Technological Applications for Language Teaching

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Note: The International Center for Intercultural Communication (ICIC) is a research/service organization in the IU School of Liberal Arts. It specializes in the research and teaching of English for Specific Purposes and intercultural communication and offers intensive short-term courses in language and teacher education. ICIC hosted 30 math and IT professors from Vietnam for eight weeks in 2012 as part of Vietnam 2020 education programs.

1. **Abstract**

This paper suggests resources for teaching language for general or specific purposes with web-based technology. The authors review the most widely spread technological terms, options, and pedagogical uses.

2. **Statement of the problem**

A wide array of technology is present, to an increasing degree, in our everyday lives, and now infusing our work as teachers and learners. Technology can be used to teach any language skill, design materials, deliver course content, assess learning, create international partnerships, or conduct research. The options available range from low-tech ones including textbooks with CD-ROMs, to personal computers with or without Internet access, to high-tech smart phones and tablet computers equipped with apps that can facilitate just-in-time learning. Even in schools with limited resources, it is likely to find a computer lab available to language teachers at least occasionally; or classrooms might don a teacher station with a desktop computer connected to a projector. The "weak CALL (computer-assisted language learning) approach" whereby technology is a mere "tool to facilitate learning, providing authentic material on which to work" (Fernández Toledo, 2002, p. 253) is as valid as the strong CALL approach, in which a course may combine several applications. There are simply no rules about how many applications one should use as long as the use is well-grounded pedagogically.

The literature has amassed evidence of several benefits of teaching with technology. CMC (computer-mediated communication) fosters increased interaction, learner autonomy and equality, and sociolinguistic competence (Belz, 2003). CMC also boosts learners' positive second language persona (Lai & Li, 2011). Asynchronous CMC – including emails, discussion boards or forums – supports planning and focus on accuracy (Thorne & Payne, 2005). Web-supported applications offer opportunities to connect globally, interact with native speakers, mine information, and share personal and professional interests. Mobile-assisted Language Learning (MALL) applications can distribute focused grammar or vocabulary and help improve accuracy (see Burston, 2013). Institutions can internationalize through online courses for foreign partner institutions (Ene, 2013 a).

Knowing that the integration of technology may bring many benefits, what options should teachers and institutions be aware of? The section below provides an inventory of low- to high-tech technological applications that professionals in language teaching should consider (also see Ene, 2013 b).

3. **Content**

Web-based CALL applications are innovative and rapidly diversifying. They include asynchronous CMC (such as email); synchronous CMC: chat, text/instant messaging; audio and video conferencing; computer games and virtual learning environments (VLEs) (*Second Life* or *Moodle*); collaborative publication tools (wikis, blogs, vlogs); social networking sites (*Facebook*, *Twitter*, *LinkedIn*); distance learning through total or partial (hybrid or blended) online instruction; and MALL (mobile-assisted language learning). Video-sharing sites (*YouTube*) can

supplement lessons in multiple ways. In Personal Learning Environments (PLEs) – *myYahoo*! or *iGoogle* – teachers and learners can customize their profiles and connect based on similar interests.

Multimodal combinations are often encountered in **online/e-courses**, most of which tend to be offered via an online platform called a **Course Management System** (**CMS**) assigned by one's institution. Well known CMSs include *Blackboard*, D2L (*Desire to Learn*), and *WebCT*, though others exist on the market. While slightly different in appearance, all CMSs provide a core of functions that give users access to posted course materials, announcements, email, forum discussions, chat, and blogs or wikis (Godwin-Jones, 2012). A **Moodle** is a **CMS** and **Virtual Learning Environment (VLE)** which is a free and open-source software (FOSS/FLOSS) whose users can access the software code and manipulate the design. Hsieh and Liou (2008) supply an example of a successful combined use of web-based applications in which they supplemented their Moodle-based EAP writing course with a Peer Online Writing and Editing Room (POWER) and a Concordancer of Academic wRitten English (CARE), both co-created by the authors.

Wikis are web spaces where the users can post, co-edit, co-revise and interlinking texts. Newer CMSs incorporate wikis. In language classes, webquests in which learners search for information on the web often precede the co-creation of a research paper. The public wiki *Wiki Wiki Web* allows users to experiment with creating new or existing wikis. Some have combined wikis with communication via voice chat using *Skype* or *Voice Direct* (Oskoz & Elola, 2010).

