

## CHAPTER 7

# The Role of Machine Translation in Modern Translation Studies: Evaluating Progress and Challenges

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### **Abstract**

Machine translation (MT) is the use of computer software to translate text or speech from one natural language into another. It is a sub-field of computational linguistics that started its development in the 1950s with the aim of breaking down linguistic and cultural obstacles to human communication and understanding. MT is enormously applied in commerce, education, entertainment, government, healthcare, law, and science.

However, the challenge is not that simple in light of the fact that languages are highly complex and diverse means of encoding meaning and structure and the context in which they function. More importantly, like human languages, languages change and evolve with their speakers' social and historical contexts. Thus, MT also faces many challenges and limitations which are sophisticated and adaptive as well.

## This is a Limited Preview of the Chapter.

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multilingualism, domain adaptation, post-editing, evaluation, and ethics. These issues were argued to be important and relevant for furthering the field of MT, amplifying its impact and value for different domains and audiences. This chapter also envisaged some possible ways for dealing with the issues and challenges mentioned above, for example: creating new models, algorithms, and techniques that could handle various complex linguistic phenomena and variations; bringing more linguistic knowledge, context, and feedback into systems design and the training process; encouragement of better cooperation and communication between researchers, developers, users, and stakeholders in various domains and disciplines; development of clear standards, guidelines, and best practices for collecting, processing, annotating, sharing, and using data; education on risks and benefits, plus limitations of MT among various audiences and communities.

The major types of MT systems, their pros, and cons have been clearly and comprehensively described in this chapter. This chapter has also inspired me to further pursue the so-fascinating field of MT and its applications. MT is a useful tool for bridging linguistic and cultural gaps and facilitating human communication and understanding. MT is also an exciting but difficult research area, which offers many opportunities for innovation and discovery.

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