



## MAKİNE ÇEVİRİSİ VERSUS İNSAN ÇEVİRİSİ\*

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### ÖZET

Son zamanlarda makine çevirisinin avantajları ve dezavantajları konusu özellikle bu alanda en yeni ve önemli girişimci olan Google Translate'in attığı büyüyen adımlar sebebiyle insan çevirmenler arasında tartışma konusu olmuştur. Makine çevirisinin gelişimi ve potansiyeli onun kendi tarihi boyunca çok tartışılan bir konu olmuştur. Bu tartışma aslında makine çevirisinin doğumu ile başlamıştır.

Bu basit prosedürün arkasında karmaşık bilişsel bir işlem vardır. Bütün yönleriyle kaynak metnin anlamını çözmek için, çevirmenin metnin tüm özelliklerini yorumlaması ve analiz etmesi gerekmektedir.

İkinci Dünya Savaşı sırasında yaşanan şifreleme rekabeti, dil uzmanlarını, bir yabancı dilin anlaşılmasının bu şifreleme ilkelerine göre olabileceğine inanmalarına itmiştir. Soğuk Savaş ile bilgisayarın icadının aynı zamana rastlamasıyla, "Rusça şifrelerin kırılması" çeviri makinelerin ilk görevlerinden biri olmuştur.

Dünyanın farklı bölgelerinde daha fazla iş kurma rekabeti, teknolojiye gelişmiş ülkeleri kolay ve hızlı iletişim yolları aramaya teşvik etmiştir. Bununla birlikte, makine çevirisi de bazı acil durumlarda yararlı olduğu kanıtlanmıştır.

Bizim görüşümüze göre, bilgisayar uzmanları insanla karşılaştırılabilir bir makine çevirisi üretmek için yıllardır çalışmalarına rağmen, onların başarıya ulaştıklarını söylemek için henüz çok erken.

**Anahtar Kelimeler:** makine çevirisi, insan çeviri, avantajları, dezavantajları

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## MACHINE TRANSLATION VS. HUMAN TRANSLATION

### ABSTRACT

The advantages and disadvantages of machine translation have been the subject of increasing debate among human translators lately because of the growing strides made in the last year by the newest major entrant in the field, Google Translate. The progress and potential of machine translation has been debated much through its history. But this debate actually began with the birth of machine translation itself.

Behind this simple procedure lies a complex cognitive operation. To decode the meaning of the source text in its entirety, the translator must interpret and analyze all the features of the text.

The success of encoding of war rivals texts during WWII pushed the language experts to believe that translation of foreign languages could be realized based on these encoding principles. The cold war coincided with the invention of computers, and “cracking Russian” was one of the first tasks these machines were set.

The competition towards establishing more business with different parts of the world incited advanced countries in technology to look for easy and quick ways for communication. Nevertheless, machine translation has proved helpful in more urgent situations as well.

But, in my opinion, although computer scientists have toiled for decades to produce machine translation comparable to that rendered by humans, they have yet to succeed.

**Key Words:** machine translation, human translation, advantages, disadvantages.

There exists an underground battle between human and machine translation and there is an English saying that goes “Wrong translations could blow up the World”. Meanwhile, as an excuse we could say we are only humans, but what can the machines say in this respect.<sup>1</sup>

The advantages and disadvantages of machine translation have been subject of an increasing debate among human translators lately because of the growing strides made in the last year by the newest major entrant in the field, Google Translate. But this debate actually began with the birth of machine translation itself.

In the mean time, this debate would be out-of-place if we regard it with translation of literature.

Nevertheless, the success of encoding of war rivals texts during WWII pushed the language experts to believe that translation of foreign languages could be realized based on these encoding principles. The need for crude machine translation goes back to the start of the cold war. The cold war coincided with the invention of computers, and “cracking Russian” was one of the first tasks of these machines.

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<sup>1</sup>Umberto Eco (2003) Dire quasi la stessa cosa

On the other side, the competition towards establishing more business with different parts of the world incited advanced countries in technology to look for easy and quick ways for communication.

Although computer scientists have tried for decades to produce machine translation comparable to that rendered by humans, they have yet to succeed. Jokes, idioms and wordplay are largely lost on Google Translate, which fails to capture the “flavor” of the text.

But if we check the Russian translation of biblical sentence “the spirit is willing, but the flesh is weak” (Matthew 26) changed into “the vodka is good but the meat is rotten”, it would be a good reason to start worrying about the use of machine translation.

I am sure almost everybody has his own tale of terrible translation to tell about machine translation.

It would be difficult to imagine Orhan Pamuk’s works translated by a machine, which could never be able to transmit the magic of Turkish author.

World classics have been translated by genius translators, who have spent a lot of time working on masterpiece.

However, to play devil’s advocate for a moment, machine translation has proved helpful in more urgent situations as well.

When Haiti was devastated by an earthquake in January, aid teams poured in to the shattered island, speaking dozens of languages — but not Haitian Creole. How could a trapped survivor with a mobile phone get usable information to rescuers? If he had to wait for a Chinese or Turkish or an English interpreter to turn up he might be dead before being understood. Carnegie Mellon University instantly released its Haitian Creole spoken and text data, and a network of volunteer developers produced a rough-and-ready machine translation system for Haitian Creole in little more than a long weekend. It didn’t produce prose of great beauty. But it worked.