Blogs are personal web pages administered by a single individual. They can support writing, reading, pragmatic and research skills. Multimedia blogs feature text and, or instead of it, audio files (audioblogs), video (vlogs), or pictures (moblogs). While blogs are researched less than wikis because of their relatively diminished interactivity, they are seen as venues for generating ideas, trying out (semi)public authorship, and deep exploration of authentic topics (Bloch, 2007).

Virtual worlds include open social spaces (e.g., *Second Life, There,* and *Active Worlds*), massively multiplayer online gaming spaces (MMOGs) (e.g., *World of Warcraft*, *Everquest,* and *Eve Online*), and synthetic immersive environments (SIEs) (e.g., *Croquelandia* and *ZON*). Studies reviewed in Reinhardt & Sykes (2012) have found that gaming-enhanced language learning supports the development of vocabulary, literacy practices, pragmatics, and one's individual and collective L2 identity.

Social networking sites (*Twitter, Facebook, LinkedIn*) are among the newest but least researched applications. They are multimedia micro-blogging sites in which users can congregate for personal or professional purposes. Major browsers offer the option to create and invite others to networks/groups/forums (ex: *Yahoo! groups*). *Facebook* houses the *Language Exchange* project, which brings together communities of language learners, teachers and businesses looking for opportunities to practice, travel, or offer language services. McBride (2009) reviews the positive outcomes of engaging over SNSs – similar to those of other web-based applications – and also some of the challenges related to reluctance to join or perceived loss of authority.

Smart phones, e-readers and **tablet computers**, by virtue of being ubiquitous and convenient, have immense potential for language learning in and out of the classroom. **E-readers**, such as Amazon's *Kindle* and Barnes and Noble's *Nook*, released since 2007, are handheld devices that use software designed for the display of electronic, simple or multimedia,

texts (e-books) that can be downloaded wirelessly. E-readers can assist in developing reading and listening skills. They include text-to-speech options that convert written to spoken text. **Tablet touch screen computers** such as Apple's iPad can browse the internet, download applications, stream media, and be synched to a desktop.

Like smart phones and tablet computers, **digital audio and video players** download, store and play audio or video files. Podcasts (a word resulted from the blending of *playable on demand* and *broadcasting*) and vodcasts (video podcasts) are audio or video files that can be downloaded through web syndication and played on a number of devices, including digital players, phones, and computers. Language teachers and learners can record themselves and deliver files via a web platform endowed with RSS feeds, or they can link course content to podcasts from other sites. Podcasts can enhance the teaching of speaking, listening, culture skills, and can constitute the basis of discussions and writing assignments.

Examples from IUPUI

English language learners at IUPUI encounter technology as soon as they apply for admission and find out they are required to pass a computer-adaptive placement language test which tests their reading, grammar, and listening and rates the sections automatically. A writing test is also delivered and completed on computers in a testing center, but it is later rated by humans.

As most U.S. institutions of higher education, IUPUI uses a CMS through which each course is assigned a site. The CMS is Sakkai-based and is locally known as Oncourse. After nearly a decade of Oncourse, the institution is preparing to transition to Canvas, which was piloted among volunteer instructors and chosen as a favorite. The university's centralized IT service together with a Center for Teaching and Learning were instrumental in disseminating, maintaining, and supporting the software, as well as offering regular campus-wide training workshops for faculty (both group and individual).

English language classes use technology in all of its forms, both in the International Center for Intercultural Communication – especially in the latter's intensive ESP programs, and in the university's English for Academic Purposes Program. Each course uses Oncourse for regular communication and class management. Additionally, hybrid and online writing courses integrate narrated Adobe Presenter presentations, PowerPoint presentations, and Prezis. They also use Adobe Connect for online meetings and webinar-like live lectures. Online conferences are conducted regularly in the course chat rooms, and lively discussions develop over wikis. Collaborative vocabulary learning happens, sometimes for extra credit, in wikis in which the students are invited to explain and use new vocabulary. In grammar courses, an online textbook (*Azar*) supplements the paperback textbooks. In the speaking course, the *Native Accent* software has been used to diagnose the students' pronunciation needs and allow them to practice according to a customized web-based program accessible from any location with a stable internet connection and a computer microphone. Instructors also set up timed grammar tests in the CMS and videorecord their students' oral presentations on flip cameras in order to replay the presentations when assessing them and providing feedback.

