

Preface

Overview and Motivation

Computer aided language learning (CALL) has been gaining popularity as computer-based education has been attracting the interest of the business and education sectors.

Due to the increasing popularity of the Internet and the use of multimedia, there has been a recent move of CALL systems from CD-ROM to Web-based systems, making it possible to create systems that can facilitate the emergence of online communities of learners.

CALL allows students to practice language situations interactively, and collaborate and share their learning experiences with other students and teachers in both synchronous and asynchronous communication modes. These new learning opportunities come with a lot of usability challenges that can make the learning experience frustrating and inefficient. Therefore, the ability to design applications that comply with usability standards and offer an easy-to-use, enjoyable learning environment for the students can affect the success of any new CALL effort significantly.

For that reason, the key objective of this book was to look at the topic of CALL in a new direction by focusing on the human-computer interaction elements of learning a language online. The book discusses the basis of a broad framework for the development and management of CALL environments, enriched with contributions from domains as diverse as education, information systems, psychology, sociology, linguistics, artificial intelligence, e-learning and many others.

The book puts the emphasis on the user (learner) and proposes methodologies, strategies and design approaches for designing interfaces that facilitate a user-centered design approach and focus to CALL.

The book's objective is to serve university educators and educators in general; university administrators; researchers; librarians; teachers of foreign languages; e-learning and CALL system managers and designers.

Description of Chapters

A user-centered design approach focuses design activity on the user by employing methodologies that achieve to get a better understanding of the users. This user-centered approach is further broken down into three key activities: analysis, design and evaluation. For that reason, our book is structured in three broad sections. Section I provides some theoretical foundations for CALL. Section II takes those theoretical foundations further by providing chapters that cover analysis and design studies. Finally, in Section III, we include chapters that describe projects that involved extensive evaluation case studies.

The book includes 14 chapters from prominent international authors. The international character of the book is evident in that it includes chapters from authors from Australia, Austria, Brazil, Cyprus, Greece, Ireland, Israel, Japan, Singapore, Spain, the United Kingdom and United States.

The following section presents an overview of each chapter.

Section I: Theory and Analysis

Chapter I, *Developing Enjoyable Second Language Learning Software Tools: A Computer Game Paradigm*, is written by Chee Siang Ang and Panayiotis Zaphiris. It provides a theoretical view of harnessing computer game design for language learning by introducing current academic study on computer games. It proposes a game model that treats games both as play activities as well as narratives. It then demonstrates that a pleasurable CALL application could benefit from both aspects, by presenting two case studies on game-based language learning.

Chapter II, *Culture-Based Language Learning Objects: A CALL Approach for a Ubiquitous World*, is written by Niki Lambropoulos, Martha Christopoulou, and Kosmos Vlachos. It discusses the theoretical rationale of cultural-based language learning on which the construction of culture-based language learning objects (CALLOs) are founded. It makes suggestions on how CALLOs could be designed by second-language teachers for a norm-based and culture-based learning context.

Chapter III, *Situated Task Analysis in Learner-Centred CALL*, is written by Roderick A. Farmer. It examines the roles of user-centered design in CALL design and evaluates and presents Learner-centered design as a theoretical and practical alternative to traditional approaches. The proposed method focuses on a sociocultural task analysis framework for analyzing learner-computer interactions that could be useful in CALL system design.

Section II: Design

Chapter IV, *'Ears before Eyes': Expanding Tutors' Interaction Skills beyond Physical Presence in Audio-Graphic Collaborative Virtual Learning Environments*, is written by Beatriz de los Arcos and Inmaculada Arnedillo Sánchez. It provides an analysis of

problems that arise in a virtual language-learning environment in which non-verbal behaviors are absent. It also introduces strategies to deal with certain aspects, such as turn taking and silence, by examining the difficulties of implementing a virtual classroom.

Chapter V, *A Student-Centered Online Writing Course*, is written by Caroline Coit. It demonstrates the design development and implementation of a collaborative writing system, known as peer correction system-tool, which enables students to send academic-style articles to peers and receive feedback from them. The evaluation of the system yields very positive results, and it thus offers an opportunity for other online language courses to adopt this open-source system.

Chapter VI, *Learner-Centered Language Programs: Integrating Disparate Resources for Task-Based Interaction*, is written by Deryle Lonsdale, C. Ray Graham, and Rebecca Madsen. It is centered on the communicative learning environment in which students become first-person participants in language interaction through the use of animated agents and speech technologies. It discusses strategies to design multi-component applications, ranging from appropriate toolkits selection and seamless integration of these technologies.

Chapter VII, *LAPLI - The Language Learning Lab: A Methodological Proposal for a Hybrid Course in a Virtual Environment*, is written by Rita de Cássia Veiga Marriott and Patricia Lupion Torres. It discusses the development of LAPLI, the language lab that implements an integrative CALL methodology, providing language courses in a virtual environment. The language lab provides hybrid activities to students to develop their reading and writing skills by using language as a tool to accomplish tasks in a contextualized way, either individually or collaboratively.

Chapter VIII, *Integrated Micro Learning During Access Delays: A New Approach to Second-Language Learning*, is written by Silvia Gstrein and Theo Hug. It envisages the design of futuristic e-learning projects with the concept of ubiquitous computing. A new learning approach, known as integrated micro learning, has been developed to integrate language learning into the learner's daily routine with the help of electronic devices.

Section III: Evaluation and Case Studies

Chapter IX, *EOI Online Inglés: A Fully Implemented and Operative Online English Language Course*, is written by Pascual Cantos Gómez and Juan García Iborra. It deals with the design of an online English language course as an alternative to the traditional language course and ongoing distance learning course. It offers a full description of the outline, rational and design of the course, ranging from the unit structure to course material development. An evaluation study highlights the benefits and drawbacks of the project, giving an insight of issues to consider for those who work in the same area.

Chapter X, *Metacognition and Learners' Interactions with a Web-Based CALL Grammar Exercise*, is written by Wai Meng Chan. It highlights a qualitative evaluation study that examines the relationship between learners' metacognition and their interactions with a German language CALL grammar exercise. It focused on the metacognitive pro-

cesses and strategy use while performing the exercise as well as how these affect or are affected by their use of interactive aids.

Chapter XI, *The Effect of a Native-Language Interface vs. a Target-Language Interface on Students' Performance*, is written by Jay Melton. It describes an evaluation experiment on the use of native and target language as the user interface of a course management systems quiz module. A group of Japanese students learning English is studied, and it was found that there is no significant difference in using an English or a Japanese interface.

Chapter XII, *Reading and Learning from Screen*, is written by Miriam Scholnik and Sara Kol. It studies the mode of electronic text presentation in CALL materials. Factors related to the screen, the reader, the text layout as well as navigation methods might affect reading from the screen. It thus calls for customizable presentation modes in CALL programs.

Chapter XIII, *Evaluating Students' Perceptions of Online Counselor for Independent Language Learning*, is written by Yoko Hirata. It outlines the design of a computer program, known as Online Counselor, which assists students who lack independent learning experiences to plan and organize their learning. It argues that a language-learning program should be able to guide learners and at the same time give freedom to them in performing their tasks.

Chapter XIV, *Language Learning and User-Centered Design: The Development of the Electronic European Language Portfolio*, is written by Charalambos Vrasidas, Elena Landone, Niki Christodoulou, and Michalinos Zembylas. It emphasizes the user-centered approach in developing the electronic version of the European language portfolio. It discusses the affordances of technology in serving the need of the electronic environment in supporting language teaching and learning.