

From Theory to Practice: The Selection of Spanish Lemmas in the *Accounting Dictionaries*¹

Pedro A. Fuertes-Olivera, Henning Bergenholtz, Pablo Gordo-Gómez, Sandro Nielsen, Marta Niño-Amo, Ángel de los Ríos, Ángeles Sastre-Ruano and Marisol Velasco-Sacristán

Abstract Interest in specialized lexicography has been propelled both by the development of LSP communication in academic circles and by the consolidation of function-based approaches to lexicography that have identified the existence of several user types, e. g. experts, semi-experts and interested laypersons, and use situations, typically cognitive-oriented and communicative-oriented types (Bergenholtz/Tarp 2003, 2004). This paper follows suit and elaborates on the selection of Spanish lemmas in a particular dictionary project: the *Accounting Dictionaries*. This dictionary project aims to satisfy the needs of translators (primary user group), accountants and financial experts (secondary user group), and students of accountancy, students of translation, journalism and interested laypersons (tertiary user group). It addresses the issue as a lexicographical problem and makes comments on the decisions taken by a lemma selection team who based their decisions on the principle of *relevance*. This principle states that the selection and treatment of dictionary data are directly related with the nature of the data to be included, the function(s) of the dictionary and the user situation in which the dictionary is intended to be used. In particular, Spanish lemmas were selected from three main sources: existing dictionaries, an in-house corpus, and very specific accounting texts through a process of intensive reading.

Keywords function theory, specialized lexicography, Spanish lemmas, users' needs, translation, accounting

1 Introduction

Nothing is more practical than a good theory, wrote Sandro Nielsen and Sven Tarp in their introduction to Henning Bergenholtz's *festschrift*, which was published in 2009. The above reflection is especially necessary in the realm of lexicography, which is mired in two related misunderstandings: its old association with linguistics and its consideration as an art or craft. For instance, Landau's (2001) claim that constructing a dictionary is either a craft or an art is a thing of the past, as everyone who does so can corroborate. For a start, a proper selection of headwords demands the use of methods and practices that are based on theoretical foundations, as we will show in this article.

Regarding the nature of lexicography, scholars are divided between an Anglo-Saxon, mostly British, view and a German and Nordic one. The former describes dictionaries as repositories of language knowledge and, consequently, ideal candidates for developing and evaluating linguistic theories (Wierzbicka 1985). The second view, notably espoused by German and Nordic scholars such as Wiegand (1984, 1998), and Bergenholtz and Tarp (2002, 2003,

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2004, see Tarp 2008 for a review), proclaims the independent academic and scientific status of lexicography and defend the view that dictionaries are essentially reference tools, the aim of which is to assist users in specific use situations.

Here we agree with Bergenholtz and Tarp, and advocate the suitability of the so-called *function theory of lexicography*, initially proposed by Bergenholtz and Tarp for compiling dictionaries, e. g. online specialized dictionaries such as the *Accounting Dictionaries* (Fuentes-Olivera et al. 2012; Nielsen/Mourier/Bergenholtz 2012) that constitute the focus of this article. Before presenting these we will discuss recent developments in the function theory, particularly those that emphasise the association of Lexicography with Information Science, and illustrate our theoretical position with reference to the extra-lexicographical use situation and the selection of Spanish lemmas in the *Accounting Dictionaries*. This practical application highlights not only the benefits of having a sound theoretical framework on which lexicographical decisions can be taken, but also some terminological windfalls, two of which are that specialized dictionaries can also be compiled within the tenets of lexicography (in other words, terminology and specialized lexicography are two sides of the same coin), and that specialized dictionaries can be adapted and modified in a short period of time, a must when working with specialized texts.

The above-mentioned advantages are connected with making dictionaries for satisfying users' needs in specific use situations. For instance, the construction of online specialized dictionaries must follow three main principles that have their origin in the tenets underlying the foundations of the *function theory of lexicography*:

1. a lexicographic approach to terminology (Bergenholtz/Nielsen 2006);
2. both lexicographic costs and the technical possibilities of the Internet must be taken into consideration when making these dictionaries (Fuentes-Olivera/Bergenholtz 2011, Granger/Paquot 2010, 2012, Kosem/Kosem 2011, Nielsen 2008);
3. the methods and practices used when compiling general language dictionaries cannot be replicated uncritically. This evaluation should aim to separate the wheat from the chaff, for example by establishing which, if any, of the assumptions defended in well-known approaches to terminology can result in real and workable specialized online dictionaries. For example Fuentes-Olivera and Nielsen (2011) have reported that frequency can mislead lexicographers in subject fields such as accounting, where regulatory bodies are constantly discussing, updating, modifying, and changing accounting and financial reporting standards.

To sum up, the making of online specialized dictionaries needs its own theoretical approach (Section 2), as shown in the compilation of the *Accounting Dictionaries* (Section 3). For instance, the use situation associated in a translation situation (Section 4) justifies the methodology used for selecting Spanish lemmas, which is explained in Section 5. These decisions aim at proposing a methodology for working in the field of specialized lexicography. A final section summarises the main conclusions drawn.

2 The Function Theory of Lexicography and Information Science

Proponents of the function theory of lexicography or the theory of lexicographical functions emphasize that dictionaries are utility tools that are made to satisfy a specific type of need

that arises in a certain type of user in a certain type of situation. This means that the practical compilation of most dictionaries requires the presence of lexicographers as well as experts in the required field. For instance, the making of the *Accounting Dictionaries* demands the joint work of four types of experts under the supervision of a lexicographer: experts in lexicography, experts in accounting, experts in the Internet, especially how to construct, run and maintain online lexical databases, webpages and search engines, and experts in marketing and selling sellable products through the Internet. In other words, certain recent developments in the theoretical scaffolding of the function theory currently see lexicography as part of Information Science. This approach does not modify the true nature of lexicography at the highest level of abstraction, an idea disputed in some quarters, e. g. Wiegand (1998), who defends the necessity of having lexicographical theories adapted to the new medium. For the function theory, the needs giving rise to information tools – be they dictionaries, glossaries, or knowledge databases – belong to the same categories at the highest level of abstraction, as do the data selected to solve these needs irrespective of the specific medium in which the data are presented (Bergenholtz 2011, Gouws 2011, Leroyer 2011, Tarp 2011).

