Electronic Tools for English Language Education
(with a special view to English for Specific Purposes)

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SUMMARY

Almost simultaneously with the developments in information technology over the past fifteen to twenty years, literacy has gained new dimensions. To be considered literate in our age demands functional, academic, critical and technological skills. Because language and technology are inseparable in this context, technology as a means for developing literacy skills must be an integral part of the language class.

This paper examines some of the ways electronic tools can be of use in developing student language literacy competences, with a special emphasis on the benefits learners of English for Specific Purposes can reap.

INTRODUCTION

Information technology is rapidly posing itself as a new medium of communication and cognition in a revolutionary way that can only be matched in significance by the prior revolutions of writing and print (Harnad, 1991). Information technology impacts the way people interact, access and share information, as greatly as the Gutenberg revolution 500 years ago. In contrast, the development of modern information technology is occuring simultaneously with the development of globalisation, thus ensuring that the impact on literacy and communication techniques happens much more quickly. The space and pace of the flow of information has introduced a culture of *real virtuality* which is characterised by *timeless time* and *placeless place* (Castells, 1996). Everything that is on-line is immediately accessible, everything that is outside the network is infinitely far away and, as such, might find itself limited in its potential impact on the cultural, economic or academic environments of the world.

LITERACY IN THE INFORMATION AGE

With the development of computer-mediated communication, the definition of literacy has gained broader dimensions (Murray, 1991). The ability to use new technologies to access, adapt and make intelligent use of information and knowledge is by now viewed as an additional and essential component of literacy. The New London Group (1996) uses the term *"multiliteracies"* to describe this broader set of literacies, and holds that today's interpretation of literacy must incorporate the communication that takes place through a growing variety of text forms associated with information and multimedia technologies.

Information technology is becoming a basic and crucial tool for building the skills and literacies required for success in academic and workforce environments. The worldwide communication of information, at the same time, calls for the need of a "lingua franca", a language common to all those using the arsenal of information technology. By now, the English language has gained a position around the world that has turned it into a global "lingua franca" for economic and scientific exchange. In his research, Crystal (1997) found that 85% of international organisations make official use of English and some 90% of academic publications are written in English. According to demographic projections, the relative number of English native speakers will decrease compared to the population of the world, while the number of speakers of English as an additional *"communicational" language* will rapidly increase. The spread of the Internet will allow a growing number of people to read, write, speak and listen to English. It is important to note in this context that the increased global contact brought about in the new network society places the priority on the ability to *communicate* in a lingua franca, rather than on achieving native-like perfection in the language use. In other words, the emphasis is put on the communicative approach, which posits that the goals of foreign language learning and teaching are 1.) to communicate appropriately with native speakers of the language, 2.) to get to understand others and 3.) to get oneself understood in the process (Kramsch, 1993).

However, depending on the type of job and work requirements, people need different levels of communicative language skills, ranging *from pure functional skills to diversified and sophisticated language proficiency* that enable them to write persuasively, critically interpret and analyse information in English and creatively carry out complex negotiations and collaboration in English (Warschauer, 1998).

The spread of English thus privileges certain groups of people, especially those who possess a *combination of language mastery and information-based knowledge*, and may harm others who have less opportunity to acquire them. All in all, English langue competence, especially when paired with competence in technology, can be viewed as a carrier of inequality between people, which, in turn, must urge educators to tailor their pedagogy to fit to help the handicapped.

COMPUTERS IN LANGUAGE INSTRUCTION

Technology has the potential to play a major role in foreign language learning and instruction. Since it is fast becoming a basic instrument for building the literacies required for success in academic and workforce environments, used as a *tool for literacy*, information technology needs to become a *critical component of English language courses.*

Not questioning the key significance of technology in language instruction and acquisition, though, Warschauer (1997) suggests that computers should not be treated as an isolated case, to be handled in special language laboratories, much rather they should ideally be *integrated into the process of language education.*

1. For many years, language instuctors used computers to provide *supplemental exercises,* then basic *drill-and-practice software programs* began to dominate the language classes. These programs focused on vocabulary and on certain "drillable" grammar points.

