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Translating Technical Texts

Teachers of technical universities dealing with translations of technical texts can face a range of problems. Technical translations, in the broader sense, involve any non-literary translation, i.e., translation of texts dealing with electronics, medicine, law, economics, or sports. In a narrower sense, technical translations deal with texts from the world of engineering, including chemistry, computer science, automotive engineering, geology, etc. The number of technical fields is infinitely large, and terminology is expanding and changing daily. Moreover, even within the same field, competing companies often use different terms for the same object to differentiate their products from those of their competitors.

Ideally, a technical text should therefore be translated by a specialist in the specific area in question, who is familiar with the terminology of the company for which the translation is being done. For example, it is highly desirable that a text dealing with IBM computer parts be translated by an IBM computer specialist, because chances are the same part is called a different name by Apple, Dell, or NEC. Obviously, this is not always possible in practice. What is important, however, is that the translator be familiar with the technical concepts involved in the text, so that the translation conveys the right idea to the engineer or technician reading it. The client can greatly contribute to the quality of the translation by providing the translator with any related documents written in the target language, as well as with the drawings and source-language documents dealing with the same topic.

Dictionaries do not always provide the right answers to technical terminology problems. The non-technical translator may translate the German word Spannung as stress or voltage, and the word Geschwindigkeit as speed, velocity, or rate.

Obviously, the correct choice will depend on the context. A technical translator will know the proper term to use.

Translation/conversion of units of measurement poses a special challenge to the translator. It's not only finding the correct conversion factor from pound per square inch to kilopascal, but also choosing the right fractional units to avoid expressing the weight of a microchip in tons or its dimensions in miles. Competent technical translators should know that converting a temperature from Fahrenheit to Celsius units or vice-versa requires a different formula from converting a temperature difference between the same units. They realize that some units are not to be converted.

Even if the terminology and all information contained in the document is correct, technical writing has a style that is difficult, if not impossible, for a non-technical person to imitate. A high-quality technical translation combines correct terminology and a style appropriate for the type of document and the intended audience. A text describing a surgical procedure will use a different terminology and style depending on whether it is intended for physicians or laypersons.

When translating technical documents it's essential that all the terminology is translated correctly. Taken to an extreme, technical translation can literally be the difference between life and death. It sounds a bit dramatic, but imagine if a slight misinterpretation in an installation manual meant that wires were connected incorrectly. That's why it's absolutely necessary that the translators working on your document have proven expertise in your field.

For a translator working on a railway engineering text, for example, a plain and simple train transforms into a Pandora's box of terminological mix-ups:
Overhead line or contact wire?
Pantograph or current collector?
Finding the right technical name for train parts can be a daunting task even for a translator with an engineering background. Why? Because a current collector in electrical engineering becomes a pantograph in railway parlance.

A translator may boast of excellent language and engineering skills, but would be literally at a loss for words, unless they are familiar with technical jargon in both languages. To complicate matters, there are regional differences in names: A freight car in America becomes a wagon in England; a railcar refers to a diesel multiple unit (DMU) in Ireland.

Whether it be aircraft, construction, agriculture or any other specialist subject, technical translation must be perfect. For a good technical translation it is not enough that the translator speaks the target language like a mother-tongue native, though this is obviously essential for a good translation. The translator must be able to understand the technical terminology of the source language, and be able to use the most suitable technical terminology in the target language. He needs to get inside the technical jargon used by the authors and has to use the technical jargon that the recipients of the target language translation expect, so that the translated text does not sound strange to those who will eventually work with it.

In general, to get a good result it is not enough to be a good translator, nor to use good bilingual dictionaries, that, moreover, are often inadequate and out of date. One needs to have sufficient technical skill to understand the meaning – in technical terms – of the source text and understand, or know how to find, the right technical term for the target text.

One needs to be a technician and have an aptitude for researching information, know where to find the sources, know the specialised magazines, have a technical library, and know how to use the many resources available today on the Internet.

The Internet is a very important topic – and a tool – and is becoming more so every day. Every company, every research or development organisation has a place on the Internet, where all kinds of materials are put, generally connected to their own activities, production, sales and usually written in their own language (but often translated into the most important business languages).

So on the web we can find product catalogues, specifications, manuals of every level, specialist studies, popular articles, written by specialists in their own language, advertising, and dictionaries, glossaries, encyclopedias, newspapers and newsletters.

The technical translator needs to know how to move through these in search of terminology, with a shrewd use of the most suitable search engines, intuitively and cleverly, disregarding the irrelevant, identifying those that have not been written in the author's language (but have been more or less translated well), conveniently ordering the terminology information collected.

In all of these cases it is not enough to be a good technician, to produce a good translation of the text into one's own language; one needs to know how to write well, in a style that is appropriate to the character of the text and right for the audience the text is aimed at.

Even though writing well, communicating effectively and convincingly are so important for work and everyday life, these topics are not in general covered by university education, never mind technical and scientific training. Nor on the other hand, does writing well consist simply of applying a few memorised rules. On the contrary, it requires to love the art of writing and to have matured it with adequate professional training, consisting of trials, examinations, improvements and finally success and satisfaction over many years of writing, presenting, communicating, to inform, to explain, to demonstrate, to persuade, and to inspire.

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