

# Approaches

- Machine translation can use a method based on linguistic rules, which means that words will be translated in a linguistic way – the most suitable (orally speaking) words of the target language will replace the ones in the source language.
- It is often argued that the success of machine translation requires the problem of natural language understanding to be solved first.
- Generally, rule-based methods parse a text, usually creating an intermediary, symbolic representation, from which the text in the target language is generated. According to the nature of the intermediary representation, an approach is described as interlingual machine translation or transfer-based machine translation. These methods require extensive lexicons with morphological, syntactic, and semantic information, and large sets of rules.
- Given enough data, machine translation programs often work well enough for a native speaker of one language to get the approximate meaning of what is written by the other native speaker. The difficulty is getting enough data of the right kind to support the particular method. For example, the large multilingual corpus of data needed for statistical methods to work is not necessary for the grammar-based methods. But then, the grammar methods need a skilled linguist to carefully design the grammar that they use.
- To translate between closely related languages, the technique referred to as rule-based machine translation may be used.