EMERGING TECHNOLOGIES
Skype and Podcasting: Disruptive Technologies for Language Learning

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New technologies, or new uses of existing technologies, continue to provide unique opportunities for language learning. This is in particular the case for several new network options for oral language practice. Both Skype and podcasting can be considered "disruptive technologies" in that they allow for new and different ways of doing familiar tasks, and in the process, may threaten traditional industries. Skype, the "people's telephone," is a free, Internet-based alternative to commercial phone service, while podcasting, the "radio for the people," provides a "narrowcasting" version of broadcast media. Both have sparked intense interest and have large numbers of users, although it is too soon to toll the bell for telephone companies and the radio industry. Skype and podcasting have had a political aspect to their embrace by early adopters -- a way of democratizing institutions -- but as they reach the mainstream, that is likely to become less important than the low cost and convenience the technologies offer. Both technologies offer intriguing opportunities for language professionals and learners, as they provide additional channels for oral communication.

Skype and Internet Telephony

Skype is a software product which provides telephone service through VoIP (Voice over IP), allowing your personal computer to act like a telephone. A microphone attached to the computer is necessary and headphones are desirable (to prevent echoes of the voice of your conversation partner). It is not the only such tool, nor the first, but because it provides good quality (through highly efficient compression) and is free, it has become widely used. The software is based on peer-to-peer networking (from the creators of the file sharing program Kazaa*)* and runs on Windows, Linux, Mac OS X, or PocketPC. Normally, calls are from computer to computer and are free. It is also possible to use Skype to call a land-based phone (rather than another Skype user), but that requires a fee (using a service called SkypeOut). Skype generally works well, even through firewalls. The sound quality is dependent on the network and is very good with a broadband connection. It is possible to link up to five people through Skype for conference calls. One member of the group acts as the convener and enters the Skype ids of call participants. The current version of the software does not allow users to join subsequently Skype conference calls. The sound quality of Skype with multiple participants in the same conversation tends to degrade somewhat.

It is possible to configure an existing phone (including cordless phones) to work with Skype using a USB to RJ11 connector in the US or similar converters for other phone systems. Special handsets are also available which sport both a USB and an ordinary phone connection, allowing switching between Skype and a traditional phone line. Skype has initiated a new service called SkypeIn, which allows Skype users to purchase a phone number (available only in selected countries), allowing them to receive calls from non-Skype users calling on a regular telephone. It is possible to send instant messages from a GSM mobile phone to Skype users, using a free service. A software answering machine service (SAM) is also available for Skype. Skype calls can be recorded (using a dedicated program such as HotRecorder or other audio software). Some bloggers are recording interviews or conference calls with Skype, saving the files as MP3s and then posting them to their blogs (SkypeCasting).

Skype offers a good alternative to voice chat programs such as Paltalk. The quality is generally better and software incompatibilities are less of an issue. Given the low cost, conferencing capabilities, and recording option, there are any number of possibilities for using Skype in language learning. The most obvious is to connect users in distant locations for free conversational practice. A group of ESL instructors has been using Skype in class-to-class exchanges and there are several sites (such as The

Mixxer) for integrating Skype and Moodle, the popular freeware learning management system. Because Skype requires a reasonably fast Internet connection, not all users or schools will be able to use it, but for those who can, it offers a low-cost alternative for real-time communication. Skype has recently added video conferencing (through a third-party add-on, Video4Skype), which offers even more possibilities.

From Audioblogs to Podcasting

Podcasting refers to the automatic downloading of MP3 audio files to a computer and, in most cases, subsequently to a mobile MP3 player. It has experienced phenomenal growth in the past year, although the basic enabling technologies have been in place for some time. In recent years some bloggers have been linking recorded audio files to their blogs, a process known as audioblogging. As in text-based entries, audioblogs are cataloged according to time and date and given a title and brief description, with the actual content being the linked audio file. It is possible to post entries to a blog from a mobile device (cell phone or PDA), a process know as moblogging. This can involve sharing not only audio, but photos as well. A number of sites, such as Text America or GoBlogGo are dedicated to moblogging. Another variation on media blogging is the vlog or videoblog, which adds video to the mix. What's new about podcasting as a form of audioblogging is the ability to subscribe to a site for automatic downloads of new MP 3 files. If the computer users owns an MP3 player, the new files are loaded onto the player the next time it is synched with the computer, using a program such as iTunes or MusicMatch. However, the MP3 files can also be played directly on the computer.

