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Kenny, Dorothy (ed.) (2022). *Machine Translation for Everyone: Empowering Users in the Age of Artificial Intelligence*. Berlin: Language Science Press (Translation and Multilingual Natural Language Processing 18), pp. 210, hardcover £35/€35 or Open Access pdf. ISBN 978-3-98554-045-7 (hardcover), 978-3-96110-348-5 (pdf). DOI: 10.5281/zenodo.6653406.

In recent years, machine translation (MT) seems to have become ubiquitous. It is increasingly used not only in the language industry as a tool for professional translators, but also outside the field. It is well known that people turn to MT for various purposes, for example as a way to access information across language barriers or as a support for language learning. This growing prominence of MT has also led to discussion about the need to raise awareness of MT principles and use – what has been termed as "MT literacy" (Bowker and Buitrago Ciro 2019).

A recent addition to these efforts is the volume *Machine Translation for Everyone: Empowering Users in the Age of Artificial Intelligence*, edited by Dorothy Kenny and compiled as part of the EU-funded project "MultiTraiNMT: Machine Translation training for multilingual citizens". As Kenny discusses in her introduction to the volume, anyone who utilises MT needs to have "some basic understanding of how the technology works, so they can use it intelligently and avoid common pitfalls" (vi). Translators working in the field and students currently training to become translators are naturally one group for whom a solid grasp of MT is vital to enable them to work with the technology in ways that truly support their professional activities. Furthermore, awareness of how MT operates is also important for people who turn to MT for information purposes or language learning. To address these issues, the aim of the volume is to reach a broad audience of people, from occasional MT users to professionals.

The edited volume consists of an introduction and nine chapters, as well as supplementary interactive resources on the MultiTraiNMT project website[1]. A description of these resources and a link to the activities is given in the introduction (p. viii). This introduction, by Dorothy Kenny, outlines the goals and the approaches of this collective volume, and the following two chapters set the stage with basic concepts and overall context. Chapter 1, by Olga Torres-Hostench, starts by discussing the principles and practices of multilingualism in the European Union. She then examines what the potential role of MT could be in institutional multilingualism, presenting some examples and proposals for using MT as a support for linguistically diverse student bodies in higher education. In chapter 2, Dorothy Kenny addresses the question of what "translation" actually means. She explains some essential concepts related to translation and general theoretical perspectives, as well as more practical aspects of how translators work, what kind of problems arise in translation and how translators approach and solve such problems. Kenny then introduces general MT principles from

rule-based to statistical to neural, which provides context that is helpful for understanding the issues that will be explored in more detail in the later chapters.

The next three chapters cover practical issues related to the use of MT. Chapter 3 by Caroline Rossi and Alice Carré addresses MT evaluation from the perspective of selecting a suitable (neural) MT system. They first tackle the question of defining "translation quality", in general. They then outline human quality evaluation methods and describe how automatic quality evaluation metrics operate and how they are used. In chapter 4, Pilar Sánchez-Gijón and Dorothy Kenny focus on the source texts of MT and their connection with MT quality and usability. In this sense, they briefly examine features of source texts that may make them more or less suitable for MT. After introducing the concept of "pre-editing of source texts" for MT as well as the related principles of "controlled language" and "writing texts for a global audience," the chapter also offers some practical advice for pre-editing. Chapter 5, by Sharon O'Brien, focuses on later stages of working with MT output. She presents the principles and processes of post-editing, outlining different levels of post-editing as well as questions related to post-editing effort and training for post-editing. In chapter 6, Joss Moorkens takes a slightly more general view and explores ethical aspects of MT use. The chapter covers a broad range of ethical issues, such as use of translation data, copyrights and privacy, evaluating and reporting MT quality, as well as potential risks and liability related to MT use. He also discusses the potential impact of MT on sustainable work practices in the language industry as well as environmental concerns, such as the ecological footprint of the hardware and software needed for MT. Finally, he considers questions of diversity in both the development of MT and in the outputs it produces.

Adopting a more technology-oriented perspective, chapter 7 by Juan Antonio Pérez-Ortiz, Mikel L. Forcada and Felipe Sánchez-Martínez provides a more detailed look into neural MT. They present an overview of neural networks and how they are applied in the field of MT. The chapter aims to explain and demystify the key terminology and methods in this area and serves as a good primer which can make more technical discussions on the topic more approachable even for a reader who is not well-versed in this area. In chapter 8, Gema Ramírez-Sánchez examines the topic of customising MT engines. The chapter clarifies the distinction between generic and customised MT, outlining the rationale and benefits of customisation for specific purposes, and presents an overview of how customisation is done.

Finally, chapter 9 takes up the issue of MT in language learning and teaching settings. Alice Carré, Dorothy Kenny, Caroline Rossi, Pilar Sánchez-Gijón and Olga Torres-Hostench first present an overview of research into the use of MT in language learning. On one hand, they

examine various concerns that have been raised regarding detrimental effects of MT on learning. On the other hand, they discuss studies arguing that MT can also benefit language learning. The chapter then provides practical tips and examples for ways in which MT can be incorporated in language teaching, as well as parameters and considerations that should be taken into account when using MT in educational settings.

The volume is available both as a hardcover book and in Open Access pdf format (both as a full book and in separate chapter files). As a book to be read from cover to cover, the volume might have benefited from a slightly different structure. For example, chapters 7 and 8, which focus on neural MT principles and the question of customisation, break up the more use-oriented discussions in chapters 3 to 6 and 9. However, each of the chapters is written in a way that it can be read as a stand-alone article, so the effect of the chapter order on the overall reading experience is not particularly significant.

The level of specialisation and detail in the chapters is introductory, matching the stated aims of the book to bring MT closer to everyone. The volume indeed serves as a solid primer to key topics and issues in this area. Different readers will find different parts of the volume most useful depending on their own background and interests. For a more technically oriented reader, the chapters explaining how MT works will probably not offer much new information. However, these readers can also gain valuable insight from the discussions focusing on ways of using MT and on potential issues involved. Likewise, a translator already working in the field may be quite familiar with using MT as a basis for post-editing, for example, but may consider it very useful to gain a better understanding of the technical principles behind these tools. The stand-alone nature in which each chapter is written works particularly well for such purposes, making it possible for each reader to focus on those topics that are most helpful and interesting for their purposes. The literature cited in each chapter also provides directions for the reader to delve deeper into specific issues. The additional interactive learning activities on the MultiTraiNMT website offer valuable resources which are likely to be of particular interest to teachers involved in translation education and language teaching programmes, as well as language teachers working at various levels.

The volume *Machine translation for everyone* is indeed a welcome addition to efforts to raise MT literacy, providing excellent and accessible introduction to the principles of MT technology, as well as to its current and potentially future uses. It can be warmly recommended as a resource for academics, trainers, students and practitioners, particularly for those in the field of translation and language teaching. Additionally, the volume is written in a manner accessible to audiences outside of these fields. Considering the growing prominence of MT as a tool for cross-lingual

communication and the need to raise awareness about issues related to its use, it is to be hoped that the volume reaches a wide audience of MT users.

Reference

- **Bowker, Lynne and Jairo Buitrago Ciro** (2019). *Machine Translation and Global Research: Towards Improved Machine Translation Literacy in the Scholarly Community*. Bingley: Emerald Publishing.

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Notes

[1] https://multitrainmt.eu/index.php/en/neural-mt-training/training-activities-database