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# Translation and republication of technical documents

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Translating technical documentation is complicated and challenging. Often, information is presented in a variety of formats at varying levels of quality and is accompanied by significant numbers of complex diagrams and drawings. In addition, the material deals with highly specialised technical subject matter. Yet, the end product must meet rigid professional specifications with no tolerance for inconsistency or error.

A technology-based solution to the problems of translating, publishing and managing large volumes of technical documents requires the combination of the most advanced technology available in electronic publishing and computerised translation.

Accurate and high-quality technical translation and publication consists of a number of processes, a broad range of discrete professional skills and a high degree of professional commitment. Such demanding requirements can only be met with the unique integration of talented people and modern technology.

## ROLE OF TECHNOLOGY

The need for speed and the burgeoning volume of technical documentation demanded in the current business environment means that manual translation and republishing is no longer effective in terms of time or cost. Automation is, therefore, an obvious key to supplying accurate, cost-effective and timely technical translation and publication.

For many of the large, complex technical documentation projects required by today's high-tech industries, it would take several hundred specialised

translators several years to complete a 300,000 to 500,000 page project in a reasonable time-frame.

Reproduction of text and graphics is also labour intensive and, therefore, expensive. This again reinforces the need for an automated solution which applies information processing technology to translation, editing/formatting and reproduction. Only then can one achieve a timely, cost-effective and accurate product.

## TECHNOLOGY AND TRANSLATION

Although computerised translation has been available for more than a decade, it requires a large investment in computer hardware and software, a totally integrated facility, considerable time and resources devoted to development of dictionaries and dedication to automation. Finally, the traditional approach towards one's work must change. These requirements are a must and only then can one take advantage of the most advanced, state-of-the-art hardware and software.

Technology must be used in such a manner so as to maximise quality and quantity of the output. It is, therefore, essential to ensure a process which places technology at the forefront but that recognises the importance of the translator. Resources must be employed to ensure the quality and accuracy of the lexicon and the management thereof.

## DOCUMENT CAPTURE

Documents to be translated are often in varied condition (i.e. quality of paper, age, quality of resolution, text fonts and pitch). To accommodate this, optical character recognition devices are available which recognise a wide range of character types.

Graphic material which accompanies the text must also be transferred to an electronic format. This can be accomplished using a digital scanner.

## TECHNOLOGY AND EDITING/FORMATTING

Electronic publishing is one of the fastest growing computer-based services. Even before translation begins, editing and formatting of text and graphics occur. Operators rapidly standardise formats and generate documents in a consistent format. The integration of publishing software with translation software to ensure consistent transfer of format to the publishing activity is very cost effective.

## THE CASE OF LEXI-TECH

Lexi-tech was established in the spring of 1988, and staffed during the summer of 1988. It began operations in October 1988 and is the only private fully integrated machine translation and electronic publishing firm in Canada. It was formed because of the shortage of technical translators but has now achieved a rapid turnaround time and handles large volumes of work. It prides itself on its consistency.

Considerable funds were required to set up the company; a large contract guaranteed its existence. The next major problem was to find the right staff. The main items of front-end investment were (a) hardware, (b) software, (c) terminology development and (d) lexicon build-up. All these items have been taken care of, and the company is now well on the road to commercial viability.

It should however be stressed that Lexi-tech's operations were designed to meet a particular need in a particular way. Machine translation does not replace the translator, nor does it apply to all disciplines, nor can it be used in all situations.

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