# MACHINE TRANSLATION

### Translation of text by a computer, without human involvement

Devaki Kun



While interacting with our clients, increasingly these days, the clients mention, "We use free online translation regularly for translating emails, letters and documents." While this is like a quick fix thatis free of cost, most people don't know the cons of using free online MACHINE translation. Yes, it is a machine that handles your text!

**What is machine translation?**

Normally, text is input to the machine, the machine has a software programme that scans the text and translates it using some algorithm. That algorithm could be as simple as a word-by-word dictionary lookup, or a bit more complex with some statistical analysis thrown in.

Still, it retains the 'artificial' feel that would not appear in a human translation. Machine translations (MT) are useful for getting a general idea about the meaning of a text written in a foreign language. However, 'general

idea'isn't always exactly accurate; the program translates the text literally (word to word),which often results in an unprofessional and inaccurate result that is grammatically incorrect, or sometimes a completely incoherent text.

How/for what is machine translation used?

It is a common practice to use free translation programs available online to read a document in a foreign language, or to translate a document into a foreign language. It is also sometimes used off-hand for Indian languages. See an example below in Hindi! **This is an actual snapshot taken by our team of an ad appearing on a website!!!!**

**Indian language perspective** –The above image in itself is proof of how free machine translation works in Indian languages -language pairs in which the technology is in a nascent stage of development.

**Foreign language perspective** - However, the situation gets worse when MT is used for translating into or from a language one does not know. In such cases, the input or the translated output cannot be read and therefore cannot be verified by the person. He/she then just blindly uses the output for whatever purpose, blissfully unaware of the problems that could arise.

**Multiple issues of using MT in the corporate world**

Now consider a scenario where a Project Manager is translating a document related to a tender from Portuguese to English online on a free translation portal, simply to understand it roughly. Here the problems are manifold.

Even if the PM understands English, how can he be sure that:

i.   All data has been translated – he does not have the time to verify and check with the original, whether all

ii. text, numerals, etc. have been translated and transferred fully

ii. The machine has interpreted the meaning correctly

iii. No linguistic nuances have been ignored

iv. AND MOST IMPORTANTLY, such sensitive information has been passed on to the MT provider, and this data will be stored by the program! This means, though it will not immediately affect your business, this data loses the confidentiality you require! MT providers claim rights to using that information for their own purposes.

Data leakage through MT – a real threat:

a. **Data leakage :** It is well known how critical information can leak – sending or accessing it over unencrypted connections, through unsecured Wi-Fi networks or storing it on cloud servers. These are risks that most of us are aware of.

What most people are unaware of is what the online machine translation providers do with the data users input.

b. **Rights to your data :** These sites exercise the right to use your data in ways you may not even have imagined. When you enter text for 'Free Translation,' you inadvertently provide the MT companies a worldwide licence to use, host, store, reproduce, modify, create derivative works, communicate, publish, publicly perform, publicly display and distribute such content.

c. **Types of data divulged :** Millions of people use MT services daily – right from emails, text messages, project proposals, legal contracts, merger and acquisition documents, and other sensitive content.

d. **Risk :** Organisations worldwide are realising that confidential information, trade secrets, and intellectual property (IP) are thus open to eavesdroppers and interpretation by the free MT providers to the world. **The bottom line :** Data leakage via MT is a real and present danger to enterprises.

**Solution :** If MT is required to produce professional, high-quality translation, a trained MT engine is necessary, together with specialist translators and post-editors (proofers of text post Machine translation!) who can check, edit and validate the MT output.

However this is only possible for large corpora of data. When it comes to a one time translation requirement, especially for your commercial or technical data, it is always better to get it translated through a human being!

**Difference between human and machine translation :**

1. **Artificialness** in language after translation – problems in syntax (sentence structure) influenced by source language, therefore providing translation that seems unnatural / artificial.

2. **WORDS**

   **a. Untranslatability**: The vagaries and origins of different languages mean that some things cannot be expressed – a concept known as untranslatability. **E.g. Ushta (in Marathi) or Jhootha (in Hindi) cannot be translated into English / any other non-Indian language as the concept itself is untranslatable.** A human translator in such a case inserts a translator's note to explain the meaning.

