

Enabling Korean EFL Digital Literacy by Implementing Student Use of the iPad

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ABSTRACT

In future, the uses of English by non-native speakers will predominantly be online, firstly in using English language digital resources, and secondly in computer-mediated communication with other non-native speakers of English. That both of these uses are computer-mediated has profound implications for Korean learners of English. For Korea to be competitive in the global economy, its EFL should develop L2 Digital Literacy in English.

With its fast Internet connections, Korea is arguably the most wired nation on Earth; but ICT facilities in educational institutions need drastic reorganization. Opportunities for computer-mediated second language learning need to be vastly increased, particularly for native teacher English classes. Multimedia capable, mobile web solutions need to be provided that put the Internet into the hands of all students and teachers. Wi-Fi networked campuses already allow any campus space to act as a wireless classroom. A teacher's computer console with high-speed Internet access and OHP is required in every classroom. All students should be provided with adequate computing facilities, that are available anywhere, anytime. This has become feasible through providing every student on enrollment with a Wi-Fi+3G enabled Apple iPad.

Keywords

iPad, iPhone, iOS 4, Korea, EFL, ESL, L2, digital literacy, CALL.

1. INTRODUCTION

Digital resources play an increasing role in Second Language Acquisition (SLA), with more attention being given to intentional instruction in English as a Foreign Language (EFL) Digital Literacy (i.e. digital literacy in students' Second Language (L2) English). This is in part due to growing recognition of three key factors that have been identified in a number of recent papers [1, 2] as impacting contemporary SLA. Firstly, the predominant use of English by non-native speakers is increasingly in communication with other non-native speakers, rather than with native speakers.

Secondly, the emergence of English as a global language has meant that desired online resources and discourse are mainly in English. Thirdly, a critical and profoundly symbolic threshold is fast approaching whereby the majority of interpersonal communications world-wide will have become computer-mediated, rather than face-to-face.

As elsewhere argued [3, 4], these three factors indicate that the predominant use of English by non-native speakers will be firstly in navigating English language digital resources, in locating, editing, and contributing to online content in English; and secondly in computer-mediated communication with other non-native speakers of English. That both of these envisaged predominant uses of English by non-native speakers are computer-mediated has profound implications for SLA, and specifically for Korean learners of English. For Korea to be competitive in the global economy, we should in EFL nurture and develop L2 Digital Literacy in English. But how best to do this?

As Sutter observes, Korea enjoys an enviable status as the most wired nation on the planet, with the fastest Internet connections in the world [5]. But computer facilities in Korean educational institutions are currently in need of revisualization and drastic reorganization. In particular, the opportunities for computer-mediated second language learning need to be vastly increased, and this is particularly the case for native teacher English classes. Fixed desktop computer labs need to be replaced with the provision of multimedia capable, mobile web solutions that put the Internet firmly into the hands of all students and teachers.

Existing computer labs are mainly designed for and suited to class use in learning computer applications, where students do not interact with one another, but focus attention on their individual screen, with attention also paid to the teacher, and her OHP class screen. This arrangement interferes with and discourages face-to-face collaboration and networking, whether structured or unstructured, as would commonly take place in the work-place, and which is usual in L2 classrooms where pair and small group activities are commonly held, or where teacher-student and/or student-student interactions are often demonstrated to the class.

These existing fixed computer labs should therefore be complemented with a comprehensive ICT solution. This comprises Wi-Fi networked campuses that would allow just about any campus space to act as a wireless classroom, the provision of a teacher's computer console in almost every classroom with high-speed Internet access, OHP, and classroom printer, and the provision of systems that provide all students with adequate computing facilities, anywhere, anytime. This latter provision of

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almost ubiquitous computing, which previously has been impractical, is now feasible through providing each and every student, on enrollment, with a Wi-Fi+3G enabled Apple iPad (or similar tablet computing device), which could be used in tandem with students' privately owned iPhones, or other smartphones.

