

Governmental Views of MT - by Dr. Czermak (F.R.G.)

1. Language is becoming one of the major subjects of future R&D-work, because
 - the further cultural development should be based on a better understanding between nations and the faster integration of different peoples to form the new mankind of the future, and
 - the development towards a world economy results in a general demand for translations and the necessity of reducing the costs incurred, i.e. by the preparation of manuals etc. composed in foreign languages concerning all high-tech products to be exported or imported,and both require an extensive knowledge of languages.
2. Language is the intellectual and emotional way of expression used by peoples (various ethnic languages and dialects) and individuals (individual and specialized languages) which
 - can be materialized in the form of written and/or printed language, and
 - can be modelled through computer-specific representation as far as algorithms permit.
3. Research and development in language sciences have yielded numerous individual results without, however, providing a solution to basic language questions so far.
4. One unsolved problem is translation. The reason can only be found in the following paradox:
 - a) Translation defined as equivalence does not exist, because languages necessarily represent different intellectual and emotional means of expression used by peoples and individuals;
 - b) translation from one language into another is an absolute necessity within the meaning of what has been said under 1. above.

5. The computer can contribute towards solving also basic linguistic problems. These include above all:

- processing and availability of linguistic material (dictionaries, morphology programmes, implementation of grammars etc.)
- computer-aided translation vs. machine translation in certain closely defined fields.

6. Computational linguistics is in a dilemma:

- On the one hand, researchers will receive the considerable funds they need for R&D only if they make the fundproviders believe that they are able to develop machine translation systems;
- On the other hand, some highly esteemed linguists do not consider their discipline sufficiently mature for developing a successful MT system, and
- for reasons of potential scientific and economic competition, individual projects and working groups' activities often proceed in isolation.

7. Computational linguistics ought to develop into a major field of international R&D cooperation, in particular concerning

- the processing of linguistic material (dictionaries, morphology, grammar etc.) and its availability for general research and development in language sciences
- basic R&D in the fields of analysis, transfer and/or interlingua and synthesis in the respective languages;
- the development of pre-industrial prototypes of CAT and/or MT systems.

Such cooperation should be enhanced by governments with regard to the free and unrestricted transfer of know-how and the necessary expansion of linguistic R&D capacities worldwide.

Commercial systems should be developed and marketed by industry without government support.