Machine translation can certainly help in some cases. Its legendary bloopers are often no worse than the errors made by hard-pressed humans.

But, the following types of translations should never be left up to Google Translate or any other machine translation tool:

- Sales and marketing texts requiring both linguistic and cultural understanding
- Patent translations or other technical literature where accuracy carries great importance
- Medical and pharmaceutical texts, particularly when such information may mean a matter of life or death
- Legal texts such as contracts, court orders, and wills, where any error in the text may have profound legal implications
- Any document that represents the public face of your business or organization, including websites, brochures, manuals, etc.

Therein lays the challenge in machine translation: how to program a computer that will "understand" a text as a person does, and that will "create" a new text in the target language that "sounds" as if it has been written by a person.

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But, regarding human translation, the problem is solved, because humans during the translation process can make a substitution of words and expressions by synonyms, syntactically correct different word order <sup>2</sup>.

The human translation process may be described as:

- Decoding the meaning of the source text
- Re-encoding this meaning in the target language.

Behind this ostensibly simple procedure lies a complex cognitive operation. To decode the meaning of the source text in its entirety, the translator must interpret and analyse all the features of the text, a process that requires in-depth knowledge of the grammar, semantics, syntax, idioms, etc., of the source language, as well as the culture of its speakers. The translator needs the same in-depth knowledge to re-encode the meaning in the target language.

On the other side, human translation is expensive, takes time and is usually unavailable when it is needed for communicating quickly and cheaply with people with whom we do not share a common language.

Previously, computer scientists attempted to “teach” the computer the linguistic rules of two languages in the hopes that the computer would piece together something intelligible in the target language and make the words and sentences magically appearing on the screen.

The father of machine translation, Warren Weaver, chose to regard Russian as a “code” obscuring the real meaning of the text. His team and its successors here and in Europe proceeded in a commonsensical way: a natural language, they reckoned, is made of a lexicon (a set of words) and a grammar (a set of rules).<sup>3</sup> If you could get the lexicons of two languages inside the machine (fairly easy) and also give it the whole set of rules by which humans construct meaningful combinations of words in the two languages (a more dubious proposition), then the machine would be able translate from one “code” into another.

Academic linguists, Noam Chomsky, also viewed a language as a lexicon and a grammar, able to generate infinitely many different sentences out of a finite set of rules. But as the anti-Chomsky linguists at Oxford commented at the time, there are also infinitely many motor cars that can come out of a British auto plant, each one having something different wrong with it. Over the next four decades, machine translation achieved many useful results, but, like the British auto industry, it fell far short of the hopes of the 1950s.

Now we have a beast of a different kind. Google Translate is a statistical machine translation system, which means that it doesn’t try to unpick or understand anything. Instead of taking a sentence to pieces and then rebuilding it in the “target” tongue as the older machine translators do, Google Translate looks for similar sentences in already translated texts somewhere out there on the Web. Having found the most likely existing match through an incredibly clever and speedy statistical reckoning device, Google Translate coughs it up, raw or, if necessary, lightly cooked. That’s how it simulates — but only simulates — what we suppose goes on in a translator’s head.

This simulation can never convey in other languages what is waiving on Anna Karenina’s mind or passion of Elizabeth Benet.

<sup>2</sup>E. Tupja (2000) Keshilla nje perkthyesi te ri, pg 94-98, Onufri

<sup>3</sup>W. Weaver (1955) Machine Translation of Languages

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In relation to literary translation, for works that are truly original — and therefore worth translating — statistical machine translation hasn't got a hope. Google Translate can provide stupendous services in many domains, but it is not set up to interpret or make readable work that is not routine — and it is unfair to ask it to try. After all, when it comes to the real challenges of literary translation, human beings have a hard time of it, too.

There exist several analyses reporting on accuracy of machine translation. During the automatic error analysis of machine translation output we take into consideration the phrase-based translation system, sentence-based translation, text-based translation and we notice:

- Inflectional error rate
- Reordering error rate
- Missing word error rate
- Extra word error rate
- Lexical error rate

Results of analyses reported that French to English translation is very accurate, and 2011 and 2012 showing that Italian to English translation is very accurate as well. However, rule-based machine translations perform better if the text to be translated is shorter; this effect is particularly evident in Chinese to English translations.<sup>4</sup>

The progress and potential of machine translation has been debated much through its history. Since the 1950s, a number of scholars have questioned the possibility of achieving fully automatic machine translation of high quality. Some critics claim that there are in-principle obstacles to automatizing the translation process.

Another problem with the machine translation is the quality of the original text, which most of the time is not perfect. The quality of machine translation varies in different languages and becomes more difficult for Albanian language, which is a particular language in the Indo-European family of languages. Programs which can automatically translate different languages have been recently created in Albania. Ironically, the quality of translation quality cannot improve, and this is not because of technical incapacities, but due to impossibility of creation of language database. Machine translation is used broadly, and people are satisfied with it because they achieve the wanting result and do not care about anything.

Meanwhile, the battle continues...

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