



Machine translation and the state of the translation industry

By Daniel Landes

Technological progress is both a blessing and a curse. It can open doors, but also threaten people's livelihoods and destabilize entire systems.

Progress in the field of machine translation has brought change to the translation industry – and has raised the question of whether translators are on the way to becoming obsolete.

If one takes a closer look at all the facts, it quickly becomes clear that the threat to translators' livelihoods doesn't actually come from the machines.

The real problem is the economic model that, even before the arrival of artificial intelligence (AI) and machine translation (MT), was geared towards devaluing the work done and exploiting the individual service providers.

In this post, I will examine the current state of the translation industry and the role of machine translation within it.

To do so, I will look at how the public perceive machine translation engines, how the practice of post-editing MT output affects the quality of a literary text, and why the real problem facing the translation profession lies in the economic structures of the industry. To finish, I will briefly explore the risks of machine translation.

But before all of that, I can tell you this: if the industry doesn't start focusing on sustainable working practices for everyone involved, it will bring about its own demise.

My observations are based exclusively on this academic journal: [*Translation Spaces, Volume 9, Issue 1, 2020.*](#)

Key points

The public

- The public overestimates the abilities of machine translation because media coverage is not sufficiently nuanced and creates false expectations.
- Users must be educated about the limits of machine translation.
- It is unclear where the responsibility lies when machine translation is used.

Quality

- Compared to a purely human translation, the use of machine translation and post-editing loses a third of the “voice” (personal style) of the translator.
- This is a problem because texts produced in this way feel interchangeable, impersonal and less memorable.

Economics

- The current system, which focuses solely on short-term profits, must become sustainable if it is to survive.
- Post-editing is a complex task that should be carried out by highly specialized experts. It saves neither time nor money to the extent claimed.

Risks

- Material and nonmaterial damages caused by translation errors
- Liability issues
- Cybersecurity

What can translators do?

As participants in translation workflows, translators have the right to have their interests represented and protected. And they are entitled to expect that workflows also take account of their needs and value.

Translators need to make it clear to their customers that they will not accept just any working conditions, and that a good working relationship depends on certain standards being met.

To achieve this, translators must network and organize with their colleagues and other freelancers. Doing so will create scope for sharing ideas and information about sensible, healthy and sustainable working conditions. Secrecy ultimately only helps the customers or the large agencies, and seriously weakens the individual.

How MT is presented to, and perceived by, the public

The media plays a key role in communicating information and therefore influences the way the public perceive certain topics. With that in mind, it is worth looking at the picture it is painting of (machine) translation for the public.

News coverage of translation tools such as Google Translate, DeepL and Microsoft Translator is [predominantly positive](#). However, the stories are rarely nuanced and sometimes even objectively wrong. Since it is relatively easy to access and use these tools, people often overestimate what MT can do, while simultaneously underestimating the complexity of translations in general.

Positive news reports tell us that automated translation systems have improved significantly in recent years, thanks to neural networks and machine learning. Microsoft even claimed that its system [achieved parity with human translators](#). This [was disproved elsewhere](#), but the media still picked up and spread the claim without verifying it.

Although articles about MT often focus on the benefits of automated translation systems, the information they are based on usually comes directly from the tools' developers. In other words, the stories are more like advertisements than analytical reporting.

What's more, MT is often presented as being infallible, or even "magical". The tools are personified and seen as autonomous beings. This leads people to believe that AI behaves like a human and can work just as efficiently as one.

Negative news articles about MT often report on humorous incidents or situations intended to shock the reader. These stories are mostly found in the tabloid press and focus on linguistic errors. Again, these stories lack nuance and they are more interested in entertaining their readers than educating them.

Neutral articles that objectively report on the positive and negative aspects of the technology are, by contrast, extremely rare outside of expert circles.

The lack of nuanced reporting means that users of MT tools have very little awareness of how they actually work. And yet the burden of responsibility always lies with the users. If someone needs to produce a translation in a professional context, they must be able to make an informed decision about whether they require a professional translator or whether an online tool will suffice.

The public discourse ignores important factors that are obvious to translation experts – such as the fact that MT is not equally well suited to all text types – and this is devaluing the work of professional translators. To strengthen the role of individual translators and of the industry as a whole, the public needs to be better educated about the uses and risks of MT.

