that provide terminology and machine translation, etc. Special glasses with special features such as glasses that protect eyes and do not deteriorate sight so that translators can work longer hours without eyes fatigue. And last but not least, these glasses should be stylish.

One step beyond glasses are contact lenses. Ideas for contact lenses range from contact lenses that can search automatically on the Internet to lenses that detect translation and written mistakes.

And one step beyond contact lenses, they mention integrated nanodevices in the eye's retina, such multilingual dictionaries integrated in the retina.

In conclusion, hardware for the eyes could be glasses, contact lenses and/or devices in the retina. Preferred software for this eye hardware would be multilingual dictionaries, style guides and error detectors.

Technology around the mouth

The students proposed microphones with different forms and sizes. Features range from language detection to multilingual dictation. Most innovative proposals to be implemented in the mouth are related to nanorobot pills that are swallowed and would activate multilingual knowledge and correct accents.

Technology around the ears and the neck

Students would suggest earpieces for automatic simultaneous interpreting with high quality sound features. An interesting object for the neck would be a device that would modulate and intonate how languages sound so that pronunciation would be perfect in any language.

Technology for the hands

Cyborg translators could incorporate devices in their hands to improve productivity dramatically. For instance: gloves to write faster, or artificial hands that write much faster. Students also suggested the idea of adding fingers to the hand to write faster.

Technology for legs and feet

It must be said that in most scenarios cyborg translators would not need legs. However, artificial legs were mentioned to climb to conflict areas. Special efforts had to be made to think of useful devices to be integrated into legs and feet. Maybe the most useful one was, after all, a special boot to kick the customers that do not pay their translation invoices.

4. CONCLUSIONS

Cyborg features will be mocked until they become real. Machine translation was a laugh until it became reliable. At this stage there is so much translators and researchers can do to anticipate the future and in fact the brainstorming ideas presented here are too vague and general, but hopefully enough to provoke curiosity into researching further. Some immediate measures could include:

1. Further research on current technological developments in similar fields and/or developments that could be adapted and reused for translation purposes. We need more translators working in tech companies.
2. Imagining further case scenarios on the social, economic, political, ethical consequences of the existence of real cyborg translators. Pros and cons of each scenario. The more detailed, the better.

3. Further technical brainstorming and product design sessions of the devices presented in the paper. Write as much technical details as possible, as if it was a patent.
4. Further research on different ways to achieve the proposed ideas with current technology. If integration in the body is not possible yet, think of prosthetic devices.
5. Broaden the “translation” meaning beyond languages. Apply the use of technology, AI and big data to improve the ‘translation’ process in just any communication scenario between any kind of living beings and machines.

This further research can be fostered from universities (innovative research questions, PhD and/or master’s thesis, etc.), from translators’ associations, from science fiction writing labs for translators. Maybe we are all now mostly focused on machine translation and post-editing as neural machine translation is revolutionising the industry. However, we should pay attention to other devices that enhance the integration between technology and humans and more translation researchers should be doing research on these subjects. Whatever happens around translation technologies should count on translators. Translators should participate in the design, development and testing of new devices. We need more translators working in tech companies. The question is not whether translators will become cyborg translators, but when and how.

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