

More Than Just the Internet: Technology for Language Teaching

December 1997

Samantha Earp, University of North Carolina-Charlotte

At a time when technology-enhanced learning tends to be associated with Internet-based applications like the World Wide Web, it is important to remember that non-Internet technology tools remain very useful aids for the language student and teacher. Language software for the personal computer or lab network is becoming more flexible and powerful, both in the types of media it can include and in design features that give users more options.

Authoring programs continue to allow teachers to create customized materials for their classrooms. Language lab systems are being upgraded to allow the incorporation of multiple media resources. Advances in computer networking have increased the power, flexibility, and interconnectedness of desktop computer systems and the equipment available for use in the lab or resource center setting, and has also made possible the use of networked software in the classroom.

Software for Language Learning and Teaching

A wide variety of non-Internet software is available for foreign language teachers and learners. Comprehensive reference works such as *Lexirom* provide access to dictionaries, encyclopedias, and atlases on a single CD-ROM. Commercial basic language programs such as *TriplePlay Plus!* use interactive games and conversations to teach words and basic phrases and use speech recognition technology to allow users to record their speech and compare it with a model. CD-ROM programs such as *Nouvelles Dimensions* and *Nuevas Dimensiones* use multimedia to provide visual context and textual reference materials to help the learner master listening comprehension techniques.

Games also offer students an opportunity to use language and culture skills to solve a problem or reach a goal; in the adventure program, *A la Rencontre de Philippe*, "students watch video segments of the adventure and make choices that determine the outcome, [using a Paris map, notebook, apartment guide, telephone, newspaper, and answering machine] in their quest" (Ledgerwood, 1996).

Software programs are also available for more specialized instructional purposes. In *The Rhythm of French*, audio, video, animation, and speech recognition technology are used to teach pronunciation and phonetics. Teachers and students of grammar, stylistics, and translation may find a concordancer program such as *MonoConc* helpful in searching texts for vocabulary and grammar usage.

For example, a Spanish-language news article downloaded from the Internet could be analyzed with a concordancer to display every instance of the word *podiera* (could) in order to give examples of usage in context. Examples of other useful software packages are *In the French Body* and *In The German Body*, HyperCard-based videodisc programs that emphasize the oral comprehension, oral production, and nonverbal characteristics of face-to-face interaction (Fidelman, 1995). Finally, *Daedelus Integrated Writing Environment*, software for networked computer classrooms, has six modules, each designed to address a specific task or stage of producing a piece of writing (Daedelus Group, 1997).

Authoring Aids

Authoring tools are software programs that assist teachers in creating and managing computer-delivered instructional modules and exercises; they are a useful resource for teachers without programming skills who wish to create custom materials (Burston & Fischer, 1996).

These authoring programs are becoming more sophisticated, incorporating multiple media resources, flexible feedback mechanisms, and in many cases a database system for tracking user performance. *Libra*, developed at Southwest Texas State, *WinCalis* from Duke University, and *Dasher* from the University of Iowa are all examples of authoring tools used by language teachers to create a wide variety of multimedia exercises. Interactive hypermedia technology can also be applied to the teaching of reading, through the use of text annotations created using an authoring tool such as *Guided Reading* by David Herren (Martinez-Lage, 1997).

More general purpose multimedia programs, including *HyperStudio*, have been used with great success for individual and group projects and portfolios (Whaley, 1995).

Language Lab Systems

The language lab is sometimes seen as a means of providing in-class and independent access to analog audio, usually in the form of audiocassettes. Among the features that enhance this traditional audio component in today's labs are the capacity to "bookmark" challenging segments of a tape (so students can return to them later) and the capacity of response analyzers to automatically generate student test scores following completion of an exercise or test. Some systems are set up so that both tracks of an audio tape can be accessed for the practice of simultaneous interpretation.

For some time now, the language lab has been expanding beyond its historical focus on audio, in order to take advantage of the new technologies and to respond to the needs of today's teachers and learners (Scinicariello, 1997). Thus, the lab systems being marketed today by companies such as ASC, Tandberg, and Sony allow incorporation of multiple media resources such as CD-audio, satellite, and video into the lab, with the potential for several groups of users to have access to these different resources simultaneously. These systems may also be adapted to include computer stations at some or all lab positions.

Networked Multimedia

More and more language departments are exploring a computer-based alternative to the traditional means of multimedia delivery. Audio and video can now be digitized and placed along with software on video-capable file servers, such as the Cheetah Multimedia Network Server by TNCi (The Network Connection). In this system, different segments of a video or audio clip may be accessed by multiple users simultaneously from their computers.

Another advantage is that it is no longer necessary for single computer stations to have a dedicated videodisc player or other peripherals; students at any networked station in the lab may access multimedia resources directly on the server. This server-based setup means that teachers and learners in remote locations with network access can use instructional materials. Smart classrooms, which are set up to display video, videodisc, and computer output to a room full of students, allow faculty to incorporate networked lab resources into their regular instruction.

