

The Use of iPods in Education

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Abstract

One of the crown jewels of the digital revolution is the iPod by Apple Computers. This seemingly quiet, subdued and otherwise unobtrusive portable audio/video device is taking the United States by storm. It is seen everywhere, plugged into people's ears as if they were receiving special instructions from the Secret Service.

However, the age of the purely hedonistic iPod-wielding youth is beginning to wane. It makes room for a more goal-oriented and education-based application, one that is meant to be used in colleges and universities across the country. Our group will attempt to shed some light on this topic by citing examples and ideas in order to gain a better understanding of this awesome phenomenon.

The Use of iPods in Education

In 2000, a man by the name of Tony Fadell had the idea to build a user-friendly MP3 player, using a hard drive instead of a flash drive. He dramatically increased its storage capacity. After many unsuccessful pitches to various companies, Apple Corporation finally agreed to fund the project. The original iPod was essentially a re-working of another MP3 player, designed by a company called PortalPlayer. Apple worked with PortalPlayer, along with Tony Fadell, and made history in 2001 when they introduced the first generation iPod. They changed history again in 2003 with the introduction of iTunes; a legal way to download music directly to your iPod. Soon after that came the iPod Mini's, then the Shuffle, Nano, and finally, Video. With five generations of iPods, a fully digital music store, and millions upon millions of units sold, Apple is the force to be reckoned with in the portable music market. Education is also praising Apple's iPod; the use of it is vastly increasing. Universities, teacher, and students are finding ways to incorporate the iPod to promote good educational habits and enhance the learning process.

The processes come together in three parts. First, the website, <http://itunes.stanford.edu/> converts, markets, and distributes educational information in an economical and expedient manner by *Audible* and *Pearson PLC*. Second, Duke University took a step further too actually *provide* iPods to the incoming freshman class, to ensure that they *do* take advantage of this new technology. Third is Stanford on iTunes. It is a partnership with Apple Computers and Stanford University, via *iTunes U*, a service from Apple: http://www.apple.com/education/solutions/itunes_u/, allowing Stanford students, alumni, and the

general public the ability to download learning materials, music, and videos. All three of these initiations play an intricate part in the next step, taken by Duke University in spring 2004.

Duke University spent an estimated \$500,000 distributing 1650 free iPods to all first-year students. That semester, 280 students in 19 courses used iPods as part of the Duke iPod First-Year Experience. Duke's Center for Instructional Technology (CIT) constructed the DDI or Duke Digital Initiative as a university wide program. Its objective is to increase the use of digital-audio in courses, such as the iPod, and eventually move on to incorporating audio and visuals. They pre-load all of the iPods with academic documentation, calendars, and other Duke information. This semester, spring 2006, iPods are being used in 42 courses, and are only being given to undergraduates who enroll in a course which requires the device. Once again, Duke and other institutions have found a way to incorporate digital technology with academics.

iPods are already in the classroom. Instead of simply using them for entertainment purposes, students may record lectures, take oral notes, create electronic flashcards, capture images, and store and organize documents. iPods allow students to take their learning experience out of the classroom. Instructors are also experimenting with iPods. Using digital technology, instructors build lesson plans to enhance students' understanding in classes such as foreign language, computer science, engineering, dance, English, medical physics, biomedical engineering, and math. These new lesson plans identify curriculum areas and grade levels for which they are designed. They range anywhere from elementary to higher-education.

A lesson plan for a foreign language class would have students break up into small groups and record themselves asking and answering questions. Students then listen to the recording, correcting pronunciation, subject/verb agreement, and fluidity. These can be incorporated in an electronic portfolio to assess students over time.

For younger children, a lesson plan is constructed to help students identify letters and letter sounds. Students use the iPod to listen to the letters and construct words such as bat, fat, pat, pad, and so on, and soon move on to higher learning by constructing new words.

The iPod has been allowed in secondary education to help students concentrate on work. Music has been believed to calm and enhance a good environment for students to learn. Teachers are capitalizing on this idea, allowing students to listen to their chosen music during their down time in class or when working on projects.

Out of the classroom, iPods allow students to communicate with each other through Podcasting. "Podcasting is essentially radio programming that can be produced with a standard computer, microphone, free software, and a web site for posting your programming" (Warlick). Podcasting can be listened to with any computer connected to the Internet and able to play standard MP3 audio files. Listeners are notified of new programs by their aggregators, which then download the programs and then transfer them to the listener's MP3 audio player. The Podcast illustrates the capabilities and versatilities of the iPod. With these small devices, students can receive lectures and watch them whenever they want. They also allow students to replay lectures until they are satisfied with the material covered. For many students who do not take notes efficiently or have problems keeping up with fast seminars, these radio transmissions are a saving grace.

