Machine Translation: A Concise History

John Hutchins

University of East Anglia, United Kingdom

Abstract

This chapter traces the history of machine translation (MT) from the pioneers to the latest research on corpus-based systems. In the early systems of the 1950s and 1960s, rule-based approaches dominated in MT projects, particularly in the United States and the Soviet Union. Early enthusiasm was followed by disillusionment when expected results failed to materialize, giving rise to the ALPAC report in the mid-1960s, which effectively ended most research funding for the next decade. However, in the 1980s MT research was revived with new approaches (mainly so-called “transfer” systems, but also knowledge-based and interlingual systems) and the first operational systems in large corporations and in institutions such as the European Communities. During the 1990s, however, researchers turned to statistical methods, using the increasingly available large bilingual corpora (original texts and their human translations). In the past decade, corpus-based approaches (example-based methods and particularly statistical machine translation) have dominated MT research. Since 1990, there has also been an ever-greater adoption of systems and translation tools by large corporations and institutions and an increasing use of online MT systems by the general public.

1. Introduction

This article traces the history of efforts to develop computer programs (software) for the translation of natural languages, commonly and traditionally called “machine translation” (MT), or, in non-English-