Japanese and Canadian speakers at Aslib/TG conference

Over 300 attend Translating and the Computer 7

More than 300 delegates from all over the world attended the seventh conference in the series "Translating and the Computer", held in London on November 14 and 15. This annual conference, generally reckoned to be the leading world forum on the subject, is organised by Aslib (Association for Information Management) in conjunction with the Translators' Guild.

Geoffrey Kingscott, editor of *Language Monthly*, gave the initial paper, seeking to define the contexts where translation activities take place. Those present at the conference, he said, all belonged to the distinguishable mainstream of the translation profession, but this mainstream did not run between clearly defined banks. Those in the profession often underestimated the huge volume of translation work still being carried by persons who were not in touch with the professional translation world.

He went on to examine the various areas of translation work, such as the translator services of the international organisations, with a direct line of development from the post-war Nuremburg tribunals, translation developments in industry, and translation companies and freelances, not to mention other sectors such as literary translators or Bible translators. A large proportion of older translators had come into the profession haphazardly, as was apparent from responses to the *Language Monthly* questionnaire, but the established structures and recruitment policies of the international institutions and the increase in graduate and postgraduate translator courses were creating more of a defined career path for younger people entering the profession.

Jeremy Verrinder, Dean of the Faculty of Languages at the Polytechnic of Central London, described the Polytechnic's experience in the training of translators in their postgraduate technical translation course. In interviewing for acceptance on the course, he said, knowledge of the foreign language was taken for granted from the applicants' previous studies. What they were looking for was resourcefulness, an essential quality for a translator, and a good command of English. Translators were taught the techniques of researching and cross-referencing, freelance techniques, English for Special Purposes and the importance of using the appropriate register of the language.

Eveline Sleebos, a former staff translator for Shell, London and Gist-Brocades Delft, now a freelance, described the translation training course she had followed at the University of Amsterdam and its utility in her subsequent career. She mentioned that out of 212 students on the current course, the male/female ratio was 10%/90%, whereas the ratio among students in general the the University of Amsterdam was 60%.40%.

A "lawyer-linguist" at the European Court of Justice, **Ian Frame**, gave a witty but illuminating account of the problems of legal translation. He described the translation work of notaries in London, and commented that he had always been surprised that no-one had challenged their exclusivity over this work. He emphasised the importance of accuracy in legal translation, and mentioned that in one European treaty the *droit de travail* remained for 30 years mistranslated as *diritto al lavore*.

Because of the way in which judgements were arrived at in the European Court of Justice, he said, there was need for frequent consultation between translator and judgement originator. This was one reason why their work could never be privatised; another reason was the need for strict confidentiality, maintained until the moment the judgement was pronounced.

Mr Frame dealt with the difficulties of translating the pomposities and obscurities of legal texts (Spanish texts were the worst, he commented), but noted that ordinary translators who did not specialise in legal work often felt they had to use legal rotundities and what they felt to be lawyers' terms when translating such texts. He quoted one example when a term for a simple certificate had been translated as *affidavit*, wrongly in this case as *affidavit* had a precise legal sense.

After lunch on the first day three freelance translators, **Josette Guédès**, **Commodore Christopher Croft** and **Nelida Depiante** described their experiences with word processors, microcomputers and electronic mail.

Pamela Mayorcas-Cohen, who is working on the European Communities SYSLING project, which is developing an integrated resources system for the language service, described how translators could use the resources of information science to identify, organise, store and retrieve the information they required. She emphasised the importance of this, as the translator was often working with material running at the current boundaries of knowledge. A translator needed to develop his or her own personal information system.

The second day opened with a major contribution by **Professor Benoît Thouin** of Canada, who took the audience through a summarised history of the developments in computer processing insofar as they were applicable to translation, up to

the fourth generation of computers, still being developed, and the *à la mode* fifth generation. The third generation packages had proved useful to writers and translators. He noted that fourth generation languages and techniques were not being used to the full, and he considered that more bridges between various domains and software development was a desirable step for the coming years.

Professor Thouin dealt with the problem of a multilingual character set;the current situation, he said, was a mess. Even the standards that were being evolved were unsatisfactory: giving one example, he asked, "How can one comply with a standard where the ë does not exist." One difficulty was that if ten accented characters were brought in, ten other characters, the square brackets ([and]), for example, might have to disappear. So with over 300 makes of microcomputers and thousands of packages the problems of incompatability were immense.

A trend in recent years was that translators had become more and more involved in the development of their own working tools, and the very nature of machine translation called for more assistance by translators.

Translators were also benefiting in another way from worldwide computerisation, which was increasing their workload. "Because of the development of systems more work is going into the in-basket of translators. Translators must become familiar with the terminology of systems". But translating the user documentation was only one of three levels; a second level, when modifying anything in the program, was reprogramming the software, and a third level was redesigning the system to make it like an original system in the target language. Multi-disciplinary teams were often necessary.

Julie Harnett, a freelance journalist and consultant specialising in office automation, spoke about recent developments in Optical Character Recognition (OCR) technology. OCR machines are used to "read" documents and input the texts into a processing system. She said that there was believed to be a lot going on, but not much was being published at the moment on research projects. The level at which it was said to be worth having OCR, she added, was around 356,000 words (125 pages) a day. She described the various machines on the market, including the Alphaword models, Hendrix, Matsui, Lexiscan, the Kurzweil intelligent character recognition (ICR) system, the low-price Omnireader, the Typereader, being developed using facsimile technology, and the CSL 2610. She had also heard of an NEC project in Japan.