4. **Conclusion**

Issues of accessibility to the web and devices have not been eradicated, but the world of technology offers such a vast array of applications, that it is likely that anyone can find a way to integrate some technological application in one's teaching and learning. Undeniably, a minimal level of willingness and interest should be built through training (Ene, 2013 a; Goertler *et al*., 2012) in order to maximize the outcomes illustrated above and more. Wherever possible, an institutional support model that includes both IT specialists and teaching specialists should be adopted, as in the IUPUI example. Resources rich in examples of teaching with and research on uses of technology in language learning include journals such as the *CALICO Journal, Language Learning & Technology, CALL,* and *ReCALL.* Of particular interest to practitioners are the software reviews in these sources and state-of-the-art reviews on the newest technologies by R. Godwin-Jones.

5. **References**

Belz, J. (2003). Linguistic perspectives on the development of intercultural competence in telecollaboration. *Language Learning & Technology, 7*, 68-99. Retrieved August 11, 2010, from http://llt.msu.edu/vol7num2/belz

Bloch, J. (2007). Abdullah's Blogging: A generation 1.5 student enters the blogosphere. *Language Learning & Technology, 11*(2), 128-141.

Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994-2012. *Language Learning & Technology, 17*(3), 157-224. Retrievable from http://llt.msu.edu/issues/october2013/burston.pdf

Ene, E. (2013 a). Laying the ground for online ESL composition courses and university internationalization: The case of a U.S.-China partnership. In J. Aitken (Ed.), *Cases on Communication Technology for Second Language Acquisition and Learning. IGI Global, Inc. Publishing*, p. 387-411.

Ene, E. (2013 b). Technology and Language for Specific Purposes. *Encyclopedia of Applied Linguistics*. (Vol.9, pp. 5760 - 5773). Wiley-Blackwell Publishing, Malden, MA.

Fernández Toledo, P. (2002). New technologies and genre variation. Printed and electronic documents in tertiary education ESP courses. *International Journal of English Studies, 7*(1), 251-268.

Godwin-Jones, R. (2012). Emerging technologies: Challenging hegemonies in online learning. *Language Learning & Technology, 16*(2), 4-13. Retrievable from http://llt.msu.edu/issues/june2012/emerging.pdf

Goertler, S., Bollen, M., Gaff, J. (2012). Students' readiness for and attitudes toward hybrid foreign language instruction: Multiple perspectives. *CALICO Journal, 29*(2), 297-320.

Hsieh, W.-M., & Liou, H.-C. (2008). A case-study of corpus-informed online academic writing for EFL graduate students. *CALICO Journal, 26*(1), 28-47.

Lai, C., & Li, G. (2011). Technology and task-based language teaching: A critical review. *CALICO Journal, 28*(2), 498-521.

McBride, K. (2009). Social-networking sites in foreign language classes: Opportunities for re-creation. In L. Lomicka & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning* (pp. 35-58). San Marcos, TX: Computer Assisted Language Instruction Consortium (CALICO).

Oskoz, A., & Elola, I. (2010). Meeting at the wiki: The new arena for collaborative writing in foreign language courses. In M. J. W. Lee & C. MacLoughlin (Eds.), *Web 2.0-Based E-Learning: Applying Social Informatics for Tertiary Teaching* (pp. 209-227). Hershey, PA: IGI Global.

Reinhardt, J. & Sykes, J. (2012). Conceptualizing digital game-mediated L2 learning and pedagogy: Game-enhanced and game-based research and practice. In H. Reinder (Ed.), Digital Games in Language Learning & Teaching, 32-49. Palgrave Macmillan.

Thorne, S. L., & Payne, J. S. (2005). Evolutionary trajectories, internet-mediated expression, and language education. *CALICO Journal, 22*(3), 371-97. Retrieved July 1, 2010, from https://calico.org/p-5-Calico%20Journal.html