**Chapter XIX**

# L2 Digital Literacy in English
# in Second Language Acquisition in Korea:
# Experiences, Research and Prognosis

## Abstract

*While digital resources play an increasingly significant ancillary role in Second Language Acquisition (SLA), Korean learners of English are typically provided with comparatively little deliberate classroom instruction in Second Language (L2) Digital Literacy in English.*

*Although teachers use computers outside the classroom for preparation and administration, and sometimes in class for audiovisual presentation, student computer usage for SLA purposes is minimal, the most widespread use (as I elsewhere survey) being the use of bilingual electronic dictionaries. Student uses outside the classroom are governed by the nature of tasks set and by teacher expectations for students to use digital resources in their SLA. If teachers do not specifically encourage student use of computers in English, this will not likely spontaneously occur.*

*Institutional recognition of the importance of L2 digital literacy to SLA is thus limited. Widespread support for the use of computers and digital resources by Korean students in their general education does not extend to the EFL context, particularly for native-English teacher classes, for example to the provision of computer labs.*

*But three important factors impact contemporary SLA, though their import is not well recognized. Firstly, as Graddol has shown, the predominant use of English by non-native speakers is in communication with other non-native speakers, and not - as one might expect - with native speakers, a situation particularly pronounced in Korea. International conferences held here are usually either bilingual in Korean and English, or monolingual in English, recognizing its de facto lingua franca status as a global academic language. Most conference participants are non-native speakers of English, who use English to communicate with one another.*

*Secondly, the emergence of English as a global language has meant that the considerable predominance of desired online resources and discourse is in English.*

*Thirdly, as I elsewhere draw attention to, we are fast approaching a critical threshold where the majority of interpersonal communications are computer-mediated, rather than face-to-face. There is widespread use of the Internet, cell phones, SMS, instant messaging, email, bulletin boards, chat groups, VOIP, video-conferencing, telephony, fax etc. As population densities rise, transportation costs increase, computer-mediated communications improve in accessibility, convenience and quality while becoming cheaper, and expectations for the use of digital communication rise, the trend from face-to-face to computer-mediated interpersonal communication will likely accelerate.*

*These three factors indicate that the predominant use of English by non-native speakers will be firstly in navigating through English language digital resources, and in locating, editing, contributing to, and publishing online content in English; and secondly in computer-mediated communication with other speakers of English, the majority of whom will also be non-native.*

*Both these envisaged predominant uses of English by non-native speakers are digital (computer-based). This has profound implications for SLA, and specifically for Korean learners of English: in Korean EFL we should nurture and develop L2 Digital Literacy in English, which is critically important to student development. It would be wise therefore for us to be proactive in revisioning the use of English-language digital resources and the teaching and learning of English-language digital skills both within and outside the Korean classroom.*

## 1. Introduction

*"Digital literacy is the ability to understand information and - more important - to evaluate and integrate information in multiple formats that the computer can deliver. Being able to evaluate and interpret information is critical… you can't understand information you find on the Internet without evaluating its sources and placing it in context." - Paul Glister.*

*"…the uniqueness of this new [digital] literacy requires special skills, which should be systematically addressed in L2 instruction." - James N. Davis.*

While in Korea digital resources play a significant supportive role in the Second Language Acquisition (SLA) of Korean learners of English (KLOE), little attention appears to have been given to the deliberate instruction of these students in Second Language (L2) Digital Literacy in English.

Many native English instructors use computers outside the classroom to research material and locate online resources, to prepare classes, and for administrative purposes including grade and attendance records. The teacher may sometimes use a single computer in class to present YouTube video extracts, PowerPoint presentations and similar audiovisual material.

My observations and surveys each semester on the use of digital resources [1, 2] suggest that student computer usage for SLA purposes is likely to be minimal. The most widespread use is the use of bilingual electronic dictionaries, whether dedicated (stand-alone), cell phone-based, or online. The occasional student may sometimes bring a notebook computer to class; some students may use computers outside class to prepare SLA assignments for submission, and a few students may use computers to research resources for SLA purposes. But in general, the degree of such uses will likely be governed by the nature of tasks set by the native English teacher and by native English teacher expectations and requirements for students to use digital resources in their SLA [3]. Therefore, if the teacher does not specifically encourage or require students to use computers using their English, this is not likely to spontaneously occur.

