THE EMERGENCE OF MT IN EUROPE

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The European Coal and Steel Community was created in 1952, and the European Atomic Energy Community and the European Economic Community (the Common Market) in 1958. They had six member countries with only four official languages (French, German, Italian, and Dutch). At first the volume of official documents was limited and the number of translators required was reasonable.

Before long, however, the European institutions—including the European Council, Parliament, Economic and Social Committee, Court of Justice, and Investment Bank—began to produce an increasing volume of texts that had to be translated into the four official languages. At that time, few people in Europe had heard about machine translation. It was still in its very early stages in the English-speaking world—principally the United States of America.

When U.S. efforts to develop machine translation finally came to be known in Europe, it also became clear that the ALPAC Report (1966) had led to the interruption of major projects at universities, that IBM had given up the whole idea, and that the Apollo-Soyuz project had covered only Russian and English and had been developed for strictly strategic reasons.

Academics in charge of language training at European universities had been very slow in getting interested in attempts to handle linguistic data by computer, and their departments considered the cost of the machinery involved extravagant. Commercial prospects were also unlikely: entrepreneurs in Europe did not see MT as a cost-effective venture. The only institutions likely to be interested were international organizations that needed speedy dissemination of their documents in several language versions.

The first to be active in this field was the French Textile Institute, which had an active cooperation arrangement with similar institutes in Germany, England, and Spain. Its TITUS system was successful because it was used for texts with limited phrase structure and terminology. It was not designed for application to different subjects or environments.

The first academic to become interested in MT was Bernard Vauquois in Grenoble, who happened to be intrigued with computers. In the late 1960s Vauquois made several attempts to feed linguistic rules into the computer. His example was followed by a number of academics in German, Dutch, and British universities. They had difficulty obtaining grants for acquisition of the costly equipment, the usefulness of which was seldom acknowledged by administrators.

Meanwhile, the situation became unbearable at the European Commission when three new members joined the Community and English was imposed as one of the major languages. The institutions were obliged to hire several hundred additional translators and became aware of the fact that alternative means had to be explored.

The Commission undertook an evaluation exercise which was initially intended to overcome the rejection of MT by the Community's large staff of university-trained translators. The first step was to define a methodology to comparatively assess several systems in order to establish their applicability. A second step was aimed at evaluating the long-term cost-effectiveness of an MT system within the Community's various institutions.

The two systems evaluated for use in the Commission's own services were TITUS and SYSTRAN, developed by Peter Toma and his company, World Translation Center, here in La Jolla. TITUS did not go to the end of the evaluation. That left SYSTRAN as the sole candidate. In 1976, at the request of the Commission, WTC developed and delivered an English-French prototype for the institutions of the European Community and the public services of its member states. The pilot project showed conclusive results, and the decision was made to proceed with further development of French-English plus other language couples.

At that time a number of European university linguists heavily criticized the fact that the European Commission was working with a system developed in the United States instead of relying on European linguistic knowledge which was so abundantly available. The Commission decided to give the European linguists a chance and supported the launching of the EUROTRA project, which was approved by the Council and Parliament in 1987. The cost of EUROTRA was shared between the Commission and the member states.

The ultimate outcome, of course, was that the pragmatic approach—namely, the adaptation of SYSTRAN to the Community's texts in all the European languages—was highly successful, while the EUROTRA approach, in spite of its higher cost, never even led to an experimental system that could have been evaluated for its effectiveness.

REFERENCE

[ALPAC] Automatic Language Processing Advisory Committee. 1966. *Language and Machines: Computers in Translation and Linguistics; A Report* . . . Washington, DC: National Academy of Sciences, Division of Behavioral Sciences. National Research Council Publication 1416.