



Trends in CALL: Software, Hardware, Communication

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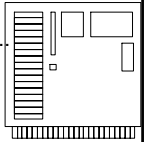
Agenda

- o A brief look back...
- o Current uses of CALL
 - Tools – software and online
 - Skill practice – software and online
 - Communication – online
- o Next steps – smaller, faster, ubiquitous
- o What does it mean?



A brief look back...

- o PLATO (1950s-70s)
 - o Mainframe-based
 - o Practice orientation
 - o The teacher as programmer
 - o Good record-keeping
 - o Computers as teachers
 - o Collaborative learning
 - o Small number of users



Early microcomputers (early 1980s)

- o Green+white, text only
- o Drill and practice (US), text-based simulations (UK)
- o Command-key, not graphical (Ctrl-WS to save a document)
- o Teacher as programmer
- o Computers as teachers
- o Individual learning (US), collaborative learning (UK)
- o Small number of users



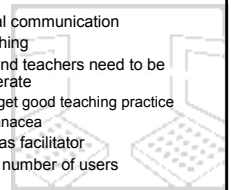
Graphical interface (late 1980s)

- o Practice, simulations, multimedia-based learning with software
- o Good record-keeping
- o Teachers as facilitators
- o One-computer classroom
- o Students working together at a computer
- o Computer as teacher and facilitator
- o Growing number of users



Internet-ready (1990s-present)

- o Easy global communication
- o Self-publishing
- o Students and teachers need to be Internet-literate
 - Don't forget good teaching practice
 - It's no panacea
- o Computer as facilitator
- o Increasing number of users



Now...

- o Multiple media, mostly digital
- o Smaller, faster, more widely available technology
- o Internet – faster, more media capability
 - Web 2.0 = 'social web' with user-created content
 - But video still needs more capacity (bandwidth); more users = slower



Roles of teachers and computers

- o Current ideas - traditional, plus
 - Computer as tool, mostly
 - Students work collaboratively
 - Resource provider
 - Stimulus for exploration
 - Means of communication
 - Constructivist orientation



"It's not so much the program, more what you do with it"

- o Chris Jones (1986). It's not so much the program, more what you do with it: The importance of methodology in CALL. *System*, 14 (2), p.171-78.
- o Strong teacher role
- o "Program" then; "Internet" now



Current uses - tools

- o Software and online
- o Word-processing/presentation
- o Easy authoring
- o Digitizing audio/video
- o Concordancers
- o Course management systems
- o Search engines
- o SmartBoards, clickers, and other technology gadgets



MS Word options

- o Insert comment: Voice and text annotations ([sample](#))
- o Track changes
- o Compare documents
- o AutoSummarize ([sample](#))
- o Grammar checking
- o Translation



Audio comments in Word



New audio and video technology is on demand, audio blogs, and podcasting are part of a hybrid course (partially fac...



What do you get?

- o Another way for teachers and students to interact (T-S, S-S)
- o Audio or text response
- o Comments of any length
- o Comments about comments



MS PowerPoint options

- o Presentation wizard
 - Step-by-step organizer
 - Many templates
 - <http://office.microsoft.com/en-us/templates/default.aspx>
- o Easy use of media
 - Graphics, sound, video
- o Internet connections
- o Form is easy; needs attention to content



Exploring PowerPoint

- o Templates - for student and teacher use
- o Appropriate size for viewing
- o Real world skill
- o Add media - audio, video
- o Hyperlinks



Easy authoring

- o Hot Potatoes
 - Not just 'wrong, try again'
 - Student-created exercises
 - Record-keeping issue
 - Quality takes time and effort
 - Download at hotpot.uvic.ca
- o MS Office: Save as Web page
- o User-friendly web pages and blogs



Digital audio and video

- o Audio: built into Mac and Windows
 - Garage Band
 - Sound Recorder
 - Audacity: download for Mac or Windows - easy editing
- o Video: built into Mac, add to Windows
 - iMovie, Movie Maker



Digital audio: What do you get?

- o Another way for teachers and students to interact (T-S, S-S)
- o Audio response to audio journals
- o A recording that can be reviewed later
- o A recording that can be edited
- o Easier for the teacher to transport
 - Think about all those cassette tapes...



