

## A COMPARATIVE APPROACH TO TECHNICAL DICTIONARIES

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### ABSTRACT

*The present study is intended to address the various aspects related to the use of dictionaries as an essential part of both a technical translator's work and of a specialist's research activities. After comparing different types of technical dictionaries available for these professional categories, the study offers several suggestions for improving the quality of these indispensable linguistic instruments (dictionaries and glossaries) and for encouraging lexicographers to invest energy in creating better and well-conceived specialized technical dictionaries and glossaries which today's specialists dearly need.*

**Keywords:** technical dictionaries, entry structure, contextualization, entry selection criteria

### 1. Introduction

Within the globalization process it is commonly accepted that English has become the universal language of communication for most citizens of different nationalities, and consequently more and more books for English learning and teaching have been published to satisfy the demands of their users (pupils, teachers, students, academics, research workers, vocational workers and so on). Apart from the use of English as a communicational language for general purposes, the necessity of specialized vocabulary has emerged as a result of the learners' needs, either students or specialists practicing in specific fields. Accordingly, English for specific purposes has developed considerably in the last decades. Besides books and textbooks, dictionaries and glossaries have been seen as indispensable tools for specialists and non-specialists who use English in specific areas of activity or simply study in this language.

Starting from this premise of the great need of specialized vocabulary our aim is to investigate a selection of technical dictionaries in order to point out what types of technical dictionaries/glossaries exist, what selection criteria were used for the included headwords, and in what way the entries are structured. We pay particular attention to entry structure, synonymy (the question whether the author/authors select(s) a single Romanian translated term or offer(s) several possible Romanian versions for a single English word/phrase etc.), contextualization (the inclusion of the translated terms into specific contexts of use), source(s) used for selecting the headwords, the inclusion of quotations

in the analyzed books and morphological information regarding the selected entries.

When faced with the situation of translating technical texts, the problem of correctly identifying the English equivalent of the Romanian technical term and vice versa is often a difficult attempt.

The first tool that one resorts to when trying to identify the best translation is the dictionary; in the field of technical discourse, dictionaries and glossaries have often proved to be only suggestive and have not provided the accurate translation required for the specialized technical fields. On the other hand, it is widely accepted that these dictionaries or glossaries are perceived as authoritative records of how people *ought to* use language, and they are regularly invoked for guidance on *correct* usage. They are seen, in other words, as *prescriptive* texts [Atkinis].

However, in order to provide accuracy, contextualization must be indicated in order to avoid disambiguation. At the same time, citations are sometimes used in dictionaries to help the reader better understand the translated term: "A citation is a short extract from a text which provides evidence for a word, phrase, usage or meaning in authentic use." [Atkinis]

This study analyzes both technical dictionaries and glossaries. The basic similarities and differences which exist between the two linguistic instruments are – according to the OUP online dictionary – the following ones: a "glossary" is 'an alphabetical list of words relating to a specific subject, text, or dialect, with explanations; a brief dictionary', while a "dictionary" is: '1. a book that lists the words of a language in alphabetical order and gives their

meaning, or that gives the equivalent words in a different language; 2. a reference book on any subject, the items of which are arranged in alphabetical order: *a dictionary of quotations*.<sup>7</sup> Since our paper deals with technical dictionaries and glossaries, we shall notice that glossaries are field oriented (they are specialized on a specific branch of engineering), while dictionaries provide a selection of terms from different engineering branches, which makes them be perceived as too general in content and sometimes as slightly inefficient by their users. Of course, in practice, the technical translator should make use of both dictionaries and glossaries, for both technical glossaries and dictionaries include specialized vocabulary.

