ORIENTATION

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Like most orientations, this one is intended to determine where we have been,   where we are,   and where we are going.   Our story of machine translation will unfold gradually over the next four days.   This National Symposium represents the largest group of machine translation scientists ever assembled in the United States,   and should provide a comprehensive and current picture of the state of research and practice in machine translation.   The Symposium is intended for professionals active in the field of machine translation,   for linguists and language scholars,   and is also of interest to computer scientists,   information retrieval specialists, librarians and documentalists,   and manufacturers of data-processing equipment.

The Symposium is sponsored by the University of California,   with the aid of a grant from the Office of Naval Research,   as an expression of interest in this important field,   and in order to provide an accurate appraisal of the current state of progress and a description of methods currently being utilized.

There are many of us who believe that Linguistic Analysis,   the second era of the automation revolution,   has vastly greater implications for mankind than has Numerical Analysis,   its first era.   Linguistic Analysis embraces the entire field of automatic analysis of linguistic data; for example, automatic indexing, automatic abstracting, and automatic or machine translation.

Machine translation of one natural language into another has universal significance.   The theoretical problems encountered, the new concepts to be formulated, the solutions proposed, and the operational systems to be developed, present formidable intellectual challenges.

We should not expect that solutions will appear in the form of an unexpected break-through.   The intellectual barrier is not a thin homogeneous wall; it has varying depth and heterogeneity.   Instead, partial solutions will come in increments, some sequentially, some in parallel; so that the translation system--and hence, the translated output--will gradually improve.   We believe that these approximations will asymptotically approach the ideal which is rapid, inexpensive, idiomatic, automatic translation.