Institutional recognition of the importance of L2 digital literacy to SLA within Korea, in my experience, is also minimal. Whilst there is widespread support for the use of computers and digital resources by Korean students in their general education, this does not usually extend to the SLA context. For example, in my private university (in Seoul), a grand total of 3 computers and one printer service about 30 full- and part-time native teachers, and that sole printer cannot be wirelessly networked. While Wifi networking and Overhead Projectors are provided in the classrooms, most classrooms are not furnished with a teacher's computer (though teachers' notebooks can be borrowed). Computer labs where instruction may take place are quite limited (notwithstanding the outstanding support of computer technicians), with only a few available labs (of 60 odd computers each) able to seat typical class sizes of about 25 (between 15 and 35). (In contrast, in Japan for example, Professor Hiroyuki Obari is using CCS, the Cyber Campus learning management system developed by eLPCO (the Research Center for e-Learning Professional Competency) to integrate e-learning and m-learning to foster autonomous EFL learning [4]. IT-related teaching materials and tools are used, such as Prontest software, CASEC computer-based English testing (which correlates well with TOEIC), and Hatsuon Ryoku software to train English pronunciation and listening, together with the Internet, PCs, the iTouch, the iPod, and mobile phones.)

But three factors impact greatly on contemporary SLA, though their import is poorly recognized:

Firstly, as Graddol has shown [5], the predominant use of English by non-native speakers will increasingly be in communication with other non-native speakers - and not with native speakers as one might expect. This characteristic is particularly pronounced in East Asia. In Korea, many Korean students of English complain that the opportunities for them to use and develop their English skills with native English speakers are highly limited, and in many cases virtually nonexistent (while in Japan, Professor Obari advises Japanese students of English express similar frustrations). At the same time, international conferences held here in Korea are either bilingual in Korean and English, as for this series of World Congresses [6], or quite often in monolingual English (e.g. SERSC-organized conferences including FGIT, and conferences in Convergence Technologies and in Applied Linguistics I have attended, which include ICHIT, ICCIT, IPC, MUE, SICOLI, KATE, KAMALL-APAMALL etc.), recognizing the de facto lingua franca status of English as a global and academic language. In these international conferences held in Korea, I have observed that the tendency is for most participants to be non-native speakers of English - but they choose (and quite often need) to use English to communicate with one another.

Secondly, notwithstanding Graddol's recognition that substantial quantities of knowledge are being made available online in native languages other than English [7], the overwhelming emergence of English as a global language has meant that the great predominance of desired online resources and discourse is in English. For example, while Wikipedia in English has at the time of writing 2,810,453 content pages [8], Wikipedia in Korean has 93,194 content pages [9], a proportion of over 30:1.

Thirdly, as I have elsewhere intuited and drawn attention to [10], I believe that we are fast approaching a critical threshold where we begin to fully realize and appreciate that the majority of interpersonal communications are computer-mediated, rather than face-to-face. With time, this will come to be regarded as normal. The shift in interpersonal communication patterns is already becoming evident in the widespread use of cell phones, SMS, instant messaging, email, bulletin board chat groups, VOIP such as Skype, video-conferencing, fax etc. It is also evident in the long hours students devote to such online activities as computer gaming, chatting, social networking and online shopping. This trend - from face-to-face to computer-mediated interpersonal communication - will only likely continue, as population densities continue to rise, transportation costs - financial, temporal and ecological - continue to increase, computer-mediated communications continue to improve in accessibility, convenience and quality while becoming cheaper, and expectations for the use of digital communication continue to rise.

Taken together, these three factors indicate that the predominant use of English by non-native speakers is likely to be:

- in navigating through English language digital resources such as web-pages, locating desired information, editing that information and contributing to it (e.g. Wikipedia), and publishing online content in English; and
- in computer-mediated communication with other speakers of English, the majority of whom will likely also be non-native.

The fact that both of these envisaged predominant uses of English by non-native speakers are digital (i.e. computer-mediated) is further evidence of technological convergence, and has profound implications world-wide for SLA in general, and in Korea for the SLA of Korean learners of English in particular.

