

Bundgaard, K. (2016). The Routledge Encyclopedia of Translation Technology (2015). *The Journal of Specialised Translation*, 26, 298-301. <https://doi.org/10.26034/cm.jostrans.2016.290>

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Sin-wai, Chan (ed.) (2015). *The Routledge Encyclopedia of Translation Technology*. London/New York: Routledge, pp. 718, £273.00. ISBN 9780415524841.

It is widely agreed that technology plays an indispensable role in translation practice today, and hence, translation is by a growing number of researchers characterised as a form of human-computer interaction (HCI) (e.g. O'Brien 2012; Green *et al.* 2013; Ehrensberger-Dow 2014; Bundgaard *et al.* 2016). Therefore, *The Routledge Encyclopedia of Translation Technology* edited by Chan Sin-wai is a timely and highly relevant publication. The encyclopedia offers a state-of-the-art overview of the field of translation technology, which covers, as defined by the editor (xxviii), both computer-aided translation (CAT) and machine translation (MT).

The aim of the encyclopedia is to sum up what has been done so far in translation technology and what still needs to be done. As such, the goal is to provide a comprehensive reference for scholars and specialists in translation technology as well as for general readers interested in the subject. The editor is Chan Sin-wai, Professor at the Department of Translation at The Chinese University of Hong Kong, who has also contributed to the encyclopedia by authoring two and co-authoring one of the chapters. Besides the editor, an impressive number of experts, mainly from academia, have contributed to the overview and discussion of the field of translation technology. In the following, due to space constraints, it is not possible to cover all 42 chapters; instead, certain chapters and general aspects of the encyclopedia will be highlighted.

The 42 chapters are organised into three main parts:

- Part One contains 13 chapters on general issues in translation technology.
- Part Two describes the development of translation technology in selected countries in 10 chapters.
- Part Three contains 19 alphabetically-ordered chapters on specific topics in translation technology such as alignment, concordancing and translation memory (TM).

Part One is introduced by an interesting chapter by Chan on the development of translation technology starting more or less with the famous ALPAC report in 1966, which, on the one hand, was characterized as a "funeral announcement for significant funding of machine translation" (Melby 1981: 25), and on the other hand, led to the emergence of CAT. Chapter 2, also by Chan, is interestingly structured around seven concepts that shape the development of functions in translation technology. One interesting concept is man-machine simulativity, as it clearly links to the abovementioned view of translation as a form of HCI, which "[...] seeks to

understand and support human beings interacting with and through technology” (Carroll 1997: 62). In chapter 3, Garcia gives a very interesting and accessible description of the components of TM systems; a very relevant chapter for students and newcomers to the field. Garcia also includes more recent developments such as web-based systems, integration of TM and MT and predictive typing. In chapter 4, Bowker gives a good introduction to the training of translators with regard to CAT, which is followed by Qun and Xiaojun’s contribution on general issues of MT in chapter 5. In this chapter, the authors present different approaches to MT in a clear and understandable way, also accessible to general readers. These approaches are explained in greater detail in chapters 7, 9, 10 and 11. In chapter 6, Hutchins provides a comprehensive and well-written historical overview of MT, which, however, to some extent, overlaps with parts of chapters 1 and 5. The remaining chapters of Part One comprise chapter 8, containing an interesting introduction to open-source MT technology, chapter 12, a really valuable chapter on the context, purposes and types of evaluation of MT and CAT, and finally, chapter 13, a case study of the teaching of MT at the Chinese University of Hong Kong.

Part Two covers the countries of China, Canada, France, Hong Kong, Japan, South Africa, Taiwan, the Netherlands and Belgium, the United Kingdom and the United States. The aim of this part of the encyclopedia is “[...] to illustrate the development and application of translation technology in different social and cultural situations and at different levels of technological advancement” (xxx), i.e. a highly valuable overview. This part is very interesting as different factors play a role in the different countries in relation to translation technology, for example, the number of official languages and the demand for translation. Concerning this part, my regret is, however, that no common criteria seem to have been established for the authors to follow, resulting in very diverse chapters with content ranging from chronological descriptions of the development of translation technology, over chapters structured along key players in translation technology to chapters devoted primarily to teaching with concrete examples of courses offered at different universities. This hinders a desired comparison across countries, although all chapters are well-written and informative.

Part Three covers 19 different topics ranging from chapters on the wider context of translation technology to issues more specifically important for the practical use of translation technology. As such, Part Three displays a wide spectrum in terms of technical complexity, offering both chapters interesting for scholars and specialists as well as for the general reader. As a researcher in translation technology with a specific interest in the translation process, I am not in a position to judge the technical quality of all chapters; however, I can say that this part of the volume exhibits an impressive coverage of the field with very interesting chapters, of which I would like to highlight a handful. Firstly, the chapter on bitext (chap. 25,

by Melby, Lommel and Vázquez) is very interesting with relevant observations, among others, on the issue of monotonicity. Secondly, as stated by the author of chapter 27, Zanettin, proficiency in concordancing is now an indispensable part of the translator's competence (441) and in this context, this chapter is highly relevant, also containing practical advice for translators. Thirdly, Declercq's chapter on editing (chap. 30) is a very important contribution to the, sometimes quite different, terminology used to describe the activity of correcting output from translation memories and MT. Fourthly, the chapter on Natural Language Processing (NLP) (chap. 34, by Yee) is very interesting as a means for understanding the wider context of MT, since MT is one of the most important applications of NLP (570), and one of the goals of NLP is to enable human-computer interaction; a field highly relevant to translation, as stated in the introduction to this review. Finally, chapter 41, by Melby and Wright, is a very well-written introduction to TM, also accessible to the general reader.

Despite the wide coverage of the field, Part Three lacks, in my opinion, a chapter specifically devoted to the integration of TM and MT, for example in terms of research conducted in this area. Such a chapter would have been valuable as so-called MT-assisted TM translation is perceived to be a promising development for translation practice, as also mentioned repeatedly throughout the encyclopedia (e.g. 210, 213, 249, 387, 480, 675) and recognized by several researchers (e.g. Garcia 2009: 206-208; Tatsumi 2010: 26-27; Pym 2011: 1; Flanagan & Christensen 2014: 257-258). A future edition of the encyclopedia would benefit from such a chapter.

These minor points of criticism aside, Chan Sin-wai has succeeded in providing a much needed and valuable first encyclopedia of translation technology, which is warmly recommended and has already been useful in my own research.

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