Languages for Specific Purposes in the Digital Era.

Elena Bárcena, Timothy Read, Jorge Arús (eds).
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Research on computer-assisted language learning (CALL) applications for the teaching and learning of languages for specific purposes (LSPs) is a vivid area in the linguistics field. The book *Languages for Specific Purposes in the Digital Era* introduces a representative state of the art of methodological and technological innovation in the teaching and processing of linguistic domains. This book is not only intended for an academic audience, but for those interested in the way that computers and people work with domain-specific languages. The sixteen chapters provide a state-of-the-art vision of research and present knowledge in the interrelated fields of computer-based learning/teaching and processing of specialized domains.

Readers will discover different ways in which computational applications can facilitate the teaching and learning of LSP and related subjects, information regarding the different aspects of research and sublanguages, in addition to information about computational linguistics, CALL, and corpora.

This book is divided into four sections, beginning with general issues regarding learning languages using computers, central questions related to LSP, the different roles that both teachers and learners play, specificity of materials, genre, and skills development. The first chapter deals with the role of information technology (IT) in our society, and how it has contributed to transforming educational practices. Technology is playing an important role in shaping education into new formats, which has inevitably led to a reappraisal of the roles that teachers and students play. The chapter continues to discuss LSP as a multidisciplinary activity and how IT can be integrated in LSP.

The second chapter focuses on how teaching on-line is a rapidly expanding phenomenon in language teaching, and particularly in English teaching. This chapter discusses that learners with lower proficiency levels tend to prefer face-to-face tuition and classroom interaction, whereas intermediate and advanced learners are more prone to investigate into more autonomous

learning scenarios. It also points out that the Internet is slowly becoming a crucial part of English teaching practice.

Chapter 3 presents *I-AGENT*, a complete system available for real instructors to integrate collaborative work done online and face-to-face classroom lessons, via *Moodle*. The *ATLAS* (Artificial inTelligence for Linguistic ApplicationS) research group is cooperating in the development of *I-AGENT* (Intelligent Adaptative Generic English Tutor), a project that tries to merge Intelligent Computer Assisted Language Learning (*ICALL*) with face-to-face instruction with an innovative approach.

Chapter 4 tackles the importance of assessment, which comes from both its influence in the way teachers and students address language teaching and learning and the changes it might introduce as far as methodologies, approaches and behavior of all participants in the language learning process are concerned. It also explores the assessment process of the basic skills tested by the Cambridge ESOL First Certificate in English Examination (FCE) and the ways in which the *InGenio* online preparatory materials contribute to the effectiveness and efficiency of the assessment in both student self-assessment and tutor assessment.

The second section of the book encompasses four chapters that deal with computer-assisted experiences for developing language skills and competences. The definition and understanding of lexicography discussed illustrate that present Internet dictionaries are much more than digital versions of tangible dictionaries, as they can be turned into language learning and teaching tools. This chapter presents several possibilities for teaching and learning Business English.

The following chapter presents an example for teaching Legal English through *Moodle* glossary tasks. Web-based collaborative tasks have recently been experimented in different areas of higher education and platforms such as *Moodle* have made it easy for learners to publish their work in attractive formats. The chapter concludes by describing the design and implementation of two collaborative legal glossary-writing tasks, over two successive years, as part of a university Legal English course.

Another chapter discusses the teaching and learning of specialized vocabulary through ICTs in general and, specifically, on computer-supported teaching and learning of Maritime English (ME) vocabulary. It seeks to show how computer-based instruction can be used in an ESP course in order to learn specialized vocabulary. It argues that adding computer-based

technology to this type of courses fosters collaborative work among students.

The last chapter in this section presents a practical application of Wikis for learning Business English as a second language. It argues that Wikis provide teachers with a clear insight into the development process of tasks carried out by students, allowing an overall evaluation of the knowledge construction process. Additionally, the chapter expresses how teachers and students, who know and manage ICTs, acquire skills that help them to adapt to new technologies.

The third section of the book explores corpus-based applications for teaching and processing (sub)languages. The first chapter presents a genre-based approach to the teaching of Legal and Business English. A team of teachers of Language for Specific Purposes (LSP) and teachers of specialized translation agreed to work together in order to design and implement two LSP courses, which are part of the degree program in Translation and Interpreting of the University Jaume I in Spain. The chapter analyzes the impact of corpora on LSP teaching, presents the *GENTT* example corpus of specialized discourse and discusses how LSP teachers and learners can efficiently use these tools. Another example of innovative methods for LSP-teaching presented is the use corpora to teach Business Russian. During the last twenty years much work has been carried out on corpus development but this has had little effect in foreign language teaching, as the use of corpora for pedagogical purposes has not become commonplace. The chapter presents a practical use of corpora to facilitate vocabulary acquisition and to enhance students' ability to recognize, and use, expressions in an appropriate context in Business Russian and other LSP subjects. The third chapter in this section provides an example of automatic specialized versus non-specialized text differentiation. The aim is to show that it is possible to differentiate specialized texts from non-specialized texts written in Latin languages by analyzing some grammatical features and not only lexicon. The last chapter explores the potential of corpus use in translation training by describing the new approaches which incorporate software in a Danish translation course design. The chapter explains how learner's autonomy in the field of specialized translation was increased thanks to the combination of functional translation strategies, genre analysis and corpus analysis.

The last part of the book details natural language processing. One chapter is devoted to *EcoLexion,* a multilingual terminological knowledge base.

EcoLexion is addressed to users who want to increase their knowledge of the environment with the objective of text generation or comprehension. It discusses *EcoLexion* and explains how it provides a coherent information system. Another chapter presents new approaches to audiovisual translation. Corpus-based studies are a new and very useful tool for audiovisual text analysis. After detailing the empirical methods proposed by corpus linguists and how computing tools can be used for the analysis of audiovisual discourse, the author introduces the analysis of the *CORSUBIL* corpus, a corpus of bilingual subtitles in English and Spanish. The next chapter deals with pragmatics and presents the formalization of the pragmatic level into an annotation framework called *OntoLingAnnot*. With this framework six pragmatic categories which can be used to annotate dialogues and texts are shown. The chapter starts by stating the background, then the pragmatic units, the attributes and values, the relationships that hold between the pragmatic units, and ends with the evaluation results and the main contributions of the framework. The last chapter of the book reviews the intended goals of the book, which sought to offer valuable insights and approaches that will help to shape future CALL and LSP research, teaching and learning.

The fields of LSPs and CALL have been nurturing each other intensively. Researchers and readers interested in both fields have now a chance to enhance their knowledge thanks to the insight provided along this volume, as it represents one of the first comprehensive volumes to combine the use of technology and LSP issues.

Reviewed by **Ferran Costa**
GREL (Grup de Recerca en Llengües)
Universitat d'Andorra (Andorra)
fcosta@uda.ad