Furthermore, the association between lexicography and Information Science reinforces the necessity of generating new lexicographic tools that are expected to make use of the technical options offered by lexicographical databases (i. e. repositories where lexicographical definitions, equivalents, collocations, examples, cross-references, labels, etc. are stored), text corpora, and the Internet, and integrating them into the three key lexicographic elements defined so far, namely, *data*, *access routes* and *users' needs*, in extra-lexicographical use situations, typically communicative, cognitive, interpretative and operational (cf. Tarp 2008 for a review). This development is especially visible in the upsurge of e-lexicography, i. e. the lexicographic sub-discipline that is mainly concerned with the development, planning, compilation and publication of electronic reference tools. In particular, scholars are currently evaluating the impact that the advent of the so-called information and knowledge society, as well as the integration between lexicography and computer technology, is already having on the compilation of online information tools. Below is a list of some of the issues that are currently being debated in the field of e-lexicography (Fuertes-Olivera/Bergenholtz 2011, Granger/Paquot 2010, 2012, Kosem/Kosem 2011):

- The use of lexicographical databases from which different types of dictionaries, and even different dictionaries of the same type, can be extracted.
- The means of coping with the mistake of including much more data than needed, in reference to the traditional view espoused by linguistically-oriented lexicographers, who advocate the inclusion of as much data as possible in a dictionary article, regardless of whether or not this is useful for the potential user.
- The broadening of lexicographical theory to the development, planning, compilation and publication of other reference sources, which are also focused on the users of these, the data presented in them, the structures to accommodate the data and, of utmost importance, access to the data in order to achieve an optimal retrieval of information. Verlinde (2011), for example, presents the *Base lexicale du français* as a web-based system that has task-oriented access to lexicographic information by allowing users to identify their use situation(s) and need(s).
- An explanation of the paradigm shift proposed in terms of the technical options the Internet offers and changes in the social mores brought to the fore by the widespread

use of the World Wide Web; for instance, dictionary users are also Internet users who upload and download all types of data. Heid (2011) claims that if electronic dictionaries are to be understood as (software) tools, they should also be designed according to the principles applicable to software tools. One such principle is *usability*, a concept developed within Information Science with the aim of assessing the effectiveness and efficiency of the tool when used in a particular situation and for a particular task. More recently, Fuertes-Olivera (2012) has discussed on a list of gadgets or resources that make online dictionaries, even the free ones (Fuertes-Olivera 2009b, Lannoy 2010), usable in a teaching and learning situation. This has led the author to conclude that the concept of *usability* can also be applied to the contents, i. e. the data, the user's characteristics, and the access routes of web-based systems; in other words, online tools that can be used in order to assist users gain knowledge of something and/or communicate, which are two typical use situations within the tenets of the function theory of lexicography.

The above issues indicate that the future of lexicography is intimately connected with *customization*, *recreation*, and *re-representation* of dictionary articles, which has given birth to new ideas and lexicographic concepts: Lexicographers are moving from the dictionary to the lexicographical database, that is, they are no longer focusing on the end product (the dictionary) but on the place where lexicographic data is stored (a lexicographical database), the system(s) that can be used for accessing the data (the search engine[s]), the means of searching and presenting data (e. g. the customization of data), and the knowledge needed for understanding and explaining the extra-lexicographical situation envisaged when planning specialized dictionaries (Bergenholtz 2011, Fuertes-Olivera and Nielsen 2011, 2012, Nielsen and Almind 2011). These new reflections are already having an impact on an ongoing dictionary project: the *Accounting Dictionaries* (Bergenholtz forthcoming; Fuertes-Olivera/Nielsen 2011 and 2012, Nielsen /Almind 2011).

3 From Theory to Practice: The *Accounting Dictionaries*

The *Accounting Dictionaries* are a set of online specialized dictionaries that represent a complex system of specific lexicographical and technological options for creating interaction between database and dictionary. The database contains carefully selected types of data in discrete data fields, which are linked and structured so as to facilitate search and presentation. Users consult a dictionary through the homepage and the dictionary sends their queries to the database via a search engine that seeks matches in the database. Once found, the data are sent to the dictionary and presented to users in a predetermined way (Bergenholtz forthcoming, Fuertes-Olivera/Nielsen 2011 and 2012, Nielsen/Almind 2011). This set-up allows users to access the data in the database in a number of ways that are designed to provide information, thereby assisting users in different but specific types of situations.

The compilation of the *Accounting Dictionaries* illustrates our view on the future of lexicography in close connection with, or even as part of, Information Science: This new conceptual scenario requires working with information science specialists with the aim of building lexicographic databases and search engines that allow lexicographers to present data that target the specific needs users may have in specific use situations (this option does exist, as shown below, in the *Accounting Dictionaries*) and that facilitate “dynamic solutions based upon a *recreation*

and re-representation of the data made available in this way” (Tarp 2011: 61); such a possibility might be explored with the aim of offering users the opportunity of compiling their own dictionary articles (Fuertes-Olivera/Bergenholtz 2011). Regarding the first option, the accounting database currently feeds twenty-three different dictionaries, each for assisting users to carry out a specific function (Bergenholtz forthcoming):

Danish

1. Meaning of Danish accounting terms.
2. Use of Danish accounting terms, search with a known term.
3. Use of Danish accounting terms, search based on a known meaning.
4. Knowledge of Danish accounting terms, search with a known term.

