

Overview of Second/Foreign Language Learning and Teaching in Internet Environment

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The Internet is a fast-growing environment where an increasing number of world's population engage themselves in a variety of online activities. This is because it provides facilities that can connect Internet surfers together via different modes of communications such as electronic mail, video-conference, synchronous chat, net-meeting and Web board at a fast speed, reasonable expenses, and with great comfort and convenience. In addition, the Internet hosts a great variety of information e.g. new research studies, discoveries, inventions, products and online journals. With such merits, second/foreign language researchers have attempted to integrate the Internet technology in language classrooms to develop foreign language learners' language competence. This paper aims at providing an overview of Internet use in foreign language classes to language teachers, course designers, educators and administrators who are new to the Internet and interested in attempting to integrate Internet activities to their classes. Examination of current literature of integration of the Internet in language learning will be made together with a consideration of pedagogical of Internet applications into their language classes.

Internet

The Internet is a tool which provides its users with the capability to access huge quantities of information which can be used to conduct research construct digital texts, and communicate with other users all over the world. This paper focuses on two major aspects related to foreign/second language teaching: World Wide Web (WWW) and computer-mediated communications.

World Wide Web (WWW)

Many millions of Web pages on a variety of fields such as engineering, medicine, science, agriculture, tourism, news, sports, automobile, business, music, photography, and cartoons can be found on the Internet. Such a wealth of information and its characteristics of being up-to-date, interactive, multi-modal and informative make it possible for on-going learning without geographical and

temporal boundaries. Language teachers can access information sources which could enhance teaching material constructions while learners can benefit from intensive and extensive readings to serve their needs and interest.

Web pages may belong to individuals, companies, government agencies, non-government organizations, educational institutions, and research institutions. This produces both positive and negative effects on second/foreign language learning. Positively, learners can construct homepages accessible by the public worldwide, making use of Internet databases for research, Web design and construction, screening information from reliable sources, reading for content to be used in their homepage or other forms of digital texts. An example of a good Web site is the one constructed by a teacher and students of Sriwittayapaknam School, Samutprakarn (<http://www.thaistudents.com/>). Highlights of the homepage include information about Thailand and tourists' attractions, and about a Thai adolescent who writes a diary about his life from the ages of 12-16, which includes interesting topics such as his entering monkhood and drug addiction and attempts to quit. Students were enthusiastic about sharing their world with others using English as a means for communication. With electronic responses from different parts of the world that showed their interest in students' stories, students became aware of significance of foreign language learning and its value in authentic communication. English, in this case, was meaningful and contextualized for young learners because they could apply what was taught in class to real contexts of communication.

Not only were students motivated to use English, they also learned to acquire a new format of literacy called electronic literacies (Warschauer, 1999) which differ from traditional literacies (paper-based) in many respects. For instance, in electronic writing, authors can embed objects such as pictures, icons, animations, sounds or video-clips within a text. Such new characteristics initiate a distinctive way of reading and writing, i.e, a discursive rather than a linear one. Readers can read an electronic text as a typical text or they could read that text by switching between the main text and other texts linked to the main text in such a way that readers can co-author original digital texts to serve their needs and interests.

Due to speedy growth of electronic literacies, the wealth of information on the Internet, and the expansion of the roles of the Internet in life, more educators see that it is essential to engage the Internet in education. With regard to foreign language education, WWW is a rich information source where learners can access

Web sites where their second/foreign languages such as English, Spanish, German, and French are used authentically for native speakers. In such environment, second/foreign language learners are exposed to different genres of discourses used in contexts. Thus, learners have opportunities to acquire foreign languages as they are for real life practices in their foreign languages.

The other side of the coin presents some issues worth-considering before application of the WWW to foreign language learning in the classroom. Anyone, with or without authority or expertise, can construct a Web site. This poses a threat of content validity. Without awareness of the threat, readers may be misinformed, the effect of which can be disastrous. Therefore, it is necessary for Web readers to be critical when researching Web sites. This may include examination of who created homepages, how often it is updated and what purposes it serves (for example, whether it is for advertisement or information dissemination).

Another issue is the tremendous number of Web sites accessible. It is not easy to search Webs for information needed. Learners may feel overwhelmed by tons of Web sites found in their search. For example, to get information on the WWW about cancer from <http://www.yahoo.com> by typing “cancer” in the search space, one may obtain a hundred thousand homepages. To screen all of these for the required information from the search results would take enormous amount of time and energy. Learners may feel discouraged in looking for what they need. To tackle with the problem of the excessive number of Web sites, guidance in how to search may be needed in order to reduce the number of search results. For example, it is necessary to choose the right tool e.g. Web or search engine indexes (e.g. AltaVista, which includes over 350 million pages), Web directories (e.g. *Yahoo.com* or *About.com*) or specialized databases (e.g. MapQuest). Also worth-considering are search techniques such as using multiple search words that are as specific as possible with the most important or unique words in front e.g. APEC summit agreements in Thailand, search word combination such as the use of “+” or “AND”, “OR”, “-”, “NOT”. Other methods of limiting Web search include using the title used by the author, URL (e.g. “.gov”, “.org”, “.com”, “.net”), date, or, media.