Part of what accounts for the sudden interest in podcasting is the fact that so many consumers have purchased MP3 players, especially the Apple iPod (from which podcasting gets its name), which integrates seamlessly with Apple's music software, iTunes, allowing for easy syncing of iPods with a Windows or Macintosh computer. Originally, podcasting was of interest to a small audience of Mac enthusiasts, an esoteric activity by computer geeks for other computer geeks. In fact, the process originally was complex and required scripts that ran only on a Mac. But the past 6 months have demonstrated an incredible appetite on the part of mainstream consumers for podcasts, to the extent that a recent Pew study shows that a third of those who own a portable MP3 player have downloaded podcasts. Although there are still plenty of podcasts of interest only to computer programmers, Internet junkies, and underground music aficionados, today many mainstream media (such as the BBC or BusinessWeek) make podcasts available, as do schools and even churches. There are a number of directories of podcasts (such as iPodder, Digital Podcast, Podcastalley or audio.weblogs) which sort them in categories. Originally a U.S. phenomenon, podcasts have gone international, with podcasts available in many different languages and sites dedicated to podcasts in different languages, such as German or French.

Once a user finds a podcasting site of interest, there will typically be an orange subscription button marked XML or RSS (short for "Rich Site Summary" or "Really Simple Syndication," depending on the version used). Clicking on that button "subscribes" to that podcast (or other news feed) on that site. That assumes one is using a Web browser with built-in support for RSS (such as Firefox of Safari) or has installed a so-called "news aggregator" or news feed reader such as NetNewsWire or SharpReader. Whichever RSS reader one uses, it can be set up to monitor a remote site and check periodically for new files and then download the files at a scheduled time, perhaps during the night when the network is not being used. Another version of XML that one might encounter is OPML (Outline Processor Markup Language), most often used to exchange RSS feeds between aggregators.

In order to create your own podcast, several steps are required. The first is to have something of interest to say or to share (a requirement not universally fulfilled), then to record your voice, usually using an audio editor (such as the free Audacity) on your computer, saving the file in MP3 format. Next you will need to create a snippet of XML code, pointing to the MP3 file. Mostly commonly, that XML file will be in RSS 2.0 format, although there are other standards as well, notably Atom. Sample code in RSS 2.0 for a single podcasting item would look something like the following:

```
<?xml version="1.0"  ?> <rss version="2.0">   <channel>   <title>This
is an RSS feed</title>   <link>http://www.myWebSite.com</link>
<description>This is a demo of creating an RSS feed for a
podcast...</description>      <item>   <title>My Podcast</title>
<link>http://www.myWebSite.com/my_podcast.html</link>
<description>This is a podcast about  something</description>
<pubDate>Fri, 24 Jun 2005  00:30:47 GMT</pubDate>      <enclosure
url="http://mwww.myWebSite.com/my_podcast.mp3" length="20000"
type="audio/mpeg"/>      </item>   </channel> </rss>
```

In the early RSS days, such files would be written by hand, but that is rarely the case today. Podcasting often goes hand in hand with blogging and the same software used to maintain a blog (such as Blogger) can generally be used to create automatically the XML/RSS. You fill in the title, description, and so forth, and the XML is generated automatically. Finally you publish the link to that file on your Web site or blog (also an automated process in most blogging software) and wait for the world to beat a path to you.

Most podcasts are voice recordings, but some include music as well. Obviously, the inclusion of copyrighted material such as commercial music recordings can be problematic. In contrast to purchased music from on-line services such as iTunes or Rhapsody, podcasts do not as yet incorporate any kind of digital rights management (DRM). The quality of the podcasts depends on the recording settings used. Most podcasts are under 30 minutes and MP3 compression creates relatively small sized files. However, some podcasts are made available in several different formats, to allow for faster downloads for dial-up users. Another option open to bloggers interested in podcasting is to use a text-to-speech program such as Talkr or Feedpod to create a synthesized voice version of text blogs. Services are also available to allow bloggers to "phone it in," to record their voices through a phone service, which records the call, converts it to MP3, and adds it a blog.

