18 Information and Communication Technology in Foreign Language Teaching: Leveraging the Internet to Make Language Learning Real

Etáin Watson[1]

Abstract

The internet is the largest communications network in the world. It has become the virtual backbone of all communication. Therefore, it seems natural to leverage it as a major tool in any education involving communication skills, especially language skills. This chapter outlines a practitioner's experience on how this can be done in a foreign language classroom. It outlines the reasoning for use of various tools, and the practical aspects linked to language learning. The methodology of this investigation follows the pattern of Action Research outlined by Stringer (2007), an informal recursive approach that allows the researcher to select a research question and a method for testing it, then to analyse the results, change the method of testing or modify the question and test again until a satisfactory result is reached. Examples used are for *ab-initio* Italian, and all suggested activities were used with the author's students in live classes.

Keywords: information and communication technology, foreign language teaching, action research, ab-initio Italian.

1. Dublin Institute of Technology, Dublin, Ireland; etain.watson@dit.ie

How to cite this chapter: Watson, E. (2013). Information and Communication Technology in Foreign Language Teaching: Leveraging the Internet to Make Language Learning Real. In C. Fowley, C. English, & S. Thouësny (Eds.), *Internet Research, Theory, and Practice: Perspectives from Ireland* (pp. 367-378). Dublin: © Research-publishing.net.

1. Introduction

Language must be used or it is not learned. Though application and sharing is necessary for all learning to take place, this is doubly true of language. We acquire our first language without instruction by simply listening and trying to communicate (Brown, 1973; Levine & McCloskey, 2008). However, we often try to learn a second language in a totally artificial manner where even application and sharing in the classroom is not perceived as real. Therefore, learning a second language often becomes laborious and slow. In the past, the only way to change this was to travel to a new environment and learn the local language. Information and communication technology changed this, notably in the last twenty years which saw the advent of personal computers, the internet and the World Wide Web, plus digital audiovisual tools and materials.

The reality of the internet, although technologically created and virtual, is underpinned by the presence of 'real' people. This gives virtual spaces a feeling of reality close to that of being in the country of origin of the language. It seemed natural for the author to use this 'near-reality' aspect of the internet with Italian classes to create a virtual reality for students to use, to learn, test and practice. The theoretical basis for the near reality of movies has been established (Technology & Innovation, 2010) and the literature supports this. Petchko (2011) mentions that the internet World Wide Web has the same characteristic, less than actual reality, but far more than just text, pictures and video.

The classroom is removed from reality. Activities done solely in and for the classroom simply do not register as real for the students (De-Obfuscation of Piaget, 1989). Because of its nature, using the internet registers as a real activity for most students, even though it is acknowledged that the persons with whom one communicates may or may not be exactly as represented (Viadero, 2006). The human brain does not really recognise the difference between reality, dreams, movies, and activities into which one is totally immersed whether real or not (Technology & Innovation, 2010). Therefore, using any of these as part of a lesson tends to give it more reality. This has the end result that the

information thus acquired is stored into long-term memory with attachments to whatever connections have been made during the lesson (Brandt & Brandt, 2005). The foreign-language teacher can leverage content on the internet, use internet applications and involve students in internet communities within the context of language lessons for the benefit of the students (Quinn, Rutherford, & Osher, 1999).

Technologies which can be used very effectively include articles, news items, blogs, viewing videos, animations, documentaries and presentations, webquests, web scavenger hunts, participation in social networking sites, having a class *Facebook* page, to name but a few (Carpenter, 2007). These are, of course, all done in the target language, thus increasing vocabulary and understanding. The more connected the activities are, the more benefits students will accrue (Marston, 2011). One very useful way to plan is to create a road map for class activities, almost like plotting out a board game (Wheeldon, 2011). This can be displayed on the classroom wall to help students keep track. Ideally, most class members will become interested in most or all of the activities.

2. Where and how to begin

This chapter documents some conclusions reached from using the internet for the author's *ab-initio* Italian classes. In order to create a fully functional environment the class was divided into groups of 5-7 people. Each group was mixed for ability, after an initial assessment. The classes were highly successful, and were certainly exciting and interesting.

