



LINGUISTICS DEPARTMENT - STANFORD UNIVERSITY

# An Invitation to CALL

## Foundations of Computer-Assisted Language Learning

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### An Invitation to CALL

#### Unit 1: Introduction to Computer-Assisted Language Learning.

##### WHAT IS CALL?

CALL is the acronym for computer-assisted language learning. Although, as we will see below, the field or significant parts of it sometimes go by other names, CALL remains the most widely accepted generic term. In this foundation course, CALL will be used in a broad sense to refer to any endeavor involving the computer in some significant way in language teaching and learning.

There are a number of ways to conceptualize field of CALL, but one useful way, especially for those just entering the field, is to divide computer use according to the functional roles of *tutor* and *tool*, concepts popularized for CALL by Levy (1997). A vocabulary flashcard program or set of online grammar exercises would represent tutor uses, where the computer in some way has a teaching function. A language learning activity involving a word processor, email program, or web search engine like Google would represent tool uses, where the computer has no overt teaching function.

This distinction is sometimes reflected in an unfortunate division in CALL between those who see the computer primarily as a machine for delivering interactive language learning and practice material--the computer as tutor--and those who see it mainly as a means for learners to experience the authentic language and communication opportunities and enhancements afforded by computers--the computer as tool. Because most early CALL applications were tutorial and tool uses arguably dominate now, it is easy to think of CALL as evolving, leaving tutorial CALL as something of a dinosaur.

In reality, all aspects of CALL have continued to develop, and in this course, I do not attempt to rate one as being more important or useful than the other. In fact, it is possible, even preferable, to recognize these not as opposing philosophies but as end points along

the same sort of language teaching continuum, analogous to the one that balances teacher-fronted and group work in a classroom. In other words, effective language learning can include elements of both. Consequently, in this introductory course, I will try to strike a balance between them so that you are better prepared to recognize the potential advantages of using neither, one, or both for a given teaching situation.

## ACRONYMS AND ATTITUDES

This field has gone by a number of different names as groups of practitioners have attempted to promote their own views and philosophies, in some cases in an attempt to distance the field from tutorial CALL, which is sometimes regarded as incompatible with interactionist and social constructivist approaches to language teaching. The list below is representative but not exhaustive.

- CALL - Computer-assisted language learning, sometimes expanded as computer-aided language learning
- CELL - Computer-enhanced language learning: suggests the computer's role is to make learning better
- TELL - Technology-enhanced language learning: this accommodates more than just computers, often bringing in video and seeing the computer as just one part of a larger system. It is increasingly popular as a generic term: for instance, while TESOL has a [CALL Interest Section](#), California TESOL has a [TELL Interest Group](#).
- TALL - Technology-assisted language learning: variant of CALL and TELL
- CALI - Computer-assisted language instruction: with "instruction" in it, it's more teaching oriented
- CBLT - Computer-based language training: views elements of language learning as "training" and tends to use an approach with definable, measurable objectives
- IT and ICT - Information Technology/Information and Communication Technologies are common acronyms outside of language teaching, particularly in Europe; sometimes this is presented as IT or ICT for LT (Language Teaching)
- NBLT - Network-Based Language Teaching: focuses on computer-mediated communication and the web

While acknowledging the existence of these alternative labels, for the purposes of this course we will call CALL "CALL".

## A THUMBNAIL SKETCH OF CALL HISTORY

CALL began in the 1960s with mainframe-based drill and practice materials, especially those based on the University of Illinois' PLATO system. It remained an insignificant alternative for language learning outside of a few universities until the spread of the microcomputer into educational settings in the early 1980s. Early programs were written by teacher-developers on Apple II, IBM PC, and BBC computers, and were often distributed for free. Commercial programs, when available, were usually quite expensive but were generally more stable and technically sophisticated (though not as innovative).

There was some work done with interactive laser disks during this time which provided the foundations for multimedia. The traditional language labs began to be replaced with dedicated computer labs for language learning, a trend that continues today.

In the late 1980s and early 90s, the Apple Macintosh replaced the Apple II in many educational settings in the US and became an immediate favorite among teacher-developers because of the support of HyperCard, a powerful but easy-to-use authoring program. The Mac had built-in sound, making it easier to work with than PCs, which had incompatible proprietary boards competing with one another. Early Macs (and HyperCard) did not support color, however, so commercial programs continued to appear for PCs. The PC market was also dominant in most countries outside the US because the machines could be obtained much more cheaply than Macs. Reasonably-priced authoring programs became available for PCs, and with the development of the Windows operating system for PCs and standardization of sound formats, the distinction between PC and Mac became less critical.

