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[Cell Phones for Education](#)

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Abstract

Cell phones are fast becoming an integral part of students' everyday lives. They are regarded as important companions and tools for personal expression. School-age children are integrating the cell phone as such, and thus placing a high value on them. Educators endeavor to instill in students a high value for education, but often meet with difficulty. Involving technologies such as cell phones that are held with high value to students into teaching and learning cannot help but motivate students. Thus, utilizing the cell phone as a teaching and learning tool should increase the desire of students to become fully involved in their education.

Introduction

Currently the United States is witnessing a social revolution. This revolution involves the integration of cell phones into the everyday lives of students and educators. If one were to ask teens or even pre-teens how they feel about their cell phones, a likely response would be, "I love it," or "I can't live without it." If the same teen or pre-teen were asked how they feel about school or education, an entirely different answer might be given. On the contrary, it is likely that teachers and principals might describe cell phones as distractions that lead to disturbances or disruptions.

Cell phones belong to a group of devices that are referred to as information and communications technologies (ICT). This group of devices includes items, such as computers, personal digital assistants (PDA), global positioning systems (GPS), and cell phones. For quite some time now, computers have been a part of the learning and teaching environment. PDAs have slowly gained acceptance but are limited in prevalence. Cell phones, however, are becoming ubiquitous and are an untapped resource in education. Fortunately, some have begun to investigate ways to integrate cell phones into the teaching and learning environment (Attewell, n.d.; Park, 2005).

The question that should be burning in the minds of individuals associated with education is, how can the fervor about cell phones be duplicated regarding education? With this in mind, the purpose of this discussion is to explore how youths perceive cell phones, to examine how educators and educating institutions could possibly market education from a different perspective, and to raise the idea of how a higher degree of value for education might be fostered in school-age students through the personalization of the educational experience.

Personal Expression

One needs only to drive down the road or visit a mall to gain an understanding of the ubiquity of cell phones. These devices are fast becoming an integral part of people's everyday lives. They are being used to wake people up in the morning, organize appointments and personal contacts, store personal images, store and play music, and take pictures. Cell phones are quickly becoming devices of personal expression. With the ability to customize ring tones, skins, photos, and songs and to interact via voice and text, the cell phone can be seen as an extension of one's personal self. They are being used to define who we are as individuals. Furthermore, the

priority given to one's cell phone in social situations by younger generations is having a profound effect on social norms (Bugeja, 2005).

What is occurring on a personal level with school-age students, specifically those in middle and high school? Adolescence is known as a time when youths begin to define themselves as individuals who are unique and different from everyone else. What is evident is that adolescents now have something that is very tangible, very concrete with which they can identify their individuality. Having a physical entity, which helps define, shape, and bring comfort to their lives, overshadows the abstraction of the ability of knowledge to do so. Given the reactions of students toward cell phones, one might argue that a "cult of personality" is being constructed around cell phones since youths not only view them as tools but as companions and providers of support and protection.

The current generation possesses a keen ability to quickly understand, use, exploit, and integrate new and emerging technologies. For this aptitude, the children of today are being referred to as "digital natives" while adults are considered "digital immigrants" (Godwin-Jones, 2005; Prensky, 2005). The possession and utilization of cell phones by young learners is large and rapidly growing. In a survey conducted in Japan, 100% of college students polled reported owning a cell phone (Thornton & Houser, 2004). In some areas of Japan, Korea, Europe, and the Philippines, 100% of students own and use a cell phone. In the U.S., over 75% of high school students and one-third of students in elementary and middle schools own and use a cell phone (Dodds & Mason, 2005; Prensky, 2005). Moreover, undergraduates use some form of technology that includes instant messaging, text messaging, and cell phones for communication purposes approximately five-and-a-half hours per day (Diamanduros, Jenkins, & Downs, 2007).

Today's youths, digital natives, have the ability to dwell seamlessly in more than one place at one time (Bugeja, 2005). A short walk down the paths and sidewalks of a college campus or through the passageways of a mall will bring into focus the existence of individuals who are connecting with people in two or more places at the same time. Effectively conducting two distinct conversations simultaneously is an expression of the multiplicity of existence for today's generation. This multiplicity of existence can be further seen in what Godwin-Jones (2005) calls "created third spaces" that are neither home, school, nor work. These third spaces are venues where chat and multiplayer games are carried out. Often within these third spaces new identities, called avatars, are created that can reflect the individual's ego or alter-ego, whichever they choose.

Marketing Thoughts

We claim that teens feel they must have a cell phone and be adept at using it to be a normal, accepted, and functional member in today's society. Digital natives view cell phones as tools and companions for accomplishing their transformation into individuality. Cell phone marketers and providers are tapping into this reality by highlighting the vast ways of customizing a cell phone and the cell phone experience. Here is where educators and educational organizations can pull off a "coup d'etat." The marketing strategy needs to be changed to one with a stronger emphasis on the tangibles that can be related to obtaining an education, along with the process of making the learning experience personal, unique, and authentic. Therefore, the idea would be to develop cell phone-based instructional devices and media that are pertinent to specific content and goals, while catering to the ability for individual expression and creativity. A prime example of target marketing involves the Fire-fly®. This is a cell phone and service aimed at children from 5 to 10 years of age. The phone has limited buttons for ease of use, is sized to fit the hand of a child, is fully customizable with skins and ring-tones, and has adequate features that put a powerful form of communication into a child's hand. In fact, one of the authors has witnessed first-hand the effectiveness of Fire-fly's® marketing strategy.

