CALICO: Human Factors
by Robert Henderson
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Conference Reports
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The Eleventh Annual Symposium of the Computer Assisted Language Instruction Consortium (CALICO) was held March 14-18 in Flagstaff, Arizona. Hosted by the University of Northern Arizona, the conference attracted some three hundred participants from around the United States and twelve other countries. The general theme of "Human Factors" was reflected in numerous presentations on screen design, ergonomics, aesthetics, and the human-computer interface.

Keynote speaker Gerard Ervin of the Ohio State University led off with a penetrating look at the development of the "Information Highway," or National Information Infrastructure, which he sees as a major conduit of information, means of communication, provider of services, and source of entertainment. Calling this the "Era of the Tremendous," he predicts that the language teaching profession will experience a tremendous need for our services, notes that we must aim for a tremendous increase in quality, and warns of a tremendous need to harness the medium.

Luncheon speaker Sallie Gordon (University of Idaho) discussed the major principles of human-computer interface, stressing the need to create screen designs which are easy to use and which provide clear indications of what learners should do as well as what the system is doing at any given moment. Her suggestions on the use of color, arrangement of screen elements, and clear icons were well received.

IALL was well represented at the Symposium, with a general interest meeting attended by a couple dozen members and potential members, a display of publications and announcements, and a joint meeting with the CALICO Board of Directors to discuss future collaboration between the two organizations. The IALL membership was also heavily involved in both the Pre-Conference Courseware Fair and in the program of presentations—as demonstrated in the following synopses.
Dan Church (Vanderbilt University) discussed principles in the creation of audio exercises with appropriate feedback using WinCALIS. Types of interactive exercises demonstrated in his talk included aural comprehension and grammar-based writing tasks based on sound cues.

In an intriguing session entitled "What Will That Attractive Software Really Do?," Willard Daetsch (Ithaca College) invited participants to share their ideas about ways of standardizing software presentations so that teachers and students will be able to understand what the developers intended and what evaluators think of the programs.

Robert Fischer’s (Southwest Texas State University) presentation on "Instructional/Pedagogical Congruency in CALL/IAV" emphasized the need for pedagogical concerns to drive the technology. In order for students to get as much as possible out of what they are doing, Fischer suggested that advance organizers be provided to introduce storyline settings and characters as well as lexical items, and that follow-up questions be included to provide feedback.

Both at the Pre-Conference Software Fair and in a regular symposium session LLTI’s moderator, Otmar K.E. Foelsche of Dartmouth College, presented SuperMacLang, an authoring program with media extensions for construction of contextualized language learning activities. He pointed out that the program automatically produces various types of learning activities with provision for evaluation, access, navigation, and feedback.

Nina Garrett (George Mason University and the Center for the Advancement of Language Learning—CALL), with co-presenters Danielle Janczewski and Pardee Lowe, examined the design and results of EXITO, an interactive program for teaching survival Spanish.

In addition to running around throughout the conference to make sure other presenters had functional equipment, Middlebury College’s David Herren presented a demonstration of Guided Reading, an authoring system designed to simplify the annotation of texts using CD-audio, color images, digital sound, digital video, videodisc, and textual annotations.

Mary Ann Lyman-Hager and Linda Moehle-Vieregge (Penn State University) described their "Language 3 Initiative," through which several multimedia projects have been designed to help intermediate-level learners of French, German, Japanese, and Spanish develop listening and reading skills. These programs were used to illustrate principles of screen
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Design and to show how pre-made screens can be adapted to new applications in Multimedia ToolBook.

In their presentation on “Interfacing with Foreign Cultures: New Multimedia Applications,” Sue Otto and James Pusack (University of Iowa, LLAMA Consortium, PICS) demonstrated multimedia interactions from an ongoing project to develop culturally-oriented, content-based instruction for intermediate study of French and German. These interactions are designed to help students gain insight about the target culture by conducting small-scale ethnographic studies, and to discourage them from viewing cultural differences as absolutes.

Dana Paramskas (University of Guelph, Ontario) discussed the use of Computer-Mediated Communication (CMC), including email and conferencing systems, for language learning and cultural exchange. She presented examples of the use of conferencing systems to motivate students and to help them improve their composition skills.

Allen Rowe (Utah State University) described a new graduate-level course designed to prepare in-service foreign language teachers to make more effective use of technology. This professional development course will be offered through distance education for the first time in the fall of 1994.