   **b. Choice of words**: You can get the gist of the draft or documents through automatic translation, but machine translation only does a word to word translation without comprehending the information. So the words placed in the translation do not necessarily mean what is said in the original document. A human translator, on the other hand, can re-express in his/her own words in the target language. Moreover, since the words in machine translation are statistically selected, it means if a word is used by a large number of people incorrectly, the same word is used in machine translation.

   **c. Unknown words, incorrect language**: Words that the machine is not trained for or does not know are not translated and are retained in the source language as is, even after translation! Sometimes, even basic things like spelling mistakes, grammatical errors are left in a machine translation! A professional human translator can avoid such issues due to his/her long standing experience, knowledge of the language, and getting proofreading done by another translator.



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**d. Context**: A word can have many different meanings and connotations depending on the context in which it is used – and it is difficult for a machine to comprehend these minute differences yet.

E.g. "order" can be related to:

a. something you place in a restaurant,
b. a government/courtdocument,
c. a superior's instruction to you,
d. law and order,
e. order of different things in a system, etc.

Depending on these meanings, the word is translated differently in the target language by a human translator. However, it gets complex for the program to translate it in such cases and it chooses a statistically highly used word. Things get worse when such words are not available in the target language at all. In such cases, a human translator will normally put in more words and make the term comprehensible, whereas a machine translation will just replace the word with any translation it has depending on the statistics of the word being used in a corpus on which it is trained.

## 3. UNDERSTANDING THE MEANING OF A TEXT:

a. **Mental outlook**: Systematic and formal rules are followed by machine translation, so it cannot concentrate on a context and solve ambiguity, and neither can it make use of experience or mental outlook like a human translator can.

b. **Literary 'machine' translation not possible**: As human thoughts are not predictable and mechanical, a computerised system cannot translate most literary works or regular general texts like humans can.

c. **Emotions/nuances/double meanings**: Software programs have no "soul," no rational, emotional faculty that could translate hidden meanings, irony, subtle humour and all the linguistic details that make language what it is.

**Repercussions on your business Poor product quality** - Think of consequences of such irrespons use of MT in business situations! results can be catastrophic. We h been thinking of writing to the Marke Department of a Large FMCG grou India, the food labels of which h been translated into painfully incor French and have been printed on t packs. This not only annoys respective buyers (as most Europe are very particular and proud about t language), but leads them to quest the quality of the products too(fr India).

**Solution**:

It is clear that automated transla software is here to stay, and there is turning back. What should you do? F of all, know that automated transla software has its place, but only

ertain applications. Since it is free, you an always use it for general purposes, uch as chatting with a friend abroad, xpanding your vocabulary, etc.

Apart from that, you should use ranslation services of trained rofessionals to achieve desirable esults; otherwise, problems are bound o arise. If, however, you cannot avoid sing a software application, make sure o hire a professional translator/editor to ive your document a second look. This ind of final-editing is always ecommended, even for translation one by a human, because it reduces he inevitability of mistranslation and rrors, and thus can turn a translated iece into something worthwhile.

At this point of time, at least, that hat is written by a human can be roperly translated into another anguage only by another human. omputers with translation software

can get very close indeed, but excellence is not about getting close. It is about delivering accurate and professional translation results.

A good translation is a basic requirement for any company selling a product or service worldwide. It makes good business sense to have brochures, website, promotional literature and contracts translated in the language of the target country. At times, it seems easier to use free translation software through a search engine or other websites. However, one should not forget that incorrect translations of technical documents can be disastrous for both the company and the clients.

For the last 37 years, Language Services Bureau has helped Indian industries in bridging the communication gap while interacting with their foreign clients, collaborators and counterparts. Right from translating

websites, brochures, product labels, patents, legal documents, agreements, contracts, recipe books, to general correspondence, technical manuals, drawings, standards and specifications, LSB has consistently delivered high-quality, reliable and timely translations.

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*Devaki Kunte*
*Head of Operations*
*Language Service Bureau*
*1170, Sadashiv Peth, Off Tilak Road,*
*Shri Shailya Apartments, 2nd floor,*
*Opp: Shantanu Lodge, Pune - 411030*
*Tel: 91-20-24470509, 65200559*
*Contact us at:*
*info@languageservicesbureau.com*
*www.languageservicesbureau.*