2. INTRODUCTION OF THE iPad

In January 2010, Apple announced the iPad tablet, featuring a 9.7-inch, 1024 x 768 display with 16-, 32-, and 64-GB capacities. The 13.4mm thin 0.68kg iPad is available in either Wi-Fi only, or in Wi-Fi+3G-capable models. At its release, Steve Jobs stated that the tablet puts the Internet into the hands of the public [6]. The iPad in Figure 1 below, designed for using fingers on a touch screen rather than with physical keyboard and mouse as with PCs, will likely revolutionize education. This will become particularly evident in language education, because of the integrated multimedia and telecommunications features that have particular application to language learning. I address the impact the iPad could have on Second Language Acquisition, through putting L2 English use of the Internet into the hands of Korean EFL learners.



Figure 1. The Apple iPad, with a few of the 140,000 apps available on the release date (courtesy www.apple.com)

In the US, Warschauer has consistently noted the increasing notion that is being given to mobile computer-mediated language learning, as American schools create one-to-one classroom environments through connecting laptops wirelessly to the Internet [7]. He argues that computers and the Internet are highly disruptive technologies that require extensive organizational restructuring and professional development for successful use [8]. Progressive universities such as the Abilene Christian University have for some years provided students with free iPhones, and integrated the iPhone into their curriculum [9]. Web apps are used to turn in homework, look up campus maps, watch lecture podcasts and check class schedules and grades [10]; and for classroom participation, polling software allows shy students to make choices without risking embarrassment. In 2008, Oklahoma Christian University made Apple hardware mandatory for incoming freshmen, providing MacBooks to incoming freshmen and faculty who attend a new student orientation [11]. At Francis Tuttle Technology Center [12], pilot projects using iPhones and Kindle e-readers are enabling administrators to weigh technical and financial considerations and students might even save up to 50 percent on the cost of textbooks by buying them electronically. Computer mobility is regarded as being key and critical to the future, providing ways to get people access to learning content, no matter where they are; iPhones and iPod touches are being evaluated for use by nursing students to carry medical reference books electronically instead of lugging 5kg books about the clinics. In 2009, all 550 of Aoyama Gakuin University's students, and some staff, received free iPhone 3G's, which are also used to track attendance by taking advantage of their inbuilt GPS [13].

Korea enjoys a high level of broadband Internet penetration, with extensive 3G coverage and a rapidly growing provision of free Wi-Fi hotspots (such as Starbucks, Lotteria etc.) Although many tertiary institutions already offer Wi-Fi networking, the use of computers in class is constrained: firstly, institutional computer facilities are limited, and demand, particularly at exam time, may exceed supply. Secondly, where computer labs are available, these tend to be desktop computers in fixed arrangements as in Figure 2 below, likely springing from dated administrative perceptions that computing is a special kind of education, separable from general education, that takes place statically, and primarily in individual relationship to a teacher. But fixed computer labs do not enable the flexible groupings of students that typically occur in EFL classes, where students frequently alternate between whole-class activities and diverse individual, paired and group tasks. While educational theorists such as van 't Hooft promote the importance to pedagogy of connection, collaboration and networking, the architecture of existing Korean educational computer facilities discourages hybrid online/face-to-face collaboration and the integration of computer-mediated learning with traditional learning that blended learning aims to achieve.

Thirdly, relatively few Korean students own laptop computers that they are willing to bring to class [14]. Fourthly, while smart phone usage in Korea is high, the small screen and keyboard size, limited applications and data cost limit their intentional use in class. Fifthly, many native English-speaking teachers, faced with administrative wariness towards innovation, tend towards caution in their approach to educational technology, and lack the skill sets necessary to successfully implement computer-mediated learning in their classrooms. This merely reflects the unenlightened and reactionary administrative policies of those who have yet to absorb the realities of Web 2.0+ thinking, as described in [4].

