The iPad as a Tool for Global Education: Opportunities and Limitations

Kathryn Mendez

With today’s technological advances, it is difficult to imagine education in developed nations without the aid of computers, interactive whiteboards, and online textbooks. Teachers of all subjects are being brought into the profession understanding that part of their responsibility to their students is to understand and integrate some sort of technology into their lesson plans; without it, many people feel that students would be at a disadvantage, since they, too, will eventually be entering a work force where technology is inevitable and rapidly changing. Ironically, by the time this article is written, the technology of today will be outdated, and, therefore the specifics in this piece must be seen as constantly in a state of flux. While the examples of technology discussed here will have evolved, technology will most likely still have a significant presence in the classroom and should continue to be assessed and discussed by those who teach and advocate for global awareness.

Since it would be nearly impossible to write a concise piece on the number of existing technological resources available to enhance global awareness and facilitate the connection between students in developed nations with their peers in developing nations, these pages will focus
specifically on the iPad as a possible tool to help students and educators achieve this goal. In this chapter, the iPad serves as the focus of the study, but it is just one of the many possible tablet technologies available to students. Other tablets with similar technologies are the Intel Atom and the Samsung Galaxy Note, for example. Many of the suggestions in this article could be applied to other types of tablets, although the iPad has several applications that are specific to its use. Many schools in the United States are experimenting with making the switch from textbooks and notebooks to iPads. This is happening at all levels, from pre-kindergarten to colleges and universities. Recently, for example, I observed a kindergarten classroom that had iPads available for students to explore at a certain time each day. They were surrounded by a type of soft, protective bumper meant to help lower the effects of wear and tear on the machines by young users. In kindergarten, each student was not expected to have an iPad; however, in the same institution, the middle school and high school levels were in the process of phasing out textbooks and introducing iPads as a school-wide requirement. In this way, it is expected that students will be able to keep all of their textbooks, notes, and graded assignments in one small convenient place that has applications designed for enhanced organization and availability of resources literally at a student’s fingertips.

While some might shudder at the idea of condensing traditional classroom materials into one machine weighing less than two pounds, others are excited at this prospect and have embraced it with energy and curiosity. This kind of mixed reaction to the iPad in the classroom was evident in my own research at an independent secondary school. While working with a grant that allowed high school-level teachers to borrow an iPad for educational use over the course of a semester, I was able to talk to colleagues in my own department as well as attend seminars and visit similar schools where the same kind of research was in process. Those who presented at the seminars were very enthusiastic about the capabilities for the iPad, while, at the same time, not everyone volunteered immediately to borrow and research the machines. Even as a technology enthusiast, I struggled somewhat when researching the iPad, particularly when observing at other schools and seminars, because it was somewhat difficult to achieve an online connection in order to participate in group iPad activities. The question is whether it is worth continuing with the iPad and taking the time to troubleshoot such
issues, or if those issues are offset by the user-friendly appeal of the iPad. From personal experience, I would say that any institution trying the iPads should prepare for a mixed response to the change from both students and faculty.

Regardless of whether one embraces educational technology, it makes sense when looking at the global picture to ask how the introduction of devices such as the iPad will be useful in helping connect students and educators in different parts of the world once the newness and excitement of these devices wears off. Just a few centuries ago, books were only for a privileged few in the way that iPads are today. Books were expensive, and most traditional classrooms did not have any, let alone one for each student. As print became more accessible, it became the norm for many communities to have individual book collections and public libraries, while in other parts of the world today, books are still not as readily available in classrooms and households. Their cost and upkeep continue to be prohibitive for some, and their existence continues to be linked to socioeconomic and political issues such as economic power, intellectual freedom, and censorship. It is worth considering the following questions: What information does the book contain? How does censorship play into its availability? Who is in charge of deciding which books contain quality material? What are the consequences for those who disagree with those in charge? In what ways does ownership of certain books put a person in political or social danger? These are just a few of the many questions linked to book ownership on a global level. By looking not only at the history but also at the current reality of books, it is possible to learn a few things about what might happen with the iPad as an educational tool in a similar context.

