

Problems of German-English Automatic Translation

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1. Aims and method

The aim of any Automatic Translation project is to give a mechanical procedure for finding an equivalent expression in the target language for any sentence in the source language. The aim of any linguistic translation project is to find the corresponding structures of the languages dealt with. With both of these aims in mind, the empirical method was adopted in the project described in this paper.

2. Structure of the dictionary

Two dictionaries are needed: an idiomatic dictionary and a lexical dictionary. Both have next to each English entry the German equivalent (or equivalents) and the syntactic and semantic information needed for producing a correct German sentence (and for choosing the correct equivalent, if necessary). The lexical dictionary may, for technical reasons, be subdivided into a dictionary for words of high frequency and a dictionary for words of low frequency.

3. Syntactic Problems

3.1. Morphological problems: choosing the correct German suffixes.

3.2. Lexicological problems: choosing the correct German article, pronoun or relative pronoun.

3.3. Word order: finding the correct structure of German word-groups and sentences for the corresponding English structure.

4. Semantic Problems

4.1. Solvable problems: the correct German equivalent of an ambiguous English word may be found by testing the environment.

4.2. Partially solvable problems: the correct German equivalent can only be found by approximation. Possible solutions will be suggested.

5. Examples

Examples will be given to all of the above problems.