“Data Collection in CALL Programs” was the topic of a presentation by Marc Siskin (University of Michigan). He demonstrated various means of collecting data, and discussed the value of research on such data for faculty developing new software and for determining learner success in mastering the material they are studying.

In their presentation, “Lost in HyperSpace,” Thomas Thibeault and Sandra Adams (Southern Illinois University) offered courseware design suggestions to solve navigational problems in hypertext. Maps, branching restrictions, color coding, screen partitioning, window layering, and intelligent cues were presented as means of reducing the risk of losing one’s way in the multiple-level nonlinear branching allowed within reading texts.

Additional presentations of particular interest to learning center professionals included, among others: 1) Michael Faßbender’s (Rh. Friedrich-Wilhelms-Universität, Bonn, Germany) talk on “Resuscitating and Re-Designing the Language Lab Learning Environment,” in which he stressed the importance of health and safety concerns in the design of workstations; 2) Michael Bush’s (Brigham Young University) discussion of the implementation of interactive videodisc and
compact disc technologies in language learning; 3) Chris Jones’s (Carnegie Mellon) demonstration of “Dialogues: The French Cultural Interactive Videodisc Project,” an intermediate-level hypermedia package with an integrated approach to the teaching of culture, literature, and language; and 4) Lt. Col. Stephen LaRocca’s description of the renovated language learning facility at the U.S. Military Academy at West Point.

The consensus from participant feedback, according to CALICO Executive Director Frank Borchardt, is that this was perhaps the best conference ever for the organization, providing a unique opportunity for representatives of academe, government, and industry to meet and share ideas on the applications of technology in language learning.

The 1995 CALICO Symposium will be held June 20 – 24 at Middlebury College, Vermont.

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The 1994 convention of the Association for Educational Communications and Technology (AECT) was held February 16 – 20 at the Opryland Hotel in Nashville. The convention theme was “Advancing Technology Together.” Over 3,800 people attended the gathering, which featured 16 pre-convention workshops, approximately 350 sessions, and 131 exhibits at the concurrently held InCITE™ Exposition. A special feature of the gathering was the presence of the Association for the Development of Computer-Based Instructional Systems (ADCIS), which held its 35th Conference simultaneously. IALL sponsored six sessions at this year’s meeting. A discussion of these presentations follows.

Maurizio Oliva of the University of Utah presented “Teaching Languages with News” on Wednesday the 16th. This paper focused on the use of Internet resources to teach Italian—resources such as electronic mail, Usenet NEWS, Gopher and Internet Relay Chat (IRC). All students in Italian language classes had accounts with the University of Utah Computer Center, which gave them access to these tools. Their accounts were accessible from any computer laboratory on campus through a NOVELL local area network.
During the first two weeks of the course the instructor familiarized the students with the functions and applications of each computer resource. In addition to the Internet resources, students used the Italian version of WordPerfect to complete class assignments. They were required to self-correct their work with a spell-check prior to evaluation by the instructor. The main purpose of working with Internet tools was to allow students the opportunity to communicate among themselves and with native speakers of Italian. The computer interaction produced authentic texts for the purpose of meaningful communication in the target language. The written communication was integrated with class presentations and film viewing to further acquisition of speaking and listening skills.

Mr. Oliva informed the audience that the virtual community of people communicating in Italian utilizes several channels, including Soc.Culture.Italian in NEWS, #Italia on IRC, the Gopher server Italian at the University of Utah, and the mailing lists MARIO, LANGIT, ITALIA-L. All students taking Italian courses can belong to this community and use these Internet tools to communicate among themselves and with other Italian speakers around the world. He argued that the virtual immersion in Italian language and culture made possible through these network resources helps students to improve their language skills in a manner similar to full immersion or study abroad, but here the immersion is based mainly on written communication.

“In the French Body”

“Interactive Videodisc for Teaching Nonverbal Communication: In the French Body” was the other IALL-sponsored presentation on the 16th. It was made by Carolyn Fidelman of Northeastern University. “In the French Body,” a project funded by FIPSE (Fund for the Improvement of Postsecondary Education) and supported by Apple Computer, builds on the pioneering work of Laurence Wylie. His research described the chief features of French nonverbal communication: facial expressions, hand and body gestures, and speech tempo and tone. A major tenet of “In the French Body” is that computer-controlled videodisc is the enabling technology for the teaching of these paralinguistic features of communication.