The implications - particularly here in Korea - are that in the field of EFL/ESL we should be intentionally nurturing and developing L2 Digital Literacy in English. The EFL community in Korea needs to recognize the critical importance of non-native English digital literacy to student development, and be proactive in deliberately revisioning the use of digital resources and the teaching and learning of digital literacy skills within and outside the classroom.

## 2.  What is meant by Literacy?

**Literacy** is defined by the Chambers English Dictionary as *'the condition of being literate',* and **literate** as *'learned; able to read and write; having a competence in or with'.* David Bawden, in reviewing concepts of information and digital literacies, suggests that while the term and the various concepts it describes have had a variety of meanings, which considerably alter over time, these dictionary definitions suggest three concepts of literacy: a simple ability to read and write; having some skill or competency; and an element of learning [11]. An informal definition would be that a literate person is able to read, write and understand his or her native language; but literacy, McGarry points out, is a relative concept [12]; and further, has always had a dual nature, so that *"the concept of literacy goes beyond simply being able to read, but has always meant the ability to read with meaning and to understand. It is the fundamental act of cognition"* [13]. Clifford suggests Literacy is conceived as a continuum, which extends to such language learning behaviors as logical thinking, higher order cognitive skills, and reasoning [14]. More recently, it has taken on the more prosaic meaning of competence, of being able to make effective use of information gained from written material, so that to paraphrase Bawden, Literacy:

- now embodies the general ability to understand and perform functions successfully, beyond basic reading and writing;
- means having the skills the individual needs to make the connection to the information necessary to survive in society;
- integrates listening, speaking, reading, writing, and critical thinking;
- incorporates numeracy;
- includes a cultural knowledge enabling a speaker, writer or reader to recognize and use language appropriate to different social situations;
- has the goal of an active literacy that allows people to use language to enhance their capacity to think, create and question, in order to participate effectively in an advanced technological society;

- is demonstrated competence in communication skills that enables the individual, appropriate to his or her age, to function independently in society with a potential for movement in society; and
- means an individual's ability to read, write and speak English, and to compute and solve problems at proficiency levels necessary to function on the job and in society, achieve his or her goals, and develop his or her knowledge and potential [15].

## 3. What is meant by Digital Literacy?

Bawden observes that Digital Literacy was used initially in the 1990s to refer to an ability to read and understand hypertextual and multimedia texts. The concept was widely popularized by Gilster, who defines digital literacy as *'the ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers'*, and further observes that *'digital literacy is about mastering ideas, not keystrokes'* [16]. Digital literacy extends the boundaries of definition, and includes the acquisition of skills of finding things, and the ability of using these things in one's life. A fundamental aspect is the appreciation of the two-fold nature of the Internet, which allows the user to interact, communicate and publish, as well as to access information [17]. Other forms of input also exist, the Internet being just one among many sources of ideas in a technological society, and digital literacy involves understanding how to support traditional forms of content with networking tools. Knowledge assembly, a core component of digital literacy, requires evidence from multiple sources; while acquiring digital literacy for the Internet requires mastering a set of core competencies which, to paraphrase Bawden, include:

- the ability to make informed judgments about what is found online, which equates to the art of critical thinking;
- in particular, making a balanced assessment by distinguishing between content and presentation;
- skills of reading and understanding in a dynamic and non-sequential hypertext environment;
- knowledge assembly skills;
- building a reliable information horde from diverse sources, by being able to collect and evaluate fact and opinion, without bias;
- searching skills, particularly those based on Internet search engines;
- managing the flow of multimedia, using information filters and agents;
- creating a personal information strategy, with selection of sources and delivery mechanisms;
- an awareness of other people and an expanded ability to contact them through networks to discuss issues and get help;
- being able to understand a problem and develop a set of questions that will solve that information need;
- an understanding of backing up traditional forms of content with networked tools; and
- being wary in judging validity and completeness of material referenced by hypertext links [18].

