MT theory and MT practice

by
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Report of the 13th annual international Translating and the Computer conference

The 13th annual international Translating and the Computer conference, held in London in November, took as its title The theory and practice of machine translation - a marriage of convenience. Many of the speakers took up the marriage image, and used it to illustrate their own particular approaches.

The conference, organised by Aslib and the Institute for Translation and Interpreting, began with a description by *Simon Andriesen*, sales director of INK International, Amsterdam, of how his company had been producing for the last four years a language industries survey and directory for the Commission of the European Communities.

It then went into a session on machine translation theory, beginning with a paper by *John Hutchins*, sub-librarian at the University of East Anglia, elucidating the main types of problem which face attempts to translate automatically by computer. In the course of this he offered one or two ideas which might be used to evaluate MT systems. *Douglas Clarke*, of the Cranfield Institute of Technology, put forward an idea for a modular approach, of which a principal element was resolving ambiguities at the input stage through interactive dialogue with the text author.

A session on terminology featured *Alan Melby*, of Brigham Young University, Utah, who has long campaigned for interchangeable terminology formats, describing the latest thinking in this field, followed by a paper on the Eurotermbank project at Maastricht.

In the session on multilingual and multiscript working the two experts, independent consultant *John Clews*, and *John Parry*, of Europeanization Computer Products Limited, found their papers overlapped to such an extent that they gave their presentations as a double act, covering such areas as compatibility of character sets and programs for alphabetical sorting when accented characters were present.

The session on software localisation featured two practitioners from Ireland (a country which has become a centre for this sort of work), *Michael Gavin* of Softrans International, and *Graham Bason* of Lotus, who talked about their companies' activities. In a session on quality and testing the two speakers, *Jacques Durand* of the University of Salford and *Lee Humphreys* of the University of Essex, suggested possible criteria and methodologies for evaluating MT systems.

In the session on MT in practice representatives of three familiar systems, *Nigel Burnford* of Globalink, *François Sécheresse* of Systran, and *Thomas Seal* of Alpnet, described their company's products.

The final session was boldly labelled as being about the future, but the eagerly-awaited first paper, by *Makoto Nagao* of Kyoto University, introduced as the "guru" of machine translation, was mainly about present practice in that country. We learned that there was thought to be some 2,000 systems in daily use, and some were now becoming aeessible on networks. Some interesting figures were produced, that translation out of Japanese accounted for 53.6% of MT activity, and translation into Japanese 42%. Charges for raw machine translation (in 1989) were around 180 yen per page for English to Japanese (7% of the price for human translation), 360 yen per page for Japanese to English (10% of the price for human translation), while post-edited machine translation Japanese to English cost $70 a page, 70% of the cost of human translation. Experience having shown that machine translation tends to break down the longer the source text sentence, attention was being directed to this problem. There were training schools for post-editing in Tokyo and Osaka.

Doug Arnold and *Louisa Sadler*, of the University of Essex, looked back at the European Commission's Eurotra project and the current spin-offs. Finally *Harold Somers*, of the University of Manchester Institute of Science and Technology, spoke about research into tools which will enable authors, who need not necessarily know the target language, to compose texts suitable for translation. As the earlier Douglas Clarke paper had indicated, this is being seen as an increasingly fertile field for MT development.