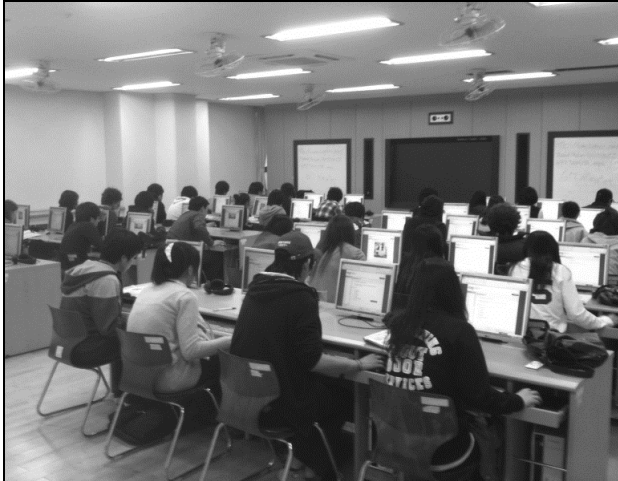


Figure 2. Fixed desktop computer labs inhibit face-to-face group collaboration, while encouraging cheating in online exams

But student adoption of new digital technologies is increasing exponentially and, as argued elsewhere [15], is affecting their expectations of how teaching and learning should occur. Simultaneously, EFL textbooks are merging with digital media [16]; and some teachers are integrating online placement and progress tests, and web-hosted Learning Management Systems, into their courses [17]. The relationship to digital media in the classroom is evolving from that of a precious Internet that can only be accessed as a specialized scarce resource, to that of the taken-for-granted Internet as constant companion. The iPad completely fits this new paradigm, as it popularizes it.

3. IMPLEMENTING EFL DIGITAL LITERACY

3.1 Using Existing Facilities to Encourage EFL Digital Literacy

Elsewhere [18], I recommend ways to encourage EFL student digital literacy in English, which recommendations were made within a cognitive framework of using existing facilities more creatively. In that paper, I encourage teachers to move from singular use of the traditional classroom to a more blended or hybrid form of education that combines traditional classroom instruction with computer-based language learning. Tasks can be computer-mediated, accomplished by students in their own time on computers in the university, at home, or in PC rooms, and submitted online. Classes can be held intermittently in existing computer labs.¹ Quizzes and exams can then be set online, to be conducted in existing computer labs, using Internet-hosted exam writing and management services,² but with care taken to allow

for potential student cheating,³ server outages and loss of data. Students can be encouraged to make more intensive use of online resources in the target L2 language, here English (e.g. using <http://www.google.com> and <http://wikipedia.org> in English). Teachers are advised to implement a computer-based Learning Management System, such as Moodle (see <http://moodle.org>) together with hosting services such as <http://ninehub.com>) and to force that LMS to use English only [19].⁴ These recommendations will help develop desired L2 digital literacy skills in English.

3.2 The iPad as a Comprehensive Solution

But the release of the Apple iPad and the iPhone OS 4.0 (renamed iOS 4 in early June) has provided a potential game-changer that will likely revolutionize education, and one which is particularly well suited to second language learning environments. As Jobs articulated in his iPad presentation [6], the key advantage provided by these developments is that they put computing and the Internet firmly into the hands of their users, who in this context are EFL/ESL students and their teachers. The Internet has emerged as a fast-developing powerful educational tool; but heretofore it has been regarded as something special, that needs to be accessed indirectly: one locates a computer, makes sure that it is connected to the Internet and is multimedia-capable, and then rather self-consciously works on the computer on the Internet. But the advent of mobile computing through smart phones like the iPhone, multitouch input, and increasingly portable laptops such as the MacBook Air, has signaled the transition to a new paradigm that the iPad fully recognizes and exploits: the Internet has already become something that is no longer special, but something that is taken for granted, that (conceptually) is always available anywhere, anytime. The stored wisdom, knowledge and experience of mankind is becoming immediately accessible, as through computer-mediated telecommunications, the distant is becoming proximal. Students should now be able to access learning content wherever they are, and whenever they want.

¹ I have found a ratio of one computer lab session to about every four scheduled traditional class sessions is adequate, and can usually accommodate in-class tasks, quizzes and exams.

² Cognero is a full-featured online assessment system that I am currently beta-testing, and which I can warmly recommend. It allows the teacher to manage content, create and assign tests, deliver tests through a secure online test center, and to have ready access to complete reporting and data-dissemination. See <http://www.cognero.com/>

³ The main problem, that I've not yet resolved, is to prevent online cheating through instant messaging, email, or cell phone SMS.

⁴ Moodle's strengths include that it is free, and flexible: it is open source software, so that users are free to adapt and modify it.

