Using iPads in Classroom to Facilitate Teaching and Learning

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Abstract: Speaking of computers, they were supposed to be the transformation of teaching and learning as we know it. In some ways there has been a transformation, but the basics of teaching and learning have remained unchanged. Perhaps, the iPad will be the tool that really does transform classroom practice. They are cheaper than computers, desktop or laptop and they are more mobile. Employing them in our college classrooms could be part of the dramatic transformation in the ways people experience learning and the practices used to educate students to which referred. In this article, I'd like to share some of the unique features of the iPad and apps, to take advantage of and explore.
Keywords: iPads, facilitate teaching and learning

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1. INTRODUCTION

iPads are vibrant and dynamic tools for students and educators, and they are increasingly prevalent in our homes, schools, and communities. The challenge for educator is to motivate students to move beyond using mobile devices for primarily social reasons to using them for educational purposes. Connecting, communicating, and creating with mobile devices are quickly becoming a substantial part of digital literacy that powerfully supports student achievement. The use of iPads in classroom will potentially change the way we teach and learn. he use of iPads in classroom will potentially change the way we teach and learn.

2. TOUCHING THE VIRTUAL, TOUCHING THE REAL

The iPad has a number of unique features that provide for interesting possibilities in teaching and learning. The motion sensor of the iPad has a number of intriguing applications to learning. Most students today would be classified as bodily-kinesthetic learners. The motion sensor allows students to use their hands in guiding the iPad to equilibrium, balance skills, or remote control of real or virtual robotics, hovercraft, or other vehicles. Students can use the *Clineometer* app for measuring the level of a wall, or surface, and also the precise angles of incline, or decline. With the internal accelerometers in the iPad, physics experiments of acceleration or change in force can be measured. Imagine taking the iPad with you on a roller

coaster ride. Imagine calculating angles and force and then shooting odd birds from a slingshot, destroying buildings and colliding with green pig heads. Rubberized iPads and iPods in gym class can measure levels of exertion, balance, and repetitions. In math class the GPS of the iPad establishes locale in ways that are profound. Students can use the included Map app to calculate the distances, compare routes, and actual speeds of the westbound and the eastbound trains common in word problems. The mathematics involved with trip planning and decision-making are brought to life with actual real-time photographs, maps, and weather data provided by the Google Earth app, Big Blue Marble HD, and many others. The App called *TourWrist* allows students 360 degree views—"tours" of locations of interest throughout the world. With *DerManDar* the students can take their own 360 degree pictures of places they visit.

The mobility provided by the iPad's wireless telephone connection capability allows the unprecedented access to the Internet anywhere students are. This is truly information on demand. As questions arise, students can google for clues and insights to begin their studies. Even more powerfully though, through the iPad connection, students can access to volumes of primary source documents and data to help in their investigations in or out of the classroom, in their dormitories, on the bus, or in a restaurant.

As a completely portable learning tool, the iPad camera allows documentation to be taken to a whole different level. An app called *Field Notes LT* not only allows students to take copious notes of their observations, it attaches the date, time, GPS location and photographs of what is observed. These notes can be instantly shared, collaborated, and published in the field. Students can also attach videos, and voice recordings to their field notes. They can dictate to the iPad using the *Dragon Dictation* app and it will type their words. With the iPads in the same network but in different locations, using the *Assemblee* app, students can create a collaboration web to share findings and discuss conclusions about different perspectives of the same project.

3. CONNECTING BEYOND THE CLASSROOM

Because iPad's do not have USB ports, disk drives or CDROM/DVD capability, methods for sharing data with other computers and devices over the Internet or "cloud" have been developed. Drop box allows students set up a personal account in which they can store iPad created documents, photos, field notes, etc. And they can access those documents from any other computer or Internet capable device. *Evernote* will help students keep track of their notes and *Mendeley* will organize their research documents and let them take their research done on their computers with them, wherever they are going. *iTunes U* provides thousands of courses from hundreds of famous universities in the world. The *Project Gutenburg* allows students to download thousands of classic books to be read on any number of free book reader apps available. With the HMH Fuse app, students have at their fingertips the entire Houghton-Mifflin Algebra One book along with exercises and tools for learning algebra.

4. SOME USES FOR THE IPAD IN THE CLASSROOM

There is one company called *Splashtop*. They make a number of products that are well suited for the classroom. The core application on your laptop is called *Splashtop Streamer*, which allows a number of different ways of connecting to the host computer. Splashtop 2 Remote Desktop is designed for single users, but has some very interesting tools for controlling your laptop. In addition to playing flash content, you can run any Mac or PC program (on your laptop), and control it from anywhere in the classroom. This version is designed for use with a local network, but there is an option to allow you to control your computer, or anyone else's. *Splashtop* also makes classroom, which allows students to not only view the teachers' laptop on their iPads, but, with the teachers' control, can allow students to interact and annotate the lesson. Another great use of these remote apps is the ability to control your iTunes library remotely. This way, you can keep your large library off the iPad, and have your laptop conveniently setup near a sound system.

Another product that falls into this category, on digital whiteboards, is called *Doceri*. It also has a host application for your laptop called *Doceri Desktop*. When you first launch the *Doceri* app on your iPad, you have the option of displaying *Doceri* on its own through Airplay, or to go through your laptop. There is a tool bar at the top that allows you to create project folders, and to toggle between computer control mode and drawing mode. In the latter mode, you can call up documents on your computer, whether from any resident program or from a web page, and you can freely mark up and annotate as if you were drawing on your computer screen. All these actions can also be recorded as a screencast. On its own, the program functions as a digital whiteboard. *Doceri* is also an excellent tool to use with PowerPoint and Keynote, as it allows you move through slides easily, and mark them up live to highlight points during your lecture. Slideshow Remote is another program for the iPad and iPhone that looks interesting for controlling Powerpoint and Keynote; it also uses a host application on your laptop.

As mentioned earlier, *Doceri* on the iPad can control my laptop remotely, but there is a drawing mode that offers a large range of graphic backgrounds, from grids and lines to music staff paper. You can freely draw, add in photos or geometric shapes, and all these actions can be recorded for archiving. Also previously mentioned is *Splashtop*; they have another program, called *Splashtop* Whiteboard, which, much like *Doceri*, can control your laptop, mark up and annotate any content, and work on blank background templates. *Explain Everything* is another very complete Interactive Whiteboard app that also does screencasting, and has the ability to import and even annotate video.

There are a number of other note-taking and drawing-type apps that function very well as whiteboards. In most cases, the teacher sees the full program, with menus and tools, etc., but the students only see a blank screen, or in some cases, a virtual representation of a physical whiteboard, greenboard, or chalkboard. Some programs worth mentioning are *Penultimate*, *Notability, NoteShelf, educreations*, and *Show Me* (two apps that allow you to share screencasts

of your lessons, and access lessons from others, complete with voice recording). There are many more apps that might meet your needs, so just search "whiteboard" in the iTunes store.

5. CONCLUSION

While walking around the classroom and interacting with students, teachers can control their computers from their iPad with the Remote Mouse app. With a simple cable, teachers can use their iPads to present their unique and creative presentation made on their computer by using the iPad application called Prezi Player. The teacher can control the document by simply pinching, twisting and sliding their fingers across the face of the iPad. Aside from the gazillions of games, tutoring, and pointless apps available for free, a diligent teacher can find treasures of apps for their iPads that engage and challenge the student minds in creative ways. Introducing iPads into the classroom, especially as recent research has shown that video games and multimodal technologies have become an inherent and essential part of how young people learn.

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