EMERGING TECHNOLOGIES
Technology for Prospective Language Teachers

Bob Godwin-Jones
Virginia Commonwealth University

Language teachers in training today are likely to have become familiar with computers as part of their university experience, with the expectation of using, at a minimum, word processing, spreadsheets, and Web browsers to do research, writing, and projects. They are likely to be exposed to computer-assisted language learning (CALL), and some may elect to pursue CALL as a major focus. But even those teachers not delving deeply into CALL will be expected by their supervisors, their peers, and, most importantly, by their students to enhance their teaching through technology. We will be focusing in this column on what tools and technologies are likely to be important to teachers entering the classroom for the first time.

Technology Training

It is beneficial for teachers to have an appreciation of the range of options available in CALL and what the learning curve and effectiveness of each option is likely to be. The former is much easier to determine then the latter. There are too few CALL and SLA (second language acquisition) studies that provide concrete evaluations of specific tools and technologies and how they are used. Before being able to evaluate effectively CALL programs, teachers need to add to their pedagogical knowledge a fundamental understanding of the workings of computers and networks. To be able to use a word processing program, for example, one needs to understand the concept of a file and storage media. To use a Web browser effectively, one needs to understand about media types and Web page delivery. At a minimum teachers needs to become informed users of technology (see the special LLT issue on literacies and technologies). This should include not just software use but as well some hardware basics and an understanding of networks (local area and Internet). A familiarity with multimedia formats (DVD, MP3, etc.) as well as of players is clearly essential for language teachers. Naive technology users are not well suited to make intelligent choices on the selection of CALL materials. Anyone who has used any kind of technology in the classroom also knows how crucial it is to be able to do basic trouble-shooting of technology glitches.

Most U.S. colleges now have computer literacy requirements in place. The requirements vary considerably, but usually are limited to a knowledge of the mechanics of computing. Today, such skills are normally a pre-requisite for success in higher education. For students needing training in the use of general purpose software, electronic tutorials have become widely available. Some are available on CD (such as SkillSoft products), others are accessed through the Web (such as Smartforce). In addition to commercial products, some schools have developed their own training materials, like the nice Microsoft Office tutorials from the Florida Gulf Coast University. One of the useful methods for developing training materials for learning specific software is the use of screen capture software. Such programs have been available for some time but have become more sophisticated. Programs from companies like TechSmith and Ambrosia allow not just screen captures but movies of the screen (in AVI or QuickTime formats) and even sound to be recorded. An instructor can move through successive steps in using an application and have all those steps recorded. Voiceovers can then be added.

Digitization

An area of obvious interest to prospective language teachers is the use of media in the classroom. The trend towards use of digital media has accelerated in recent years, due to faster processors, increased network speed, cheaper and more flexible storage options, and easier to use software. The slide projector has given way to projected graphics files, Web pages, and presentations. All-in-one projectors are displacing LCS panels mounted on overhead projectors. Although still quite expensive, such projectors can now project at high resolutions and are able to show video, sometimes at HDTV quality. They have also become significantly smaller, lighter, and brighter, useable in lit rooms and designed to be highly portable (comparative review).

Getting pictures into a digital format is becoming easier and more affordable. Flat-bed scanners have dropped precipitously in price in recent years, while small portable scanners have become available, useful for traveling and collecting media. Of course, digital cameras can be used for this purpose as well. The close-up mode available in many models allows quite clear pictures to be made of objects such as menus or newspaper clippings. Many models available today offer very high resolution which can show clearly significant detail.

Digital cameras have risen significantly in popularity as prices have dropped and models have proliferated. Options for transfer of images from the camera have increased, with USB connections now standard, and Firewire connectivity available on high end models. Fast transfer is possible with floppy disk or PC card adapters, into which a camera's media card can be inserted. The card then appears on the desktop and images can be easily dragged to the computer's storage device(s). Such adapters now support high capacity media such as the 128 MB SmartMedia card, which can hold hundreds of images.

Software for the transfer, viewing, sorting, printing, and sharing of digital images has improved considerably. Programs such as Apple's iPhoto are so powerful yet easy to use that they make the manipulation of digital images much faster and more efficient than was possible with earlier software (or with the software that still comes with most digital cameras). iPhoto takes advantage of the Internet to enable easy sharing of pictures as well as commercial printing in a variety of formats (including photo albums). Although iPhoto runs only on MacOS X, its attractiveness is spurring developers to offer similar functionality for Windows users (such as Jasc's Media Center Plus or Ulead's Photo Explorer Pro). Microsoft's Windows XP includes user-friendly digital photo tools as well.