English

5. Meaning of English accounting terms.
6. Use of English accounting terms, search with a known term.
7. Use of English accounting terms, search based on a known meaning.
8. Knowledge of English accounting terms, search with a known term.

English–Danish

9. Reception of English terms in English accounting texts.
10. Translation of English accounting texts into Danish.
11. Knowledge of English and Danish accounting texts.

Danish–English

12. Translation of Danish accounting texts into English.
13. Knowledge of English and Danish accounting terms.

Spanish

14. Meaning of Spanish accounting terms.
15. Use of Spanish accounting terms, search with a known term.
16. Use of Spanish accounting terms, search based on a known meaning.
17. Knowledge of Spanish accounting terms, search with a known term.

Spanish–English

18. Reception of English terms in English accounting texts.
19. Translation of Spanish accounting texts into English.
20. Knowledge of Spanish and English accounting terms.

English–Spanish

21. Reception of English terms in English accounting texts.
22. Translation of English accounting texts into Spanish.
23. Knowledge of English and Spanish accounting terms.

The practical application of the above principles and methods has resulted in users being able to retrieve different dictionary articles depending on the filters they are using in the search engine. In a ‘meaning of accounting term’ situation a search for *cash flow statement* retrieves

grammar information (i. e., a noun that is countable), pragmatic information (it is an international accounting term shown by means of the label IAS/IFRS), and conceptual information that is offered by means of a definition (example 1):

cash flow statement noun <a; -, -s> IAS/IFRS

Definition

The cash flow statement must, as a minimum, show the cash flows for the period classified by operating, investing and financing activities. Furthermore, the cash flow statement must show changes in cash and cash equivalents for the accounting period and the cash and cash equivalents as at the beginning and end of the period.

Example 1: Dictionary entry retrieved in a 'meaning of accounting term' situation.

However, in an English to Danish translation and/or in a production situation, the same user searching for *cash flow statement* in the same search engine will also retrieve a Danish equivalent with its grammar data, as well as English collocations translated into Danish, an English example also translated into Danish, and hyperlinks (i. e. cross references) to related dictionary entries (example 2):

cash flow statement noun <a; -, -s> IAS/IFRS

Definition

The cash flow statement must, as a minimum, show the cash flows for the period classified by operating, investing and financing activities. Furthermore, the cash flow statement must show changes in cash and cash equivalents for the accounting period and the cash and cash equivalents as at the beginning and end of the period.

Equivalent

pengestrømsopgørelse noun <en; -n, -r, -rne>

Collocations

cash flow statement per quarter
pengestrømsopgørelse pr. kvartal
(...)

Examples

Investing transactions that do not require the use of cash and cash equivalents are excluded from the cash flow statement.

Investeringstransaktioner, der ikke kræver brug af likvider er ikke indregnet i pengestrømsopgørelsen.

See also

direct method < <http://beta.ordbogen.com/opslag.php?dict=roed&word=direct+method> >
(...)

Example 2: Dictionary entry retrieved for translating an accounting expression or using it in Danish

In sum, the advent of Information Science is having such an impact on the preparation and compilation of information tools that lexicographers must rethink traditional practices and methods, especially those associated with the ideas that lexicography is a sub-discipline of Linguistics or a kind of craft or art, both of which must be abandoned for two main reasons. Firstly, the true nature of Linguistics, which is the scientific study of language, is far removed from the true nature of lexicography, which is the compilation of information tools that satisfy users' needs in specific use situations. Bergenholtz and Tarp (2010: 30) summarise this lexicographic stance by defending the argument that the overriding lexicographical principle is the "satisfaction of the specific types of lexicographically relevant needs that may arise in a specific type of potential user in a specific type of extra-lexicographical situation". Secondly, nothing is more practical than a good theory, and consequently dictionary making is easier and better accomplished within the tenets of a proven theory than as a personal endeavour. Following suit, the rest of this article is concerned with explaining the selection of Spanish lemmas, which was accomplished after a deductive analysis of the use situation associated with the needs of the dictionaries' primary users: translators of Danish, English and Spanish accounting texts. For the sake of simplicity, we will restrict our article to the translation of Spanish accounting texts.

4 Use Situation: Translating Spanish Accounting Texts

Specialized dictionaries generally display two types of function. Communicative functions provide help in ongoing or planned communicative situations, and cognitive functions are of assistance if users wish to acquire knowledge about factual or linguistic matters. Both functions are interrelated when translating specialized texts, and therefore specialized translation dictionaries are conceived as information tools which, through their surface components and underlying features, aid users in the translation of specialized texts pertaining to one or more subject fields. In order to compile such information tools, it is appropriate to study the extra-lexicographical situation, which comprises two main elements: (1) what happens outside the dictionary when people translate, and (2) the characteristics of the specialized language that make the translation of specialized texts "special" or "different". The findings concerned with both elements have influenced some of the lexicographical decisions taken, as shown below in connection with the selection of Spanish lemmas and equivalents.

The translation process can be divided into three general stages: planning, execution and finalization. Translation dictionaries are very helpful for the execution stage, as this is where proper translations are carried out. The finalization stage concerns the proofreading, printing and copying of the final text, with proofreading representing the only finalization activity that has lexicographical relevance, completing as it does the work on the target text. Translation dictionaries are less likely to provide help in the planning stage, though some of the elements, for instance the design of the target text, may affect the execution stage (Nielsen 2010, Tarp 2007).

