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Machine Translation

Eduard H. Hovy and Kevin Knight, USC/Information Sciences Institute

Machine Translation (MT) is one of the oldest large-scale applications of computer science. The need for MT continues to increase: in today's networked world, the need for systems to help humans read documents written in a variety of languages is constantly growing. But despite optimistic predictions in the 60's, and despite the fact that worldwide, over 50 companies perform or sell MT, MT technology is not yet capable of fully automated, high-quality, wide-domain performance. Moreover, evaluating systems and measuring the quality of MT remain problematic issues. Still, MT research continues to push the boundaries of the automation-quality-scope continuum. New techniques, such as statistics- and example-based methods, add new capabilities and possibilities to the older linguistics-based methods and theories. This tutorial covers the issues of MT, taking various perspectives and including both the older and the latest theories, techniques, and technology. Course topics include: the history and development of MT, the theoretical foundations of MT, traditional and modern MT techniques, newest MT research, the thorny questions of evaluating MT systems, current MT systems and technology on the market. The lecturers are actively involved in the construction of MT systems and the ongoing activities of the MT world at large.