Apple has played a similar path-breaking role in other digital media. iMovie simplifies tremendously the process of making digital movies. One need only compare the complex interface of the industry standard Adobe Premiere to that of iMovie to appreciate the extent to which Apple has made digital movie making available to the mainstream. Of particular interest to language teachers is iDVD from Apple, which simplifies greatly the task of creating a DVD. Mention should be made as well of the iPod, Apple's small but powerful portable MP3 player, which features fast Firewire transfer and an innovative navigational wheel. The MP3 file format has moved from the darling of teenage Napster users to being a widely used format in education. Media sites often supply audio files in a variety of formats including MP3. Using MP3 files, rather than cassettes to play audio in the classroom offers the advantage of instant replay and fast searching.

Presentation and Authoring Software

Teachers using presentation software such as Microsoft PowerPoint generally need little training in its use. Templates make it very easy to develop a good looking slide show. Media incorporation is straightforward as well; graphics, audio, and video can be added from pull-down menus. Some interactivity is possible with presentation software, depending on the product. It is possible in most, for example, to use transitions and sequential display to deliver material in question and answer format or to create simulations. Many teachers are electing to put presentations on the Web so that students can review the materials presented outside of class. This can generally be done by using the "save to HTML" option, although the resulting Web-based slide show typically lacks some of the features of the original presentation. Software is available (such as Impatica) which does a better job of converting the presentation to a Web format.

An alternative to presentation software is the creation of lessons or presentations directly in HTML. This results in a format which looks the same in class and on the Web. It used to be that HTML-created presentations were poor cousins to PowerPoint slide shows. That needn't be the case with the current capability of Web authoring. The "dynamic HTML" (DHTML) possible today enables transitions to be added and on-the-fly changes to Web pages without reloading. Of course, the learning curve for creating such pages is considerably higher than it is for learning PowerPoint or other presentation software. In addition to knowledge of HTML, creating interactivity in Web pages also requires use of JavaScript. Neither poses an insurmountable learning barrier, however, taking that plunge may be more than many teachers are ready to contemplate.

An alternative is to use an HTML editor to create the Web pages. Products like FrontPage (from Microsoft) or Dreamweaver (from Macromedia) make the task to creating attractive and functional Web pages quite simple. Mastery of HTML or any scripting language is not necessary to use such a product, although some basic knowledge can be helpful in understanding how Web pages are put together (i.e., the nature of how hypertext links work, how graphics are embedded and formatted, or accessibility issues in the code that's used). Current versions of HTML editors also offer the ability to use some JavaScript or DHTML functionality from pull-down menus. Here, too, some understanding of the underlying scripting systems is helpful in understanding cross-browser and cross-platform issues and what additional functionality might be possible beyond the options offered by the software product.

### Content Management and Course Web Sites

A basic understanding of what's going on under the hood on Web pages is also helpful to teachers who may be using what is generally called a "learning management system" (LMS) such as Blackboard or WebCT. These are products which greatly simplify the task of creating a Web site for a class and adding functionality such as discussion forums, chat rooms, and on-line quizzes. They have become popular options for teachers in higher education and are being increasingly used in secondary schools as well. To use a LMS it is not necessary to have any knowledge of HTML or of Web authoring in general. As a consequence, instructors with little or no experiences using the Web are able to create a course Web site which can incorporate a variety of interactive tools and hold a great deal of course content in electronic format. Also, publishers are making available some textbook content in formats which can be imported into Blackboard or WebCT, including some multi-item question pools.

It is important for teachers to recognize that a LMS can be a powerful teaching tool but also that its use tends to limit choices and options in the design of a course Web site. A template-based system necessarily restricts the degree of individualization. Customization is possible only up to a point; the basic structure and "look and feel" of the Web sites remain the same. Novice teachers also may assume that the tools and functions built into the system are the definitive statement of the functionality that is available for creating course Web sites. Given the expense of purchasing and maintaining such a system, institutions are unlikely to provide training beyond the basics of how to use the LMS. This has the unfortunate by-product of discouraging teachers from trying new and creative ways to use the Internet, which are not part of the LMS. While a LMS provides significant functions, it is designed for general educational use, not specifically for language learning.

A hopeful sign for the future of LMS is the creation of the Open Knowledge Initiative (OKI), a collaborative project to design and deliver an open and extensible architecture for learning management systems. It is being led by MIT and Stanford University but supported by many more U.S. universities. The goal is to develop open standards for the creation and exchange of tools and learning materials among institutions and faculty. The hope is that the OKI standards will be adopted in future versions of commercial LMS, which should enable the interchange and flexibility lacking today. OKI is working with the long-running IMS (Instructional Management System) project to develop the standards. IMS defines an extensive set of meta-data for identifying and cataloging learning modules, while OKI is developing an application programming interface (API) specification for a variety of common services. Meanwhile, commercial LMS are beginning to move in the direction of modularity. Blackboard's "Building Blocks" initiative, for example, allows for plug-in modules to be added to Blackboard installations. Third-party developers are beginning to offer such plug-ins. Wimba's voice board, a tool of potential interest to language teachers, is available as a plug-in. When used within Blackboard, Wimba employs the same interface used in creating and managing Blackboard discussion boards.

