

THE *ata* CHRONICLE

A publication of the American Translators Association

Volume XX No. 9

ATA Members Turn Out Peak Performance at MT Summit III

by Alex Gross and Muriel Vasconcellos

Eight ATA members played prominent roles in MT Summit III, the biennial conference that brings together leaders in machine translation from around the world, which was held this year in Washington, D.C., as *Chronicle* readers know by now, on July 1-4. ATA President Deanna Hammond took part in a panel entitled "International Perspectives on MT," speaking about the role of the U.S. Government and of translator associations; Muriel Vasconcellos, chair of ATA's Committee on Machine Translation, led a panel discussion on "The MT User Experience"; Howard Teicher of Translation Technologies International presided over a session that explored the theme "Building the Customer Base," which included the participation of Muriel Jerome-O'Keeffe, president of the National Capital Area Chapter of ATA; and *Chronicle* software reviewer Alex Gross was responsible for a panel entitled "Where Do Translators Fit into Machine Translation?" Other ATA members on this panel were Harald Hille, terminologist at United Nations Headquarters; Claude Bédard, Montreal-based translation consultant; and Los Angeles writer/translator Fred Klein.

The panel on the translator's role--arguably the most unusual event of the entire conference--also included Sergei Nirenburg of Carnegie Mellon University's Center for Machine Translation, program chair of the conference, and Martin Kay of Xerox-Parc and Stanford University. While some of the attendees had anticipated an epic battle between advocates of human and machine translation, the discussion was surprisingly

harmonious, with both sides agreeing that MT can stand a fair degree of improvement and that human translators are in no immediate danger of being replaced by machines.

If harmony ruled, however, it was not because sufficiently provocative assertions failed to be made. Basing his arguments on mathematics and a growing awareness of the complexity of natural phenomena, Gross began by suggesting that linguistic data over the last four decades have been mismapped onto linear or barely bidimensional models, as a result of which system developers have been faced with the linguistic equivalent of the Butterfly Effect, famous for its devastating effects on meteorology, telecommunications, and other sciences. Claude Bédard was no less outspoken, asserting that all present MT systems actually impede the work of translators rather than facilitate it, and arguing in favor of his Machine Pre-Translation approach recently described in the *Chronicle*. Harald Hille was a bit more conciliatory, but still he stoutly maintained that, at present, computers lack the real-world and contextual knowledge needed for fully useful translation. And Fred Klein offered a wealth of specific examples, anecdotes, and suggestions for the improvement of MT output.

As noted, the most remarkable aspect of the panel was how peacefully and enjoyably most of those present seemed to accept it. Even MT guru Sergei Nirenburg limited his replies to expressing some doubt as to whether human translators could ever be integrated into the MT development process. Perhaps the most adversarial moment--and even that was quite mild--came when Martin Kay expressed his wonderment that translators

Continued on page 16 . . .

... continued from *MT Summit III*, page 1

should be using MT systems at all, since no one had ever foreseen them as likely users.

The panel on "The MT User Experience" included two translators who have used machine translation on a full-time basis for several years: Margarita Baena of the International Center for Tropical Agriculture (CIAT) in Cali, Colombia, and Hideki Tanaka of Nippon Hoso Kyokai (NHK), Japan's Tokyo-based public broadcasting system. In CIAT's case, ENGSPAN, developed by the Pan American Health Organization, is used in the translation of large volumes of technical texts from English into Spanish, almost all of which are for publication. At NHK, on the other hand, MT is used for two very opposite types of applications: to translate English-language video sequences and prepare subtitles in Japanese on the one hand, and, on the other, to monitor incoming Associated Press wire reports on a real-time basis for "information purposes" only.

In addition, two developers gave recent information on the use to which their systems are being put. John Chandio, responsible for Canada's METEO, brought the audience up to date on the ever-larger volumes of weather reports being translated around the clock at Environment Canada both from English into French and French into English. Translators intervene in only 3% of the output, even though the original texts are written by many different meteorologists and not customized in any way. Bernard Scott of Logos Corporation reported on current uses of that system, now installed in over 30 sites in the United States, Canada, Germany, France, and Italy. He pointed out that increasingly LOGOS is being embedded in integrated publishing environments and cited in particular the case of the Canadian translation bureau Lexitech, which in 1990 enlisted the system to process 25,000 pages of technical translation. Using LOGOS, AT&T was able to turn around 10,000 pages of translation from English into Spanish in the space of two months. Finally, Rob Billingsley of the

Defense Technical Information Center reported on the final arrangements being made to begin using SYSTRAN to translate on-line databases under the Department of Defense's Gateway Information System, an information "cafeteria" that offers a "cradle-to-grave" approach to finding and delivering information.

