

DISPOSITION FORM

FILE NO. AFSA-35/Serial 215	SUBJECT Comment on Language Translation Proposals.		
TO AFSA-OOT	FROM AFSA-35	DATE 9 April 1951	COMMENT NO. 1

1. A common concept of a solution to the language translation problem is a large memory with a simple attachment which will produce a word-for-word substitution, and at least one of our correspondents noted that even with a small memory, a large percentage of words will have substitutes.

2. It is readily seen that this solution covers precisely the part of the problem where aid is least required. It would be possible to train a man to read and translate the artificial language produced by a full scale word-for-word simple substitution, but the training required is comparable with that for learning to read the original language. It may be noted that the inverse process does not result in clear text.

3. The use of an intermediate language is not to be disregarded, however, a fluent translating machine should be able to take as input any of several languages, and give as output any of the same several languages. This is most readily done by having available translation both ways between a simple language and each of the others. The problem is substantially reduced if the simple language is completely unambiguous, and has certain other desirable characteristics which only a synthetic language will have. The view of this writer is that the problem should be attacked by constructing an appropriate synthetic language, and considering translation between it and each of the 'natural' languages--and that the most difficult part is the construction of the synthetic language.

4. There are several degrees of completeness of mechanical translation between the word-for-word substitution and the universal translator, but considering the equipment and training of personnel required for each, none at present could complete economically with a human being trained to translate. I see no early prospect of change of that economic situation.

J. J. Bachus
J. J. BACHUS
Chief,
AFSA-35

Enclosure - 1
Abstract - Proposals for the Mechanical Resolution
of German Syntax Patterns.

Approved for Release by NSA on 04-16-2014 pursuant to E.O. 13526

03#902