ACL-1991: 29th Annual Meeting of the Association for Computational Linguistics
18-21 June 1991, University of California, Berkeley, Ca.

TUTORIALS, 18 June 1991

Machine Translation: An In-Depth Tutorial

Jaime Carbonell, *Carnegie Mellon University,* and Yorick Wilks, *New Mexico State University*

Machine Translation (MT) is the area of computational linguistics with the longest history and with the largest volume of dedicated R&D resources on the global scene. After reviewing the primary objectives and accomplishments of MT in its 40-year history, the major MT paradigms will be presented in some detail, including syntactic transfer, semantic transfer, and interlingua-based approaches. Then, we will discuss the appropriateness of these methods to different application areas, including technical vs nontechnical text, specialized domains vs general text, multilingual vs bilingual requirements, spontaneous discourse vs prepared text, and full-translation vs text scanning vs fact extraction. We will also touch upon evaluation of MT systems and recent developments in MT such the re-emergence of statistical approaches, making knowledge-based interlingual MT systems practical, and the integration of MT with other technologies such as document production, optical character recognition, and speech understanding.