A company by the name of Audible, audio-books on iPods, struck a deal with Pearson PLC's *Pearson Higher Education*, makers of print study guides and text books for schools, to incorporate Pearson's study guides into a more accessible and listenable format. It essentially allows students to purchase Pearson's audio-version study guides at a reduced price to be downloaded to an iPod. This is really a value-adding feature to an already good idea. It saves

the student money since it is less expensive to download the audio-version than it is to purchase the text-version. Although the cost-to-value ratio remains constant, there are a few drawbacks. One is the reduced number of “back-of-the-book” study questions, Pearson’s full line of study guides are not available at this time. At present, there are approximately 300 titles available to download, but if the file is accidentally deleted, it is lost forever. On a positive note, the audio-version of foreign language books will be considerably more effective as an audio format rather than simply reading the text. The authors of the books will be able to include commentary on their texts, much like “director commentary” on DVD movies. This is just one of the many examples of audio programs that can be played on an iPod. The majority of the programs will be lectures that were pre-recorded by the professor, and most of the time they will be free to the enrolled students. Additionally, the iPod, unlike other electronic devices, is capable of playing MP3’s, audio books, audio files, video files, and can be used as a planner. The iPod, unlike many other devices, is an all-in-one package allowing the user to store Microsoft documents for easy transfer to other computers. Traditional portable electronic devices have been popular for mainly the older generations, but Apple’s iPod transcended the age barrier to become one of the most used devices around the world by adolescents and adults alike.

The key to Apple’s iPod success is its portable size and ability to hold a larger capacity of information. iPods themselves range in size, and various models have been produced. The regular iPod, largest of the models, is approximately 3 inches long and less than an inch thick. The size of the iPod allows it to be carried around in purses and jean pockets without any discomfort or fear of being lost. The regular iPod holds 30GB, approximately 7,500 songs, and the amount of space provided is a great reason for iPod’s uncharted success. A 60 GB version

exists, along with several smaller models, but these smaller models unfortunately have less hard drive space (<http://www.apple.com/ipod/ipod.html>).

These positive points are hard to dispute, but an iPod can also cause many problems. For example, after a student constructs a PowerPoint and loads it on his or her iPod, he or she thinks he or she is ready to go, but sometimes technical problems arise. An iPod's battery generally lasts up to 10 hours, but after a few uses, the battery life begins to decrease. Eventually, the student has to replace it, which cost about \$200. He or she does have another avenue. The student can buy a new iPod for around \$300, plus a \$100 charge for insurance. This keeps the student worry-free for two years. By the end of those two years, he or she will most likely begin the adventure again. Hopefully by then, the cost of an iPod will have decreased to around the \$200 mark. Another problem is what happens when the hard drive crashes? The store will say, "There is nothing we can do, you lost everything, but you can buy a new hard drive for \$200 or just buy a new ipod for \$300." Now the student needs to decide whether or not to spend \$200 to replace the hard drive, or \$300, and "get a newer and better ipod." In an estimated ten year period, after the iPod dies, crashes, or blows up, which it is also probably capable of doing; the student will end up spending about \$1000 at the iPod store. In addition to these negatives, an iPods will never fully replace text books. Further more, it takes away from the student -teacher relationship and the social aspect of the classroom. Finally, if the student experiences software issues such as problems with iTunes, he or she may not be able to add songs, podcast, and view e-books on the iPod. Overall, iPods are very costly and can not be relied on.

Technology will always have its glitches, but this particular technology has really come full circle. What once was just an idea, has now become something much more than simply listening to music and watching music videos. However, it is still a fledgling technology, so not every

college offers it. According to the *iTunes U* website, only Stanford and the University of Michigan are currently participating. The assumption is that it is not a replacement, but simply an updated version of the same old American value of packing things up into smaller, easier to use pieces.

What once was simply entertainment now has potential to become an integral part of education. It has the ability to allow students to participate without attending classes, and still experience the same quality lectures and audio-books. Even with all these positive applications, we still believe this phenomenon will *not* be a surrogate for attending class, but instead, serve to properly enhance the learning experience.

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