Sets of activities were created to promote learning in different ways or cater to different learning styles. Each set indicated the time element expected for the activity (daily, once or twice weekly). These were adjusted on a continuous basis to enable change, and the total time required as well as the point value for each activity plus the required deliverables (proof of completion) were determined in advance. Activities were based upon how we use language:

communication for social reasons, finding information, business transactions, entertainment, persuasion, laughter, cooperation on a project or hobby and learning other things.

3. Vocabulary development

A grammar based approach generally limits vocabulary, but this also limits the students' ability to communicate, thus limiting acquisition (Allen, 2007; Krashen & Terrell, 2000, p. 155). The best way to develop vocabulary is to use it, not as responses to tests, but in real situations for real purposes (Allen, 2007). Development of vocabulary thus included several different strategies in order to cover the various learning styles of the students. Krashen and Terrell (2000) state that students engaged in natural vocabulary learning activities can acquire between 15 and 25 lexical items per hour (p. 156). It made perfect sense, therefore, to begin with fun vocabulary acquisition activities. After all, grammar cannot be learned until vocabulary is acquired (Allen, 2007). Krashen and Terrel (2000) suggest that not only should the activities be fun and natural, but that if the students communicate their meaning that should be all that is necessary in the beginning. This creates a safe learning environment in the classroom. Grammar was graded towards the end of the semester after a generous amount of vocabulary had been learned.

Vocabulary development is best done as an integrated activity rather than separated out as a chore. However, since the students are not in the same language environment as the language they are learning, this has to be simulated and augmented. Hunt and Beglar (2002) recommend the combination of both explicit instruction and incidental learning and add that "learners need to be taught strategies for inferring words from context" (cited in Ketabi & Shahraki, 2011, p. 729). Ketabi and Shahraki (2011) further point out that there is a consensus among researchers "that strategy training warrants time and effort both in and out of the classroom (see, among others, Fan, 2003; Macaro, 2001; Takeuchi, [Griffiths, & Coyle], 2007)" (p. 729). In other words, the internet is a vast resource for language development, as it can supply huge amounts

of exposure to the second language in real context, huge amounts of practice materials and connection to a virtual reality in a safe learning environment.

In addition to in class vocabulary lessons, there are numerous video lessons on *YouTube* for beginners. Just a quick search for 'Italian' will turn up dozens. It was thus easy to assign these for students to find and report on each week. A short written report in order to share what was found and a short in class presentation of the site presented an opportunity for continuous assessment. The written reports were put into a monthly or bimonthly class newsletter. As the class *Facebook* was established and the students acquired more facility the reports were shared with a public link to the newsletter.

In addition to vocabulary instruction and practice, students need regular testing of vocabulary in order to help them identify what they know and what they need to learn. This is one chore that students found worked really well when done at home over the internet. The tests were quick and fun. Different strategies can be used to add interest and humour, such as making up silly sentences that are nevertheless correct. For cumulative tests, a random number generator can be used to select previous vocabulary from a database, and any vocabulary selected was marked so as not to duplicate too often. There are online free test creators that are easy to use. Perhaps the easiest with which to begin is a combination of free *Slideshare* and a free survey system[1]. While they are not integrated this combination has one very distinct advantage for learning: it is highly flexible and free. This is only one of the available choices. If the school or college has a portal or website, any presentation can be posted on the site and answer sheets can be made with one of the many free survey systems offered on line.

The internet itself is a vast treasure trove of interesting things and communication opportunities. Computer-aided language learning was found to produce more positive attitudes with the author's classes, especially with students studying vocabulary. A variety of tools and materials was used in order to provide a match for every learning style.

1. Upload & Share PowerPoint presentations and documents, retrieved from http://www.slideshare.net/.

Many institutions around the world are beginning to provide internet-based lectures that can be used as learning materials in their local language. These make excellent language learning materials for those who are learning the base language (McCormick, 2000). Advances in learning and teaching have continued to develop across the internet and to be shared (Kuo & Chen, 2004). Demiray and Sever (2009) state that "online distance learning has gained reliability in recent years" (n.p.). According to Holmberg (2005) "[t]here is no tenable reason why any language should be considered unsuitable for distance teaching and learning; rather, there is much evidence of the effectiveness of distance teaching of foreign languages" (pp. 166-167). This is an environment that is especially useful for task based language learning. The teacher can create matched sets of tasks for a number of groups, each with slightly different materials and tasks and each becomes a reusable template.