In order to understand the work that lies behind the creation of a dictionary/glossary, one should start with defining lexicography, which is commonly seen as “the activity or occupation of compiling dictionaries”. However, the work of a lexicographer is more complex than compiling entries in a book on the basis of special criteria which are meant to organize the included information: “The lexicographer, according to Green (1996: 13), is ‘quite simply, the compiler of a dictionary’. But things are never quite so simple /.../. Landau (1984) entitles his textbook *Dictionaries. The Art and Craft of Lexicography*, while Svensén, in his book on *Practical Lexicography* (1993: 1), defines lexicography as ‘a branch of applied linguistics which consists in observing, collecting, selecting and describing units from the stock of words and word combinations in one or more languages’ and adds that it ‘also includes the development and description of the theories and methods which are to be the basis of this activity’ ”

The first dictionary that we would like to introduce is a landmark in the field of Romanian technical reference books: “*Dictionar tehnic englez – roman*”, published at Editura Tehnica, Bucharest, 1997, a volume coordinated by Dragos Petrescu. It represents a second edition to what was the first technical English dictionary appeared in 1967. It is a comprehensive, over 1500-pages dictionary (170 000 terms) comprising terminology of many industry and transportation branches as well as several correlated disciplines: theoretical mechanics, fundamental of physics, atomic physics, chemistry, geology, mineralogy, geodesy, geography, mathematics, construction, architecture, roads, photograph technology, medical devices, forestry, agriculture, astronomy, metrology, military equipment, industrial property. In an explanatory note on the first page the authors explained some changes they decided to operate in comparison to the first edition: the field “cybernetics” was transformed into “informatics” and “economy” changed into “management and marketing”.

In a quantification of the modifications to the first edition the authors mention an addition of 35%,

while 20% of the existing terms were modified and completed. At the same time, a number of terms were eliminated from the second edition, mainly consisting of compound words, syntagms and phrase units whose meaning becomes obvious by the translation of the composing words (e.g. “above the level”, “abrasive material”).

This is a highly ambitious project attempting to form a reference book likely to be used by all those who are interested in the engineering / technical domain: students, translators, specialists, laypersons. The volume of work and the richness of the terminology employed is to be remarked.

On the other hand, the dictionary does not offer phonetic script for the included headwords and contexts of use for the selected headwords are rarely indicated; there are no examples to clarify the meaning in context and the various translations provided makes it difficult for the reader to select the exact translation he/she needs for a specific context.

Here are some demonstrative examples:

For the term “compound”, the main entry translates it as: “compus, amestec, masa izolanta, mixtura, masa; substanta, component // a compune, a combina, a amesteca, a compunda”. There are no examples to clarify both the context in which these different translated terms may occur and the different grammatical categories to which they belong (nouns, verbs). Moreover, this main entry is followed by a long list of combinations of the term „compound”:

- compound action
- compound arc
- compound arrangement
- compound bending dies
- compound body
- compound bridge girder and arch
- compound catenary construction
- compound cooking battery
- compound color
- compound compression
- compound compressor
- compound course
- compound cross section
- compound curvature
- compound cycle
- compound decay curve
- compound department
- compound die
- compound distribution
- compound drafting machine
- compound duty
- compound latex
- compound effect
- compound engine
- compound excitation
- compound fertilizer
- compound gauge
- compound gear

- compound glass
- compound horn
- compound indexing
- compound interest
- compound lens
- compound load
- compound locomotive
- compound magnet
- compound mast
- compound microscope
- compound motion
- compound movement
- compound needle
- compound nucleus
- compound number
- compound order
- compound pendulum
- compound piercing dies
- compound resonator
- compound rest
- compound-rest bottom
- compound –rest swivel
- compound-rest top
- compound-slide assembly/rest
- compound slides
- compound state
- compound steam pump
- compound table
- compound toggle lever stone breaker
- compound train of gears
- compound tube
- compound turbine
- compound winding
- compound-wound engine

The lack of examples and contextualization doubled by the lack of information with regard to the sub-field for each given translation puzzle the reader who may find it difficult to choose the right term; so in this respect, the purpose of the dictionary is not met. Despite the remarkable ambition of the authors to create a comprehensive reference book of the engineering field, the dictionary fails to serve the purposes of either the specialist, who would appreciate a more narrowed-down terminological approach, and the layperson who becomes lost in the multitude of variants and the little (if any) contextualization that the dictionary offers.

