Lynne Bowker. *Computer-Aided Translation Technology: A Practical Introduction*. University of Ottawa Press: 2002, 185 pp.

In *Computer-Aided Translation Technology* Lynne Bowker gives a basic introduction to assessable computer-based methods that facilitate human translation. In her introduction, Bowker, who is also

the author of *Working with Specialized Language: A Practical Guide to Using Corpora* (2002), explains that this book is not a review of Machine Translation (MT), which works without the presence of a human translator, but rather of Computer-Aided Translation (CAT): "Although advances in machine translation continue to be made, for the foreseeable future at least, human translators will still have a large role to play in the production of translated texts," says Bowker. CAT assists translators in their work but does not do the translation for them and therefore does not eliminate the human translator from the process. There have been very few comprehensive reviews of CAT done prior to this book, which makes Bowker's study especially significant and useful.

The book is divided into six chapters. The first chapter is a section on the need to learn about technology in the translation field. Following this is a chapter on how to capture data in electronic form. Chapter three describes corpora and corpus-analysis tools. Chapter four treats terminology-management systems, followed by chapter five on translation-memory systems. The last chapter provides information about other new technologies and emerging trends. The book concludes with a glossary of terms as well as selected reviews of commercially-available CAT tools.

Chapter one, "Why Learn about Translation Technology?", explains that as our world becomes a more global society there is a greater need for translation and especially comprehensive but quick translation. In such a competitive marketplace, experience with CAT tools is becoming a necessary skill for translation students. Translation technology can also facilitate translation research and generate data for future empirical investigations that were either impossible or difficult to conduct in the past. Bowker states that, "Electronic corpora and translation memories can provide large quantities of easily accessible data that can be used to study translation." She claims that major research benefits include investigation of translation strategies and decisions (available through the use of bilingual parallel corpora) as well as the expanse of teaching practices for students through the comparison of archives of student translations.

The second chapter, "Capturing Data in Electronic Form," dis-

cusses the two main ways of converting text to electronic form: Optical Character Recognition (OCR) and voice recognition. OCR works with scanners to convert the text from an image to a text document which can then be accessed by software and altered for later documents. Voice recognition technology allows the user to speak directly into the computer and then convert the spoken data into a text document. Both technologies are widely available commercially and vary in price. In addition to these programs, a conversion program may or may not be needed in order to convert the electronic data into a form that can be read by diverse types of software.

In "Corpora and Corpus-Analysis Tools," Bowker defines a corpus as, "a large collection of electronic texts that have been gathered according to explicit criteria." Corpora can be arranged in many different manners, monolingual or bilingual, aligned or non-aligned, raw or annotated, etc. Corpus-analysis tools allow information to be displayed, accessed and manipulated according to the user's preferences. The corpus-analysis tools usually include word-frequency lists, concordancers (which show all patterns of words with their immediate contexts), and collocation generators (which demonstrate how often two words are placed together purposefully as opposed to randomly). According to Bowker, with this technology it is important to remember that the user is the one responsible for making and interpreting the data and that the technology is not capable of existing without human intervention.

Chapter four, "Terminology-Management Systems" describe systems that have existed for a relatively long period of time but only lately have improved enough to become significant in the translation world. TMSs can be formatted to store information according to distinct concepts, allowing mapping in several language directions. This enables the user to create and manipulate fields of data, then share and exchange this data between other users and systems. It is also possible to retrieve data through wildcard searches, term extraction, pre-translation, fuzzy matching, and active terminology recognition.

In chapter five, it is clear that "Translation-Memory Systems" are the most recent up-and-coming technology and are growing immensely in their popularity among translators. These systems connect the source and the target texts and store

these parallels in a database. This permits the translator to use previously translated excerpts again in other points of the text. The TM system compares the new source text with prior translations. The matching of these excerpts can be exact matching, fully matching, fuzzy matching, term matching, or subsegment matching. The use of this technology is limited to texts that are being updated, revised and have repetitive content. It also can be applied to series of texts in the same subject field.

Chapter six, "Other New Technologies and Emerging Trends", is a brief review of the current and up-and-coming technologies in translation and how they affect the field. Since there is increasingly more work for translators (such as translation of software and Web pages), the development of new translation technologies is, out of necessity, at an all time high. The success of CAT tools relies on the continuous education of translators, the construction of user-friendly tools, the creation of electronic sources texts, and a close relationship between the tool developers and the translation training institutes. Some of the proposals for new CAT tools documented here will become available in the near future.

Computer-Aided Translation Technology is written as a general overview and introduction for translation students. This book is especially useful for students who desire to study translation technology and students who believe that an understanding of this technology can be helpful for their career. In the introduction, Bowker states that "CAT tools support translators by helping them to work more efficiently" making this overview of these tools beneficial to all translators interested in making their work more efficient.

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