Task-based language learning is ideal for use on the internet. Students can practice language in a virtual context while completing tasks that are "authentic, pragmatic, contextual, and functional use of language" (Ali, Mukundan, Baki, & Mohd Ayub, 2012, n.p.). Students in the author's classes were expected to learn the language while completing the assigned tasks, during which they engaged in and negotiated meaning. Webquests are excellent group activities, rather like an informational scavenger hunt.

News gathering and reporting was another activity that worked well for groups. A class newsletter was created from the materials, and the students also made their own podcasts. Each group chose one topic, generally something 'how-to', and then created a podcast script and recorded it in Italian, either in video or just audio. By mixing topics in such a way as the students have to use a mixture of English and Italian sites, both translation and communication are promoted. This kind of exercise created a situation where the students could consider the context as real, because they created a real product which was distributed further than just within the classroom and to families. The author's students were completely engaged with this activity and made great progress while trying simply to communicate.

Another vocabulary exercise was used as a webquest for nouns and verbs. For these the class vocabulary database was used or added to by requiring that each student looks for illustrations, animations or video clips that demonstrate the meanings of a certain number of words. They could use free clipping tools to copy them from the web, and the locations were also noted for each as a citation. From a copyright point of view, a vocabulary database for a language class can be considered fair use as long as the sources are documented. By giving each student or pair of students certain letters of the alphabet to work with, duplication could be avoided.

Once the students were a bit more at ease with the language and technology, a version of *Compare the Maps* was used. This can be made with any HTML tool that can create thumbnails. One inexpensive set of tools is made by *Techsmith*[1]. Different operating systems may have other capture tools built in. Most photo organisation tools can also make both covers and thumbnails for these maps. Some simple representations of buildings, doors, shaded windows were used to make clickable covers for hidden illustrations or video clips, and all video clips or text were in Italian. Each student or group got one map and every map had similarities, differences and parallels to others. For example, one map may had the same video clip as another, but words under different covers were placed in different places on the map. After distribution, the students or groups could compare their maps and talk about and record the differences, similarities and parallels in Italian. Virtually anything which might be compared can be used, and once some artefacts are made, they become easier to use and they can be reused for future classes. The creation of these maps could indeed become another group project.

Within the classroom the use of video clips for vocabulary practice are opportunities for training and discussion. Much of language is ambiguous. Different languages invite the creation of ambiguity in different ways. Some of these uncertainties can be disambiguated by a well-constructed powerful artificial intelligence agent. However, there are many that simply depend

1. Products such as *Snagit*, *Camtasia*, and *Jing* have discount prices for government, non-profit and education and can be found at http://www.techsmith.com/index.html.

upon human understanding of possibly dozens of shades of meaning and possibilities. These are only learned by using the language, generally by making mistakes. The following example from Italian (Nespor, 2001, p. 132) displays an ambiguous sentence with two possible phonological interpretations:

La vecchia spranga la porta

a. [(la vecchia)f (spranga)f (la porta)f] - *"the old lady blocks the door"*

b. [(la vecchia spranga)f (la porta)f] - *"the old bar carries it"*

The only way to tell the meaning of this is by the context. A really good artificial intelligence engine might be programmed to understand most possible uses of this phrase. However, there are so many possibilities that even the most sophisticated artificial intelligence agent can decipher them all. For this reason using language in real situations is necessary.

4. Inference of meaning

There are a number of different factors which can help language learners to infer meaning. Once the learner has acquired enough vocabulary to build a structure of context of the target language, it is possible to begin to infer meaning from context. At this juncture communication must be encouraged, along with interesting reading and viewing of videos in order to provide as much material in as large a variety as possible. It is at this point that the internet became much more useful. For example, there is a country site for Italy on *Facebook*, and the students were able to create a page for their module group. Games, puzzles and exercises, such as *Compare the Maps*, could thus be shared.

In class lessons were created in order to point out the methods for inferring meaning when it is not known. This could for example involve using the meanings of surrounding words, the narrative that precedes or follows the

words or phrases and in the many different ways it is used, by identifying the subtle class of the words or phrases. For example, we have words which identify family members and relationships, words which introduce, words that define, and as many more classes as the speaker can find some way of separating from the rest. The students were asked to discuss how they might infer meaning. For example, are there adjectives that give clues? If something has colour it is almost always a noun. Does it have sound, smell or texture?