One of the other issues in using a LMS is content management. Electronic resources teachers make available are grouped together by the LMS, but the content collection is course-specific. The LMS does not provide for sharing of resources (among courses, instructors, or schools) or for cataloging and searching. As teachers accumulate more material electronically, management becomes a critical issue. Even for basic handouts and exams, issues such as version control, sharing with colleagues, and reliable long-term storage are important. These are functions usually associated with digital libraries or content management systems (CMS). Several CMS companies (such as Concord) are now integrating their services into LMS. WebCT Vista is an enterprise version of the product which aims to integrate a number of these services. Whatever system they use, beginning language teachers should early on try to find an efficient means for collecting and tracking their electronic teaching resources, which are bound to grow well beyond what they may envision today.
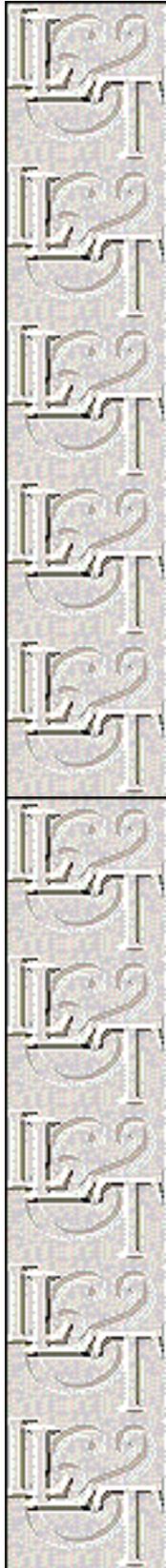
Resource List

Training Materials and Tools

Well Training Resources Includes a booklet on Web Skills for Language Learners

Software Tools for the Web Nice lists for different platforms

Skillsoft Commercial training materials

SmartForce Commercial training materials

Microsoft Office Tutorial From Florida Gulf Coast University

Netskills UK resources for learning about the Internet

On-line Teaching: Tools and Projects Reports on on-line projects

Creating Web-based Language Learning Activities From the ERIC Clearinghouse on Languages and Linguistics

TechSmith Screen capture software

Ambrosia Screen capture software

The WELL Project Web Enhanced Language Learning, a collaborative project in the UK

Through the Web WYSIWYG Editor Widgets List of editors, some free, some commercial

Learning Management and Content Management Systems

Blackboard Commercial learning management system

WebCT Commercial learning management system

Concord Maker of MasterFile content management system

Blackboard Users Group for Languages, Literatures & Culture Organized by Samantha Earp (Duke Unversity)

Blackboard ML Press release on multilingual version of Blackboard

WebCT ESL page WebCT resources for ESL teachers, includes link to discussion forum

Integrating Technology into Language Learning Course Web site emphasizing WebCT (by Esperanza Román Mendoza)

Instructional Management Systems Part of the On-line Teaching Tools and Projects site

Suppliers of Virtual Learning Environments From the Ferl Web site

Open Knowledge Initiative Open source course management project

IMS project Meta-data project

Using technology in your foreign language classroom? Get your students excited for learning by with these online resources, fun websites, apps and gadgets! We all know technology can be a powerful teaching tool. I mean, we pretty much use it in every facet of our lives these days. But what are the best ways to maximize the effectiveness of technology in the language classroom? Teachers can create and organize sets for their classes and monitor students' activity and progress on a given set. Students in turn have access to a huge archive of sets and can easily search for topics like "Konjunktiv I German" or browse by language. The activities are fun, with plenty of opportunities for working in pairs. All in all, a great tool for homework and in-class playfulness. Developing prospective english teachers' professionally-oriented speaking skills in elt methodology classes. Inna Samoylyukevych. Abstract The article deals with the issues of professionally-oriented foreign-language teaching of. future English teachers in the ELT Methodology course in order to develop their professional communicative competence. The author analyses the main communicative characteristics of professionally-oriented speaking and identifies types of communicative contacts of English teachers. Professionally-oriented speaking skills to be targeted in the process of teaching profes... Teachers vs technology is a trending topic nowadays as most of the people believe, the teachers who will not adopt technology will be replaced soon. So is it really gonna replace the teachers in the coming time? Read now & check it out by yourself. The role of education technology is continuously expanding from projectors to smart boards and enabling better interaction between teachers and students in the classroom. Every day we see that various aspects of education technology becoming an inherent part of the educational experience for students, teachers, parents, and management alike. There are, of course, casualties. The primary one of these is the elimination of obsolete job roles that have been taken over by a piece of technology.