Compilers of translation dictionaries should focus on the execution stage and the proofreading phase. Following Bell (1991) and Nord (1997), Nielsen (2010) explains that the execution stage involves the analysis of the source text, the transfer of the meaning of the source text message into the target language, and the recording of the message into a realised target-language text. As it is an iterative process, translating includes the drafting, revision and

editing of the target text. As a result, translation dictionaries are information tools that have been designed to help users draft, revise and edit target-language texts by the inclusion of data types that support these activities. In particular, Fata (2010), Nielsen (2010), and Tarp (2007) claim that translation dictionaries are expected to help users at the *micro-level of translation*, that is, when users are drafting their texts and need assistance concerned with lexis and syntax (e. g. terminology and phraseology), grammar and syntax (e. g. coherence and cohesion) and pragmatics (e. g. implicatures and presuppositions). In addition, translators may need help when revising and editing their translated texts. Mossop (cited in Nielsen 2010), for instance, highlights the importance of the micro-level and explains that editing and revision involve checking texts to make sure that translators have complied with generally accepted grammar and spelling rules (copyediting), that they have used the relevant terminology consistently, that target texts are unambiguous and have been adapted to the target culture (stylistic editing), and that errors have been identified and amended accordingly (revising). To sum up, an analysis of the first component of the translation situation, i. e. what happens outside the dictionary when people translate, has shown that users need assistance at the micro-level of translation and that this assistance is especially necessary for drafting, revising and editing their translated texts.

Regarding the second component of the use situation, i. e. those characteristics of the specialized language that make the translation of specialized texts “special”, scholars have shown that specialized texts aim at facilitating communication by promoting standardization and eliminating ambiguity (Fuertes-Olivera/Nielsen 2011 and 2012). Both objectives must be reconciled with the current state of specialized communication as an economic activity. For instance, there are companies which pay large sums of money in order to acquire multilingual terminologies that describe the products they sell, establishing their own terminology departments, and struggling to create, develop and standardize “the LSP they use themselves and want to force their competitors to use” (Teubert 2005: 97).

The above situation, namely promoting standardization and eliminating ambiguity as well as gaining “terminological market share”, requires our taking into consideration three characteristics of specialized translation that make it different from general translation. The first one is the fact that, as a general rule, no meaningful LSP communication can take place without a minimum of subject-field knowledge. For the subject-field expert this does not usually constitute any problem. However, for the layman or semi-expert (in relation to a specific subject field) the lack of this particular knowledge may lead to important communication problems that may be solved by their consulting dictionaries specifically designed to provide help in this type of communicative situation. This can be achieved by including *systematic introductions*, i. e. dictionary texts that explain the basics of a domain and that are very helpful in a translation situation (Bergenholtz/Nielsen 2006; Fuertes-Olivera 2009a; Svensén 2009), as well as by referring to dictionary articles that show the stability of the relationship between form and content in specialized texts. For instance, in the *Accounting Dictionaries* there is one and *only one* meaning attached to every term, and data types such as equivalents, collocations, and examples are included with a dual objective: to disambiguate meaning in a very precise way (i. e. to make explicit the stability between form and content), and to offer potential users translated texts that can help them in their working environments (example 3):

deemed cost* <a, the, -s>definition*

Deemed cost is an amount used instead of cost or depreciated cost at a specific date. Any following amortisation or depreciation is made on the assumption that the enterprise initially recognised the asset or liability at a cost equal to the deemed cost.

*coste atribuido**synonyms*

coste asignado

collocations

- fair value or revaluation as deemed cost
- valor razonable o revalorización como coste atribuido
- have a deemed cost of zero in the opening IFRS balance sheet
- tener cero como coste atribuido en el balance de apertura basado en la NIIF
- the deemed cost of goodwill
- el coste atribuido del fondo de comercio
- use an event-driven fair value measurement as deemed cost
- utilizar una medición del valor razonable de un acontecimiento inevitable como coste atribuido

examples

Items of property, plant and equipment are measured at cost as deemed cost less accumulated depreciation and impairment losses.

Las partidas de edificios, instalaciones y equipos se valoran al coste como coste atribuido menos amortización acumulada y deterioros.

Example 3: Data presented in the Accounting Dictionaries

To sum up, example 3 defines the term *deemed cost* in a clear and precise way, offering one and only one Spanish equivalent (*coste atribuido*), one synonym (helpful in production situations such as academic writing), and collocations and examples that are relevant for translation purposes (Fuertes-Olivera/Nielsen 2012).

The second characteristic is concerned with the nature of specialized communication, namely, the fact that experts are constantly creating, modifying and manipulating terms, usually because of new discoveries and/or new or adapted legislation. This results in a proliferation of terms for representing the same conceptual reality. Some of them vary only in their spelling and other formal properties, whereas others are different in contexts. In the *Accounting Dictionaries*, we have overcome this difficulty by making use of *proscription*, i. e. lexicographers recommend a variant after an in-depth analysis of the available options (Bergenholtz 2003, Bergenholtz/Gouws 2010).

The prescriptive approach is more than necessary when planning and compiling a specialized translation dictionary, especially when a new concept is introduced, and when there is variation among terms. In both situations, such an approach involves the need to offer insertable full equivalents in a translation dictionary. A case in point occurs when Spanish lexicographers have to decide on the various Spanish accounting terms that correspond to the so-called English IAS/IFRS terms. The IASs and IFRSs (International Accounting Standards and International Financial Reporting Standards, respectively) are examples of *equal texts*, i. e. texts that have been prepared in a language (usually English) and then translated into the

different official languages of an organization such as the European Union. They conceptualize (new) realities that have been identified in the *accounting dictionaries* as IAS/IFRS terms. These terms are widespread in accounting (for instance there are 377 English IAS/IFRS terms) and are used in order to refer to normalized and standardized concepts, i. e. concepts that were defined by the writers of the above-mentioned standards and which will appear in many official accounting documents.

It may happen that translators of these equal texts do not know that a particular concept already has a well-known and respected Spanish term, or they may commit a translation mistake, which can easily lead to a conceptual one. Both situations occur with the Spanish IAS/IFRS translated terms. We found examples of nonsensical Spanish renderings and the introduction of unnecessary Spanish terms; in other words, the translators of the IAS/IFRS standards were unfamiliar with the traditional Spanish term and consequently introduced a new one in the Spanish version of the International Accounting Standards/International Financial Reporting Standards.