3.3 Advantages of a Comprehensive Solution

- Dedicated computer labs are no longer required for SLA, and students have no need for desktop computers, complex cabling or computer desks. Any classroom space can be used with the iPad, used on existing writing desks or on the lap.
- As blended systems develop, textbooks are rapidly evolving from hard copy physical items that have to be carried, and that become obsolete every 3 to 5 years, to e-texts. This phenomenon, as discussed elsewhere [16], needs to be taken into consideration when selecting textbook series. Many of these e-texts are adopting the emerging e-Pub standard format, can be downloaded onto the iPad as Apps, and can be updated frequently. The student only needs to carry and to bring to class her iPad, on which has been installed all of the e-texts she needs for all of her subjects.
- Slikva reports that publishers can create hybridized content that draws from audio, video, interactive graphics in books, magazines and newspapers, whereas paper layouts would be static [20]. The e-texts can readily link to diverse multimedia digital resources and telecommunication services.
- Using the open e-Pub standard, institutions can therefore customize, and even create their own e-texts, so that these can be integrated into customized institutional, departmental and teacher-implemented learning management systems.⁵
- Student collaboration can be encouraged with suitable tasks that include online components, and that can be undertaken both more formally in class and informally by loose groupings of students in libraries, unused classrooms, campus cafes, and off campus at Wi-Fi-enabled hotspots that students frequent, such as Starbucks, Lotteria etc.
- Multimedia capability together with telecommunications means that students can engage both within and outside class in L2 English videoconferencing - which is free using Skype video - both locally and internationally. EFL class students often complain about the lack of other English speakers with whom to converse, so this may well become regarded as a normal activity that substitutes for such demand through distance conversation. Figure 3 below shows desktop videoconferencing in L2 English between Korean EFL students of Sejong University in Seoul, and Obari's Japanese EFL students of Aoyama Gakuin University in Tokyo.
- As van Wyk explains, the iPad is simple to use [21]. Once the student is registered with the iPhones Store, which process the educational institute could take care of as part of enrolment administration, software can be installed in class by running the App Store application, which does not bother the user with choices during the installation process; no DVDs or CDs or serial numbers are needed. Pre-existing user files such as documents are installed via synchronization to those stored on another computer, which for student files

⁵ Storyist Software and Scrivener both allow conversion of a file to ePub by simply selecting it from the choice of export formats; see <http://www.macworld.com/article/150817/2010/04/epub-ipad.html> The iPad is poised to make the ePub format the lingua franca of electronic books, in the same way that the advent of portable digital music players, especially the iPod, made the MP3 format the de facto standard for audio.

would logically be their teacher's class computer (to which would be connected a classroom printer for controlled student use). There is no way of choosing where the student documents are placed on the iPad; once synchronized, the documents simply appear for their respective applications.

- Even better, these Apps can be pre-installed by the IT department of the institution before provision of the iPad to students. While initially this has required iTunes to set up the iPad, and for installing in-house applications, Welch shows that iOS 4 (formerly iPhone OS 4, and which supports the iPad as well as the iPhone) now provides institutions with the ability to distribute applications wirelessly [22]. The capacity to push applications from a central location via Wi-Fi or 3G means far less work, and less worry about iTunes being up to date (or even installed). Colleges are able to wirelessly manage student iPads without even needing to touch iTunes.
- Required iPad applications are cheap, so costs could in principle be absorbed by educational institutions. Loyola reports that Apple have announced a new version of Apple's productivity software suite iWork designed specifically for the iPad [23]. iWork includes Keynote (presentation slides), Numbers (spreadsheets), and Pages (word processing). The new iWork for iPad suite takes advantage of the iPad's multitouch input, so slides in Keynote, columns in Numbers, and text and graphics in Pages can be rearranged by tapping, and dragging a finger. An on-screen keyboard appears when text needs to be typed. iWork for iPad apps can import iWork '09 and Microsoft Office documents; when creating documents in iWork for iPad, documents can be sent in iWork '09 and PDF formats. iWork documents are synced between a Mac and the iPad using iTunes; the iPad works with a Dock Connector to VGA adapter so the iPad can connect to a projector to display Keynote slides on a screen during a meeting. The iWork for iPad apps are available at the iTunes App Store, at just US\$10 each.
- A benefit for students is that iPad/iPhone apps are somewhat sandboxed from one another - data from one application isn't generally available to other applications. Application storage can't be overwritten by another application.
- The platform is simple, intuitive, and highly usable for home computing tasks such as viewing photos, listening to music, and watching movies. The underlying organization and architecture of the iPad does not need to be understood - the apps (according to Loyola) just work.
- Security problems commonly encountered on PC platforms, such as malware and viruses, are unlikely to be encountered.