Source: [Machine translation in the news: A framing analysis of the written press](#), Lucas Nunes Vieira, University of Bristol

The human translator's voice

Although we occasionally hear claims that machine translation is now capable of producing rough translations of literary texts, a number of ethical questions still need to be answered. One of these concerns the importance of the translator's voice.

The translator's voice is evident in their stylistic choices, deliberate deviations from the source text, specific translation decisions, and other subjective aspects.

Translators' voices are obviously also present in translation tools, as they make up the data that are used to train the AI. But the tools mix many voices together, making it impossible to detect any individual tones.

Using a single machine translation engine to translate the work of different authors risks homogenising their works, because the engine cannot respond to the linguistic hallmarks of each individual author.

Conversely, using different engines to translate works by the same author could heterogenize their style.

Dorothy Kenny and Marion Winters conducted an experiment that showed precisely how much a translator's voice is "dampened" by the use of MT and post-editing, compared to a pure human translation.

For their study, Kenny and Winters worked with translator Hans-Christian Oeser, who translated F. Scott Fitzgerald's *The Beautiful and Damned* into German 20 years ago. They asked Oeser to post-edit a machine translation of an excerpt of Fitzgerald's text, and then compared the result with his original translation.

The following sentence provides a good example of their work [for a full analysis of the translations in English, see the article by Kenny and Winters; link below]:

Original: After a fortnight Anthony and Gloria began to indulge in 'practical discussions,' as they called those sessions when under the guise of severe realism they walked in eternal moonlight.

Machine translation: Nach zwei Wochen begannen Anthony und Gloria, sich in „praktischen Diskussionen“ zu vergnügen, wie sie diese Sitzungen nannten, als sie unter dem Deckmantel des strengen Realismus in einem ewigen Mondlicht wandelten.

Post-edited version: Nach zwei Wochen begannen Anthony und Gloria, sich in „praktischen Diskussionen“ zu ergehen. So nannten sie jene Sitzungen, da sie unter dem Deckmantel eines strengen Realismus in ewigem Mondlicht wandelten.

Original translation: Nach vierzehn Tagen begannen Anthony und Gloria sich in „praktischen Diskussionen“ zu ergehen; so nannten sie es, wenn sie zusammensaßen und hinter der Maske strenger Vernunft in ewigem Mondenschein wandelten.

Kenny and Winters found that the combination of machine translation and professional post-editing resulted in roughly a third of the translator's linguistic style being lost.

The question then is whether this loss is reasonably proportional to the supposed increase in efficiency and speed.

Source: [Machine translation, ethics and the literary translator's voice, Dorothy Kenny and Marion Winters, Dublin City University | Heriot-Watt University](#)

The economic aspect

Digital Taylorism and the translation industry

The current situation

Whether by accident or design, today's translation industry has adopted the system of [digital Taylorism](#) – a modern version of the [scientific management](#) theory, in which workflows are divided into smaller chunks and prepared for individual workers, who are then monitored to ensure that they carry out their tasks correctly. In this scenario, workers are primarily motivated by payment and by bonuses for good performance. The company's objective is to become more efficient.

This type of system might benefit companies that submit to the demands of the stock market and put short-term profit for shareholders before sustainability and fair working conditions. But prioritising like this also has considerable shortcomings.

Motivation, for instance, is a complex construct that is not solely about payment; it also involves factors such as goal achievement, meaningful work, personal growth, a certain degree of responsibility, and good working conditions ([Herzberg](#)). What is more, in the current economic climate, the only bonus that workers receive for doing good work is keeping their job.

When tasks are broken down into smaller chunks, the individual loses sight of the overall picture and becomes unable to exercise their ethical judgement. This can lead to situations where employees contribute to projects that go against their own moral values. Breaking tasks up also leads to increasingly complex workflows and a need for more and more roles.

Linguists (who do not just stubbornly translate words, but rather analyse the source text and transfer its meaning into the target language) must, as freelancers without direct contact to the end client and despite the high level of skill required, only apply a fraction of their abilities to completing individual parts of a project. The work involves little variety, and constant update cycles – such as for software and video games that regularly receive small patches – mean that projects are never truly finished. This type of work is no longer meaningful; it deprives linguists of the satisfaction of successfully finishing a project, and gives them no sense of mastery because they are hardly ever confronted with challenging problems.