Student-created movies

- o iMovie and MovieMaker
 - Free
 - Relatively easy to use
 - Exciting for students
 - Good group project
 - Requires high-end equipment
 - High-speed processor, lots of RAM and hard drive space
 - Can share on [YouTube](#)



Digital movie pluses and minuses

- o Why not videotape?
 - Easier to edit
 - Easy to add titles, music
 - Easier to make high-quality copies
 - Easy to share online
- o Advantages of tape
 - Easier to record
 - Cheaper
 - Holds much more



Concordancers

- o Data-driven learning for students
 - Students as language researchers
 - Deeper processing = remembering
- o Lots of examples for teachers
 - Create worksheets easily
- o Online and software-based
 - AntConc (http://www.antlab.sci.waseda.ac.jp/antconc_index.html); Conc (Mac); MonoConc Pro



Sample concordance: a * of



Communication tools

- o Course management systems
 - Blackboard/WebCT
 - Expensive; designed for large sites
- o Free course management systems
 - [Nicenet](#) - www.nicenet.org (limited options but easy to use and no ads)
 - [Moodle](#) - www.moodle.org
 - [Tom Robb's site](#) - <http://www.langconcepts.net/moodle/> (more later)



Web-based discussion: Nicenet

- o www.nicenet.org
- o Conferencing
- o Link sharing



Search engines

- o Choose the right one
 - Google isn't perfect
 - Category vs keyword
 - Academic search engines and portals
 - Noodletools - www.noodletools.com
- o Teach students search techniques
- o Create lists of links for students



Gadgets

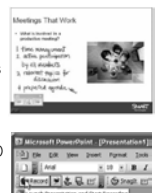
- o SmartBoard
 - Interactive whiteboard
 - Record for playback
- o Clicker
 - Classroom response system
 - Good for large classes



Recording for playback

- o SmartBoard tool
- o PowerPoint add-on
- o Saves a session as it is being delivered with screens and audio

<http://www.screencast-o-matic.com> (free)
<http://www.2.smarttech.com/>
<http://www.techsmith.com/camtasia.asp>
<http://www.realn Networks.com>





Current uses: Skill practice

- o Software and online
- o Vocabulary
- o Grammar
- o Pronunciation
- o Reading
- o Listening
- o Test preparation

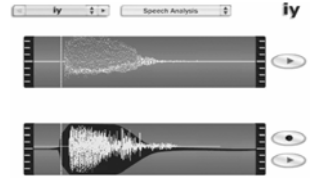


Visual aids to pronunciation

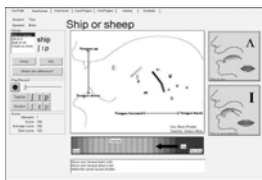
- o Ineffective
 - Waveforms
 - Formant maps
- o Somewhat effective
 - Pitch and intensity contours
- o Useful
 - Graphic representations of similarity
 - Speech pathology tools



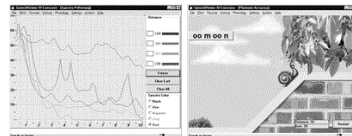
Pronunciation Power



EyeSpeak sample



SpeechViewer



Current uses: Communication

- o Email pen pals ("keypals")
- o Discussion lists – [Yahoo Groups](#)
- o Blogs – [blogger.com](#)
- o Podcasting – [podomatic.com](#)
- o Student/class web pages
 - Regular page – [tripod](#), [geocities](#)
 - Wikis – [pbwiki.com/education.wiki](#)



Blogs

- o Student publishing
- o Interactive (or not)
- o Easy to create
- o Text-oriented
- o [www.blogger.com](#) and more
 - [techteachingworldwide.blogspot.com/](#)



Audio blogs & podcasts

- o Created by students or teachers
- o Blogs can be set to accept comments
- o Interactive, but information is saved
- o Free websites available
 - [www.podomatic.com](#)



Sound recording- Audacity –

<http://audacity.sourceforge.net/>





Aiden Yeh's Speech Class

http://aidenyeh.podomatic.com/entry/2006-05-10101_57_05-07_00



Student or class wiki

- o Easy way to have several people work together
- o Private or public space
- o pbwiki.com/education.wiki



What do you get?