Both problems were resolved in the *Accounting Dictionaries* by including lexicographical notes (e. g. “Spanish accountants prefer *resultado de explotación* to the IAS/IFRS term *resultado operativo*”; or “the IAS/IFRS term is nonsensical in Spanish”), and by making frequent use of *exact proscription*, the term by which Bergenholtz and Gouws (2010) refer to the process of recommending one equivalent, although other equivalents may be mentioned. This resulted in the selection of traditional Spanish equivalents (for instance: *cuenta deudora*; *beneficio contable*; *producción agrícola*; *valor contable*; *tesorería*; *clasificado por tipo de gasto* etc.) and the inclusion of the Spanish translated IAS/IFRS terms as synonyms (*cuenta a cobrar*; *ganancia contable*; *producto agrícola*; *valor en libros*; *efectivo*; *clasificado por naturaleza* etc.).

In a similar vein, the proscriptive approach was indicated by means of the symbol and the expression “not recommended, use instead”. These devices are to be found in the *Accounting Dictionaries* with the aim of offering users the option lexicographers deem more appropriate. For instance, terms such as *ratio coste-beneficio*, *ratio coste/beneficio* and *ratio coste beneficio* are included. Our analysis of relevant Spanish accounting texts resulted in our recommendation of *ratio coste/beneficio* as the preferred term.

The third characteristic refers to the key role a *lingua franca* has in the world today. English, the current *lingua franca*, is especially influential in terms of the preponderance of English loan translations, borrowings and calques in Spanish. For example, Guillermo de la Dehesa, who is president of the Centre for Economic Policy Research and an influential Spanish consultant who writes in several Spanish newspapers on economic issues, wrote an article in a Spanish daily newspaper (October 30, 2011; *El País Negocios*) explaining the decisions taken in the European summit that took place on October 26, 2011. This 1.230-word article, which was directed at interested Spanish laypersons, contained a very large number of loan translations, borrowings and calques. Here is a list of terms that are not included in the Spanish wordlist of two recent editions of well-known Business/Economics dictionaries²: *crisis soberana*, *contagio*, *credit event*, *CDS (credit default swap)*, *facilidad de estabilidad financiera*, *EFSF (European Financial Stability Facility)*, *hoja de ruta*, *gobernanza*, *CDS desnudos*, *cortafuegos*, *estados periféricos*, *vehículos SPV (Special Purpose Vehicles)*, *obligaciones de deuda colateralizada (CDO, collateralized debt obligation)*, *tramos senior y mezzanine*, *tramo equity*, *vehículos fuera*

² The dictionaries are: *Diccionario de Términos Económicos, Financieros y Comerciales* (Alcaraz y Hughes, 2008); *Diccionario LID Empresa y Economía* (Elosúa, 2007).

de valance (SIV, structured investment vehicles), *core tier one* (CT1), *capital buffer*, *riesgo sistémico*, and *European Banking Authority* (EBA). Some of these terms are repeated several times in the text, which makes its reception very difficult, almost impossible for semi-experts and interested laypersons, although the text was published in the most widely circulated Spanish daily newspaper. This preponderance of English in accounting discourse has partly influenced the selection of Spanish lemmas and equivalents, as the next section shows.

5 Selection of Spanish Lemmas

The selection process of Spanish lemmas largely depends on the principle of *relevance*. With regard to the translation situation, the principle of relevance means the condition of being directly connected with accounting, the translation function, the translation situation in which the dictionary is intended to be used, and the levels of competence of the intended users (Fuertes-Olivera/Nielsen 2011 and 2012). This principle has resulted in the drawing-up of a wordlist of around 6.000 Spanish accounting texts. These terms were chosen from three sources: existing accounting dictionaries, a 3-million-word in-house accounting corpus, and very basic accounting texts which were the object of intensive scrutiny. The wordlist was selected by a team of three experts in accounting and economics and one lexicographer, devoting around 500 hours to the process (around 20 hours a week over a period of 25 weeks).

Existing dictionaries made it possible for the lemma selection team to choose around 3.000 terms, especially those that are very traditional and typical in the field, such as those that are loaded with cultural connotations and are usually included in dictionaries as one-word or two-word terms. For instance, the terms *amortización/depreciación* (Eng: amortization) and *deterioro* (Eng: impairment) are both frequent and specific terms that also need the inclusion of usage and contrastive notes, as they changed their traditional meanings after Spain's entry into the European Union. Briefly, the selection team chose around 3.000 traditional and frequent accounting terms that are considered typical in Spanish.

The team also selected a frequent list of our in-house corpus and used this to perform Google searches of the frequent terms, each of which was restricted by adding the symbol "+" and quoted keyword(s). For instance, searching "*metodo*" + "*contabilidad*" + "*coste*" (Engl.: "principle" + "accounting" + "cost") on Google retrieved terms concerned with cost accounting, most of which can be defined as *translated cognates*, i. e., Spanish accounting terms that are the result of word-for-word English translations. These explain the preponderance and frequency of multiword English borrowings, loans and calques that occur in Spanish accounting texts, perhaps a reflection of the status of English as the *lingua franca* of accounting. With this method we selected around 1.000 new terms, most of which are two-word or three-word Spanish literal translations of original English terms: *consideraciones de prudencia* (Engl.: consideration of prudence), *inventario en consignación* (Eng: consignment inventory) etc.