For Eshet-Alkalai, digital literacy *"…involves more than the mere ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological, and emotional skills, which users need to function effectively in digital environments"* [19]. Eshet-Alkalai and Amichai-Hamburger's conceptual model [20] suggests that digital literacy skills are mainly *photo-visual* (reading instructions on VDUs) and *branching* (non-linear hypertextual navigation to construct knowledge) - both of which younger participants perform better at; *reproductional* (creating meaningful new digital materials from preexisting ones) and *informational* (evaluating its quality and validity) - both of which older participants perform better at; and *socio-emotional* (understanding rules that apply in cyberspace and applying them in cyberspace communication).

A personal example may clarify what I include in notions of digital literacy. Recently I have needed to create a new website for my research institute, the Institute of Traditional Studies; until now, this has been created in Homepage, and published through dotMac. As Homepage is being discontinued, I face the task of recreating and renewing the institute homepage using iWeb, which software is quite different from Homepage, and with which I am not at all familiar. The rather limited help file did not address a specific problem I faced, of how to create downloadable links for PDF files of my papers, a task that was quite easy to accomplish in Homepage. I then did a Google search using the terms < iweb download pdf >. The top search result gave the answer in a MacRumors Forum [21], enabling a solution to be very quickly found. Knowing in this context to use the Google search engine, together with the selection of appropriate search terms, is an example of digital literacy in action (though alternative strategies - for example posting a question on a support forum - might well also have been as successful).

## 4. What is meant by L2 Digital Literacy in English?

More particularly, what is meant by L2 Digital Literacy in English? By this I simply mean the developing ability, confidence and readiness of non-native learners of English to use English as a Second or Foreign Language to access, navigate, comprehend and contribute meaningfully to English language online resources and the online discourse of the online community. For Korean learners of English, it means that Korean students develop the facility to confidently engage in the English language with the virtual information cloud/matrix that the Internet and other digital resources support. The goal in the foreign language classroom is therefore, as identified by Shetzer and Warschauer [22], and reinforced by Obari, Goda, Shimoyama and Kimura [23], *to utilize online learning as tools to encourage key learner autonomy*.

Davis, addressing issues missing from earlier research, such as the dimensions of interactivity afforded by new authoring tools for the Internet, and the possibility of engaging online collaborators in asynchronous and synchronous dialogues, reframes questions that have emerged from research-based enquiries into L2 reading and writing [24]. He shows how digitization blurs the distinction between reading and writing, as new communications technologies decenter texts, diminish the writer's authority, and subvert the prestige of print. He defines literacy as *'a semiotic toolkit for communicating and constructing knowledge',* and considers that the uniqueness of this new literacy requires special skills. These should be systematically addressed in L2 instruction - he argues that **L2 digital literacy should be taught just as L2 analog literacy has been** [25].

## 5. Conclusion

I take it as self-evident that there exist important skills of digital literacy - such as those van 't Hooft identifies of connection, collaboration and networking [26] - that in this context (i.e. in non-native English) are not simply subsets of general non-native L2 literacy in English. Prensky, in identifying the disjunction between Digital Immigrants and Digital Natives [27], has shown how skills in digital literacy are of a new and qualitatively different kind. Following Davis, I suggest these L2 digital literacy skills need to be identified, consciously taught, and intentionally facilitated in the SLA context.

Davitt, drawing attention to the fact that the lack of literacy, numeracy and language skills have been shown to be key factors contributing to economic disadvantage, high levels of unemployment and social exclusion across EU Member States, shows that digital literacy is clearly very important for employability, with many jobs requiring ICT skills [28]. Haase and Pratschke state that *"Digital inclusion is not only a factor of general ICT policy, but must now become a key element in social inclusion policy, as it is a factor of it"* [29]. Digital literacy therefore involves social, ICT and education policies. It is important to promote digital inclusion and bridge the digital divide as society moves increasingly towards a more computer- and web-based era. As in the EU case, Korea now needs to aggressively promote digital literacy skills, and in particular to directly teach L2 digital literacy skills in English, not only as a means of fostering digital inclusion in the global digital village, but also to increase employment activities, promote greater social inclusion, and improve the ICT skills of Koreans.

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If time permits, I will discuss in relation to some of my research certain tasks and classroom strategies that I have found useful in facilitating these skills in students - together with some of the potential problems that have arisen or that are likely to arise.

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