The videodisc contains eleven brief conversations between native French speakers. Each module is accessed through a HyperCard program. The program allows the students to view the conversations in three ways: 1) they can choose to focus on the heads of the speakers to see lip movement and facial
expressions clearly; 2) they can look at a long shot that reveals the body movements and their synchrony with voice; and 3) they can view in slow motion. A novel feature of the program is that the sound is still available in slow motion. Students can step through the dialogues line-by-line if they wish. All of these features help students learn the conversations by a kind of “method acting” approach. Their task is to memorize the dialogues and closely mimic the models’ body language. An important element of the program is the SpeechLab™ stack. Using it, the students can see on the Mac screen the intonation curve of each line from a dialogue. The students can then record their rendition of the line using MacRecorder® or the Apple built-in microphone. The program then plots the student’s intonation curve below that of the native speaker’s. The students’ recordings may be saved to disk or printed out for the teacher to check.

Ms. Fidelman reported that students enjoy working with “In the French Body” because it boosts their self-confidence in speaking the language. Moreover, testing has revealed that users have made important gains in listening comprehension. Ms. Fidelman has recently developed a new test for nonverbal communication which will be used in subsequent evaluations. It should be noted that there is also a German version of the program.

Mary Sanseverino of the University of Victoria in British Columbia spoke on “Computers, Multimedia, and Education: Steps Towards Fulfilling the Promise” on Thursday the 17th. Her goal was to answer the question, “Why aren’t more modern language instructors making use of computer-driven multimedia?” She noted that the question entails a paradox: the equipment to run multimedia is available at declining prices, as is off-the-shelf pedagogical software. Moreover, the foreign language educational literature is full of references to multimedia. So, the problem is not lack of opportunity.

In answering her question, Ms. Sanseverino described efforts she and others have made at the Language Centre of the University of Victoria since 1989. She cited some successes they have had with text and graphics programs. She attributed these good results to front-end needs analysis and the Centre’s policy of collaboration among four groups: faculty, research staff, operations staff, and student assistants. This arrangement takes much of the technical burden off of the faculty. The presence of the researchers has allowed a
Navigating through a Hypermediated Literary Program

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Also on the 17th, Kim Hayworth, San Juan College, and Warren B. Roby, Washington State University, presented "Navigating through a Hypermediated Literary Program: A Case Study." In this study three undergraduates (a male and two females) in an intermediate French literature course were observed reading an online excerpt of dialog from Act II, Scene V of Molière's *L'Ecole des Femmes*. The participants differed in computer experience: one was a "novice," another was considered "intermediate" because of her word-processing experience, and the third—who was very comfortable using a mouse—was termed "advanced." The 825-word text was in a HyperCard stack, as were the adjunct aids: a dictionary, glosses, an English translation, historical contextual information, and the playwright's biographical data. All information was accessed via the computer's mouse. The user could also play a QuickTime video of the entire segment or simply lines from it by selecting and highlighting phrases from the text and clicking the "movie" icon.

The purpose of this study was to observe how different users move through an informationally rich learning environment. Of particular interest was their use of help features. It was found that none of the subjects became lost in the hypermedia environment. As previous research has shown, the introductory, how-to material for software tends to be ignored: neither the advanced user nor the novice read the introductory help screen carefully. Nor did they discover that the play had built-in adjunct aids, for they failed to use the gloss feature of the text that would provide brief English translations and reference information for selected French words. Rather, they relied heavily upon the complete English translation. Only the intermediate participant completely read the
introductory material and accessed information through cued words in the dialog of the play. All three participants favored the digitized video clips which served to provide French language in context and give extra-linguistic clues. All felt that the hypermedia Molière resource was more interesting than its printed counterpart.

HyperCard Vocabulary and Discussion Generators for ESL


In-Service Training for Foreign Language Teachers

The last IALL-sponsored session was given on Saturday by Allan Rowe and J. Nicholls Eastmond, Jr. of Utah State University. The title of their talk was “Developing In-Service Training for Foreign Language Teachers.” They described a new joint project—a course taught in the fall of 1993—between their institution and the National Foreign Language Resource Center at San Diego University. The goal of the materials being developed by this project is to train foreign language teachers to empower their students to become better language learners. It is stressed throughout the project that students must take possession of their own language learning experience. Video models of teachers who have succeeded in thus motivating their students are used in the course and were shown to those who attended the session.