Finally, the lemma selection team selected around 2.000 new terms by intensive reading of basic accounting texts such as *Plan General Contable* (Spanish accounting code), *Normas Internacionales de Contabilidad* (Engl.: International Accounting Standards), *Normas Internacionales de Información Financiera* (Engl.: International Financial Reporting Standards), and European accounting directives and regulations. We consider intensive reading a more suitable method than inverted frequency for searching very idiosyncratic, domain-specific and infrequent terms, many of which cannot be selected by any electronic means. For instance, six-word and seven-word terms such as *fecha de transición a las NIIFs* (Engl.: date of transition to

IFRSs), *estado de resultados del ingreso marginal* (Engl.: contribution income statement) and *resultado antes de intereses, impuestos y amortizaciones (EBITDA)* (Eng: Earnings before Interest, Tax, Depreciation and Amortisation) were extracted from the definition sections included in the Spanish translations of the International Accounting Standards, the International Financial Reporting Standards and the *Plan General Contable*, respectively.

To summarise, the method used for selecting Spanish lemmas is illustrated in Tables 1 to 3. Table 1 shows Spanish terms that contain the Spanish accounting term '*bruto*' (Engl.: gross), and which are classified by source. The analysis indicates that existing accounting and/or business/economics dictionaries are adequate sources for identifying traditional Spanish accounting terms, which are especially relevant for making users aware of possible cultural differences between traditional terms and their possible substitutes due to the introduction of new rules; rules and standards that must be adapted to international legislations and standardization processes. As indicated, most of these traditional Spanish terms were extracted from existing dictionaries (12 out of 18 *bruto* terms).

Table 1: Sources for Spanish terms with *bruto*

Spanish Term	Source: Dictionary	Source: Corpus + Google	Source: Intensive Reading
Ingreso contable bruto	x		
Ratio del beneficio bruto sobre ventas			x
Beneficio bruto	x		
Margen de beneficio bruto		x	
Porcentaje de beneficio bruto		x	
Tipo de beneficio bruto		x	
Bruto	x		
Valor contable bruto	x		
Flujo de efectivo bruto	x		
Ingreso bruto	x		
Margen bruto	x		
Beneficio bruto	x		
Porcentaje de margen bruto		x	
Impuesto bruto	x		
Valor bruto	x		
Importe bruto	x		
Saldos y salarios brutos AAPP			x
Valor añadido bruto	x		

Table 2 shows Spanish terms with *combinación* (Engl.: combination), which has entered into accounting discourse recently through the publication of the International Financial Reporting Standard 3, dealing as it does with *business combinations*, i. e. the combining of separate enterprises to form one economic entity as a result of one enterprise uniting with or obtaining control over the net assets and operations of another enterprise. As expected, most terms, 6 out of 11, were extracted from this basic accounting text, the IFRS 3, through the process of ‘intensive reading’.

Table 2: Sources for Spanish terms with *combinación*

Spanish Term	Source: Dictionary	Source: Corpus + Google	Source: Intensive Reading
Combinación de negocios		x	
Combinación de negocios entre entidades o negocios bajo control común			x
Combinación	X		
Combinación de divisas		x	
Método de combinación de intereses		x	
Año de la combinación de intereses			x
Combinación de intereses		x	
Combinación de negocios realizadas por etapas			x
Coste de la combinación de negocios			x
Diferencia negativa en combinaciones de negocios			x
Coste de una combinación de negocios			x

Finally, Table 3 shows Spanish terms with *margen* (Engl.: margin), a term that entered Spanish accounting texts through a translation of English ‘margin’, which has four main meanings in the field:

1. Borrowed money that is used to purchase securities.
2. The amount of equity contributed by a customer as a percentage of the current market value of the securities held in a margin account.
3. The difference between a product’s (or service’s) selling price and the cost of production.
4. The portion of the interest rate on an adjustable-rate mortgage that is over and above the adjustment-index rate. This portion is retained as profit by the lender.

The Spanish *margen* is basically restricted to meanings 3 and 4, and the analysis shows that these terms tend to represent two types. Firstly, those that are in widespread use in Spanish, and hence are found in published dictionaries (13 out of 30). Secondly, those that are literal translations of English terms: 11 out of 30 terms: *margin of safety ratio* (Sp: ‘ratio de margen de

seguridad'); *EBIT margin* (Sp: margen de BAI); *EBITA margin* (Sp: 'margen de EBITA'); *EBIT-DA margin* (Sp: 'margen de EBITDA'); *gross profit margin* (Sp: 'margen de beneficio bruto'); *net profit margin* (Sp: 'margen de beneficio neto'); *gross margin percentage* (Sp: 'porcentaje de margen bruto'); *solvency margin* (Sp: 'margen de solvencia'); *margin of security* (Sp: 'margen de seguridad'); *risk margin* (Sp: 'margen de riesgo'); and *service margin* (Sp: 'margen de servicios') (Table 3).

Table 3: Sources for Spanish Terms with margen

Spanish Term	Source: Dictionary	Source: Corpus + Google	Source: Intensive Reading
Contrato de margen sobre el coste			x
Ratio de margen de seguridad		x	
Margen de ventas	x		
Coeficiente de margen de seguridad			x
Margen de BAI		x	
Margen de EBITA		x	
Margen de EBITDA		x	
Margen	x		
Margen de beneficio bruto		x	
Margen de beneficio neto		x	
Margen de explotación	x		
Margen bruto	x		
Porcentaje de margen bruto		x	
Margen de seguridad			
Margen de beneficios	x		
Fijación del precio mediante la adición del margen de beneficios			x
Margen de la liquidación de una aseguradora			x
Margen de solvencia		x	
Margen de seguridad		x	
Margen de producción	x		
Margen de ventas	x		
Margen de riesgo		x	
Margen de servicios		x	
Margen industrial de un producto			x
Margen de contribución	x		
Margen de intermediación	x		
Margen financier	x		
Margen neto	x		
Margen ordinario	x		
Margen relative	x		

Tables 1 to 3 simply aim to show a practical application of the principle of relevance in the selection of lemmas and equivalents in specialized lexicography. It reinforces our initial conviction: Nothing is more practical than a good theory, for instance, a theory that facilitates the construction of a sub-field accounting dictionary that aims to assist semi-experts in a translation situation, containing a maximised word list of around 6.000 easily updatable lemmas, and making use of the technical options the Internet currently offers.