This is not to say, however, that the iPad experience will be the same as the one with a printed text. On the contrary, the iPad offers many possibilities that traditional books do not. One concrete example of how technology has had a significant impact on intellectual power and global change is in the case of the Arab Spring, which began in 2010. Felipe Campante and Davin Chor (2012) have noted in their work that there is a direct connection between education and participation in political activity; it would make sense that the role of technology in education would play a part in the way such activity is shared with the world. It has also been noted that increased technological resources and familiarity with social media played an essential role in helping political
protesters organize demonstrations and communicate with each other (Kassim 2012). In addition, Campante and Chor (2012) note that “the Arab world indeed witnessed both substantial investment in education and poor labor market conditions, [so] it is plausible to think that this combination was important as a root cause of the Arab Spring” (179).

Moving beyond the Arab world and on to a larger global perspective, another major difference between the iPad and books is that the iPad can offer infinitely changing content. This is incredibly important for those with limited economic resources in communities at all stages of economic development. iPad users have access to countless sources of information via the internet, and they also, in many cases, have the ability to download the most recent edition of books for a fraction of the cost that they would pay to purchase a hard copy of a newly revised edition of a text. In the case of textbooks, this is particularly important. Textbook companies must regularly revise the editions of their textbooks, resulting in great expense and waste for those who use their products and wish to have the most recent editions (Pressler 2004). With online textbooks, these updates can be made regularly and be more accessible and less expensive to obtain for students and educational institutions, although, unfortunately, the cost of purchasing a license to use an interactive electronic textbook website is quickly catching up to the cost of purchasing new editions of textbooks. This only adds to the problematic dynamic that makes a variety of educational options available only to a small percentage of global citizens who have the economic power to purchase them.

In the developing world, the cost of purchasing and maintaining technology such as the iPad is just as problematic as the prohibitive cost of books: A student who wants access to an electronic textbook must first secure access to the internet and then be able to purchase a license for the textbook online; in many cases, this license needs to be renewed annually. If an educational institution desires to assist students in gaining access to online resources, the institution also must put forth the necessary economic resources to do so. Funding for internet access and maintenance, training for educators, and the ability to purchase portable electronic devices such as iPads for students still present a significant barrier not only in developing nations but in all nations, with the exception of the most privileged communities within them. Here one can see a cyclical imbalance, since those who possess a high level of comfort
with technological devices are often the most desirable candidates in the work force, yet only those with the economic means to purchase technology or who live in an area where their schools can afford to do so can access this knowledge and therefore have a greater chance to find employment that pays a living wage. There is a great deal of literature available that discusses the idea of the “digital divide” both inside of individual nations and on a global scale (for example, Pippa Norris [2001] explores the topic in great detail).

It is necessary to look at how the global digital divide can be bridged in order to introduce iPad technology into areas of the world where there has not traditionally been significant infrastructural or personal economic support for updated technology in education. Phillip Ein-Dor, Michael Myers, and K.S. Raman (1997) discuss the importance of national culture as an indicator of whether education can be supported by technological supplements such as iPads. They state that while countries may vary “in terms of underlying cultural factors [such as] ethnicity, language, and religion … they [the countries that have had much success with introducing technology into their markets and industries] are remarkably similar in terms of indicators of general level of development [in terms of] life expectancy, infant mortality, literacy, and newspaper circulation” (73). The three countries discussed in the article by Ein-Dor, Myers, and Raman are Israel, Singapore, and New Zealand. If one were to follow the model of thought presented by this theory, it would appear that countries that are not as developed as these three nations and that do not have such similar traits in their national culture may not be able to support the necessary requirements to include iPad technology in their classrooms. After all, iPads are impractical unless their users have had at least some basic training in how to manipulate their applications and protect them from damage and loss.

