

Editorial

e-Vocabulary and e-Learning

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Abstract: A vocabulary is a linguistic resource that helps manage, query and retrieve information and/or knowledge via words. If vocabularies are built and used in electronic format, they are referred as e-vocabularies. E-vocabularies have been used in Education to help teachers and students to, amongst many issues, (1) comprehend and relate the concepts and the objects of a given knowledge domain; (2) understand and learn languages, be they specialized or not; and (3) identify, describe and query knowledge and digital educational resources. Despite its utility, it is in this field where vocabularies seem to be less systematically developed, known, studied, analyzed, compared and/or linked. For this reason, we thought it was an opportunity to edit a dedicated volume with real experiences concerning the construction, use and evaluation of electronic vocabularies relating to education, and their application to the Internet and e-learning. The result is, finally, this Special Issue with five papers that represent part of the current state-of-the-art in the construction and use of e-vocabularies and education.

Keywords: electronic vocabularies; education; e-learning; computational terminology; computational lexicography; digital educational resources

A vocabulary is a linguistic resource that helps to manage, query, and retrieve information and/or knowledge through words (Boguraev, 1996) [1]. Some examples of vocabularies are (1) term lists; (2) glossaries; (3) classifications and taxonomies; (4) thesauri; (5) ontologies; (6) dictionaries; and (7) lexicons and lexical databases (CEN/CWA 14871:2003) [2]. All of them have been used in some way, so far, to structure knowledge in a flexible way for a number of tasks (e.g., natural language processing, conceptualization, document classification, indexing and information retrieval). The purpose of E-Vocabularies and E-learning is to find how lexicography, lexicology, terminology, and terminography have contributed and can continue to contribute to the improvement of education and e-learning. It is a difficult goal, mainly due to the specific nature of the topic and the lack of experience in joint work between specialists in these areas. However, we are persuaded that if lexical resources constitute one of the pillars of knowledge representation, their application to education constitutes a line of work that is worth exploring to improve current teaching and learning resources and strategies.

With this aim in mind, five papers have been selected to be included in this issue. They approach four specific educational problems with use of e-vocabularies or with methodologies for the construction of e-vocabularies. Their quality and originality constitute a reference and an inspiration for the design of future projects that approach these or other problems in the intersection of Education and Lexicon.

The first problem approached is the need, in Education, to standardise the terminology of subjects of study, particularly if teaching is provided in more than one language. In this respect, the manuscript “Terminology Standardization in Education and the Construction of Resources: The Welsh Experience

by Tegau Andrews and Gruffudd Prys” constitutes a seminal work [3]. It describes in detail the creation of two standard bilingual Welsh-English terminological dictionaries, available online and offline for use in non-university education (at all levels, from primary to secondary education) as well as in university education. Both dictionary projects were carefully planned from the theoretical point of view (on the basis of ISO—International Organization for Standardization standards) as well as from the practical point of view, through the use of a platform that centralised and supported the selection of resources, terms, creation of entries, edition, and publication of the dictionaries, as well as the communication between geographically scattered participants in the projects. This paper is actually a reference that must be taken into account for (i) any lexicographical, lexicological, or terminological project, and (ii) any educational project involving teaching in several official languages if the terminological standardisation that ensures that all students will have the same competences in the languages used is not available.

The second problem, approached by two papers in this Special Issue, is how to improve language teaching, particularly as regards motivation and comprehension. The hypothesis put forward in both papers is that if students have a dictionary where lexical information is arranged under cognitive premises, following as closely as possible our brain knowledge representation system, the dictionary will not only help students to learn the lexicon of a language but will also help them to understand the way in which that language works. The first manuscript, “A Latin Functionalist Dictionary as a Self-Learning Language Device: Previous Experiences to Digitalization” [4] proposes using a representation system based on the linguistic principles of S.C. Dik’s Functionalist Grammar as well as on an innovative learning strategy to understand and create sentences as if they were jigsaws led by the core pieces, namely the verbs. In this regard, the dictionary is understood as a warehouse for the jigsaw pieces with which students build sentences, matching verb valences and their arguments. To find the effectiveness of this proposal, a real experiment was carried out on teenage first-year Latin students, and the results are really promising. The second manuscript, “DICONALE: A Novel German-Spanish Onomasiological Lexicographical Model Involving Paradigmatic and Syntagmatic Information” [5], proposed a different onomasiological structure in order to facilitate a more traditional learning strategy based on contrastive analysis. It arranges lexical information along two basic axes: the paradigmatic and the syntagmatic axes. Its goal is to provide advanced students in a second language (in this case Spanish or German) with a full conceptual view of the lexicon that is useful for production processes in that language. It is an unfinished project given that the online electronic version of the dictionary is still being built as this Special Issue is going to the print. However, due to their fullness, its theoretical approach and lexicographic design should be taken into account in new research projects.

The third problem approached in this issue pertains to the ambiguity of e-learning terms that have empirically arisen within a very short time. This lack of precision generates a certain degree of confusion among specialists, who are often forced to define or clarify the meaning of these terms in their scientific publications, and it also generates difficulties in use and comprehension among e-learning non-specialists. In the manuscript “Putting Order into Our Universe: The Concept of Blended Learning—A Methodology within the Concept-based Terminology Framework” [6] a methodology is put forward to solve this problem by applying it to a basic term, blended-learning, within the context of Portuguese. It shows how lexicography can contribute to establishing the speciality language in young fields of knowledge under development, such as e-learning, thus facilitating scientific and popular science communication with no ambiguities or inaccuracies.

The fourth problem addressed in this Special Issue is about how to classify intuitively digital educational resources stored in big digital repositories so that the user—teachers or students—can find quickly and easily the resources that best fit their necessities. The paper entitled “The role of e-vocabularies in the description and retrieval of digital educational resources” [7] aims to provide an overview of how e-vocabularies are used to index, describe, classify and retrieve digital educational resources. The article describes what vocabularies are, how they are used, how they work, and what

they contribute to retrieving digital educational resources. It is a useful introduction for those who need (or want) a clearer view of how electronic vocabularies are built and used for describing and retrieving digital collections of educational contents on the Internet.

In essence, these five experiences show how electronic vocabularies can help teachers and students to (1) have a common, coherent terminological language that facilitates didactic and scientific communication in all fields of knowledge and in different languages; (2) design better language teaching and learning strategies; (3) learn and understand the still confusing terminology in the field of e-learning, and (4) describe, locate and select on the Internet, the most suitable digital contents for their teaching and learning. The editorial team is grateful to the authors for agreeing to share their experiences with this journal.

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