Machine translation white paper

Humans and machines work in perfect harmony here at Apostroph.
Even when it comes to our translation services. So when is a machine up to the job? And when do you need human input?

Machine translation white paper

Let's say your company has an office in France and you need information about their sales figures. Chances are that you've forgotten the French you picked up at school, so you decide to use an online translation tool to write a quick email to your French-speaking colleagues. Guess what? You just used machine translation!

Human or machine?

Machine translation is just one of the applications of artificial intelligence (AI) that have been taking the world of work and almost every aspect of our lives by storm. AI has triggered a fundamental shift within the language services sector – as it has in so many other industries. This development is opening up new possibilities and raising all kinds of questions, starting with, where do I turn – to a human or a machine?

Combination is key

As far as we're concerned, humans and machines are not mutually exclusive. We don't believe that it's possible to rely on machine translation without drawing on expert human input. It's essentially just another tool in our overflowing toolbox. Machine translation complements and supplements our other tools – and it has the potential to save time and money.

But a number of questions have to be asked and answered if you want to get the best out of the options available. **This white paper is here to help you.**

In this white paper, we explain what exactly machine translation is and explore the strengths and weaknesses of machine translation versus human translation. We go on to offer you a happy medium – post-editing. And we conclude by sharing other options with added value so you're fully informed and in a position to decide on the right solution for your business.

Apostroph Group

Founded in 1994
160 employees
100 languages
> 2,000 language experts
> 5,000 customers

Advantages

• In-house language experts
• In-house team of developers
• State-of-the-art translation technologies
• Customised corporate solutions
• Expert advice

Security

100% discretion and maximum security with regard to your confidential data thanks to European data sovereignty, compliance with GDPR and TISAX-certified processes.

Explore the opportunities

What is machine translation?

At the basic level, machine translation involves a translation system transferring a source text into the target language. In other words, there is no human input into the translation. You will be amazed at the speed and volume delivered by machine translation. Recent statistics suggest that machines are translating around 1 billion words a day. You might have come across some of the many online tools out there that can prepare a translation in next to no time and at no cost to you – in theory, at least. So should you trust these tools?

The strengths of human intelligence

It's easy to be impressed by machine translation output. But you need to be careful if quality is important to you. Human translation (still) trumps machine translation when you're working with specific business requirements or when expert knowledge is required to identify and translate specialist terminology and complex concepts.

And you need a human to handle cultural references because they will understand the context in which the target text needs to make an impact. Make sure you turn to experienced translators if there's any sign of word play, sayings or slogans in your text for translation. They will be able to understand the broader context of the text as a whole and draw on the extensive linguistic and cultural experience they have behind them.

In other words, human translators perfect your text. They can stop a strong campaign that delivered results in the source language from flopping in the target language and ending up being a source of embarrassment. And that doesn't just apply to more exotic languages!

Rule-based machine translation (RBMT)

RBMT is based on dictionaries and broad linguistic rules that are used to translate the source text into the target language. This is the oldest form of machine translation.

Statistical machine translation (SMT)

The system uses statistical data to decide on the most likely translation. Although the results can be improved by feeding in more data, the system itself can't learn.

Neural machine translation (NMT)

NMT is the latest iteration of machine translation. It's based on neural networks that predict the likelihood of a sequence of words. The system learns to translate and is improving all the time. This is a ground-breaking development for the future.

