



WHITE PAPER

# Machine Translation

## What You Need to Know





## TABLE OF CONTENTS

Overview .....	3
What is a Machine Translation Solution? .....	3
What Level of Quality Can I Expect from a Machine Translation Solution? .....	3
Will a Machine Translation Solution Save Me Money? .....	4
How Much Time Can Be Saved by Using a Machine Translation Solution? .....	5
Is Machine Translation Right For Me? .....	5



## Overview

As companies are faced with higher volumes of content that require translation, and as the time allotted for these projects shrinks, more and more organizations are weighing the pros and cons of machine translation (MT) as a viable solution to tackle these time-critical projects.

On its own, MT is a limited technology—anyone who has ever used a free online program to quickly translate an email or website has probably noticed that the level of grammatical accuracy in the output leaves much to be desired. However, when MT is incorporated into a total solution that can be customized based on specific project needs, it becomes a valuable tool if used in the proper applications.

TransPerfect has done just this with our customized MT methodology. Whether your project calls for the fastest possible way to loosely translate large volumes of documents or a more quality-conscious solution requiring distribution-quality final language under a seemingly impossible time crunch, an MT solution is an option worth considering once the benefits and limitations are fully understood. There are, unfortunately, times when a machine-based translation system is the only option— but on the flipside, there are times when, even in the presence of other options, MT may be the best of them all.

## What is a Machine Translation Solution?

A true MT solution is not just the machine translation process. It's a specialized methodology that – depending on your time frame, cost requirements, and end-use – can be customized to utilize the ideal combination of MT, complementary technologies such as translation memory (TM) and optical character recognition (OCR), and variable involvement of human translators. Once we determine the ideal process to meet your needs, a customized MT solution can be used to quickly and reliably produce useable translations for a number of purposes.

## What Level of Quality Can I Expect from a Machine Translation Solution?

Traditionally, machine translation quality has been subpar. The truth is that even today it remains a less than perfect technology that can't truly replace human translation as the industry's gold standard. This does not mean that MT is not useful—in fact, when incorporated into a comprehensive MT solution, machine translation is just one step in a process that can be fully customized to ensure that the final deliverables meet your specific quality requirements.

Certainly, there are instances where subpar quality is perfectly adequate—for example, you may need a “quick and dirty” translation of thousands of documents so you can determine exactly which among them are significant and need to undergo human translation. This process, called “gisting,” is a reasonable application of MT on its own.

However, when a higher quality standard is required, MT can be combined with human linguists who review the source language and machine output and make the appropriate edits to spelling, grammar, and sentence structure. The end result is a significantly more accurate translation that, while likely not perfect, is a notable improvement on machine translation alone— and can be produced in a fraction of the time.



Furthermore, for organizations that already have significant translation memory assets, the performance of MT is even better. Before undergoing MT, your documents will be analyzed against existing TM and any matching segments are automatically propagated with approved, distribution-quality language. The remaining content undergoes the standard MT process, and then all translated content is reviewed by a human linguist. The benefits of incorporating translation memory into the process are that the overall quality of the deliverables is significantly elevated, and much less time must be dedicated to human review, significantly reducing costs and speeding turnarounds.

## **Will a Machine Translation Solution Save Me Money?**

Generally speaking, MT solutions will cost less than traditional human translation. However, before embarking on any translation project – whether standard human translation or MT – it's extremely important to reconcile your overall goals with regards to quality, cost, turnaround, and end use. If cost was the only factor driving translation decision-making, MT would be used for virtually every project. However, in the vast majority of cases, a full machine translation would yield such low quality content that it would, despite the initial cost savings, negatively impact ROI (not to mention your organization's reputation). When your requirements do not call for distribution-level quality (such as the aforementioned gisting example), a heavily machine-based solution is faster and significantly less costly.

More and more, companies are faced with the challenge of producing distribution-quality translated materials in volumes and within timelines that do not allow for full human translation. In applying a custom MT solution, cost reductions may vary from minimal to significant (depending on how much translation memory can be utilized), as the level of human review required may negate the MT-generated cost savings. Still, MT solutions featuring a significant human review element produce distribution-ready translations at a rate that is not possible with a standard translation process, ensuring that your organization can reliably translate high volumes of content quickly, at a reasonable cost, and with a minimally acceptable level of accuracy.

Furthermore, invoice costs are not the only place where actual savings can be quantified. Even in situations where the review burden within the customized MT solution is substantial, it is a virtual guarantee that the total process will save time over traditional human translation. Accordingly, even though invoice costs may be roughly similar to traditional translation, for some businesses or projects the time saved holds far more monetary value than the amount that appears on the final bill.

### **TRANSPERFECT'S SCALABLE MT METHODOLOGY**

1. Documents are collected in electronic and hard copy format.
2. Front-end source material analysis and source sampling help determine the ideal project strategy.
3. Optical character recognition (OCR) software is used on hard copy documents to create electronic files where possible.
4. All documents are run against existing translation memory (TM) for matching segments.
5. Remaining text is translated through advanced machine translation software.
6. Reviewers comb through translated text, correcting basic spelling and grammar issues.
7. Final files are delivered to the client in electronic format.



## How Much Time Can Be Saved by Using a Machine Translation Solution?

MT solutions save a significant amount of time; precisely how much depends on the size of the project—the larger the project, the more time can be saved with MT. One fact that is constant through all of this is that machine translation solutions will always be faster than human translation.

That said, even if speed is your primary concern, MT may not necessarily be the best option. Since each project is unique, there's no mathematical equation to determine exact time savings; what's clear, however, is that the time savings accrued by MT is directly proportional to volume—projects that might take months to complete with traditional human translation can be shortened to weeks or even days using MT methodologies. For small projects, though, the turnaround time disparities are significantly less pronounced, and in many cases a “rush” human translation (assembling a larger team of linguists to complete a project more quickly) is the better choice—rush translations are still fast, but result in a higher quality final deliverable than a process that involves MT.

## Is Machine Translation Right For Me?

MT is a highly evolving medium, but despite all the advances, there is no computer program at this time that can come close to interpreting the subtle cultural and linguistic idiosyncrasies that the human brain can. Since language is an intensely human device, computerized translations by nature lag behind human translation in quality, reliability, nuance, and cultural appropriateness.

Applied in the right circumstances (i.e. extremely high-volume projects where quality is not a major concern), MT solutions can convey levels of time and cost savings that may not be possible with conventional translation processes. That said, in the vast majority of circumstances, the risks associated with producing lower quality content outweigh the benefits, and human translation is the only option that should be considered.

Should you be interested in exploring an MT solution for your organization, our expert client service team will lead a source document analysis and strategy session to help you determine if MT is the right choice. No matter what your requirements call for, you can be sure that your TransPerfect team will recommend a solution that strikes the most appropriate balance between timing, cost, and quality for your translated materials.