

THE FUTURE OF M T

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There is a widespread myth among linguists that machine translation--or, properly, machine-aided translation--which was the object of intense effort and research a decade and a half ago, was found to be a failure and has since been abandoned. Nothing, in fact, could be further from the truth.

Although a number of institutions and agencies in the U. S. and elsewhere undertook extensive efforts in the late 1950s and early 1960s to develop computer programs for translation, only one, the Georgetown University program, succeeded in becoming fully operational (without requiring extensive pre- or post-editing). The Georgetown program was the ultimate basis for two of the major functioning MT programs in the U.S. today, that at Oak Ridge and at Wright-Patterson Air Force Base.. These and other programs every year produce thousands of usable scientific and technical translations. However, they are all built on a research base which is now nearly twenty years old.

The 1966 report of the Automatic Language Processing Advisory Committee (ALPAC), which concluded that MT results had not been fully satisfactory, led to the virtual elimination of government

support for MT research. While the conclusion was not strictly justified (for example, scientists at Oak Ridge and Euratom, given choice between human and machine translation, both opted for the latter), the reduction in funding was timely, since the extant programs had largely exhausted the then-available possibilities in computer technology and linguistics.

Unfortunately, much of the money spent on machine translation projects was applied to theoretical research rather than being used for translation--which was often disparaged as being merely practical and lacking in theoretical interest. It is therefore ironic that had more research been done directly on translation, the development of linguistic theory itself might have been accelerated by five to ten years. (Interestingly, transformational linguists, so often linked with computers in the public mind, had little involvement with MT.)

In the ten years since the ALPAC report, there has been considerable development in computer technology and in linguistics. The state of the art has advanced in both fields to the point where a new synthesis is now possible, which could produce greatly improved translations on a more cost-effective basis. (Unfortunately, one of the few projects in recent years to try this, at Berkeley, was curtailed last year for lack of funds.)

The time has now come for a new effort in MT to be undertaken. Properly conducted, such an effort would not only improve the quality and efficiency of translation, but would add to our knowledge of substantive universals and semantics, as well as

deepen our understanding of particular languages. MT can make an important contribution to the building of the information base on which the growth of linguistic theory must depend, at the same time that it produces a result of great practical value.