Post-editing as a happy medium

Post-editing is the perfect way to combine the strengths of machine translation with the skills of human translators. So what is post-editing? The first step is to generate a machine translation. This output is then checked by a professional translator, who tidies it all up and gives it a final polish.
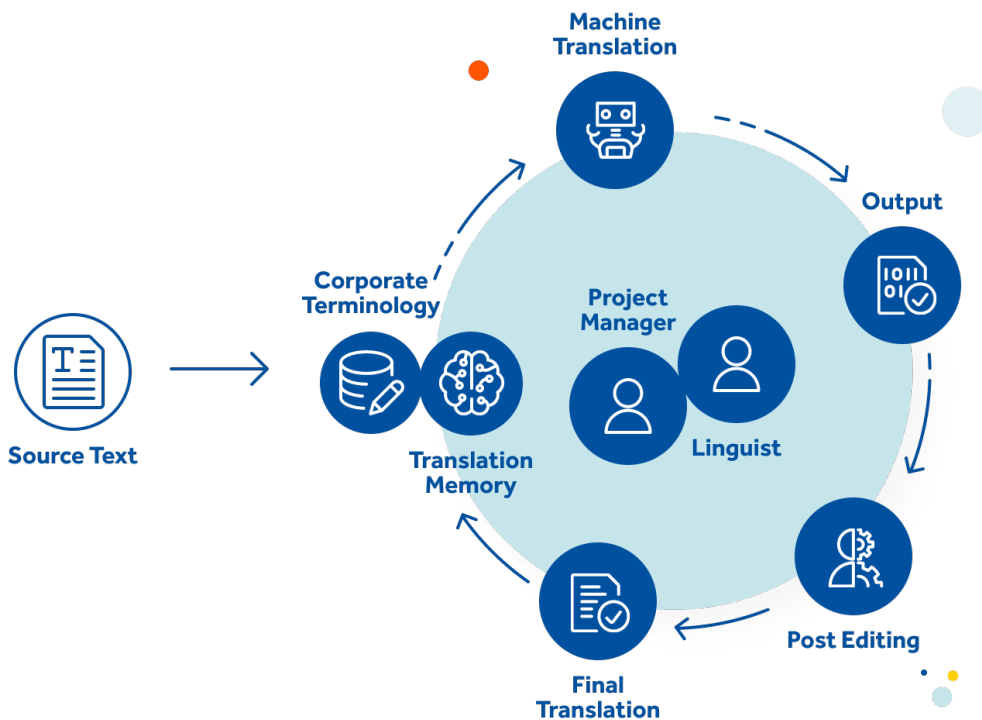
A decent language service provider will offer you the choice between full post-editing and light post-editing. Whichever of those options you go for, you'll need the engine or machine to have been well trained if you're going to get the best results.

Which engine should you use?

It's so important to get the engine right for machine translation. Is it really a good idea to rely on a free online translation tool? We're all familiar with Google Translate and similar services. But did you know that you need to be extremely careful when using them? They're advertised as free, but in reality you're paying in the form of data you put in, not to mention the security concerns (more on this when we talk about data protection).

One alternative would be to train your own engine. That might sound like a good idea, but it involves a lot of work and careful checking. It's much easier to use an engine that has already been trained. You can

speak to your language service provider about that. There are so many other benefits on offer if you take this route.

You can trust your language service provider to keep your data secure because it isn't shared online. Plus, your translation memory can be fed into the system. That will keep your translations consistent and ensure that the words your business uses appear in your translations. For example, the system will be able to pick up on the names of your products across all languages and will know which word you would prefer in a specific context. In other words, the output will be better. Automatically. And you'll be able to draw on support and advice on top of that.

"For this large-scale task, Apostroph recommended a mixture of human and machine translation with post-editing. A compelling solution because we not only received the translations on time, but we were also very satisfied with the quality."