6 Conclusion

The analysis carried out in this article shows that constructing dictionaries is the subject matter of lexicographers, who must always use lexicographical know-how when undertaking such a task. In particular, this article has defended the view that the so-called *function theory of lexicography* offers the theoretical background and the practical experience for making online specialized dictionaries, and has illustrated some of the decisions taken during the compiling of the *Accounting Dictionaries*, especially issues related with selecting Spanish lemmas. The process of selecting these lemmas lay in their extraction from three main sources: existing dictionaries, an in-house specialized corpus, and intensive reading of very basic texts. The process could be implemented due to the application of the principle of relevance. In a near future, we will access log files and will make log-file analyzes. These will inform us on search procedures that can be used in order to make the dictionaries more adequate for meeting the specific needs specific users have in a specific use situation. •

References

- Alcaraz, Enrique/Hughes, Brian (2008): *Diccionario de Términos Económicos, Financieros y Comerciales Inglés-Español/Spanish-English*. 2. Fifth Edition. Barcelona: Ariel.
- Bell, Roger T. (1991): *Translation and Translating. Theory and Practice*. London/New York: Longman. Second edition.
- Bergenholtz, Henning (2003): "User-oriented understanding of descriptive, proscriptive and prescriptive lexicography." *Lexikos* 13: 65–80.
- Bergenholtz, Henning (2011): "Access to and presentation of needs-adapted data in monofunctional internet dictionaries." *e-Lexicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 30–53.
- Bergenholtz, Henning (Forthcoming): "Concepts for monofunctional accounting dictionaries." *Terminology* 18 (2): 243–263.
- Bergenholtz, Henning/Gouws, Rufus H. (2010): "A functional approach to the choice between descriptive, prescriptive and proscriptive lexicography." *Lexikos* 20: 26–51.
- Bergenholtz, Henning/Nielsen, Sandro (2006) "Subject-field components as integrated parts of LSP dictionaries." *Terminology* 12(2): 281–303.
- Bergenholtz, Henning/Tarp, Sven (2002): "Die moderne lexikographische Funktionslehre. Diskussionsbeitrag zu neuen und alten Paradigmen, die Wörterbücher als Gebrauchsgegenstände verstehen." *Lexicographica* 18: 253–263.
- Bergenholtz, Henning/Tarp, Sven (2003): "Two opposing theories: On H.E. Wiegand's recent discovery of lexicographic functions." *Hermes. Journal of Linguistics* 31: 171–196.
- Bergenholtz, Henning/Tarp, Sven (2004): "The concept of dictionary usage." *Nordic Journal of English Studies* 3: 23–36.

- Bergenholtz, Henning/Tarp, Sven (2010): "LSP lexicography or terminography? The lexicographer's point of view." *Specialized Dictionaries for Learners*. (Lexicographica Series Maior 136) Ed. Pedro A. Fuertes-Olivera. Berlin/New York: De Gruyter. 27–37.
- Elosúa, Marcelino (2007): *Diccionario LID Empresa y Economía*. Eleventh Edition. Madrid: LID.
- Fata, Ildikó (2010): "The bilingual specialized translation dictionary for learners." *Specialized Dictionaries for Learners*. Ed.: Pedro A. Fuertes-Olivera. Berlin/New York: De Gruyter. 83–103. (Lexicographica Series Maior 136).
- Fuertes-Olivera, Pedro A. (2009a): "Systematic introductions in specialized dictionaries: Some proposals in relation with the Accounting Dictionaries." *Lexicography in the 21st Century. In Honour of Henning Bergenholtz*. (Terminology and Lexicography in Research and Practice, 12). Eds. Sandro Nielsen/Sven Tarp. Amsterdam/Philadelphia: John Benjamins. 161–178.
- Fuertes-Olivera, Pedro A. (2009b): "The function theory of lexicography and electronic dictionaries: WIKTIONARY as a prototype of collective multiple-language internet dictionary." *Lexicography at a Crossroads: Dictionaries and Encyclopedias Today, Lexicographica Tools Tomorrow*. Eds. Henning Bergenholtz/Sandro Nielsen/Sven Tarp. Bern: Peter Lang. 99–134.
- Fuertes-Olivera, Pedro A., Ed. (2010): *Specialized Dictionaries for Learners*. (Lexicographica Series Maior, 136). Berlin/New York: De Gruyter.
- Fuertes-Olivera, Pedro A. (2012): "On the usability of free internet dictionaries for teaching and learning Business English." *Electronic Lexicography*. Eds. Sylviane Granger/Magali Paquot. Oxford: Oxford University Press. 392–417.
- Fuertes-Olivera, Pedro A./Bergenholtz, Henning (Eds.) (2011): *e-Lxicography: The Internet, Digital Initiatives and Lexicography*. London/New York: Continuum.
- Fuertes-Olivera, Pedro A./Nielsen, Sandro (2011): "The dynamics of terms in accounting: what the construction of the *Accounting Dictionaries* reveals about metaphorical terms in culture-bound subject fields." *Terminology* 17(1): 157–180.
- Fuertes-Olivera, Pedro A./Nielsen, Sandro (2012): "Online dictionaries for assisting translators of LSP texts: The *Accounting Dictionaries*." *International Journal of Lexicography* 25 (2): 191–215.
- Fuertes-Olivera, Pedro A. et al. (2012): *Accounting Dictionaries* (A series of 10 interconnected Spanish, Spanish-English, and English-Spanish Dictionaries). Database and Design Richard Almind and Jesper Skovgård Nielsen. Odense: Lemma.com.
- Gouws, Rufus H. (2011): "Learning, unlearning and innovation in the planning of electronic dictionaries." *e-Lxicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 17–29.
- Granger, Sylviane/Paquot, Magali (Eds) (2010): *eLexicography in the 21st Century: New Challenges, New Applications. Proceedings of eLEX 2009. Cahiers du Cental*. Louvain-laNeuve: Presses universitaires de Louvain.
- Granger, Sylviane/Paquot, Magali (Eds) (2012): *Electronic Lexicography*. Oxford: Oxford University Press.
- Heid, Ulrich (2011): "Electronic dictionaries as tools: Towards an assessment of usability." *e-Lxicography. The Internet, Digital Initiatives and Lexicography*. Editors Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 287–304.
- Kosem, Iztok/Kosem, Karmen (2011): *Electronic Lexicography in the 21st Century: New Applications for New Users. Proceedings of eLex 2011, 10-12-November Bled, Slovenia*. Trojina, Institute for Applied Slovene Studies. 30.04.2012.
- Landau, Sidney (2001): *Dictionaries. The Art and Craft of Lexicography*. Cambridge: Cambridge University Press (2nd edition).
- Lannoy, Vincent (2010): "Free online dictionaries: Why and how?" *eLexicography in the 21st Century: New Challenges, New Applications. Proceedings of ELEX 2009. Cahiers du Cental* 7: 173–181.

