

## **Session II: Summary of discussion 1**

*In the chair: Brian McCluskey*

The discussion session focused on four main areas.

(1) Frederick Mostert (Merck Sharp & Dohme, Holland) was interested to learn whether existing optical character readers (OCRs) are able to read printed books (as opposed to typescripts). Julie Harnett (Editorial Consultancy & Services) replied that no system is absolutely 'spot-on' yet and that OCR performance with printed material is determined in large measure by the typefaces. However, the authorities looking into this problem are interested in the potential offered by the Kurzweil system. It was reported that one of the uses of the electronic tablet which comes with the Kurzweil system is for reading from books. The system has a selective auto-data entry and can recognise roman typefaces, among others.

This claim was substantiated by a spokeswoman for a Stockholm dictionary company which has used the Kurzweil system to enter some 7 million characters in a variety of typefaces (including bold, italic and roman) with extremely good results.

Veronica Lawson (Associate Editor *Computers & Translation*) added that the Kurzweil can actually read badly printed Russian books, but only with considerable help from editors and probably not for £40,000 (Julie Harnett's upper price limit for OCRs).

(2) Replying to a question from Rebecca Ray (Automated Language Processing Systems) on the use of the Logos system, Mr Wolfgang Heitmann (Nixdorf Computer AG) reported that special Nixdorf software applications were employed in the technical documentation department to pre-edit the source text on the English and German sides.

Val Butterfield (Staefa Control System) wished to know whether Nixdorf gave preference to British or American English for computer terminology; how technical differences between countries were resolved; how Nixdorf trained their translators and whether these were of English mother tongue. Mr Heitmann replied that Nixdorf uses American English and that technical differences (e.g. voltage conversions) were simply dealt with at the editing stage. Nixdorf train their translators for one year.

Barbara Wilson (Foreign and Commonwealth Office) observed that it is the common experience of human translators that source text ambiguities only become apparent during the translation process. She therefore wondered whether Nixdorf might find it useful to have the translator present at the editing stage. Referring back to his presentation, Mr Heitmann emphasised that the Nixdorf procedure with the Logos system was for technical editors to revise the raw German version first. The translator then went to work and finally the edited English version was produced.

(3) Dr Harold Somers (UMIST) asked whether the usefulness of the ALPS computer-assisted translation system at Lanchester Polytechnic in enhancing students' awareness of linguistic problems might not be adversely affected by subsequent improvements to the system. In other words, might it not be of greater instructional benefit if ALPS actually did not perform well?

Mr Patrick Corness (Lanchester Polytechnic) stressed the different uses to which the different levels of ALPS are put. In the Lanchester context, with its specific aims of enhancing students' awareness of translation problems, inter-language contrasts and choices available in the given context, the most useful level of ALPS was the automatic dictionary look-up (ADL) facility. The limitations of the system in actually translating a sentence suitably are probably of greater interest to the theoretical linguist.

Arguing that students would be better able to make judgements in their native language, Mr G. Pollhammer (Leeds Polytechnic) was surprised that the language direction chosen at Lanchester was *into* the foreign language. He felt that students would require considerable assistance from tutors in explaining linguistic differences and that speed of work would suffer as a result.

Patrick Corness explained that the into-English directions on ALPS were not yet available for use at Lanchester. While agreeing with the principle that translators should work into their mother tongue, he emphasised that ALPS was not being used at Lanchester with the prime purpose of training translators. The language-teaching potential of the into-German and into-French directions lies in asking students (under tutorial supervision) to construct a text in the foreign language using the

help facilities available on ALPS. This represents an extension of established language-learning facilities on microcomputers. The procedure is not open-ended and ALPS will indicate if the student's solution is not in its repertory of acceptable answers. Patrick Corness concluded by reiterating that ALPS is used as a language-teaching tool rather than as a translating tool as such, and that a language-learning situation requires that students be able to work in both directions.

(4) Rebecca Ray (ALPS) asked Professor Benoît Thouin to indicate briefly where he felt the greatest advances would take place in the areas of linguistic processing and of user interface for machine-aided translation systems.

Professor Thouin (University of Ottawa) spoke about the current situation in Canada in the hope that this might be representative of trends in other parts of the world. Organised and subsidised research into machine translation in Canada has been halted for a number of years now. The resultant rethinking process has led to a restructuring of the entire research industry. One of the key concepts to emerge has been 'integration' – integration of theories of translation and psycho-linguistics under the label of artificial intelligence and expert systems. The past year has witnessed the creation of totally new research centres (e.g. in computer science and in office automation), each of which has a division for natural language processing or machine translation. The trend is thus for linguistic processing to become integrated in other activities.

Moving on to the second part of the question, Professor Thouin indicated that researchers would dearly like to do away with trivial interfaces. The move instead is towards more general interaction between groups of experts in the fields of the texts for translation and the designers of the translating system. This will demand close co-operation between specialists in various information representation disciplines, e.g. lexicographers, terminologists and mathematicians.

#### **RAPPORTEURS**

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