Using smartphones and Facebook in a major assessment: the student experience

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ABSTRACT

Purpose – The purpose of this paper is to investigate the use of an alternative form of assessment employing new technology, such as smartphones and Facebook which are two modern tools that are rapidly increasing in popularity and application in the business environment.

Design/methodology/approach – This paper adopts an experimental approach to examine whether these technologies could not only provide students with relevant skills but also increase their learning experience.

Research findings and implications – Eleven out of the 12 students reported that the use of smartphones and Facebook increased their motivation, independent learning and sense of responsibility. The implications from this paper are that integrating new technologies into assessment was beneficial to students who had experience with the new technology, however, not all students were capable of using the technology and this requires further work when implementing new technology.

Keywords: Smartphones; assessment; student experience; social media

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Introduction
Technology is now a Key Learning Area in primary and secondary schools (Finger, 2002). It is regarded as an essential component even from the earliest of primary school classes. In secondary schooling, technology is also playing an increasing role, not only in use of information technology (IT) as described by Biggs (2003), but also with Education Technology (ET). Secondary schooling in Australia is increasingly allowing assessments to take a variety of alternative forms including both traditional and modern methods such as video, blogs, and wiki pages (Devaney, 2008).

Smartphones and Facebook are other technology tools that can be used in the learning experience. Facebook is a popular social networking website that allows people to communicate online and share and upload material such as photos, videos and stories. It is also used by businesses as a marketing tool to connect with Facebook users. The value to a business of each social media ‘fan’ has been estimated by social media company Vitrue, to be worth $3.60 (Morrissey, 2010). Furthermore, Vitrue believes that this estimate is “just the tip of the iceberg” (Vitrue, 2010).

However, social media is still very new to many businesses. A report published in April 2010 based on interviewing 1,356 marketers indicated that 65% of marketers had been involved in social media for a few months or less (Stelzner, 2010). Only 14% of those businesses surveyed outsourced their social media marketing, resulting in more than half of them (56%) devoting at least six hours each week to managing this component of their marketing internally (Stelzner, 2010).

Whilst the fact that most businesses do not outsource this component may indicate that social media marketing is simple, the Nestlé public relations disaster in March 2010 is a great reminder of how getting it wrong in social media is particularly costly to a business. In addition, at $3.60 per ‘fan’ multiplied by thousands of ‘fans’, the cost of reconnecting with those lost fans can be enormous.

The Nestlé debacle started when one of their ‘fans’ changed their profile picture to that of an altered version of a Nestlé KitKat bar wrapper (see Figure 1). The statement was a signal to the company that they objected to Nestlé using palm oil associated with massive land clearing in Indonesia that was resulting in loss of Orangutans and Sumatran Tigers. The problem came about when Nestlé responded by deleting comments on their Facebook site and warning its ‘fans’ not to alter its logos, which are protected under copyright laws. This started an avalanche of attack on its site by its ‘fans’ and the creation of a Facebook site called ‘Boycott Nestlé’. This Boycott Nestlé has added further fuel by dredging up old Nestlé sins, such as the 1939 baby formula debacle.

Figure 1:
Image of altered logo

Source: McKay, 2010, p.14
Whilst it is too early to know the cost to the Nestlé brand from this social media public relations disaster, it clearly highlights that there are rules in how to manage social media fans, and businesses that want to engage with fans, need to know those rules. Thus, tertiary educators may need to ensure that its graduates are not only familiar with traditional marketing rules, but also have a thorough understanding of newer marketing tools, such as social media, in order to offer additional much-needed skills to employers.

Smartphones are mobile phones which incorporate advanced capabilities; they are an advanced form of a Wireless Mobile Device (WMD) that can function like a computer by offering features such as personal digital assistant (PDA), internet access, email, and Global Positioning System (GPS). They typically also have other features such as a camera, video, MP3 players, as well as mobile phone functions. Examples of smartphones are Apple’s iPhone, Treo Pro Palm, and Nokia N95 / N97, amongst many others.