2. While reinforcing the grammar and vocabulary, their modern developments offer *interactive, simulation programs* that present students with real-life situations in which they learn about the culture of the country, very often in a *task-based format.* These programs can provide immediate feedback to students and students can work at an individualised pace. Software can be designed to include *sound, graphics, video and animation.* Moreover, information is presented in a *non-linear sequence* enabling students to select the exercises or concepts they wish to review.

3. *Authoring programs* give teachers a high degree of flexibility in designing simple or elaborate software programs using their own materials.

4. *Template programs,* such as Choicemaster or Storyboard from Eurocentres Software, provide teachers with the basic structure for a program into which they can put their own exercises.

5. *Compact disk technology* has many uses in the language classroom, including *information retrieval, interactive audio, and interactive multimedia programs.* A recent advance in CD technology is the development of the *CD-I* (compact disk-interactive), which includes *digitised sound, compressed video, animation* and text to create a multimedia platform for interactive programs.

THE INTERNET AS A TOOL FOR LANGUAGE TEACHING

Of the variety of advanced electronic tools, the Internet has a specific *potential for promoting the acquisition of linguistic skills and the creative construction of knowledge* (Warschauer, 1998).

It is no wonder that over the past few years, the Internet has emerged as the most prominent new technology for educational use. Due to the environment and context in which information appears, it has a *special significance in teaching English for Specific Purposes*. The Internet is a network of thousands of computer networks (Lewis, 1994) from various sectors of society such as education, science, business, government, military and others. Each individual system brings something different to the whole, and the end result is a vast accumulation of information. For students of English, the key instructional benefit results from the hypermedia and interactive format of the Internet. Since information is presented through text, sound and graphics, comprehension is facilitated and learning consolidated. In this way, the Internet becomes an ideal instructional *resource for teaching a wide range of language skills and contents in an integrated manner.*

A specific feature of the Internet is electronic mail (e-mail). When used creatively, e-mail can encourage students to use computers in realistic, authentic situations to *develop communicative and thinking skills*. In the assessment of the results of her research, Kroonenberg (1995) concludes that writing on e-mail can be used to generate ideas about a topic, *improving thereby functional writing skills and peer interaction.*

E-mail networks can have a *"free-writing"* format or can be *organised around a selected content area*, either way, the impetus the exercise gives to the students to *develop their creative language skills and content knowleddg*e is significant: by stimulating communication, the exercises assist students in *developing such specific communication skills as arguing, persuading or defending a particular point.*

The World Wide Web as a virtual library is an immense pool of information readily available to the language learner, offering numerous benefits to both language learners and instructors.

In his illuminating essay on the multifunctional use of the Web in language teaching, Mark Warschauer (1998), a most prominent academician and author of many valuable books on language teaching and information technology, describes his own experience as a learner of the Hawaiian language, of which he gives a brief theoretical evaluation from the point of view of a teacher.

Warschauer *the learner* writes:

"During oral class discussion, it is not infrequent that I become lost, and thus receive no benefit. However, during computer-mediated discussion, no matter how complex, I can always reread sentences, take out my dictionary, ask questions … - in other words, find some way to make the input comprehensible and thus benefit from it."

"In my own experiences of using electronic communication to learn Hawaiian, I often noticed words on the screen that were so common but which I had never 'caught' before in oral conservation. After I noticed them the first time in writing, I was

able to try them out, and I also noticed them regularly from then on both orally and in writing."

Warschauer, the *teacher-academician* assumes that the increased efficiency of the input side will, naturally, enhance the quality of the output. Improved output is first of all shown by the increase in accuracy, which in his view "is supposedly because output raises students' consciousness by helping them notice the gap between what they can say and what they want to say, ….".

He can also see some other reasons why computer-mediated language learning can prove to be more successful than face-to-face interaction. Of those, lower exposure to stress involved in computer-mediated interaction and increased planning time are most likely to be the reason for improved efficiency. As for the latter, the indisputable advantages of computer-mediated interaction is that it can take place without interruption by other speakers and that it allows each participant to act and communicate at their own ease and pace.