Research on WWW

Within past few decades, researchers focusing on the WWW have provided the extent to which the WWW can be used in foreign language learners' writing development. Lam (2000), qualitatively studying Almon, an adolescent

immigrant from Hong Kong living in California who failed to succeed in his ESL class, found that the youngster emerged as a successful user of English through development a Web site on Pop music. In class, he felt his inferiority to his peers and that made him hate English. Because of his passion for the music, however, he started surfing WWW and researched what others did. With his desire to share what he had with others with the same interest, he constructed his homepage, presenting his audience with texts about a famous Japanese singer. He, little by little, made his homepage more and more attractive by adding the singer's songs, pictures, and lyrics. He also presented news on her new albums and life for her fans. In addition to designing his homepage, researching for latest news via the Internet, and writing columns about the singer, Almon also interacted with his audience via email. English served his need in publicizing what was going on with the singer and to communicate with his audience via email, and this strengthened his communicative skills in English. He could switch his position from a teenager humiliated by his performance in ESL class to a confident and competent Web master whose English writing developed tremendously through Web page construction and interactions in English with his audience worldwide.

In the case of Almon, his English competence grew strong thanks to his extra-curricular activities on the theme of pop music. In the milieu of a second/foreign language class, Pornsiri Muangsamai (2003) found that Web page construction for pre-medical students helped improve their writing as well as establishing authorship and authority through research-communication-construction process. In a group of four, they did research on topics of interest to them such as stem cells and cancer. The activities challenged the students to think critically--- screening, selecting, analyzing, synthesizing and evaluating information collected from Web sites for their projects. Learners received satisfaction from being able to access virtual academic communities in their field (medicine), libraries abroad, and other sources such as online dictionaries to obtain information they needed. It was found that learners' exposure to English texts posted on the Internet during their search for information helped facilitate their learning in the content area and their acquisition of the English language such as structural patterns and vocabulary through contextual multimedia presentation, e.g. pictures and animations. Furthermore, from reading those Web sites and encountering the difficulties that they encountered during their data collection, they learned reading-writing strategies and tools that enhanced their comprehension of their WWW projects e.g. applications of outlining, proofreading, text-revising, use of clarifications for technical terms, and glossary.

Another interesting type of Web project is bi-lingual Web pages. Warschauer and Meskill (2000) discussed advantages of intermediate learners of Polish at Stanford University and a group of students in Poland gained in planning to co-construct a bilingual Web site about their two universities. Learners needed to set a plan, design their Web pages and learn to write in their target languages, Polish and English, from one another. Another interesting bilingual Web site was constructed in Chinese and English by a university of Hong Kong (Fan and Xunfeng, 2002). Its aim was to enable university undergraduates majoring in translation to learn legal English from the bilingual Web site. The researchers applied two comprehension tasks, a questionnaire and a follow-up interview to investigate two main points: 1) students' perception of whether switching between texts of the two languages would be helpful for their comprehension of legal matters and English for law, 2) difficulties found in the tasks. Students reported that they found the English-Chinese Web site useful for their autonomous learning of legal English. However, analysis of students' comprehension tasks revealed that some complex legal sentences were still problematic for them e.g. a three co-ordinate clause sentence with different subjects. In addition to problems at the sentence level, their lack of legal knowledge also contributed to difficulties in comprehension.

Concerns about using Web sites

Technological Problems

Sometimes the network is down. Sometimes the cyber traffic is very heavy and it takes great amount of time to access information. Also attacks of virus or worms become a most annoying problem and it is easy to get infected with them when downloading information or opening email. Internet users, thus, should be well-aware of the spam/virus problem by getting up-to-date information and upgrading their anti-virus program.

Plagiarism

One concern about the WWW is the problem of plagiarism, students' using 'copied & pasted' information without giving credit to the original source and passing it off as their own. The problem is often found in the academic writing of non-native speakers and is treated as illegal. Bloch (2001) suggested that the teacher explain to learners the concept of plagiarism and instruct them to quote the information they need or paraphrase it in their own words and cite the source.

