# Chapter 5.16 Contemporary Music Students and Mobile Technology

**Thomas Cochrane** Unitec, New Zealand

#### ABSTRACT

Five billion songs, and counting, have been downloaded (completely legally) through Apple Computer's online iTunes Store. The iTunes University links free educational content from over seventy tertiary institutions worldwide, and is now available to New Zealand tertiary institutions. The Internet has revolutionised the delivery and access of media and education – making access to a worldwide audience or market merely a Google (or iTunes Store) search away! But, what are the real-world practicalities of this for contemporary music students and teachers today? How can these tools be utilised to facilitate personalised learning environments. Within this context, this chapter presents and evaluates a mobile learning case study at Unitec in the Diploma of Contemporary Music on the Waitakere campus.

#### INTRODUCTION

This section introduces the underpinning concepts related to mobile web 2.0 and personalized learning environments upon which the example research project is based. This introductory section is then followed by a section describing the case study, an evaluation of the results and find-

DOI: 10.4018/978-1-61350-101-6.ch516

ings, and finally a discussion on the future of the project for 2009.

#### Mobile Learning

While there have been many attempts to define the unique essence of mobile learning (mLearning), most have either focused on the mobility of the device, the learner, or on the facilitation of informal learning beyond the confines of the classroom (Kukulsa-Hulme & Traxler, 2005;

Laurillard, 2007; M Sharples et al., 2007; Wali et al., 2008). Mobile learning, as defined by the author of this chapter, involves the use of wireless enabled mobile digital devices (Wireless Mobile Devices or WMD's) within and between pedagogically designed learning environments or contexts. From an activity theory perspective, WMD's are the tools that mediate a wide range of learning activities and facilitate collaborative learning environments (Uden, 2007). Laurillard's definition of mLearning emphasises the critical role of the educator: "M-Learning, being the digital support of adaptive, investigative, communicative, collaborative, and productive learning activities in remote locations, proposes a wide variety of environments in which the teacher can operate" (Laurillard, 2007). MLearning can support and enhance both the face to face and off campus teaching and learning contexts by using the mobile wireless devices as a means to leverage the potential of web 2.0 tools. The WMD's wireless connectivity and data gathering abilities (e.g. photoblogging, video recording, voice recording, and text input) allow for bridging the on and off campus learning contexts - facilitating "real world learning". It is the potential for mobile learning to bridge pedagogically designed learning contexts, facilitate learner generated contexts, and content (both personal and collaborative), while providing personalisation and ubiquitous social connectedness, that sets it apart from more traditional learning environments.

#### Mobile Web 2.0

The term web 2.0 was coined in 2005 (O'Reilly, 2005) within a context of how businesses were changing the way they interacted with clients via new interactive web-based tools. The term has been popularised as a way of characterizing the emerging interactive, user-centred web based tools that have been revolutionizing the way the Internet is conceptualized and used. These tools include: blogs, wiki's, image-sharing (e.g. Flickr),

video-sharing (e.g. YouTube), podcasting etc... Many educators have harnessed web 2.0 tools for creating engaging student-centred learning environments. This appropriation of web 2.0 tools within a social constructivist pedagogy facilitates what has been termed "pedagogy 2.0".

Pedagogy 2.0 integrates Web 2.0 tools that support knowledge sharing, peer-to-peer networking, and access to a global audience with socioconstructivist learning approaches to facilitate greater learner autonomy, agency, and personalization (McLoughlin & Lee, 2008).

Herrington (A. Herrington & Herrington, 2007) argues that "the advances in philosophical and practical developments in education have created justifiable conditions for the pedagogical use of mobile technologies" based on newer learning theories that find their roots in social constructivism such as: authentic learning, communities of practice, distributed intelligence, distributed cognition, connectivism, and activity theory. Social constructivism focuses upon students being involved in learning environments as an explorative and social process. This is in contrast to the instructivist pedagogies that have dominated tertiary education in the past that focus upon the teacher/lecturer as the expert holder of knowledge from whom students learn directly. In general, education based on social constructivist pedagogies is interested in enabling students to develop creative, critical thinking, and collaborative skills, rather than focusing upon course content. The underpinning pedagogy of a course will determine how particular tools and technologies are used and integrated within the course.

The main focus of this research project is on the support and enhancement of both the face to face teaching and learning context and the off-campus informal learning contexts by using wireless mobile devices (iPod Touch and iPhone in this case) as a means to leverage the potential of current and emerging collaborative 23 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/contemporary-music-students-mobiletechnology/58848

### **Related Content**

#### **TDOA-Based Acoustic Direction Finding**

Xunxue Cui, Kegen Yuand Songsheng Lu (2018). *Positioning and Navigation in Complex Environments* (pp. 193-231).

www.irma-international.org/chapter/tdoa-based-acoustic-direction-finding/195716

#### The Promise and Perils of Wearable Technologies

John Gammackand Andrew Marrington (2017). *Managing Security Issues and the Hidden Dangers of Wearable Technologies (pp. 1-17).* www.irma-international.org/chapter/the-promise-and-perils-of-wearable-technologies/164302

## Extended Cell Planning for Capacity Expansion and Power Optimization by Using MEMETIC Algorithm

Hemraj Saini, L. K. Sharma, T. C. Pandaand H. N. Pratihari (2012). *International Journal of Wireless Networks and Broadband Technologies (pp. 36-46).* 

www.irma-international.org/article/extended-cell-planning-for-capacity-expansion-and-power-optimization-by-usingmemetic-algorithm/85004

#### Mobile WiMAX Bandwidth Reservation Thresholds: A Heuristic Approach

Sondes Khemiri, Khaled Boussetta, Nadjib Achirand Guy Pujolle (2011). *International Journal of Wireless Networks and Broadband Technologies (pp. 42-61).* www.irma-international.org/article/mobile-wimax-bandwidth-reservation-thresholds/55882

## Equilibrate and Minimize the Energy Consumption in a Cluster for Routing Protocols in Wireless Sensor Network

Wassim Jerbi, Hafedh Trabelsiand Abderrahmen Guermazi (2016). International Journal of Wireless Networks and Broadband Technologies (pp. 46-58).

www.irma-international.org/article/equilibrate-and-minimize-the-energy-consumption-in-a-cluster-for-routing-protocols-inwireless-sensor-network/170428