The analysis of marketing strategies used by educational institutions does not compare. Most media campaigns promoting education seem to fall flat. For instance, some colleges are publishing brochures, which state that a college education will garner a person more than \$500,000 worth of income over their lifetime. Yes, \$500,000 can be viewed as substantial, but the impact is lost on the student. It is lost due to its not being relevant to the student currently. This \$500,000 does not actually exist in the here and now and cannot be put to use by the individual. Furthermore, the delivery of this information via a printed document is counter to the manner in which students communicate today. Perhaps, a text message would be more effective. A good effort can be seen with Pembroke College in Wales. This institution of higher learning is using cell phones to tap potential students by targeting individuals that live in remote communities and are not currently in an educational setting by issuing cell phones to them. This provides a direct link and encourages the students to maintain contact with college tutors and instructors via text messaging (Whittaker, 2007). It should be noted that marketing of education in this discussion does not refer to marketing pushes intended solely to increase enrollment but rather those designed

to instill or increase the desire and motivation of young individuals to seek out knowledge through a good education.

Educational Uses

Cell phones have a large number of uses that are immediate to teens and pre-teens. In fact, many of these uses are built into the phone's software. Some of these include phone and address book, calendar, planner, timer, alarm clock, calculator, and memo pad. In addition, cell phones available today have the ability to take pictures, record movies, record voice, engage in chat, and send e-mails (Kolb, 2007/2008). In addition, Branzburg (2007) describes these multimedia features and the ease at which they can be utilized. So why not use these powerful features of cell phones to benefit the learner? Moreover, these powerful devices are owned and are the responsibility of the students and their parents, thus potentially relieving some of the burden local education associations carry regarding technology (Hirsch, 2005).

The use of cell phones or mobile devices as an educational tool has occurred mostly outside the borders of the United States in regions such as Europe, Asia, Australia, and New Zealand. Clyde (2004) points out that North American educators have been slow to alter their perception of cell phones from the position of disruptive technology to a technology that can be integrated into the curriculum. For instance, in Singapore a collaborative game called EcoRangers, designed for mobile phones, was integrated into the social studies curriculum for grades nine and ten. This integration resulted in more student participation, and the students acknowledging they learned more information than they realized (Lim & Wang, 2005).

The different ways for integrating cell phones into the curriculum can be as varied as the phones themselves. For example, when studying ecosystems students could explore and experience them with their cell phones in hand. While visiting an ecosystem, the students could document it with the built-in camera and produce a voice or written memo about key features they observed. Once the task has been completed, the students can e-mail their teacher pictures and text for evaluation. Exploratory activities such as this are perfect venues for bringing the cell phone into the learning process (Clyde, 2004). Another example might involve the class reading Edgar Allan Poe's "The Tell-tale Heart" in literature class. As an assignment, groups of students could conduct a cell phone chat session discussing the main points to the story, what themes seem apparent, and what it means to them. Once finished, the text can be e-mailed to the teacher for review. Other ways of integrating cell phones do not have to be as elaborate or complicated. For instance, Shaw (2007) describes how he demonstrated to his students the existence of the unseen force of electromagnetism by altering the readout on an electronic balance by dialing and transmitting phone numbers.

In places such as China, Japan, the Philippines, and Germany, students are using their cell phones to learn English, as well as study math, health, and spelling. In one area, the cell phone is being used to deliver historical content during guided tours at a state park. Bringing cell phones into the assessment arena has been explored in the United Kingdom. College students, using their cell phones, completed exams, and their voice print was used to authenticate the test-taker (Prensky, 2005). Other ways of integrating cell phones into teaching and learning are being investigated. Attewell (n.d.) explored how students' enthusiasm toward cell phones could be focused toward learning and improvement in literacy and mathematics. Goh and Hooper (2007) describe a pilot study in which a large university used cell phones as interaction and feedback devices for a lecture class; this study found that students were quite interested in the game and had significant interest in using it again in the future. Wei, Chen, Wang, and Li (2007) integrated cell phones into a web-based discussion forum as part of a computer programming class. The majority of the students (74%) was pleased with the system, and felt they benefited from sharing voice knowledge over text-based information. In addition, Park (2005) sought to foster a more learner-centered environment by developing an "adaptive mobile learning management system" that coordinates with the learner's learning style while interfacing in the mobile environment.

Conclusion

There have been several discussions involving cell phones in an education setting (Gilroy, 2004; Taylor, 2008). As a result, many schools have developed strict no cell phone policies. Reconsideration regarding this powerful device and how it can be used in an educational setting should take place. Most of the world is poised to bring these devices into the realm of education. Innovative ways to approach the concept have already been presented. As has been witnessed, the educational community integrated computer-based and internet-based learning into the arena with e-learning. Now the advent of the cell phone and mobile technology is ushering in a new era of m-learning, mobile learning (Clyde, 2004; Goh & Kinshuk, 2006).

Cell phones accomplish some very important functions. They fulfill the role of the icon of teen freedom, and they facilitate the flow and construction of knowledge. Moreover, a cell phone can put the ownership of learning into the "hands" of a student. Designing authentic learning experiences has been touted as the way to make learning relevant, personal, and meaningful. Unfortunately, when these activities are implemented, they are void of the fundamental frameworks that are uniquely personal and relevant to the learner.

It is important for adults, parents, and educators to be attuned to the ICT that have become a part of children's social and psychological lives. In doing so, there can be a positive influence on the reification of these objects and their meanings. It should be incumbent upon educators that whatever content is taught should be done in such a way that has value and meaning to the learner. Considering how to use cell phones in education is one way to blend real life and school life to make learning more relevant, personal, and meaningful.

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