Pornography Web Sites

It is claimed that the growth rate of the Internet in Thailand has quadrupled. What does the growth mean? Does it mean that more access to Web sites nurtures Thai Web surfers' intellects, morals, or capabilities to expand their own boundaries? Is there any concrete evidence of any of such growth? According to a survey in Bangkok in 2001, an increasing number of Thai adolescents were accessing the Internet. Nonetheless, over 60% of respondents stated that they visited Porn Web sites. Indeed, an educational institution rejected student's requests to subscribe to an online database, contending that subscription was not worth-investing because from their records of Internet use, most students accessed XXX Web sites.

Computer-Mediated Communications (CMC)

Computer-mediated communications (CMC) refer to interactions between or among interlocutors via the computer. CMC differs from face-to-face in many ways. Interactions via CMC can be synchronous, e.g. chat (written or spoken), video-conferencing, or asynchronous, e.g. emailing, Web boards (platforms where participants can read, and interact with messages posted to the public e.g. Dave's ESL Caf_), listserv (a platform where list members post their messages to all members who share the same interest). Interconnectivity can be one-to-one, one-to-many, and many-to-many communications. Its language forms can be written or spoken.

Asynchronous Mode

Studies of application of asynchronous CMC in the second/foreign language classroom showed positive effects on language learning among learners within or across geographical boundaries (Warschauer, 1996; Gonzalez-Bueno, 1998; Ho, 2000; Lee, 2000; Kanchana Prapphal, 2000; Pornsiri Muangsamai, 2003). Learners found communication in the CMC environment a natural one for expressing themselves in the target language. It served as a comfort zone where learners, including reticent ones, felt comfortable to process their thoughts, organize their ideas, write messages and revise them as many times as they wanted before sending them to their real audience (Warschauer, 1996; Gonzalez-Bueno, 1998; Liaw, 1998; Belcher, 1999; Liaw and Johnson, 2001; Pornsiri Muangsamai, 2003). St. John and Cash (1995) presented their finding of a learner's German language development through email exchange with his German key pal. With his friend's messages that he saved and retrieved for his revisions, he could review lexical items, idioms and syntactic elements. He could reduce errors found in his earlier emails in his later messages.

In the listserv environment, Pornsiri Muangsamai (2003) found that pre-medical students' writing in the target language developed in terms of syntactic complexity, length of production and reduction of errors. The study also revealed that the class listserv discussion provided the students with opportunities to learn from their peers how to express some ideas that they found too complex to put them into English. They also stated that discussing issues such as medical ethics, exchanging opinions and sharing information as well as direct and indirect experience could broaden their views of real current events in the world of medicine. They could learn to look at alternative ideas from other angles instead of sticking with their own beliefs. Also, posting messages to the listserv enabled learners to compare their writing with others and to improve their skills and experiment with vocabulary and structures used by peers in their writings to make them readable and beneficial for their audience. This study revealed that English learning could be an integral part of the field of study.

Despite these advantages, there are some concerns about application of asynchronous modes as well. A problem reported in one study is loss of delay of messages, especially if the listserv is connected with popular online discussion group providers such as Yahoo (Pornsiri Muangsamai, 2003). The teacher may need to consider using the listserv established within his/her educational institute so that he/she can consult with its experts once a problem emerges. During discussion on the listserv, flaming, i.e. verbal attacks against each other in the listserv, may occur (Warschauer and Lepeintre, 1997). Another problem may be empowerment in the context where students with better computer skills, language proficiency, or aggressive or impolite traits occupy the floor of discussions or offend other list members (Warschauer, 1996). It is the teacher's role to keep track of online discussion, facilitate the learning process, or intervene in order to prevent stress or undesired actions in the listserv.

Synchronous Mode

Communication in the synchronous mode is unique in that it reflects features of both writing and speech (Warschauer, 1999). The form of writing is realized with messages type-written into the computer while that of speech is seen in its interaction in a real-time sense as oral communication. Interlocutors communicate by reading and writing promptly. At present, little is known about application of real time chat through the Internet. One study which is being conducted is observing how Korean females studying in an American educational

institution interact with others via Hotmail MSN with foci on the issues of gender, technology, culture and language use. Another on-going study is that on tutoring on paper or document writing via Yahoo. The tutor and the writer of the paper will log on at the same time to discuss quality of English writing in an area(s) requested by the tutee e.g. grammar, coherence, text organization and word use. This study looks at the practicality of online tutoring to improve academic writing.