Language teachers will certainly agree that one of the most essential priorities of language teaching is that of the study of the *language in a cultural context*. Indeed, language and culture are inseparable, understanding the culture of the target language enhances understanding of the language, and vice versa. In this respect, the Internet is a valuable source of current information from around the world, students can read hot news in the target language from the target country, which gives them to understand how cultural setting affects one's view of the world.

None the less valuable is the benefit learners and teachers can gain from accessing specific *content area sites* where they can retrieve specific information and also publish in the realms of arts, sciences or politics in the target language. Besides being a source of information, the Internet thus can also be used as a *platform for students' creativity*: by publishing on the Internet, they can also generate content.

Students can use the Internet to find information and expand knowledge on topics contained within each of the disciplines they study and on topics within their specific interests. It also provides them with readily available cross-references, thereby encouraging the *development of their critical thinking* (Willett, 1997).

The above discussed variety of issues revealing the benefits of computer-mediated language instruction and learning casts light on their *potentials for building literacy skills,* notably functional, academic and critical skills (Kasper, 2000):

- Functional literacy involves the ability to function effectively as a member of the communinty and to be able to use language skills for personal and community development (Graney, 1994).
- Academic literacy shows the ways of knowing particular content, and offers strategies for understanding, discussing, organising and producing texts (Johns, 1997).

- Critical literacy refers to the ability to locate, evaluate and use information in a way that is appropriate to the task at hand (Mather, 1996).

Meaningful use of the Internet encourages students to apply previous knowledge and critical reflection to new learning contexts, which helps them to develop functional, academic, critical and technological literacies. When they access electronic texts and are asked to extract, question, evaluate and respond, they are, actually, doing *reading and writing as integrated modes of learning,* which allows them to develop critical literacy skills necessary for *analysis, synthesis and creative expression of knowledge*, all *integrated in some subject area*. Having the Internet as a tool of mediation, students, at the same time, develop the technological literacy they will need to meet the requirements of the academic and/or workforce environments of the 21st century.

The Internet helps to develop reading and writing skills by providing ready access to a wide range of information resources that might otherwise be unavailable to language learners. Because the language of the Internet is English, at the click of a mouse the students have *access to a diverse collection of authentic English language texts* dealing with a wide selection of interdisciplinary topics. While encountering these resources, the students can familiarise a wide range of texts, formats and conventions, which provides them with raw materials for various *modes of written communication.*

If, at an advanced stage, the students are asked to *produce research papers* on the basis of the information they have retrieved from the Internet, it will require them to present that information in a form appropriate to the discipline, and cite the sources used. The *academic research skills* needed to accomplish the task are quite often underdeveloped with language learners, which can be due to several reasons. Quite often they fail to identify the right resources, which is because, unlike a real library, the Internet often lacks organisation and also contains a good deal of inaccurate and unreliable information. The students, therefore, must *develop strong critical literacy skills*, they must learn how to navigate through, and then *evaluate the information* presented there.

A successful Internet search is useful in developing both functional literacy and critical thinking skills, because it is more than simply finding information. It also requires the use of critical reading skills such as predicting content, categorising, guessing meaning from context, skimming and scanning. Leipentre and Stephan (1995) believe that as students navigate through the sea of information on the Internet, they unconsciously practice these critical reading skills. To guide their search and to help make them aware of the critical reading skills being used, Leipentre and Stephan recommend giving students a set of questions to direct them to specific URLs and ask them to provide information on their search

procedures and on the content of the Internet sites accessed. To guide them in determining whether the source is reliable and credible, students may be given another set of questions that asks them to consider factors like the source and timeframe of the information.

Becoming critically literate on the Internet requires learning to use *search engines, Web browsers,* facilitate the location and retrieval of documents from the Internet, assigning a specific *URL* to each web page. *Meta-sites* help to bring order out of the Internet chaos by providing well-organised *hyperlinks* divided into clearly labeled categories (Harvey, 1998).

CONCLUSION

Without a doubt, we are in the middle of a monumental technological paradigm shift, one which will eventually change the way instructors teach and the students learn. While technology should not take over the language classroom, it must be incorporated in it in a natural and meaningful way. Electronic tools must be used to design instructional models that strengthen students' of English language competences and literacy skills while actively involving them in developing a strong interdisciplinary base of content knowledge.

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