A search for Italian on *YouTube* will net a whole array of videos, some language, some cooking, travel and many more. Video presents visual and sound cues in addition to what is found in text and the students could thus watch short videos in a group and then discuss what they saw. A search on the terms 'Italian TV' or 'Italian television' brings up dozens of choices[1]. As a simple method for sorting through these, reviews of these sites for possible use were assigned. Criteria were set and a template was made for the students to fill in and pick numbers which correspond to the numerical link on the search results in whatever search engine was chosen.

5. Finding new tools

As students progressed, they became involved in finding new tools. Some of those available include the following communications tools:

- *Quipper* is a tool for sharing and trading quizzes. Once students begin participating in creating their own lessons there is a double bonus above the actual learning. Firstly, the student who creates the quiz has actually made something useful and secondly for the student receiving and resolving the quiz. It is an *Android* tool free to download and there are many shared quizzes already created that others have shared (http://www.quipper.com/);

1. For instance: Italian TV - Watch Internet TV from Italy (http://wwitv.com/television/104.htm); Free Italian TV - Watch Online TV Channels - Free Internet TV (http://beelinetv.com/free_italian_tv/); BBC - Languages - Italian - TV - Online programmes (http://www.bbc.co.uk/languages/italian/tv/onlineprogs.shtml).

- Italian video sites: a search using the terms Italian Video brings up both learning sites, such as *Yabla Italian Video* Immersion (http://italian.yabla.com/) and *Italian YouTube for Schools* (http://www.fandor.com/) which stream Italian films and dozens of others;

- This online article points out and reviews six free sites for making animated cartoons. Some can be displayed on the site, some on *YouTube* or on the class *Facebook*. Some use text while others sound bites (http://mashable.com/2010/10/).

Almost any digital camera is now capable of making short videos and these can go on YouTube or Facebook. The students picked their topics from a list and worked in pairs or small groups.

Considering this extremely small sample, a discussion with the class of what sites they may want to use was found to be a good idea, as each student could bring in a report on one site and present it and the class then checked them out and voted for a few.

6. Putting it all together

This chapter presented a small part of what is available for language learning on the internet. It covered the places where the lecturer in the Italian classes was able to find vocabulary, materials and tools. It presented a variety of ideas on how a lecturer was able to use the internet for language learning. One can simply use the content for vocabulary, such as Italian learning sites, *YouTube* and social networking sites.

In short, the internet offers a virtual world that is as real as the participants desire. One can move around the world instantly and connect to people everywhere in any written language. There is a wide variety of sites available for vocabulary practice and for connection to other people using the same language. Basically the use of the World Wide Web is only limited by the

combination of the imaginations of the teachers and their students. A virtual tour of Roma in Italian is even available online among dozens of other useful and fun tools. The internet has thus created a short step from the book to the world.

References

Allen, J. (2007). *Inside words: Tools for teaching academic vocabulary, grades 4-12*. Portland, ME: Stenhouse Publishers.

Ali, Z., Mukundan, J., Baki, R., & Mohd Ayub, A. F. (2012). Second Language Learners' Attitudes towards the Methods of Learning Vocabulary. *English Language Teaching, 5*(4), 24-36. doi: 10.5539/elt.v5n4p24

Brandt, L., & Brandt, P. A. (2005). Cognitive poetics and imagery. *European Journal of English Studies, 9*(2), 117-130. doi: 10.1080/13825570500171861

Brown, R. (1973). *A first language*. Cambridge: Harvard University Press.

Carpenter, S. (2007, November 28). Shoot First, Ace Geometry Later. *Scientific American Mind*. Retrieved from http://www.scientificamerican.com/article.cfm?id=shoot-first-ace-geometry

Demiray, U., & Sever, N. S. (2009). *The challenges for marketing distance education in online environment*. Eskisehir: Anadolu University.

De-Obfuscation of Piaget. (1989). *Education, 109*(3), 343-345.