During this period, the use of the computer as a tool increased, especially as teachers developed innovative techniques for using email and word processors became integrated into writing classes. Some teachers helped students develop their own HyperCard projects or ones in similar applications developed for the PC, such as ToolBook. It was observed that building collaborative projects around the computer and using computer mediated communication (CMC) had a strong effect on some students' motivations and seemed to make it easier for shy students to become involved. Some teachers built assignments around student interactions in multi-user domains (MUDs and MOOs), types of enriched chat environments.

Two major changes came starting in the mid-1990s. One was the dramatic increase in commercial multimedia for language learning as CD-ROMs became standard in home computers. The other was the development of the world wide web. Because of the web and increased access to the Internet in general, the past has seen a major shift toward tool uses, and many newcomers to CALL define the field almost entirely in those terms. Increasingly, CALL is being integrated into language learning activities both in and out of class. The first decade of the 21st century has seen a continuation of all the previous areas along with the growth of language learning applications and activities for mobile devices, especially mobile phones (MALL), the spread of [Web 2.0](http://en.wikipedia.org/wiki/Web_2.0) ([http://en.wikipedia.org/wiki/Web\\_2.0](http://en.wikipedia.org/wiki/Web_2.0)), and experimentation with language learning in virtual worlds.

## THE SCOPE OF CALL

In previous versions of this course, I noted that teachers interested in CALL can get involved in a number of different ways, which I referred to as *teacher roles*.

- As researchers: into second language acquisition, human-computer interaction, what works for CALL

- As consumers of CALL software for class use or building web activities into course work
- As directors, helping students find and use supplementary CALL materials or web resources
- As managers of computer-mediated communication among learners in and out of class
- As software or web developers, either "from scratch" or adding new materials to existing templates
- As coaches to help students develop software, websites, and general computer literacy
- As CALL experts for your program, helping other teachers and administrators with CALL implementations
- As CALL professionals, consulting on external projects, doing software reviews for journals, making conference presentations, writing papers, interpreting and applying CALL research, and/or providing input to the field at large.

Mike Levy and I (Hubbard & Levy, 2006) have taken this idea of role and developed it further it to try to delineate the field for the purposes of CALL teacher education.

Specifically, we distinguish two types of roles for individuals engaged in CALL: institutional and functional. Institutional roles include classroom teachers, both pre- and in-service, specialists of various kinds (language lab managers, language skill area specialists, etc.), and professionals (those whose career centers on CALL). Functional roles include practitioners, developers, researchers, and trainers.

The focus of the present teacher-oriented course is illustrated in Figure 1 below, where these institutional and functional roles can be seen as two dimensions in a matrix. As the shading suggests, the focus is primarily on teachers as practitioners, making effective use of what others have produced in the way of materials and lessons. The secondary focus is on teachers as developers, not just of CALL software but of language learning activities and tasks that involve the computer. The functional roles of researcher and trainer are touched on as well, though less centrally (in units 6 and 7, respectively). Note that pre- and in-service teachers are not explicitly distinguished for our purposes. However there are a number of differences that can be notable, in particular the in-service teachers' ability to make immediate judgments regarding the relevance--and feasibility--of a given CALL application in their specific settings.

	Practitioner	Developer	Researcher	Trainer
Pre-service classroom teachers	X	X	X	X
In-service classroom teachers	X	X	X	X
CALL specialists (many types) (expert/adjunct)	X	X	X	X
CALL professionals (expert/adjunct)	X	X	X	X

Figure 1: A role-based framework for CALL education. Rows represent institutional roles (often linked to job titles and descriptions) while columns represent functional roles.

As we go through the rest of the course, we will be attempting to fill in the X's in the shaded cells above. These cells can be seen as representing two types of knowledge and skills. The first is technical; however, as important as this is, we will only touch on it occasionally. As noted in the introduction to this course, it assumes a basic comfort level on the computer and either the willingness to learn more on your own or the availability of technical support to get help locally.

The second is pedagogical knowledge and skills, the ability to take the ideas presented here and embed them effectively in the process of achieving the learning objectives for your language class. Although this is the main direction for our course, as it is a survey course the knowledge and skills you will be introduced to will be broad but rather shallow. It is hoped that with this foundation you will be better prepared to either engage in additional formal education in this area or to continue venturing forth on your own.

#### SOME RECOMMENDED BOOKS

There have been many CALL books, especially edited volumes, written in the past 25 years and the number has increased noticeably since the mid 1990s. Here is a sample of some relatively recent ones worth looking at, but there are many more.

- o Beatty, Ken (2003). *Teaching and Researching Computer-Assisted Language Learning*. London: Pearson. A relatively recent and readable broad introduction to the field of CALL.

