INTRODUCTION

We have entered into the era of artificial intelligence, neural machine translation, and especially large language models which have dramatically changed the landscape of human translation practices. On the one hand, translation technology has remarkably improved translation efficiency and reduced the cost of translation; on the other, it has brought about some issues related to translation quality, translator competence, translation ethics, and so on. This offers fertile ground for research on translation technology used in different scenarios.

The eight chapters in this volume can be divided into two groups: the contributions by Chinese authors and those by authors from other countries. Among the Chinese contributors, **Wang Fang** makes a comparative study of the Chinese-English translations by ChatGPT Translate and Baidu Translate, concluding that ChatGPT's human-computer interaction-based translation will bring new insights from the AI era to translation practitioners, translation learners, and technology developers. **Yang Qiong** makes a case study of the genre-based manual quality evaluation of Chinese-English translations produced by Google Translate, Baidu Translate, Sogou Translate, Youdao Translate, and human translators, suggesting that machine translation developers should leverage advanced AI language technology to develop an AI-assisted MT training system capable of interpreting nuances for more sophisticated translations.

Zhang Junchi explores the use of ChatGPT in translation teaching, suggesting that neither teachers nor students should

rely on ChatGPT too much, they have to think independently and judge whether the information is desirable, and a correct understanding of the interaction between translation teaching and technology should be fostered. **Wang Juan** makes a CiteSpace-based bibliometric analysis of the Web of Science (WoS) core collection publication (2000-2024) on translation technology, highlighting prominent scholars and institutions, foundational literature, thematic areas, developmental trajectories, and prospective directions in the realm of translation technology. **Cui Cui** investigates the Chinese student interpreters' usage intention of ChatGPT-assisted translation with Q methodology, providing some pedagogical implications of learning interpreting for university students.

As far as the contributors from other countries are concerned, **Adelinde H. Meyer** explores AI-powered quality assurance (QA) tools and techniques, reviewing how AI and ML refine translation quality management, examining the implications of AI in translation for stakeholders like translators, clients, and academics, and focusing on the challenges and prospects AI brings to the translation industry. **Prateek Kumar** reviews the main types of MT that have been proposed and developed over time: rule-based, statistical, hybrid, and neural MT, aiming to present an overview of the state-of-the-art in MT, identify key challenges and issues that MT faces today and tomorrow, and outline some possible ways out of them. **Ecrin Yilmaz** discusses how AI technologies, especially machine translation and natural language processing, have transformed the landscape of translation quality by making available automated support tools to translators, explaining the evolving roles of translators and clients, as well as AI acting as a mediator, pointing out some challenges, such as ethics considerations, data

privacy, and biases, as well as some opportunities such as multilingual content creation and cross-cultural communications.

It is hoped that this volume can provide some insights into the impact of technology and AI on translation research, and push forward the development of contemporary Translation Studies.

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