Monitoring workers today might be easier than ever before, but the problem of motivation has yet to be solved.

To make matters worse, translators have little influence over their working environment and are reliant on their clients behaving ethically. They are usually isolated and rarely organize collectively. For many, translation is a sideline that they combine with care duties at home. They are easily replaceable – which, combined with irregular income and a lack of bonuses – leads to precarious conditions and creates stress. As a result, many translators are [dissatisfied with their job](#), and the feeling of working on an assembly line ultimately leads to a sense of resignation.

Possible solutions

The translation industry is too focused on maximizing profits, and the limits of generally accepted practices are constantly being stretched. Ideally, the industry will shift its thinking to sustainability and to continually providing good working conditions for everyone involved.

Prioritising growth is, in 2020, simply no longer appropriate or viable.

Instead, everyone in the industry should adopt the [triple-bottom-line](#) framework, which accords equal importance to the interests of people, the planet and profit. It involves focusing on people's needs, ensuring efficiency over the long term, and operating in a way that allows resources to regenerate. The work environment must also provide fair wages, social security and good communication.

If nothing changes, experienced professionals could migrate to other industries and an endless flow of underpaid newcomers will be unable to replace the knowledge lost. In addition, placing too much trust in machines could cause a general decline in linguistic quality in the future.

In other words, if the translation industry wants to avoid bringing about its own demise, it must create a sustainable system for its workers.

For this to happen, lawmakers need to strengthen the position of skilled freelancers, translators must network and organize collectively, and large companies should develop their own sustainable systems.

All parties must engage in an open dialogue and show a degree of appreciation for each other's work.

If the translation industry wants to survive, it must ask itself the following questions:

- How can we recognize translators' growing skill sets?
- How can we help linguists to keep learning and developing?
- How does losing talented professionals affect the sustainability of our business?

Also, training programmes for the next generation of linguists should impart knowledge of ethical and sustainable business practices.

Source: [A tiny cog in a large machine](#) Digital Taylorism in the translation industry, Joss Moorkens, Dublin City University

Time is money: The value of translation

Having looked at the current state of the translation industry and having made the case for sustainability, it now makes sense to determine the value of translation in the era of artificial intelligence.

A product's value is determined by the rules of the free-market economy. It is primarily the result of production costs and time, the level of expertise required of the workers, and consumers' perception of the product.

As well as reducing *production costs*, machine translation is also said to have a positive impact in terms of time. But time is not a meaningful metric for the complexity of a task and the skills it requires. Focusing on a supposed increase in productivity to determine the value of a translation will, at most, devalue the work done.

The traditional model of translation involves three tasks, all of which are performed by humans:

1. Preparing the text
2. Producing the first draft or the translation
3. Editing

By contrast, an ISO standard says that post-editing texts produced by a machine consists of editing and correcting machine translation output – which initially sounds like it involves less time and effort. This validates the machine's achievements and devalues the human's.

But post-editors quickly find that they are caught in a paradox: they must avoid overcorrecting the machine's text, but also pay attention to detail and make sure that the final product sounds like a human translation.

Post-editing might seem simpler than the traditional process, but it actually complicates the translator's task considerably.

Alongside glossaries, style guides and translation memory systems, MT adds to the mix a fourth translation resource that needs to be considered and checked to ensure consistency within the project and across potential collaborators. If the resources make contradictory suggestions, post-editors can find it even harder to make a decision than before. They have to compare every suggested translation, check its validity, and then reach a decision on the final version. There is therefore no objective justification for reducing the human linguist's value.

This devaluation, which is primarily expressed in low rates and tight deadlines, also creates a mismatch between quality and working hours. How diligently can or should I work, when I have to perform a more complex task for less pay?

What is more, to make it easier to estimate the cost of a project, linguists are often paid by the number of words in the source text, not by time. So if a linguist has to make a lot of changes to a text and conducts diligent research, they will make a financial loss.