An alternative to this dictionary are the more specialized glossaries. Many of them appeared on the Romanian market quite recently to respond to the diversification of engineering domains and to the growing demand for more specialized terminology. While glossaries are more accurate with regard to contextualization and specialization, which is a definite advantage to the user, they present the disadvantage that the information they refer to belongs to continuously and rapidly changing realities. Therefore, they very soon become outdated

and no longer reflect the entire sphere of terminology currently existent on the market.

We have chosen to present the case of one such specialized dictionary, entitled “Dicționar explicativ de calculatoare englez-roman și roman-englez”, by Marcel Teodor Ban, Alin Tavi Mirestean, Manuel Miclea and Cristian Miclea, appeared at Editura Tehnica, Bucharest 1994. The limited purposes of this dictionary are presented by the authors in the preface: “although this dictionary results from a large documentation, it is not exhaustive. It may be a starting point for further development and updating”. And the case is surely so, because the dictionary includes only about 2000 terms. Among the advantages brought by this dictionary we mention the fact that in most cases there is enough explanation offered which should satisfy a non-specialist reader. When there is no Romanian equivalent for concepts, or when the word is a proper noun or an acronym, the authors explain them:

- XENIX – XENIX: implementare realizată de Microsoft a sistemului UNIX care a cumpărat licența de la AT&T, care însă nu i-a acordat dreptul de a-l numi UNIX în acțiunile publicitare. Este un sistem multisarcină (multitasking) și multiutilizator. Nu a avut succes deosebit din cauza răspunsului lent, fiind consecința însăși a limitărilor actuale ale arhitecturii PC. Odată cu apariția calculatoarelor 386 au apărut tot mai multe sisteme de calcul care au sistemul de operare UNIX/XENIX. [Ban 130]

On the other hand, there are several instances in which no explanation is given:

- XGA – Extended Graphics Array [130]

Other limitations of this dictionary refer to the lack of phonetic transcript and information referring to the grammatical categories of the translated terms and even some cases of misspelling.

A viable alternative to these types of dictionaries is offered by the online research sources. There is a whole array of materials which can be consulted online in a wide variety of specializations belonging to the engineering field. The definite advantage of these sources is that they can be – and hopefully are – updated regularly so that the information they present is in accordance with the reality nowadays and with its rapid evolution in technology.

Among the diversity of online research materials we would like to recommend the following: the KudoZ open glossary and the Interactive Terminology for Europe platform.

KudoZ ([www.kudoz.com](http://www.kudoz.com)) was originally created as a support tool for professional translators under the form of a forum to exchange opinions, share experiences and ask for advice. The interesting and useful thing about KudoZ is that it reunites both

philologists and specialists in the various fields, which makes the information exchanged via KudoZ reliable and trustworthy. A query is inputted by anyone who wants specialist advice in translating specialized terms and a variety of answers is given, with the best answer being granted what is called “KudoZ points”. Apart from this type of free-of-charge translation services, an open glossary has been created reuniting highly specialized terms in extremely particular contexts. The obvious disadvantage of this online glossary is that it is limited to the users’ queries, therefore it does not contain a comprehensive terminology in various domains.

The Interactive Terminology for Europe platform ([iate.europa.eu](http://iate.europa.eu)) is the EU inter-institutional terminology database and it is a project launched in 1999 with the objective of providing a web-based infrastructure for all EU terminology resources, enhancing the availability and standardization of the information. The practicality of this platform consists of the availability of translating engineering terms (and from other domains as well) from and into all the languages of the European Union and of thus obtaining a standard EU translation.

To conclude, we consider that specialized dictionaries and glossaries are both indispensable to professionals working in any field. We note a general trend towards overspecialization in the case of glossaries, which we consider to be a beneficial aspect, because it will eventually increase accuracy and contextualization.

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