- Leroyer, Patrick (2011): "Change of paradigm: From Linguistics to Information Science and from dictionaries to lexicographic information tools." *e-Lexicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 121–140.
- Nielsen, Sandro (2008): "The effects of lexicographical information costs on dictionary making and use." *Lexikos* 18: 170–189.
- Nielsen, Sandro (2010): "Specialized translation dictionaries for learners." *Specialized Dictionaries for Learners*. Ed. Pedro A. Fuertes-Olivera. Berlin/New York: De Gruyter. 69–82. (Lexicographica Series Maior 136).
- Nielsen, Sandro/Almind, Richard (2011): "From data to dictionary." *e-Lexicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 141–167.
- Nielsen, Sandro/Tarp, Sven (2009): "Nothing is more practical than a good theory." *Lexicography in the 21st Century. In Honour of Henning Bergenholtz* (Terminology and Lexicography in Research and Practice 12). Editors Sandro Nielsen/Sven Tarp. Amsterdam/Philadelphia: John Benjamins. ix–xi.
- Nielsen, Sandro/Mourier, Lise/Bergenholtz, Henning (2012): *Accounting Dictionaries* (A series of 13 interconnected Danish, Danish-English, English-Danish and Danish Dictionaries). Database and Design Richard Almind and Jesper Skovgård Nielsen. Odense: Lemma.com.
- Nord, Christiane (1997): *Translating as a Purposeful Activity. Functionalist Approaches Explained*. Manchester: St. Jerome.
- Svensén, Bob (2009) "Subject-field classification of lexicography revisited." *Lexicography in the 21st Century. In Honour of Henning Bergenholtz*. Eds. Sandro Nielsen/Sven Tarp. Amsterdam/Philadelphia: John Benjamins. 147–159.
- Tarp, Sven (2007): ¿Qué requisitos debe cumplir un diccionario de traducción del siglo XXI? *Problemas lingüísticos en la traducción especializada*. Ed. Pedro A. Fuertes-Olivera. Valladolid: Universidad de Valladolid. 227–256.
- Tarp, Sven (2008): *Lexicography in the Borderland between Knowledge and Non-knowledge. General Lexicographical Theory with Particular Focus on Learner's Lexicography*. (Lexicographica Series Maior 134). Tübingen: Niemeyer.
- Tarp, Sven (2011): "Lexicographical and other e-tools for consultation purposes: Towards the individualization of needs satisfaction." *e-Lexicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 54–70.
- Teubert, Wolfgang (2005): "Language as an economic factor: The importance of terminology." *Meaningful Texts: The Extraction of Semantic Information from Monolingual and Multilingual Corpora*. Eds. Geoff Barnbrook/Pernilla Danielsson/Michaella Mahlberg. London/New York: Continuum: 96–106.
- Verlinde, Serge (2011): "Modelling interactive reading, translation and writing assistants." *e-Lexicography. The Internet, Digital Initiatives and Lexicography*. Eds. Pedro A. Fuertes-Olivera/Henning Bergenholtz. London/New York: Continuum. 275–286.
- Wiegand, Herbert Ernst (1984): "On the structure and contents of a general theory of lexicography." *LEX'eter '83 Proceedings*. Ed. Reinhard R. K. Hartmann. Tübingen: Max Niemeyer. 13–30.
- Wiegand, Herbert Ernst (1998): *Wörterbuchforschung. Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie. 1. Teilband*. Berlin/New York: de Gruyter.
- Wierzbicka, Anna (1985): *Lexicography and Conceptual Analysis*. Ann Arbor: Karoma Publishers.

Pedro A. Fuertes-Olivera
University of Valladolid (Spain)
Escuela Universitaria de Estudios Empresariales
pedro@tita.emp.uva.es

Henning Bergenholtz
Centre for Lexicography
Department of Business Communication
Aarhus University
hb@asb.dk

Pablo Gordo-Gómez
University of Valladolid (Spain)
Escuela Universitaria de Estudios Empresariales
pablog@emp.uva.es

Sandro Nielsen
Centre for Lexicography
Department of Business Communication
Aarhus University
sn@asb.dk

Marta Niño-Amo
University of Valladolid (Spain)
Escuela Universitaria de Estudios Empresariales
mna@emp.uva.es

Ángel de los Ríos
University of Valladolid (Spain)
Escuela Universitaria de Estudios Empresariales
rios@emp.uva.es

Ángeles Sastre-Ruano
University of Valladolid (Spain)
Facultad de Filosofía y Letras
sastre@fyl.uva.es

Marisol Velasco-Sacristán
University of Valladolid (Spain)
Escuela Universitaria de Estudios Empresariales
marisol@emp.uva.es