Fan, M. Y. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: a study of Hong Kong learners. *The Modern Language Journal, 87*(2), 222-241. doi: 10.1111/1540-4781.00187

Holmberg, B. (2005). Teaching Foreign Language Skills by Distance Education Methods: Some Basic Considerations. In B. Holmberg, M. Shelley, & C. White (Eds.), *Distance Education and Languages: Evolution and Change* (pp. 166-177). Clevedon: Multilingual Matters.

Hunt, A., & Beglar, D. (2002). Current research and practice in teaching vocabulary. In J. C. Richards & W. A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 258-266). Cambridge: Cambridge University Press.

Ketabi, S., & Shahraki, S. H. (2011). Vocabulary in the Approaches to Language Teaching: From the Twentieth Century to the Twenty-first. *Journal of Language Teaching & Research, 2*(3), 726-731. doi: 10.4304/jltr.2.3.726-731

Kuo, R. J., & Chen, J. A. (2004). A decision support system for order selection in electronic commerce based on fuzzy neural network supported by real-coded genetic algorithm. *Expert Systems with Applications, 26*(2), 141-154. doi: 10.1016/S0957-4174(03)00115-5

Krashen, S. D., & Terrell, T. D. (2000). *The natural approach: Language acquisition in the classroom*. London: Prentice Hall Europe.

Levine, L. N., & McCloskey, M. L. (2008). *Teaching learners of English in mainstream classrooms K-8: One class, many paths*. Boston: Allyn and Bacon.

Macaro, E. (2001). *Learning strategies in foreign and second language classrooms*. London: Continuum.

Marston, P. (2011). Emotion, ambiguity and telling stories: The role of neuroscience in using computer games for learning. *Psychology of Education Review, 35*(1), 16-20.

McCormick, J. (2000, April 24). The new school. *Newsweek*, 60-62.

Nespor, M. (2001). About parameters, prominence, and bootstrapping. In E. Dupoux (Ed.), *Language, Brain, and Cognitive Development: Essays in Honor of Jacques Mehler* (pp. 127-142). Cambridge, MA: The MIT Press.

Petchko, K. (2011). The role of cognitive, phonological, and linguistic comprehension abilities in early reading development in the Russian language (pp. 2328-2337). In INTED2011 Proceedings, 5th International Technology, Education and Development Conference, Valencia, Spain.

Quinn, M. M., Rutherford, R. B., Jr., & Osher, D. M. (1999). S*pecial Education in Alternative Education Programs. ERIC Digest E585*. Reston,VA: Eric Clearinghouse On Disabilities And Gifted Education.

Stringer, E. T. (2007). *Action Research*. Thousand Oaks, California: Sage Publications Inc.

Takeuchi, O., Griffiths, C., & Coyle, D. (2007). Applying strategies to context: the role of individual, situational and group differences. In Cohen, A. D. & Macaro, E. (Eds.), *Language learning strategies: Thirty years of research and practice* (pp. 69-92). Oxford: Oxford University Press.

Technology & Innovation Management Conference Paper Abstracts. (2010). *Academy of Management*. doi: 10.5465/AMBPP.2010.54509556

Viadero, D. (2006, August 30). Cognition Studies Offer Insights on Academic Tactics. *Education Week,* 12-13.

Wheeldon, J. (2011). Is a Picture Worth a Thousand Words? Using Mind Maps to Facilitate Participant Recall in Qualitative Research. *Qualitative Report, 16*(2), 509-522. Retrieved from http://www.nova.edu/ssss/QR/QR16-2/wheeldon.pdf

Published by Research-publishing.net
Dublin, Ireland; Voillans, France
info@research-publishing.net

Internet Research, Theory, and Practice: Perspectives from Ireland
Edited by Cathy Fowley, Claire English, and Sylvie Thouësny

Typeset by Research-publishing.net
Cover design: © Raphaël Savina (raphael@savina.net)

Fonts used are licensed under a SIL Open Font License

ISBN13: 978-1-908416-04-9 (Paperback, Print on Demand, Lulu.com)
ISBN13: 978-1-908416-05-6 (Ebook, Kindle Edition, Amazon Media EU S.à r.l.)
ISBN13: 978-1-908416-08-7 (Ebook, PDF file, Open Access, Research-publishing.net)

British Library Cataloguing-in-Publication Data.
A cataloguing record for this book is available from the British Library.

Bibliothèque Nationale de France - Dépôt légal: juin 2013.