Contrary to the message from the industry that post-editing is simpler and faster, linguists actually have to adapt themselves to the machine and be able to anticipate problems. This clearly doesn't happen overnight. Rather, it comes with practice, confidence in one's own abilities and sound knowledge of one's field.

The industry therefore doesn't need cheaper labour; it needs specialists who are *more* skilled. Going by conventional logic, this should mean an increase in value and better pay.

But translation rates haven't actually risen in 20 years. Linguists were losing money even before machine translation was introduced, and they have little scope to effectively negotiate their rates. If machine translation is introduced across the board and current business practices remain unchanged, rates could drop by a further [4.085%](#).

The only way translators can currently keep pace with inflation is by increasing their efficiency and productivity. Machine translation should therefore not be deployed to save money, but rather to strengthen the position of linguists and help them remain profitable.

Source: [Time is Money and the value of translation, Félix do Carmo, University of Surrey](#)

Risks in machine translation

Finally, I'm going to take a look at the risks that can arise with machine translation. These risks can be roughly divided into three categories: damage to the customer or end user, liability, and cybersecurity.

Even the best MT isn't perfect and can produce typical translation errors that, in the worst case, damage the end user. But the relatively high quality of MT means that it can be difficult for post-editors to identify the errors. Once again, the translation industry needs highly specialized professionals – this time to combat the risks of MT.

Since an AI system is not a legal subject, questions about liability also need to be answered. As long as there is no generally accepted concept of an electronic personality, fault-based liability is out of the question. In other words, the AI system is not responsible for damage to third parties. In the case of strict liability, responsibility lies with the owner, user or developer of the AI system. It is currently unclear whether the freelance post-editor or the company that provided the machine translation platform is liable. Obligatory insurance must therefore be considered, and the responsibility (and insurance costs) involved must obviously be reflected in appropriate rates of the kind paid for expert services.

Regarding cybersecurity, free online tools are especially problematic. According to their terms of use, the platforms can use the translated text to train the engine and can make it freely available online for others. Since company employees, freelance translators and third parties can use these tools, the risk of a data leak occurring is relatively high. Paid versions of these programs, however, do comply with data protection regulations.

Anyone who wants to effectively manage risk must, as I have mentioned several times now, prioritize sustainability. Ensuring that everyone is happy with their workflows reduces the likelihood of someone using insecure tools. It is easier to keep track of programs used by employed translators than those used by freelancers, and a proprietary platform for machine translation that is more or less as user-friendly as the free tools will stop employees from entering sensitive data online. If work has to be outsourced, trust, supplier satisfaction (primarily achieved through fair pay) and good communication are imperative.

The legislative framework also needs to be improved. The ISO standards for translation currently contain no rules on data security, risk management or protection for end users. In addition, product safety only has to be guaranteed by the original documentation; as yet, no laws or standards exist that require translations of the documentation to also conform to specific safety requirements.

Source: [Risks in neural machine translation, Carmen Canfora and Angelika Ottmann, Johannes Gutenberg-Universität Mainz | Die RisikoScouts GbR](#)

Conclusion

To sum up:

The public's positive view of machine translation is doubly problematic. The lack of nuanced reporting distorts the facts. It will become increasingly difficult to sell traditional translation services to laypeople if they are led to believe that a machine can produce usable results on its own.

The dampening of authors' voices in post-edited MT output is, especially in the literary and creative fields, an issue that requires very careful consideration.

Current practices in the translation industry are far from sustainable. And instead of simplifying processes, integrating AI translation into workflows actually complicates them. Workers are not becoming cheaper – theoretically, they are becoming more expensive because they are having to become more specialized.

And last but not least, a number of legal questions still haven't been fully resolved – such as the issue of liability, cybersecurity, and potential damage to the end user.

Meanwhile, it is clear that the industry's focus on maximizing profits has no future. If sustainability of the triple-bottom-line kind does not move to the heart of company philosophies, the industry will sooner or later implode.

MT should be seen as an aid for translators, not as their replacement, because the tools do not work without human involvement.

That said, the industry, which is dominated by several leading companies, will not change by itself.

Independent translators must join forces and campaign together for better contract terms.

And the public's perception of MT must move closer to reality in order to prevent any further decline in appreciation for human translation.

English translation: Jen Metcalf

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