- o Student authorship
- o Easy way to share – and have an audience
 - Teachers can check student work and comment online or offline
 - Students can comment to each other
- o Motivating activity for students
- o Need to set tasks for best results



Student-generated pages

- o Motivating
- o In-class or outside audience
 - Hot Potatoes exercises
 - Project reports
 - ThinkWave competitions
- o Watch for copyright violations



Less common tools

- o Speech recognition
 - Speech to text and text to speech
- o Messaging – audio/video chat
- o Texting
- o Video file-sharing
- o Wireless communication



Speech recognition

- o IBM ViaVoice and ScanSoft Dragon Naturally Speaking (commercial); Microsoft Speech SDK (68MB file)
 - Increasing accuracy in transcribing speech
 - Forces speaker to focus on accuracy
 - Text to speech improving



Speech recognition

- o CALL applications
 - TraciTalk – one of the first
 - DynEd offerings: Dynamic English, Functioning in Business
 - Rosetta Stone, Learn to Speak English, Tell Me More, Connected Speech, EyeSpeak
 - Variety of implementations



Audio/video Chat

- o Multi-modal chat
- o One person or multiple (Yahoo Messenger, Breeze, Skype)
- o Text, audio, video
- o Transmission issues
- o Instant Messenger/Yahoo Messenger



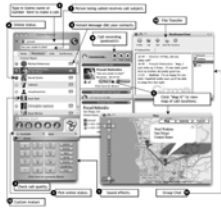
Computer phone

- o Underlying technology: Voice Over Internet Protocol (VOIP)
- o Skype (www.skype.com), Gizmo (www.gizmo.com)
- o Can call a regular phone or another computer





Gizmo (www.gizmo.com)



What do you get?

- o Add a computer speakerphone for class discussion with anyone
- o Set up voice pals with another class
- o Computer-to-computer is free
- o Computer to telephone is cheap
- o Often issues with the sound breaking up – transmission problems
- o Does not record for later review



What do you get?

- o Interaction with an audience for practice and feedback (maybe instruction, too)
- o Practice listening for pauses/interruption cues
- o The option to switch to text if the sound is too confusing
- o Lots of (sometimes too much) input
- o Often issues with the sound breaking up – transmission problems
- o No record for later review



Video file-sharing

- o YouTube as a prime example
 - 100MB, 10 minute limit
 - Hellodeo – www.hellodeo.com - very short clips
 - Vimeo – www.vimeo.com
- o Students and teachers can create and upload files
- o Free website



Wireless communication: Ubiquitous computing

- o Free to move around
- o Connection to others and/or Internet
- o Multiple types of hardware
 - Laptop
 - Hand-held – smaller, faster, cheaper
 - iPod or MP3 player for audio
 - Cell phone – voice and text
- o Wireless lab



Cell phone with Bluetooth

- o Bluetooth = short-range transmission
- o Sample: features include V CAST Music, a music/video player, 1.3 megapixel camera & camcorder, Bluetooth capabilities
- o This is a phone??



http://us.lge.com/products/model/detail/mobile%20phones_select%20by%20carrier_others_CHOCOLATE%20-%20GREEN.html



What do you get?

- o One-to-one interaction for practice and feedback (maybe instruction, too)
- o File transfer ability (short-range)
- o Could listen to music and discuss it with a partner
- o Cell phone costs – usually high during the day



What does this all mean?

- o "Just a tool"
- o Student focus
 - More creativity and control for students
 - More flexibility to respond to learner needs and differences
- o More demands on teachers
 - Know more and do more
- o More mass-market options



Outcomes...

- Present and near future possibilities
- o Better teaching and learning
 - o Focus on creativity
 - o Greater learner control
 - o Broader marketing



Still needed

- Curriculum
 - Organizational scheme for learning
 - Not just programmed learning and direct instruction
- Link between language and people
 - Make it real
- Research on best practices
 - Constantly moving target



Next steps

- Do classroom-based (action) research
 - Try it and share your results
- Pressure vendors to create products that work for us and our students
- Keep looking for the best fit
- Be creative and have fun!