Smartphones are increasingly being used as tools by researchers (Murphy, 2010) and can assist with the learning experience due to the range of features they offer in a handheld device. Smartphones are the fastest growing handheld device (ABI Research, 2008). WMDs have been shown to be advantageous in assisting students’ motivation, helping independent and collaborative learning and encouraging a sense of responsibility (Uden, 2007). More advanced devices, such as smartphones are able to achieve similar objectives and in a higher education assessment piece have been shown to be highly successful with student learning (Cochrane, 2008a, 2008b, 2009).

Research using smartphones is limited however due in part to smartphones being new technology and expensive (eg at the beginning of 2009 iPhones retailed for around AU$1,000). Here a project is described that tests Uden’s (2007) findings that WMDs can assist students’ learning specifically using smartphones. This project involved a small cohort of twelve third-year tourism students enrolled in a subject called Contemporary Tourism Issues. All students were young (estimated age of 20). The size and demographics of the group was considered suitable to test the use of such technology as it made for a manageable and affordable test group.

Funding was sought through a Higher Education Incentive Grant. The aim of the grant was to support practical teacher development and classroom innovation in relation to the enhancement of learning and teaching in higher education. One of the themes of this grant was ‘innovations in learning and teaching including in relation to new technologies’. This grant was successful and 13 smartphones were purchased. Through consultation with Telstra, a bulk discount on communication services was obtained and sponsorship to the value of $4,000 was provided, enabling 5gb of data each month per handset to be purchased.

Three different smartphone devices were purchased to test whether different devices had any impact on the student experience. The three smartphone devices selected were the Apple iPhone, Nokia N95 and Treo Pro by Palm. The project involved the use of the devices in a major assessment that required identification of strategies for a major tourist attraction. Students were given a smartphone to use for the semester to aid their research. They could use the smartphone to take still or video images to support their research and were required to upload these on site to a Facebook site. The purpose of uploading to Facebook was to be able to share this information with the cohort, thus becoming familiar with how to undertake this task and also allowing capture of thoughts and ideas.
The major assessment for Contemporary Tourism Issues involved production of a report applying the content from the textbook to the context of a major tourism attraction in Victoria; Sovereign Hill, through using technology. Sovereign Hill was opened in 1970 and is a recreated goldfields township situated on a 25-hectare site in Ballarat that is linked with the richest alluvial gold rush in the world (Sovereign Hill, 2009). It is now regarded as a leading tourism attraction in Victoria. It was judged Victoria’s Best Major Tourism Attraction at the 2003 and 2004 Victorian Tourism Awards.

Literature Review

Facebook is an online social network site that was created in 2004. Use of Facebook has been shown to provide advantages for undergraduate students, although the focus in the literature has rested on the social well-being side. It has been shown to assist undergraduate students adjust to University life, especially those “experiencing low self-esteem” (Ellison, Steinfield & Lampe, 2007, p.1). Its popularity has continued to grow, with Chief Operating Officer, Sheryl Sandberg announcing it had grown from 90 million members in July 2008 to 120 million by the end of October 2008 (Shankland, 2008). By the end of 2008 it was reported to be approaching 150 million users, with 600,000 new users each day (Lucier, 2009) and it is estimated that that there are now more than 250 million active (logged on within the last 30 days) users (Facebook, 2009). Around half of the active Facebook users log on at least once each day (Facebook, 2009) and one-quarter (65 million) of active users access Facebook through their mobile devices.

Facebook is the most popular form of social media; now holding more than half of the US share of visits (Figure 2). Facebook has been met with criticism by educators, with suggestions that students spend too much time on Facebook and find it “addictive” (Bugeja, 2006, p. C1) and that the technology provides only entertainment for “the Facebook generation” (p.C1); a generation seen to spend their time text-messaging during lectures and listening to iPods. Bugeja (2006) believed that while most academics were “yet to hear about Facebook” (p.C1), students were “regular visitors” (Bugeja, 2006, p.C1).

Figure 2:
Top 10 Social Networking sites in the US

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However, given the growth in Facebook over the past three years and its recent publicity, it seems reasonable to believe that by 2009 most academics would be likely to have heard of it. Many academics may also be regular visitors, as Facebook is seen by many businesses as a critical tool in today’s business world and especially so in tourism, for which unique branding is critical to success. Facebook allows unique branding because “you are the source and the only source of your product information” (Axses Knowledge Engineering, n.d.). This can be very useful in tourism, where travel suppliers can be difficult to find on the web. From qualitative research conducted by Backer (2010), several of the tourism managers interviewed raised the importance of Facebook and mentioned they knew of ‘sold out’ tourism events that exclusively relied upon Facebook as their marketing tool.

