Special Report On Japanese MT

Where else in the world could an international conference on Machine Translation hit national headlines and command the faithful attention of prime-time TV? This September the Japanese Electronic Industry Development Association (JEIDA) rolled out the red carpet for speakers from ten Western countries and representatives from China, Korea, Malaysia, Indonesia and Thailand, for what they billed as the Machine Translation Summit.

The stated aim was to "further the development of practical MT systems and open up new perspectives in their use by engendering contact between users, R&Ders and governments" – which may sound like a platitude, though by the end of the confab the 200 invigorated delegates from 17 countries seemed genuinely convinced of its success.

Kanji

JEIDA's membership includes all Japan's major computer manufacturers, ten of whom set the tone for the Summit's exhibition. MT as a commercial reality was embodied by HAMT (Human-Aided Machine Translation) systems already on the market from Toshiba, Sharp, Sanyo, Ricoh, Oki, NEC, Mitsubishi, Hitachi, Fujitsu and Bravice, whose Kanji (Japanese script) and English split-screen displays pulled in the crowds.

Most of these systems first let the machine do its (rough) stuff and then get you to correct mistakes by selecting alternatives via pop-up dictionary menus. They're fast, they're smooth, and dictionary sizes range from 30,000 to 60,000 words. Japanese-English work was dominant, though Fujitsu offers parallel translation into French and German too.

Japan's recent progress in MT is nothing less than stunning, all the more so in view of their language's grammatical uniqueness. Their achievements reflect an inventiveness born of necessity: the country has an urgent translation problem. The market is massive, and foreign language fluency among Japanese scarce. Human translators – good, bad and indifferent – need never shine shoes, which may be why automation is moving into language teaching too (CSK, for instance, a company active in AI, recently acquired Linguaphone Japan, the audio-visual self-tutor publisher).

As well as the commercial sector's wares, two state-sponsored systems were on display: Kyoto University's MU project, intended by 1990 to be able to translate the daily proceedings of the Japanese Information Center for Science and Technology (JICST); and Dutch BSO's Distributed Language Translation program, the only non-Japanese system on show.

Duplicates and Joint Efforts

"Why do Japanese companies duplicate each other's efforts, instead of working together?" was the puzzled enquiry of one western delegate. "EDR!" came the snappy reply. The Japanese Electronic Dictionary Research Institute, a mammoth venture by Fujitsu, NEC, Hitachi, Sharp, Toshiba, Oki, Mitsubishi and Matsushita, aims to construct a 300,000-word Japanese-English dictionary, based on concept classification and knowledge-based inferencing technology (also the subject of indepth examination at the Trier conference on Terminology and Knowledge Engineering, 29 September - 1 October).

In addition, the Japanese government has just launched two multi-lingual MT undertakings of its own: ODA, in collaboration with its East Asian neighbors, planned to span five years; and ATR, a twelve-year telephone interpreting project, involving such advanced research topics as neural networks.

— *Tony Whitecomb*