machine translation research

Studies are underway at the University of Montreal and the University of Saskatchewan to determine whether computers can be programmed to translate English into French. The objective of the research is a rough translation that would require human post-editing

The National Research Council of Canada has negotiated contracts with the Universities of Montreal and Saskatchewan to develop programs of machine translation from English into French.

The two contracts represent a continuation of studies initiated in 1964, after the Council had been asked by the Queen's Printer to determine whether a computer could be used to provide some assistance in the translation of government documents from English into French. These studies are believed to be the most extensive undertaken by any country.

The idea of machine language translation is simply that a computer can carry in its storage the equivalent in the target language of given words or phrases in the source language. Consequently, a sentence or group of words provided as input in the source language can be processed by the computer to provide a sequence of words containing the same information in the target language. The computer would, of course, be programmed to take account of word order and rules of grammar in each of the two languages.

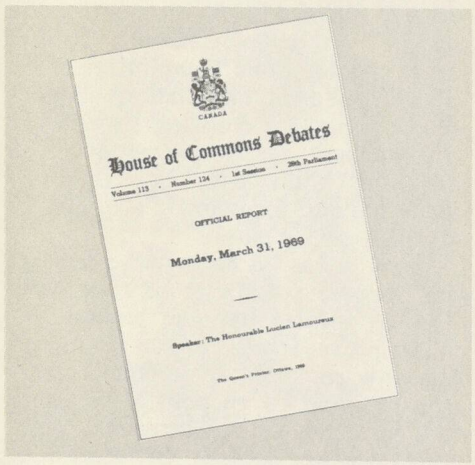
The program at the University of Montreal is expected to arrive at a point where first trials can be run next year. Saskatchewan expects to run its first trials this year. Source material may then be offered to a programmed computer with the hope of obtaining a rough translation. Only some time after this point is reached can any reasonable assessment be made of the extent of the progress which has been achieved. Some additional work will then probably be needed to correct the deficiencies which are revealed and whose correction is straightforward. This scheme, however, assumes the participation of a competent post-editor.

A machine translation system is expected to translate about 100,000 words of text a day – or about twenty times the number of words produced daily by a good human translator. The machine product usually would be a very rough translation necessitating human post-editing, but with the demand for professional translators exceeding the supply, machine language translation could be an important aid to the already overburdened translator.

Although other countries such as the United States, the United Kingdom, France, and the Federal Republic of Germany, have been involved in machine translation for some years, their programs are concerned with the trans-

MACHINE AIDED TRANSLATION –

Material to be translated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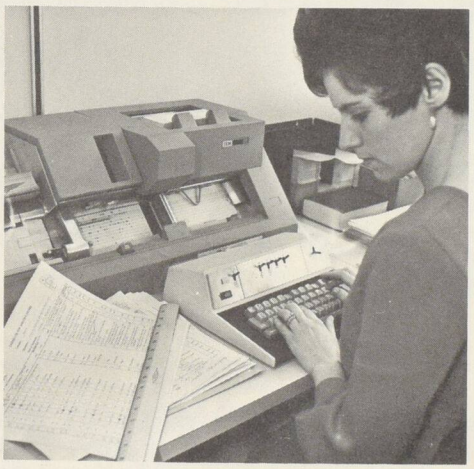
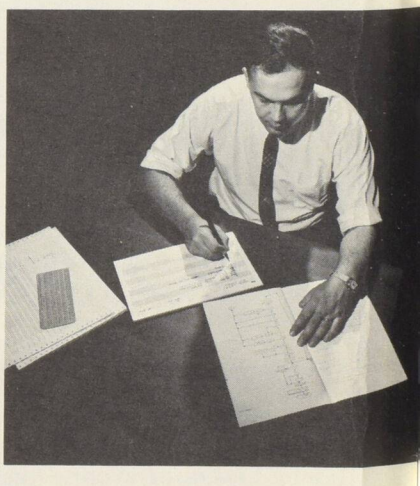
Matière à traduire

Information put on punch cards



Information enregistrée sur cartes perforées

Computer programmed with rules of grammar, vocabulary



Ordinateur programmé avec ordre des mots, règles de grammaire, vocabulaire