3.4 The Significance of iOS 4

Moren reports that the announcement of iPhone OS 4 (now iOS 4) in early April focused on seven "tentpole" features: multitasking, folders, Mail, iBooks, Enterprise features, Game Center, and iAd [24]. While folders, iBooks and particularly Enterprise features are relevant, the most significant feature for use of the iPad in SLA is multitasking. According to Snell [25], Apple is achieving the appearance of this through a combination of app-switching features and background processes managed by the operating system itself. This meets student productivity needs to sometimes use several apps to perform a task, and to switch rapidly between them, e.g. using Safari to find and download images for a task in

Pages. Apps are also able to be frozen, and will pick up right where they have been left. They are also able to perform tasks in the background: for example the push-notification scheme; background audio; VOIP - so that Skype allows conversations to

continue when switching to another app and to receive incoming calls; GPS tracking of location; Local Notifications; and task completion. These features should therefore satisfy issues of app switching, streaming audio, and location awareness.

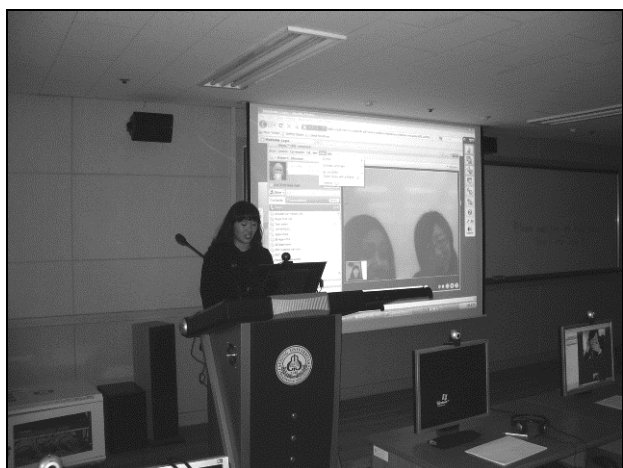


Figure 3. Korean Sejong Uni EFL students L2 English videoconference with Obari's Japanese Aoyama Gakuin Uni EFL students

3.5 Student Use of the iPhone with the iPad

A limitation of the iPad as initially released is the absence of a camera to capture still photos and video. Although this should be rectified in later releases of the iPad, the portability of the iPhone and its popularity in Korea, together with the compatibility of iPhone and iPad (which both run iOS 4), mean that the iPhone camera can readily be used to capture photos and video, and upload them to the iPad (other smartphones should offer a similar capability). A second front-facing camera in the newly released iPhone 4.0 also favors person-to-person videoconferencing, though small groups may prefer to view images together on the larger screen of the iPad, while using an iPhone for video capture.

4. CONCLUSION

The primary uses of English by non-native speakers will increasingly - and in my opinion, predominantly - be computer-mediated. These will be in the use of online resources, and in distance telecommunication with other mainly non-native speakers. Recognizing this, there is a critical need to strongly

develop L2 Digital Literacy in English. Advantage should be taken of Korea's high level of broadband penetration by comprehensively upgrading Internet-connected computer facilities, to make them available to all students anywhere, anytime. This is effectively achieved by saturating campuses with Wi-Fi access; ensuring all classrooms have a teacher's computer with high-speed Internet access, OHP and printer; and providing all students on enrollment with a Wi-Fi+3G iPad tablet with Apps and e-texts that are Wi-Fi managed by IT departments. Such a strategy, which puts the immense benefits of the Internet directly into the hands of both students and teachers, would greatly enhance Korea's competitiveness in the digital global community.

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