

## **Timeline of MT**

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- 1933.** Patents applied for translating machines (pre-computer) submitted by Georges Artsrouni in France and Petr Petrovich Troyanskii in Russia.
- 1949.** Warren Weaver writes memorandum proposing use of newly invented digital computers to translate languages. He suggests various methods, both statistical and linguistic.
- 1952.** The first conference on machine translation convened by Yehoshua Bar-Hillel at Massachusetts Institute of Technology. Topics covered include: pre-editing, post-editing, syntactic analysis, controlled language, restricted semantic domains.
- 1954.** The first public demonstration of an MT system, developed by Paul Garvin of Georgetown University and Peter Sheridan of IBM. The demonstration attracts much publicity and effectively launches MT research throughout the world. A number of projects were started in the immediately following years, primarily in US and Soviet Union. Main groups: MIT, Harvard, Georgetown, Washington University, RAND
- 1959.** Operational system at IBM (Gilbert King) for USAF
- 1960.** Bar-Hillel publishes his survey of all current MT research, where he includes criticisms of the objectives of most groups, and in particular criticises the unrealisable goal of ‘fully automatic high-quality translation’.
- 1966.** Publication of the ALPAC report which effectively ended funding of MT in the United States for many years.
- 1970.** The US Air Force installs the first Systran MT system (developed by Peter Toma) for translating Russian into English; the TITUS system begins operation; Yorick Wilks researches AI-type MT.
- 1976.** The first public MT service, the Météo system for the Canadian meteorological service. In the same year, the European Communities began to use Systran for its translations, initially for English to French and later French to English.
- 1978.** Beginning of research on the ARIANE system in Grenoble and on the EC-funded Eurotra system - archetypal linguistics-oriented MT systems.
- 1981-82.** First commercial microcomputer (PC) systems: ALPS and Weidner
- 1982.** Beginning of ‘Fifth Generation’ projects in Japan; beginning of research on interlingua-based systems (Rosetta, DLT – using special form of Esperanto) and on knowledge-based systems (Colgate University)
- 1986.** Beginning of basic research on spoken language translation by ATR Laboratories in Japan, followed subsequently by groups in US and Europe (JANUS, Verbmobil, etc.).
- 1988.** First article on statistical machine translation – by a group at IBM – beginning the current framework for most MT research. Also beginning of research on other corpus-based approaches (e.g. example-based MT)
- 1993.** First commercial translation memory systems (Trados, IBM TM/2) – precursors: Arthern (1978), Kay (1980), Melby, DLT (1985)
- 1997.** Launch of Babelfish, the first free online MT service
- 2005.** First commercial statistical MT system (Language Weaver)