IALL had an information booth in the convention hall lobby which also served as a rendez-vous place for the members in attendance. A formal meeting was held on Friday afternoon. Thirteen members were present for the meeting, which had for its major topic the upcoming IALL-hosted teleconference.

Next year’s convention will be held in Anaheim, February 8 – 12. The theme is “Information Technology: Expanding Frontiers.” IALL will again be sponsoring several sessions. The IALL Southwest regional group is planning some special activities, including lab tours in the Los Angeles area. Several members from the Language Laboratory Association of Japan are planning to attend, and ADCIS will
San Antonio, Texas played host to the 27th Annual Meeting and Exposition of the American Council on the Teaching of Foreign Languages (ACTFL) in November 1993. The conference theme this academic year was "Enhancing Our Professional Status." This topic seems to come up very often in the most rudimentary of discussions among foreign language specialists and, in particular, among those of us who rely heavily on the use of sophisticated technology for the accomplishment of our goals. The 4,000 plus attendees gathered for meetings on a variety of topics in San Antonio’s Hyatt, Hilton, and Convention Center (whose very impressive architecture was inaugurated during the Hemisphere Celebration in the 1960s).

Presentations and workshops were grouped in fourteen different categories: application, assessment, culture, curriculum, early start, intensive/immersion, learner variables, literature, materials, methods/techniques, policy/issues, research, teacher preparation, and technology. Four out of the five IALL-sponsored sessions fell under the heading of technology and one was directly related to methods/techniques. Following are highlights of these presentations.

Lou Aarons, from Skokie, Illinois, spoke of his experiments with WordMate’s bilingual-dichotic presentations for the learning of foreign words/phrases. According to Lou, "Results are related to the specialization of linguistic processes of the cerebral hemispheres." Because of the nature of his presentation Lou chose to break down his presentation into two, thirty-minute sessions. This allowed twice as many people to attend and sample his demonstrations in any of three languages used—Spanish, English, and Japanese. His session was appropriately titled “WordMate Accelerates the Learning of Foreign Language Vocabulary.”

Kathleen Ford, from the University of California at Los Angeles, and Kelly Nelson, from the University of Iowa,
brought “oral perception” to light during their presentation entitled “Seeing Voices: Exploring and Exploiting Visual Images in the Pre-listening Phase.” The session explored methods which allow students to take full advantage of the visual extra-linguistic and situational cues—static and dynamic—present in photos, slides, and videos. These visuals help language learners who experience difficulty and frustration comprehending authentic native speech.

Dick Kuettner, from Washington and Lee University, spoke to the importance of attitude in dealing with technology in foreign language teaching. The session’s purpose was to provide an overview of innovative technological tools, to scrutinize and analyze how these tools can best be used in motivating the foreign language student, and to assess the various levels of student productivity, using as major criteria the types of technology used in instruction, the manners in which the technology was used, and the realm of students taught.

Jackie Tanner, from Georgetown University, whose topic of discussion was “New Technologies in the Language Center: Involving the Faculty in a HyperMedia Environment,” dealt with one major question in her presentation—how can a language center organize its technology to help teachers develop language materials? According to Jackie, one learns from one’s mistakes as well as successes. The center must maintain a positive environment that helps support teaching activities and allows for growth in course development.

Brenda Tunnock, from Northwestern University, in her talk entitled “Satellite Programming and the Foreign Language Classroom: More than Just News,” stressed the exceptional value of the wide variety of foreign language satellite programming available free or at minimal cost. The majority of resources in the skies are left untouched by the foreign language teacher who seems to latch onto the more popular satellite choices. The presentation showed not only what alternatives there are, but also how easy they are to use.

IALL again took part in the ACTFL Tech Fair, which was held on the final day of the conference. Our booth was staffed continually by IALL members and was enthusiastically received by conference attendees. Participating in the Fair gave IALL a real opportunity to demonstrate its expertise in dealing with the strong points and pitfalls of integrating technology into teaching. Visitors to the booth were inquisitive, supportive, and thankful for our presence.
For those of you who were unable to attend ACTFL '93, you missed some quality features, and I would encourage you to start planning now to attend ACTFL '94, from November 18-20, Atlanta, Georgia. (Rumor has it that one of our member's presentations is to be televised as a part of the ACTFL '94 Annual Meeting broadcasts via satellite.) IALL will be sponsoring six sessions and will host a breakfast meeting. If you don't attend for any other reason, come for the free food!

Dick Kuettner is Director of the Language Lab at Washington and Lee University and IALL Programs Director.
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