Lauren Steventon · Marketing & Communications Specialist, Jet Aviation

The question of quality

So now you know that you can choose between machine translation, human translation and post-editing when you have a text for translation. But how do you know which of those options is going to be the most appropriate and efficient for you?
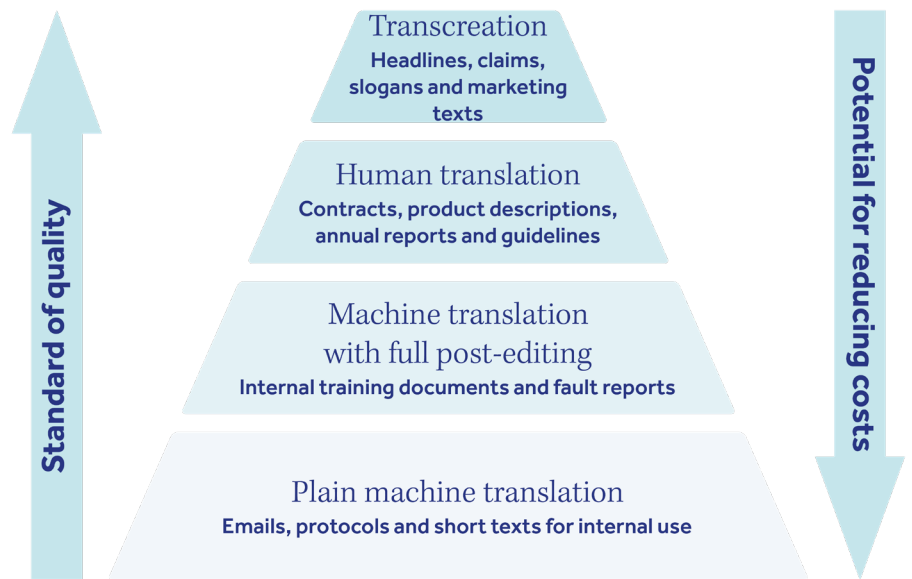
Human

Machine

Transcreation Copywriting

Post-Edited Machine Translation
ISO 18587

Premium Translation

Plain Machine Translation

Specialised Translation

Let's go back to our original example with the email you needed to send to your French-speaking colleagues.

If there was a mistake or a mistranslation in that communication, your colleagues would probably just check what you meant. In the worst case, you might cause a few laughs and be the butt of a few jokes. You'd get over it pretty quickly. But would you want to take the same risk with your annual report? The type of translation you decide on depends on the type of text and the level of quality required. This infographic offers an overview:

Transcreation
Headlines, claims, slogans and marketing texts

Human translation
Contracts, product descriptions, annual reports and guidelines

Machine translation with full post-editing
Internal training documents and fault reports

Plain machine translation
Emails, protocols and short texts for internal use

Standard of quality

Potential for reducing costs

As you can see, machine translation has plenty of potential and is a more cost-effective solution than a translation prepared by a human translator. This could do the job for internal texts that are associated with a low risk. The minutes from your last sales meeting are less sensitive than legal documents or medical files, for example. High-end translations and transcreations – something like slogans being crafted in another language – will only be in safe hands with an actual human translation professional. It's up to you to decide which option works best for you. Your language service provider will be happy to advise you if you're still not sure.

Data protection and security

Whichever translation route you go down, you need to make sure that your data is secure at all times. When you input your company's data into a free translation tool that's available to anyone online, you are consenting to third parties using it in line with the terms and conditions. We feel it's our professional responsibility to strongly advise against this in the name of data protection and security.

The Language Intelligence Company

The alternative we would recommend is to use an ISO-certified IT environment like the one we can offer you here at Apostroph. That way, you'll always know where your data is being stored and how it's being processed, without having to worry about any nasty surprises. A partnership like this promises plenty of positives for your workflow too.

So much potential for your workflow

A translation is never just a translation. It is a part of a workflow or process at your business, which is why in an ideal scenario, your language service provider will offer you a range of interfaces and integrations.

This will allow you to train the machine with your internal terminology and any existing translations. You might even be able to integrate your translation solution into your Intranet. That could give your employees a secure alternative to the likes of Google Translate that will know and apply the words you actually want to use as a business. Or maybe you could link your translation solution directly to your editorial system to save time and cut down on errors. Translation services can be offered at a flat rate too. There are so many ways to save time and money!

Start with a conversation

We're the Language Intelligence Company and you can rely on us for secure and efficient solutions, with human and machine translation working together or apart, depending on your quality requirements and expectations. More often than not, we find that a custom solution based on innovative yet reliable technology and extensive experience is the best solution.

Why not draw on our extensive experience to secure your own success? We can't wait to hear from you!

Ute Schneider
Head of Sales and Customer Service

apostrophgroup.de