Other studies on use of synchronous chat investigated application of Local Area Network (LAN) or software such as Interchange or Daedalus which allowed all students to interact with one another simultaneously and permitted all to see responses of the whole class in a window of their computer monitors. Research has been conducted to compare synchronous communication and face-to-face conversation (FtF). When compared to FtF, interaction in the synchronous mode enhances second/foreign language learners' ability to interrelate form and meaning since their messages are recorded in writing. They can observe the structure of incoming messages while being able to retrieve earlier texts, check for vocabulary from a dictionary, or consult a friend to establish communication flow (Warschauer, 1999). In his study, Kern (1995) found increased language production of learners in the digital mode i.e. a greater level of morphosyntactic sophistication and a wider variety of discourse functions. Braine (2001) compared the quality and improvement of the first and the last drafts of English compositions of two groups of Chinese undergraduates in a university in Hong Kong. One group gave writing feedback to their peers in the LAN environment while the other group discussed feedback FTF. The researcher found that feedback from the LAN setting was disjointed, sporadic, scattered, and less organized whereas in the traditional writing class, there were turn-takings among group members and their feedback was thoughtful, narrative and holistic. Braine explained that in the LAN environment, learners posted their messages very quickly and simultaneously without turn takings. Their messages might have appeared on the monitor in disorder. That might have confused group members because it was difficult to understand who was responding to whom. Let me illustrate the point of the confusion with an unedited excerpt of chat between a teacher and a student shown below:

Student:

archarn krub I need to know about how can I get to the full aticle of many journal related to Medicine

Student:

i know I must pay for

Teacher:

well, actually, let me see.

Teacher:

I asked a friend of mine about the online database this morning.

Student:

But I think about... I may access to them if I find out something (some full articles online) before (I must pay).

Student:

and?

Teacher:

I will search for info for you if you like.

Teacher:

If you want to search for the info yourself, maybe you can go to KU library Web page and then, click at a link to the office of University Affairs.

Teacher:

If I can reach any full articles of medicine, I'll let you know as well.

Teacher:

How does that sound?

The italicized part shows disrupted strings of utterances. It was not a response to the earlier messages of the teacher. This indicated that perhaps the student, when typing the italicized message, was still occupied with his typing or his idea of accessing full articles without noticing what his interlocutor was saying. After he had realized what the teacher had written, he sent the following message “and?” to invite the teacher to continue. Obviously, though, this chat involved just

two persons, message disruption occurred. In Braine's study of a group of four or five students, the problem was inevitable and without turn-takings, their messages would be far more confusing than in the example above. Since discussion group members in the LAN environment could not understand their peers' feedback well enough, they could not improve their writing.

Abrams (2001) compared the German language used in two environments, namely, synchronous CMC and group journal writing. Two pieces of assignments were given for students to interact on two of five topics and their peers' messages. Students' texts were analyzed and the findings revealed both similar and different roles of writers. Both types of texts contained the common features which reflected the authors' roles as speakers, scolders, respondents, commentators, informants, questioners and knowers. They were different in the roles of attackers, supporters, jokers, and challengers. The conclusion of the study was that CMC promoted a wider array of interlocutors' roles that resembled authentic interactive situations, the benefit of which was to prepare students to engage themselves in communicating in real contexts.

Concerns about using CMC

In implementing a language class with CMC, we may need to consider:

- 1) The number of learners to engage in the selected activity should be appropriate so that all have opportunities to interact equally and comfortably.
- 2) Topics for discussion or email exchange should be of current issues of students' interests. They should also be able to elicit differences of opinion among participants.
- 3) In the context where all participants share their first language, it may be a good idea to invite a native speaker of the target language to join the activity. The teacher may observe and select learners' language problems for later explanation in class or display on the course Web site.

Conclusion

The literature of CMC and second/foreign language teaching shows both the strengths and the weaknesses of integrating the Internet in language learning activities. Strong points indicated by literature are: heightening motivation, promoting authentic use of second/foreign languages for communication with real

promoting authentic use of second/foreign languages for communication with real audience, enhancing roles of interlocutors, developing critical thinking, writing and vocabulary, pushing boundary limits, establishing multiple information source investigation skills, setting up a collaborative and individualized learning communities. On the other hand, points to be concerned about are quantity and quality of Web sites to be used for teaching and learning, or learners' being overwhelmed by excessive numbers of email messages.

In order to use any application, WWW or CMC, we may need to ask ourselves if we are ready. Questions may be: What Internet activities do we want to integrate into our class? What purposes will they serve? How will they be integrated into the course to achieve goals? Do we have the tools we want to use? How much should we know about how to operate it? Lee (2000) emphasized, "though Internet-based activities can potentially energize the ESL (English as a second language) or EFL (English as a foreign language) classroom, this potential may not be achieved. If the teacher does not clearly set the goals and strategies of the activities, students may lose interest, learn little, or both."

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