The first of two users of machine translation systems to speak was **Patrick Corness**, senior lecturer in the department of Language Studies at Coventry Lanchester Polytechnic, who spoke about the use of the ALPs system as a computer assisted language learning tool at the college. It was used to help the students enhance their language skills. One problem in computer assisted language learning was that there was only a limited number of responses whereas in translation the number of possibilities could be infinite. The students learned of the power of the computer to make available look-up facilities, and that dictionaries were not "tablets of stone". They were working on extending the grammar look-up facility.

The second machine translation user to speak, **Wolfgang Heitman**, technical documentation group manager at Nixdorf Computer AG, Federal Republic of Germany, began by describing the company structure, and the part played by his department. In 1981 they had translated some 5,000 pages, but by 1985 their workload had expanded by some 300 per cent. A human translator could be expected to produce 15 pages, or 375 lines of translation, per day. At 76,000 lines per translator/year, three translators would be needed, at a cost of DM 85,000 a year, which with editing made a total of DM 150,000. To buy out translation work cost 113% of the cost. Using the Logos machine translation system, including cost of equipment, programs and licence fees, cost 114%.

The advantage of using MT, however, lay in turnround time. It was estimated that using Logos would enable work to be carried out in 55% of the time otherwise required. The development had started in February, with an interruption for works holidays in July, and had produced 35,000 lines by November.

After lunch **Ian Pigott**, machine translation specialist for the Commission of the European Communities, gave a survey of worldwide progress in the application of machine translation systems. Dealing with work being carried out by the Commission of the European Communities, he said that the Commission had come to recognise the vital role which MT could play in speeding up the processing of documents. Three language pairs were now in operation, and development work was being carried out on English to Dutch, expected to be available at the end of 1986, and between French and Dutch, especially useful to Belgium, which could be available by the end of the summer in a pilot version. Work had started on English/Spanish and English/Portuguese, in readiness for the entry of Spain and Portugal into the Communities in the New Year. Efforts would be made eventually to incorporate all the European languages (i.e. extension to Danish and Greek), and it was hoped to extend to source languages other than English and French.

There was increasing use of the SYSTRAN system outside the work of the Commission, and in the Commission there had been an increase in throughput, and more requests for extension of the system's application.

Mr Pigott spoke about the problems of compatability of equipment. Most makes of terminals could be made compatible as far as the English alphabet, numerals, and common punctuation signs were concerned, but in connection with accented characters each manufacturer used his own tables. In the Commission 1:1 character conversion tables had been produced for Olivetti/Wang and Philips/Wang. Experience with OCR had been positive, using an AEG machine reading English, German and French.

He thought that SYSTRAN could be available on office computers "within two to three years".

Developments in automatic dictation, thought Mr Pigott, could have an effect on translators' working methods in the medium term. In the long term automatic dictation systems may produce accompanying simultaneous interpreting systems.

Another result of the spread of machine translation could be a greater need to choose between various kinds of translation quality.

The final speaker was **Dr Toyaoki Nishida**, assistant professor at the department of Information Science at Kyoto University in Japan, who looked at the Japanese machine translation scene. He spoke first about the nature of the Japanese language, with its large character set, and how this had affected developments in automatic processing. He identified three periods in the history of machine translation in Japan. The first, approximately between 1955 and 1970, represented first attempts, and often involved the pre-editing of text. The second period, between 1970 and 1980, saw basic research being carried out, the problems of inputting Japanese text being tackled, and parsing, semantic processing, and knowledge representation being worked on.

The third period, from 1980 to the present day, saw the introduction of deeper analysis techniques, and the first practical developments.

Most work had been done on translation between English and Japanese, but work was also being carried out between Japanese and French, Chinese and Spanish.

One problem in the early days was that there were few existing "mass production lines" for translation in Japan, and without specific demand initial development was inefficient. However this meant that the whole environment for development could be defined.

Dr Tishida described the various approaches taken by different organisations to machine translation, including the Associated Tree Structure, the Default system and the Heuristics Method. He explained the differences between a shallow tree and a deep tree approach; it was also possible to use a shallow tree approach which was modified as more information became available, and IBM Japan were taking this path. Others preferred a deep approach and a conceptual structure. As this was not governed by a small number of rules it required a high level of lexical work. Another approach, a relatively new one, was to use a neutral structure in an attempt to get the best of the shallow and deep tree structure approaches. There could be two stages, core syntax generation, and style generation.

After describing the different approaches to dictionary compilation, and noting that not much work was being done on "man/machine environment", Dr Nishida went on to describe the projects which had reached or were reaching practical application.

Titran had been the first system to reach a practical level of use, translating the titles of scientific publications. Other systems which had now come forward were the Fujitsu ATLAS I and ATLAS II, the NEC PIVOT, the Toshiba TAURUS, a Sharp system, and the Bravice MediumPack and MicroPack. To date there had not been much user reaction recorded. Dr Nishida also described new research projects, including those on artificial intelligence being carried on at Kyoto University and at the Tokyo Institute of Technology, and the ICOT project, part of the Japanese Fifth Generation programme.

QUOTES FROM THE CONFERENCE

While I was getting computers to produce work more quickly, my customers were getting computers to pay more slowly

– *Nelida Depiante.*

Stupid standards are self-destructive

– *Benoit Thouin.*

Until we have established exactly what processes go on in the human mind, Artificial Intelligence will continue to be more Artificial than Intelligence

– *Benoit Thouin.*

Translation is not like riding a bicycle, where you only have to learn it once. The translator needs to keep up with technical change and technological change

– *Pamela Mayorcas-Cohen.*

Machine translation is no longer looked upon as an isolated application; it has become part of the more general problem of multilingual document production and distribution

– *Ian Pigott.*