Podcasting has just begun to be used in language learning. The popularity of MP3 players among students means that students could easily download podcasts in the target language (e.g., from a newspaper site, blog, radio program) for listening on the go. Several schools have made podcasts available for language students. The PIECasts from Scotland are intended for a variety of uses including vocabulary revision, listening exercises, and interviewing with native speakers. J. van Rose's "Really Learn Spanish" blog includes podcasts. The Bob and Rob Show offers "weekly English lessons from a Yankee and a Brit." Middlebury College has announced support for podcasts in the upcoming version of its StudyDB software, called Crescendo. The University of Missouri's white paper on podcasting highlights language learning as well as many other potential education uses for podcasting. In a recent discussion on Slashdot, prompted by a question about best ways to learn another language, using podcasts was one of the very first suggestions made. As support for podcasts grows and new tools streamline production, their use in language learning will surely increase. One option might be to use the Notes Reader built into iPods to send short texts along with audio. As mobile music players support other media (as is now the case with photos in all new iPods), including images or even video may be possible. Apple's version 4.9 of iTunes has support for podcasting, which should serve to increase even more its popularity, and to make it easier to find, use, and create podcasts.

RESOURCE LIST

Skype

- Skype free Internet telephone software
- Skype Tips from Michael Gough
- Skype and class-to-class voice exchange Eric Hagley describes his use of Skype in ESL
- Skype and Moodle about integrating the two tools
- Linking Language Students with Skype (in moodle) from Eric Hagley

- HotRecorder allows recording of Skype calls
- SkypeCasting podcasting of Skype recordings
- Skypecasting, the new trend in peer-to-peer file sharing
- Your Network of Skype Users: Language Learning site to connect language learners using Skype
- The Mixxer language partners through Skype
- Find a Language Exchange Partner from mylanguageexchange.com (using Skype or similar tools)
- Russian lessons via Skype from training-classes.com
- Learn Languages by Phone site and tools for professionals

Audioblogs and Podcasting

- Text America portal for moblogging
- GoBlogGo site for posting images
- Audioblogger audio blogging service for Blogger software
- Audioblog.com podcast and videoblog publishing service
- Audioblogging in Chinese as a Second Language by Alaric Radosh
- Podcasts in French from podcast.net
- pieCast podcasts from the Partners in Excellence Project (Scotland)
- mgsOnline: Weblog, AudioBlog and Podcasting Development from the creator of the pieCast project
- Hopes for legal music podcasts rise from news.com
- mgsPodcast podcasts for language learning from Musselburgh Grammar School (UK)
- Report: podcast popularity to skyrocket from iPodNN
- Language learning podcasts from the National Centre for Languages (UK)
- ELF Practices from A. P. Campbell, includes ideas on using audioblogs
- Setting up a High-Tech Language School discussion on Slashdot
- The everyday creation of media by everyday people from edugadget
- The concept of making media as a basic life skill from Eric Rice
- Really Learn Spanish podcasts from Johan van Rooyen
- The Promis of Podcasting (PDF) by Susan Manning
- The Bob and Rob Show podcasts for English learners
- RSS Readers software for "synidcated" podcasts
- Third of US iPod owners now podcasting report on a survey from the Pew Internet and American Life Project
- Mozilla says Thunderbird podcasting is on its way from silicon.com
- Podcasting with Your iPod Photo how to sync images in podcasting
- Podsites using iPod's Note Reader with podcasting
- TextPODcasting with iPod Notes how to guide
- Turn Your iPod into an Ebook Reader ideas for using note reader on iPods for education
- Autocasting from wikipedia, on using text-to-speech for podcasting
- Talkr converts text-only blogs for podcasting
- Feedpod text-to-speech newsfeed reader
- Audacity free, cross-platform sound editor