- Chapelle, Carol (2001). *Computer Applications in Second Language Acquisition*. Cambridge: Cambridge University Press. An excellent source for seeing how SLA theory and research trends can be coherently connected to CALL: includes a widely-cited evaluation rubric based on SLA research.
- Chapelle, Carol A. and Jamieson, Joan (2008). *Tips for Teaching with CALL* (includes CD-ROM). White Plains, NY: Pearson Education. A book with CALL-focused techniques, activities, and tasks linked to second language learning research.
- de Szendeffy, John (2005). *A Practical Guide to Using Computers in Language Teaching*. Ann Arbor: University of Michigan Press. Provides a variety of useful activities and more technical information than most other CALL books.
- Ducate, Lara & Arnold, Nike (eds.) (2006). *Calling on CALL: From Theory and Research to New Directions in Foreign Language Teaching*. San Marcos, TX: CALICO. An introductory textbook covering a range of topics; each chapter includes a literature review, discussion of key principles, and practical applications.
- Egbert, Joy (2005). *CALL Essentials: Principles and Practice in CALL Classrooms*. Alexandria, VA: TESOL. A teacher-friendly introduction to the field covering both dedicated ESL and general education resources relevant for language learning.
- Fotos, Sandra & Browne, Charles (eds.) (2004). *New Perspectives on CALL for Second Language Classrooms*. Mahwah, NJ: Lawrence Erlbaum. An edited volume with a range of chapters on CALL topics, many with a theory to practice orientation.
- Egbert, Joy & Hanson-Smith, Elizabeth (eds.) (2007). *CALL Environments: Research, Practice, and Critical Issues* (second edition). Alexandria: TESOL. A collection of both research and practice-oriented articles, arranged in sections according to concepts connected to optimal learning environments.
- Levy, Mike & Stockwell, Glenn (2006). *CALL Dimensions: Options and Issues in Computer-Assisted Language Learning*. Mahwah, NJ: Lawrence Erlbaum. An scholarly and well-researched overview and commentary on the current state of CALL.
- Warschauer, Mark, Shetzer, Heidi & Meloni, Christine (2000). *Internet for English Teaching*. Alexandria, VA: Teachers of English to Speakers of Other Languages. Becoming dated, but an excellent overview of using the Internet with a large, though dated, resource list.

#### SOME RECOMMENDED JOURNALS

CALL has been around as a professional specialization since the early 1980s. There are a growing number of professional organizations devoted to CALL around the world, dedicated national and international conferences, and a number of refereed academic journals, such as those below.

- LLT. <http://llt.msu.edu> Language Learning and Technology Journal. Primarily a theory and research journal, though it includes reviews. An outstanding *free* resource. Full articles are available online.
- CALL-EJ Online. <http://www.tell.is.ritsumei.ac.jp/callejonline/> CALL Electronic Journal Online. Another free resource, more practice-oriented than *LLT*
- CALICO Journal. [www.calico.org](http://www.calico.org) Journal of the Computer-Assisted Language Instruction Consortium: online to individual and institutional subscribers. Articles over three years old are available free.
- CALL Journal. <http://www.tandf.co.uk/journals/titles/09588221.asp> Computer-Assisted Language Learning. An International Journal: print, but electronic version is available to institutional subscribers
- ReCALL. <http://www.eurocall-languages.org/recall/> The journal of the EuroCALL professional organization, published by Cambridge University Press; print, but electronic version is available to individual and institutional subscribers.

## OTHER RESOURCES

TESOL CALL Interest Section [Annotated Software List](#)

<http://www.orst.edu/dept/eli/softlist/> (by Deborah Healey & Norm Johnson)

ICT4LT. <http://www.ict4lt.org/en/index.htm> An excellent set modules giving in-depth coverage the field of CALL.

Links to sites with lots of other links related CALL: try these out if you want to explore. They include extended reference lists of books, articles, and software as well as online CALL resources.

Vance Stevens' ESL Home

[http://www.geocities.com/Athens/Olympus/4631/esl\\_home.htm](http://www.geocities.com/Athens/Olympus/4631/esl_home.htm)

Claire Bradin Siskin's Edvista Site <http://edvista.com/claire/>

## TRY IT YOURSELF

To get an idea of some of what it's like to learn a language via computer, go to <http://www.bbc.co.uk/languages/>, pick a language you don't know well, and try out some of their materials. Another opportunity to experience learning a new language by computer can be found at <http://www.rosettastone.com/personal/demo/>.

## REFERENCES

Hubbard, Philip & Levy, Mike (2006). "The Scope of CALL Education" in Hubbard, Philip & Levy, Mike (eds.) *Teacher Education in CALL*. Amsterdam: John Benjamins. [www.stanford.edu/~efs/callted](http://www.stanford.edu/~efs/callted).

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