

## **How to Blend Language and ICT in the Didactics of Scientific Translation**

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New information and communication technologies (ICT) have burst into all spheres of our lives, modifying them in ways inconceivable barely 10 years ago. Generally speaking, these modifications have enhanced interaction processes (telecommunications), work and human production (task automation). The field of professional translation has been particularly affected by this technological revolution and has led to new research, professional and didactic paradigms, known as Automatic Translation and Computer Aided Translation. This is the framework for our present work, which attempts to put together the development of communicative (linguistic) competences with procedural (instrumental) and evaluative ones (professional translation self-assessment) in the didactics of scientific and technical translation.

### **Introduction**

New information and communication technologies (ICT) have burst into all spheres of our lives, modifying them in ways inconceivable barely 10 years ago. Generally speaking, these modifications have enhanced interaction processes (telecommunications), work and human production (task automation). The field of professional translation has been particularly affected by this technological revolution and has led to new research, professional and didactic paradigms, known as Automatic Translation and Computer Aided Translation. This is the framework for our present work, which attempts to put together the development of communicative (linguistic) competences with procedural (instrumental) and evaluative ones (professional translation self-assessment) in the didactics of scientific and technical translation.

In the same vein, other chapters in this workbook attempt to contribute to this blended field of ICT and language applied to translation (Maruenda-Bataller and Santaemilia-Ruiz; RoblesSabater; Candel-Mora, chapter 3; Robles i Sabater, chapter 9; Maruenda Bataller and Santaemilia Ruiz, chapter 10). They indicate that translators cannot be

adequately trained without taking into account the necessary union of these two fields at least. Thus, our proposal aims at raising awareness on the blending of language and technology from the principle of Computer Aided Translation, that is to say, the situation where the translator, being aided by software tools and the Internet, optimizes his/her work. This caters for the automation of repetitive aspects of translation, allowing him/her to concentrate on the pure translation of texts. We build upon previous works such as Austermühl (2003) and Pérez González and Rico Pérez (2001), since both authors agree on the importance of commanding both technological and linguistic competences to achieve good translations.

Through a close replica of the task of a professional translator, translation trainees use a variety of tools which are presented in the classroom following Melby's (1998) model that we have adapted to our own teaching conditions. Training focuses on three phases: previous to, during and after translation, we apply specific tools to terms and to segments. These tools include, among others, a translation memory and terminological resources. The Internet is another crucial tool, used in this case to access lexical databases, dictionaries and on-line encyclopaedias, as well as Google itself as a search engine, to find websites for parallel texts and translations which indicate the way in which terms, collocations, phrases and clauses have been translated (e.g. [www.linguee.com](http://www.linguee.com), dictionary and translation search engine) and their different styles.

The linguistic part of this work is based on the identification of recurrent terminological and discursive structures and segments that the translation trainee will have to identify and store in a translation memory and terminological tool in order to use them in further translations. These discursive structures and segments are, on the one hand, genres and communicative functions – verbal actions-, common to the same genre, such as description, explanation or exemplification in the research and in the popular science article. On the other hand, there are interpersonal markers and expressions (hedges, boosters, etc.), which are the realization of the interactional metadiscourse, giving account of the relation between author and reader, according to politeness principles established by scientific discursive conventions (Alcaraz-Varó 2000; Suau-Jiménez and Ramírez-Polo 2008, 2010; Suau-Jiménez 2010). As for the terms, also known as technical and semi-technical vocabulary (Hutchinson and Waters 1987), which are pervaded with meaning coming from specific semantic fields or knowledge domains, a terminological tool must be used for processing. These terms can be single or multiword units, since semantic precision and specialization often demand the union of more than one word forming a single lexeme (Cabré 1999/1998; Alcaraz-Varó 2000).

To sum up, our objective is that translation trainees acquire the adequate linguistic and instrumental competences, which will surely reinforce each other when learned in a combined way, leading to better and faster translations. Storing and tagging linguistic structures that repeat because they belong to a limited series of genres – those taking place within the field of science and technology-, as well as terminological occurrences, will undoubtedly facilitate their retrieval for translation purposes. As a result, translations will be carried out with a closer adjustment to each genre's discursive and

terminological requirements and also with an enhanced time management, an essential aspect when delivering translations.