

## **MACHINE TRANSLATION IN THE UK**

As mentioned in the last Newsletter, the Alvey Directorate was subsumed into the new Information Engineering Directorate of the Department of Trade and Industry in 1989. Their role has now been transferred to the Joint Framework for Information Technology (JFIT) which coordinates the funding of IT projects approved by the DTI and SERC (The Science and Engineering Research Council).

A list of projects relevant to MT supported by Alvey funding was given in our last Newsletter.

JFIT publish a monthly Newsletter free. Their address is JFIT News Mailing List, Ref. ADP-IEE, Michael Faraday House, Six Hills Way, Stevenage, SG1 2AY. The February issue, No. 20, contained a useful Strategy Supplement which explained the purpose and tasks of the JFIT and its participants, the DTI and SERC, and also

outlined its relationship with the European initiative, ESPRIT, the European Strategic Programme for Research and Development in Information Technology.

The DTI also run the SALT (Speech and Language Technology) Club for the purpose of improving communication between people engaged in all branches of speech and language technology, and in particular of encouraging cross-fertilisation between groups specialising in speech and those specialising in language. It is supported by the SERC/DTI Joint Framework for Information technology (JFIT), and membership is open, free of charge, to everyone involved in the technology, from research through to exploitation.

There are periodic information mail-shots about SALT community affairs, and the Club holds occasional short workshops to discuss issues of interest to the community (e.g. research strategy, national funding priorities, development of corpus resources).

For membership contact Miss Helen Stanley, Department of Trade & Industry, IED3, 151 Buckingham Palace Road, London SW1 9SS.

## **MACHINE TRANSLATION IN EUROPE**

The largest single item must be the pan community EUROTRA project which aims to provide a multilingual system for community languages based on a common form of representation but with transfer modules written for each language pair.

EUROTRA, originally authorised in 1982, has run with supplements till 1989 and is still running. It was evaluated in 1987 and 1989.

The 1989/90 evaluation was disappointing. The following extract gives an idea of the situation,

“13. The conclusion to be drawn from these reports on progress to date on EUROTRA and rival products claiming to offer automatic translation is fraught with implications: from what we know of languages and how computers handle them there is little hope of a ‘translating machine’ of satisfactory quality coming into being in the near future, particularly for literary or diplomatic texts with subtle shades of meaning and ambiguities.”

Nevertheless the evaluators made a case for continuing the project with some modified objectives and this has been approved by the Commission. The project is now subject to a Transition Programme concerning the preparation of the development of an operational system.

Machine translation and other linguistically related projects are also supported by EC funding under the ESPRIT initiative. The following linguistic related projects have been identified so far:

**ESPRIT I**

No. Title (and any acronym)

26 Advanced Algorithm and Architectures for Speech and Image Processing (SIP)

393 Construction and Interrogation of Knowledge Bases Using Natural Language Text and Graphics (ACORD)

527 Communication Failure in Dialogue: Techniques for Detection and Repair (CFID)

1015 Integration of Artificial Intelligence, Vocal I/O and Natural Language Dialogue: Application to Directory Services (PALABRE)

**ESPRIT II**

2094 Integration and Design of Speech Understanding Interfaces (SUNSTAR)

2101 Adverse-Environment Recognition of Speech (ARS)

2104 Multi-Language Speech-to-Text and Text-to-Speech System (POLYGLOT)

2218 Speech Understanding and Dialogue (SUNDIAL)

2589 Multilingual Speech Input/Output Assessment, Methodology and Standardisation (SAM)

**ESPRIT - Basic Research Programme**

3030 Acquisition of Lexical Knowledge for Natural Language Processing Systems (ACQUILEX)

3175 Dynamic Interpretation of Natural Language (DYANA)

3207 High-Resolution Speech Recognition: Auditory/Connectionist Technologies for Speech (ACTS)

3228 Speech Processing and Recognition Using Integrated Neurocomputing Techniques (SPRINT)

**3279 Articulatory-Acoustic Correlations in Coarticulatory Processes: A Cross-Language Investigation (ACCOR)**

**3351 Dialogue and Discourse (DANDI)**

For the future, Machine Translation research will be supported within Linguistics in the Telematics programme recently approved within the Community's third Framework programme. 22 MECU have been allocated to Linguistics, and the Commission is now requesting proposals. The contact point at the DTI for further information is Graham Jenkins, on 071-215 1226.

## **MACHINE TRANSLATION IN THE USA**

At the SALT Club workshop on Machine Translation at UMIST in July 1990 we were informed by the DTI of their view of the state of the language industries in the USA as follows;

“- The Technology to support the Language Industries is now exciting significant interest, especially at DARPA (Defense Advanced Research Projects Agency), but also in companies;

- at the same time, morale among the NLP community is not particularly high,
- the US is currently well-disposed towards collaborative enterprises with European groups, and would appreciate a common approach to multi-lingual systems;
- a lively current issue is the establishment of standards for various aspects of NLP interfaces, and to measure NLP performance.
- a breakthrough appears to be in the offing, allowing computer methods, for the first time, to be effective in interpreting for content while searching large text files.”

Since then an ESPRIT-DARPA meeting was arranged for February between European and American research representatives to discuss matters of common interest in computational linguistics.