Distance Learning via Satellite

In many states, efforts are underway to offer distance learning language courses via satellite. The most common form involves the use of two-way video and audio. Special distance learning classrooms have been set up in many institutions to accommodate this type of technology, through which instruction delivered live (or in "real-time") is beamed to one or more remote sites. Video cameras at these remote sites allow the instructor and the participants at other locations to see, hear, and interact with each other. Another less labor- and equipment-intensive variation of satellite distance learning employs one-way video. In this setup, students at a remote site watch a live broadcast of a class or lecture; opportunities are normally given for the students to send questions by fax or electronic mail to the broadcast site.

Distance learning courses are often further supported by Internet applications such as electronic mail (to allow question-and-answer interaction and set up electronic office hours) and the World Wide Web (for the distribution of course materials and information).

Conclusion

Although much emphasis is placed on new applications of the Internet for language teaching, other technologies continue to advance as well. These innovations are today and should remain an important part of the technological tool chest for language learners and teachers alike.

References

- Burston, J., & Fischer, R (1996). A panel discussion on multimedia/ hypermedia authoring systems: Design and use. In F. Borchardt et al.(Eds.), *CALICO '96: Proceedings of the Computer-Assisted Language Instruction Consortium 1996 Annual Symposium "Distance Learning."* Durham, NC: Duke University.
- Daedalus Group. (1997). Web site: <http://www.daedalus.com/>
- Fidelman, C. (1995). Web site: <http://agoralang.com/itb.html>
- Ledgerwood, M. (1996). *Software review in the IALL foreign language software database.*
- Martinez-Lage, A. (1997). Hypermedia technology for teaching reading. In M. Bush & R. Terry (Eds.), *Technology-enhanced language learning* (pp. 185-213). Lincolnwood, IL: National Textbook Co.
- Scinicariello, S. (1997). Uniting teachers, learners, and machines: Language laboratories and other choices. In M. Bush & R. Terry (Eds.), *Technology-enhanced language learning* (pp.185-213). Lincolnwood, IL: National Textbook Co.
- Whaley, M.(1995). HyperStudio: Students producing their own multimedia projects. *Tongues Untied 2.*

Resource List

MICROSOFT LEXIROM
World of Reading, Ltd.
P.O. Box 13092
Atlanta, Georgia 30324-0092
Voice: 404-233-4042 or 800-729-3703;
Fax: 404-237-5511

TRIPLEPLAY PLUS!
Syracuse Language Systems
5790 Widewaters Parkway
Syracuse, NY 13214
Phone: 800-SYR-LANG

NOUVELLES DIMENSION/NUEVAS DIMENSIONES
Heinle & Heinle
20 Park Plaza
Boston, MA 02114
Phone: 617-451-1940;
Fax: 617-348-8177

A LA RENCONTRE DE PHILIPPE
Yale University Press, Special Projects
PO Box 209040
New Haven, CT 06520-9040
Phone for orders: 800-YUP-READ (800-987-7323)
Fax: 203-432-2394

THE RHYTHM OF FRENCH
Salix Corp
5723 N. 33rd Place
Paradise Valley AZ 85253
Phone: 602-956-7411
Fax: 602-956-7411

MONOCONC
Athelstan
2476 Bolsover, Suite 464
Houston, TX 77005
Tel: 800-598-3880 (U.S. only)
713-523-2837
Fax: 713-523-6543
Email: info@athel.com

IN THE FRENCH BODY / IN THE GERMAN BODY
Agora Language Marketplace
91 Baldwin St.
Charlestown, MA 02129-1423

DAEDELUS INTEGRATED WRITING ENVIRONMENT
Daedelus Group, Inc.
1106 Clayton Lane, Suite 250W
Austin, TX 78723
Phone: 800-879-2144
Fax: 512-452-5206

LIBRA
Southwest Texas State University
Contact: Michael Farris, Director, Media Services
San Marcos, Texas 78666
Phone: 512-245-2319

WINCALIS

Humanities Computing Facility
Duke University
Box 90269/015 Languages Ctr.
Durham, NC 27708-0269
Phone: 919-660-3190
Fax: 919-660-3191

DASHER

Publication Order Department, PICS/The University of Iowa
2222 Old Hwy., 218 South
Iowa City, IA 52242-1602
Phone: 800-373-PICS
Fax: 319-384-3806

GUIDED READING

For information:

<http://www.middlebury.edu/~ls/technology/herren/guidread.html>

HYPERSTUDIO

Roger Wagner Publishing
50 Pioneer Way, Suite P
El Cajon, CA 92020
Phone: 800-HYPERSTUDIO or 619-442-0522
Fax: 619-442-0525

ASC

Corporate Headquarters, Suite A
5855 Oakbrook Parkway
Norcross, GA 30093
Phone: 800-445-7203 or 770-246-0957

SONY

3 Paragon Drive
Montvale, NJ 07645
Phone: 201-930-7168
Fax: 201-358-4411

TANDBERG

Orchard Ridge Corporate Park
Building One, Fields Lane
Brewster, NY 10509 USA
Phone: 914-277-3320 or 800-367-1137
Fax: 914-277-3995

CHEETAH SERVER

The Network Connection, Inc.

1324 Union Hill Rd.

Alpharetta, GA, 30004

Phone: 800-327-4853 or 770-751-0889

Fax: 770-751-1884

This report was prepared with funding from the Office of Educational Research and Improvement, U.S. Dept. of Education, under contract no. RR93002010. The opinions expressed do not necessarily reflect the positions or policies of OERI or ED.