While the argument regarding national culture is quite strong both in theory and practice, it does not mean that countries that do not share the same national culture as developed nations are doomed to fail at introducing technology into their educational curriculum. It simply means that they might need some support from outside communities to help them begin the process of adapting some parts of their national culture while at the same time maintaining respect for traditional values and norms within each community. A number of communities might not feel that the iPad is necessary for a valuable education, and if that
is the case, such a decision should be respected by even the most well-intentioned educators. After all, national culture is a fluid and flexible idea; it can be a source of conflict and frustration, but it can also be fertile ground for experimentation and change if there are enough individuals (both from within and outside) devoted to instilling positive and voluntary changes, whatever those changes may be.

Observing language teachers in the U.S. has shed light on how the iPad can be used to break down linguistic barriers and thereby allow students in developed countries to communicate with and better understand the realities of their counterparts throughout the world. One of the first and most basic functions that an iPad can serve in the language classroom is that of making tools for self-study and practice more immediately accessible to language students. A most significant complaint about language acquisition in the current system in the U.S. is that over weekends and school vacations, progress in the language classroom is lost because students do not use their skills and therefore forget newly learned verb forms and vocabulary. With a tool such as the iPad, students not only have the possibility of installing language acquisition programs (such as Rosetta Stone software), but they also have access to dictionaries, online translators, and flashcard applications on a portable device on which they could study for a few minutes while waiting at a bus stop or in a doctor’s office.

Applications such as Evernote (evernote.com) and Google Docs (docs.google.com) support the idea of team curriculum among educators and communication among classmates both during school hours and when the students are outside of class. These types of applications, though not designed specifically for language acquisition, allow students to do group work (for example, collaborating on a document) even when they cannot be physically together, while still being observed by their teacher, who has control over the class functions and toolbar options. Nearpod (nearpod.com) is yet another application for the iPad, where students can work on presentations that can include videos, drawings, slide shows, and text (Figure 5.1); teachers may also quiz their students on course content through the same application or show sample presentations when introducing the project. Students have the ability to browse both the internet and other Nearpod slides to assist them in forming their own projects.
These applications also have relatively secure options that allow a student to turn in a quiz or project to the teacher without having the ability to go back and change it or to access the work of other students without authorization.

While Evernote, Google Docs, and Nearpod can be used for a wide range of subjects, there are other applications that hone in on specific
aspects of language acquisition, such as grammar and vocabulary. Quizlet (quizlet.com), for example, has its own application for the iPad, and teachers can create their own quizzes that are then converted into games, flashcards, and quizzes for their students to study (Figure 5.2).

Screenchomp (itunes.apple.com/us/app/screenchomp/id442415881?mt=8) is similar to Quizlet in that it allows teachers and students a password-protected way to create and utilize language study tools pertinent to their particular class. The Siri application and iPad keyboard can also be configured to different languages (Figure 5.3), allowing language students to practice everyday routines in a language different from their native tongue.

Unlike reading textbooks, this process more closely resembles how human beings learn their first language: by practice and repetition of daily activities. Those with iPads also have access to FaceTime on their tablet, a video call program that enables a “virtual pen pal” relationship, which could be used to speak with someone from another country and develop relationships with people who speak their target language but are thousands of miles away and otherwise inaccessible. The Encuentros program, based in Morelos, Mexico, is a Spanish language-learning program that includes FaceTime with a teacher while at the same time utilizing chat room technology and internet referencing abilities (Figure 5.4). This program offers both private and group classes that allow the students to choose a convenient time to work from home in their own country and have access to a native speaker instructor to whom they can speak, type, and read.
uploaded documents and internet sources all in the target language. The result here is that students in different countries and different time zones who perhaps cannot travel abroad have access to interaction with other students and language teachers who can provide feedback, assessments, lesson plans, and practice for an hourly fee.