Members on the panel of "Building the Customer Base"--all potential users of MT who have not yet taken the plunge--spoke candidly about the factors that have been holding them back. The main considerations were: quality and accuracy of the machine's raw product (Is it good enough to lead to cost savings and productivity increases?), effort required to customize a system, problems of getting the input into machine-readable form, ease with which a system can be used, maturity of the dictionaries in advance of installation, the user interface, the different language combinations needed, hardware compatibility, and availability of linguistic system support.

"Evaluation of MT Systems" was the subject of a panel chaired by Margaret King of the University of Geneva's Dalle Molle Institute for Semantic and Cognitive Studies, who is leading an international initiative in this area. Several of the participants had been together at the Evaluators' Forum in April 1991, a "retreat" organized by Professor King at Les Rasses, Switzerland, which was devoted exclusively to the evaluation of MT. Her opening summary started from the assumption that "there can be no single general-purpose evaluation methodology," both because the needs being tested for will vary infinitely and because the factors involved are immensely complex. Systems will be judged differently depending on the perspective of the judge--i.e. whether a research worker, a research sponsor, a commercial enterprise trying to decide whether it is worthwhile to acquire an embryonic MT system, a system developer, or a potential customer for a commercial system already on the market. The panelists then spoke from several of these perspectives. Of particular interest for translators was the report by Doris Albisser, Union Bank of Switzerland, of an evaluation that she had conducted based on the needs of a real working environment. She

compared three different commercial systems in terms of: linguistic capability, technical environment (portability, interfaces, access to on-line term banks, options for information retrieval, single- vs. multi-user configuration, and, what she considered most important, user friendliness), changes required in the prospective user's organizational environment, and the corporate situation of the supplier.

In all, there were seven panel discussions. Besides those already mentioned, two others addressed the topics "At the Forefront of MT Research" and "Applications of MT Technologies."

In addition to the panels there were some technical papers, most of them on research systems. The exceptions were ULTRA, a knowledge-based system which recently reached the market, and METAL, the Siemens system which has been around for quite some time. There was also a poster session.

Executive Briefings, much like ATA's pre-conference workshops or seminars, comprised another interesting feature of the conference. Four subjects were covered: "Introduction to MT: Issues and Survey," "How Your Organization Can Use MT," "Knowledge-Based MT," and "MT: The Japanese Experience." These sessions attracted large turnouts.

Perhaps the most exciting of all were the exhibits and demonstrations, organized by ATA's own Bill Fry. Throngs of onlookers watched while 22 working MT systems, more than ever in history under one roof, went through their paces in the Exhibit Hall for a period of three days. For two of those days there were also live system demonstrations in a theater-style setting with the computer's image projected onto a large screen. This was another "first" for a conference on machine translation. Until recently, most MT developers and vendors have been reluctant to expose their systems to the challenges of random input under public gaze. The fact that 11 systems chose to take part in this event is testimony to the incrementally changing times: dictionaries are larger and more deeply coded, parsers are making fewer mistakes, fresh approaches are coming out of the laboratory and moving into the mainstream, and, as a

result of all this, output is gradually becoming more reliable.

The last session of the conference saw the creation of the International Association for Machine Translation, an initiative that got started in Japan in April 1988. The president is MT "superguru" Makoto Nagao of Kyoto University (our luncheon speaker at the 1989 ATA conference in Washington), the president-elect is Margaret King, the secretary is Muriel Vasconcellos, and the treasurer is Roberta Merchant. ATA members can get out their checkbooks: dues for founding members (those who join before January 1, 1992) are \$50.00 a year, and associate members (voice but no vote), \$25.00. Checks should be made payable to "AMTA" and sent to Roberta Merchant (5420 Storm Drift, Columbia, MD 21045). Watch the *Chronicle* for a full writeup about the association. □