

Cranfield conference on machine translation

Over sixty participants from 13 countries attended the conference on "Methodology and Techniques of Machine Translation" at Cranfield Institute of Technology on February 13 to 15.

Subtitled "Processing from words to language" (see preview in *Language Monthly* no. 4, page 10), the conference was put on to increase awareness of MT in government and industry, and so to encourage funding of MT research and development.

Whereas the November "Translation and the Computer" conference of Aslib and the Translators' Guild emphasised practical experience and the reactions of users, Cranfield was meant to concentrate on the computer processing side of MT. Another difference was that it approached the field more from the academic side, issuing a call for papers to university departments of mathematics and linguistics. However, there were also invited speakers, some from practical MT.

Not surprisingly, then, the 30 papers (by speakers from 10 countries) were a mixture. As far as "real-life" MT was concerned there was little of interest that had not been presented elsewhere, but there were papers in a variety of research areas, including the computer processing of text corpora and computer-assisted language learning.

Two systems were demonstrated: the Weidner MT system (through Ulla Magnusson-Murray of ITT, who has it at Harlow), and speech input and output equipment from Texas Instruments, the subject of an informative and forthright presentation by Raj Gunawardana.

unwisdoms

Two traditional pieces of MT unwisdom put in appearances at intervals. One was "My system is better because it does so-and-so" - of a system which exists only on paper, so that the question, "How much of it have you implemented?" elicited a chuckle and the response, "Not a bit!"

The second was "MT will never do that", when speaking of a problem solved years before. Sadly, one researcher who had spent 2½ years on a job was told that, had he known, he could have passed it through the European Commission's Systran and done 80% of it in two days. (The Commission later confirmed to *Language Monthly* that this could have been arranged.)

centre

A world conference centre for MT was called for at the end of the conference by Professor Muhammad Bakalla (Riyadh). Aslib and London, he suggested, would be a good place for it.

Helping Cranfield (chiefly Douglas Clarke) to organise the programme were the Natural Language Translation group of the British Computer Society, and Professor Frank Knowles (Aston) who runs the MT section of the Association for Literary and Linguistic Computing. The accommodation and food were excellent, and the conference is expected to be repeated in a year or two. Whether it pays off in terms of co-operation between people in different areas remains to be seen.

The Proceedings will be edited by Ian Kelly, chairman of the BCS group and, it proved, a highly entertaining after-dinner speaker. Only a few papers can be mentioned here.

PAPERS

Systran inventor Dr Peter Toma (La Jolla) gave the opening paper, tracing nearly 29 years of machine translation history as he has seen it. (He will shortly be profiled in *Language Monthly*.) John Hutchins (East Anglia) spoke on syntactic and semantic analysis. "Basically, as a system for analysis, it doesn't work", he said of Chomsky's transformational grammar at one point: the rules for converting between deep and surface structure inevitably lead to a loss of information, which can never be reconstructed with certainty. Ian Piggott (Luxembourg), speaking on Systran, begged researchers to divert their efforts from solved or irrelevant problems to unsolved ones that actually matter to those who edit or use machine translations.

Professor Shiu-chang Loh (Hong Kong) outlined a dictionary structure for Dual Language

Translation - translation either way between English and Chinese. "Chinese has the most speakers, and English of course is the most used language." A problem, however, is said to arise with Chinese copies, not in the patentese sense of piracy of an invention, but literally: China would buy one copy of a translation, then photocopy that throughout the country.

Jiri Jelinek gave a very interesting presentation of Sheffield's AidTrans project for technical Japanese, based on three converging, interacting lines of action: an efficient automatic integrated dictionary, which they hope to demonstrate within two years; machine-aided translation, perhaps later MT; and a computerised course for teaching Japanese-English translation. Already they can teach subject specialists with no Japanese to translate in their own subject area by the end of a seven-week course, now available throughout termtime. Another teaching project which aroused much interest was that of Brian Farrington (Aberdeen University): an Apple-based program for checking learners' French sentences.

Marjorie León discussed the development of English-Spanish MT at the Pan American Health Organization in Washington. Three commercially available MT systems were also described: Logos by Glenn Ransier, Alps by Deryle Lonsdale and Weidner by Mamdouh Ibrahim. Jun-ichi Nakamura (Kyoto) spoke on Grade, a GRAMMAR DEscriber for MT.

The sad history of Montreal's TAUM-Aviation project was related by Elliott Macklovitch of the Canadian government's Translation Bureau. Run as a research project, it seems, it was judged as a development project, and therefore found wanting. (Having no "not-found-word" routines to cope with words not entered in its dictionaries, it tended to be thrown by sentences containing such words - something which is unacceptable in practice and which, we feel, could be one reason why it lost its funding.)

The final paper, by Birgit Rommel of the Zürich Translating and Interpreting School, suggested a new role for the translator, who should also be a qualified terminologist, lexicographer, post-editor and/or consultant.

Pictured relaxing in the bar at the Cranfield conference are, left to right: Professor K. Sellin of Copenhagen; Ian Kelly, chairman of the British Computer Society group; Loll Rolling, European Commission; and Dr Peter Toma, inventor of Systran.



Professor Frank Knowles of Aston University giving his paper.



Raj Gunawardana, Texas Instruments, demonstrating speech input and output technology (behind, half hidden, is Professor Muhamad H. Bakalla of Riyadh).



Photos by Philip Sutcliffe