It is also possible that students who choose to travel to countries of their target language can bring along a portable device such as an iPad and use it to orient themselves and communicate with fewer barriers. It is important to consider, however, the logistics of these suggestions. First, even in a wealthy country such as the U.S., only a privileged few would have access to a device such as an iPad. The average youth in the U.S. today cannot afford such a device. There are more inexpensive alternatives on the market, but they do not offer some of the applications, including Siri. Also, language acquisition programs, such as Rosetta Stone, are extremely cost-prohibitive and require a large investment of time and money that may not deliver results quickly enough to satisfy a language student. Furthermore, even if most young people in developed countries could afford an iPad, it does not guarantee that they could find or have access to peer counterparts in their target languages from developing countries due to the prohibitive cost of the technology and wireless internet access on both ends. Wireless access both in the U.S. and elsewhere has many limits. Many places all over the globe simply have no internet access, or if they do, its use may incur large expenses.
to data plans and is not accessible to the average citizen. It is also a very idealistic argument that all students in the U.S. or elsewhere would have unbridled access to technology for language acquisition and that they would use it independently in their free time outside of the language classroom. This being said, however, a true educator might respond to these challenges by insisting that education itself is based on curiosity, idealism, and the constant struggle to overcome these obstacles.

For school systems that have tried to integrate personal devices such as the iPad into their educational curricula, there have been mixed results. Studies from Australia, Canada, and the U.S. have all noted the need for a stable infrastructure to manage the integration of the iPad into everyday student work. Susan Crichton, Karen Pegler, and Duncan White concluded that a kind of technology task force must be assembled “to support the meaningful adoption and integration of educational technologies in the classroom. This team works with IT support staff, teachers, and partners from industry and the university to integrate innovative practice with both theory and classroom realities” (2012, 24). The contrast between theory and reality is the basis for many of the arguments around iPad technologies in an educational setting. Are students—particularly older students with already established notions of study skills—psychologically willing to accept a new technique into their daily routines if these routines were already successful for them before the arrival of the new technology? Are school systems prepared to support faculty and staff in continual training that keeps up with the pace of software updates and hardware configurations? Certainly these questions were asked when it was first suggested that computer labs be introduced into schools, followed later by laptop technology and institution-wide email communication. While the laptop itself is now becoming almost a standard of the professional world in nations at all stages of development, in the field of education it is a particularly exciting challenge to draw in personal devices such as the iPad because of their interactive features such as touch technology. While Mehryar Nooriafshar points out in an Australian study that learners “perceive that the learning process with an actual [human] teacher is more enjoyable than with a virtual [computer] teacher” (2012, 6), it can also be suggested that more flexibility is available to students with iPads who do not always have access to a human teacher. These students have a device that they can manipulate through touch and with the sound of
their voice, as opposed to a laptop or desktop computer that must be manipulated with a keyboard and mouse and is not as easily transportable as a tablet-style learning device.

In conclusion, to state that the iPad and its counterparts are the key solutions to bringing equal and reliable access to education on a global level would not be fair or accurate. However, it would be equally unfair to assume that, because, like computers, these devices are expensive and complex, they would not be useful to increasing the breadth and depth of global education and awareness. The iPad is an excellent tool for flexibility in that it is a portable option (even if it is one of limited availability) that students and educators can use as a supplement to the core of their lessons. The personal electronic device in itself should be considered a tool to challenge the idea that education and intellectual freedom is not accessible in all parts of the world. Technology in most of its forms should be embraced, shared, and distributed throughout the global education system as much as possible but with caution and the awareness of how to use it as well as knowledge of its limitations and the consequences that may emerge from its use. These devices should not replace the tried-and-true methods that have been used to teach students for centuries; they should complement these methods in a way that provides as many options as possible so that as many people as possible, no matter where they are in the global community, can have access to intellectual freedom and growth.

References


About the Author

Kathryn Mendez earned her MA in Spanish from Middlebury College and is currently working toward a doctoral degree in Hispanic and Luso Brazilian Literatures and Languages from the CUNY Graduate Center in New York City. She is a Spanish teacher at the Hopkins School in New Haven, CT. Mendez has published poetry both in the United States and abroad, and she has most recently published literary criticism on the topic of Orientalism in Latin America.