

## **“Interactive Machine Translation for Monolinguals”**

Talk given by Dr. M.McGee Wood of Department of Computer Science, Manchester, on 11 July 1991 at King’s College, London.

Dr. Wood explained that what she was going to talk about was an “Alvey” supported project called “Read and Write Japanese without knowing it”. It was started in 1984 and ran until 1987 with 5 full time staff (original budget was £533,000) supported by ICL. Her work was based on UMIST where the English to Japanese system was built. The Japanese to English version was built at University of Sheffield.

The origins of the project lay in the fact that it had become fairly obvious in the 80s that MT was much more difficult than originally thought and that High Quality Machine Translation was not going to be possible for another 40/50 years. In the meantime the computer would need assistance. There were three ways of doing this;

- a) Pre-editing (including controlled input, *e.g.* Caterpillar Tractor)
- b) Post-editing (for “free form” input, but needed qualified translator)
- c) Interactive (to supply information/clarification during translation)

The project decided to design an interactive system that could be used by a trained monolingual of the source language and to use an interlingua so that the system could be used for other languages.

The system has a number of support functions, such as dictionary maintenance, for which a trained translator would, of course, be required to maintain the foreign language dictionary.

Translation requires support mainly for resolving ambiguities:

- a) Syntactic, *e.g.* “Output is sent to active workstations and terminals”. These are processed first following reference to an English grammar and dictionary.
- b) Lexical, *e.g.* “fleuve” or “rivière ” for “river ”. These are processed following reference to a “transfer” dictionary.

To resolve ambiguities, the system displays alternative parses and requests the monolingual user to select the correct one.

The system was written mainly in PROLOG for rapid prototyping.

References:

- a) “Strategies for Interactive Machine Translation”, Proceedings COLING 86, Bonn.
- b) “Dictionary Organization for Machine Translation”, Proceedings EACL 3, Copenhagen, 1987.
- c) “Machine Translation for Monolinguals”, Proceedings COLING 88, Budapest.