Smartphones are also becoming an increasingly important tourism tool. The use of these devices has been identified as one of the critical trends for changing the tourism experience of the future (Kim & Schliesser, 2007). The internet has played a critical role with providing information on people’s travel and destination information seeking, (Beritelli, Bieger & Laesser, 2007), and this has been increasing over time. This is particularly the case in highly developed countries, with a strong correlation between access to knowledge and a nation’s wealth (Yeoman, 2008). New technologies have been identified as one of the 17 “mega drivers” (Yeoman, 2008, p. 22) to direct tourism over the next 20 years.

Technology will be deeply embedded into this generation’s activities. They will be dependent on technology as it has always been there and will feel lost if they cannot access technology. Being contactable 24/7/365 is very important to them, even when on holiday; they would not consider a destination without wi-fi and mobile phone access (Yeoman, 2008, p.235).

In today’s highly competitive world, with the present economic crisis, it is critical for tourism graduates to be proficient with using and understanding the learning potential of the latest technology since there is a growing reliance on social media and smartphones to reach consumers in an efficient and economical manner. Smartphones have been identified as a major growth area, despite the recession. In 2009, growth in sales is projected to be just over 13 per cent to 164 million units as shown in Figure 3 (Forward Concepts, 2008). The growth of smartphones is a result of the improvements in the technology; whilst the first-generation smartphones were expensive and offered limited capabilities, later generations can use the 3G networks and are lower in price. This is forecast to continue as shown in Figure 3.

**Figure 3:**
Projection of global growth of smartphones from 2008-2013

Smartphones are also increasingly being used as research tools (Murphy, 2010). They contain many features that computers hold, but offer convenience of size and mobility. With “aspects of our lives (relying) more heavily on our mobile devices, we are becoming more willing to embrace the use of mobile technologies for searching and advanced research” (Murphy, 2010, p.14).

Tourism businesses can take advantage of these growing trends by developing mobile websites, which enable reservations to be made and changed via smartphone-friendly webpages. Examples of websites optimised for use on mobile devices include eBay, PayPal, Google, Whitepages, Facebook, and Hilton Hotels. Hilton predicts that their website hits from mobile devices will increase to 10% by the end of 2009 (Weinstein, 2009). Hence, it is important for tourism graduates to understand this area.

Additionally, technology changes so rapidly that it is important to maintain awareness and knowledge. The rapid pace of change is captured by the simple expression used by Serim and Schrock (2008, p. 7), “if it’s shipping, it’s already obsolete”. It is important for students to not only know content, but also to know technology. Because generation Y students have been brought up with so much technology, they often can relate to it. It therefore seems sensible to use technology as a platform to increase students’ motivation.

In higher education, often the focus is on the final assessment rather than provision of feedback during the learning process, and yet there are greater insights into how learning can be improved by understanding the process in which learning occurs (Rowntree, 1987). By the students uploading images and videos to Facebook when they are at an attraction, more can be known about the learning process, and feedback can be offered throughout the process to guide them along the way, rather than provision of feedback only on the finished report. It can also add an element of enjoyment for the academic as well as the student. Also, since “students pick up in the first few minutes whether a lecturer wants to be there” (McPhee in Healy, 2007, p. 1), use of technology can improve the teaching experience as well as the learning experience as the teacher experiences changes and challenges to elicit enthusiasm.

Students will approach an assignment based on their perception of that learning task (Dunn et al, 2004). Use of technology and better learning feedback ensures students approach a learning task with more enthusiasm and put more effort into it as they perceive it as being worth while and of interest to them. The Department of Education and Early Childhood has been focusing on this concept and encouraging school children to use technology more. A representative from the Department stated that “a student with motivation, broadband and IT devices can learn more than in a traditional delivery” (Devaney, 2008, p. 15). These students are making use of platforms such as web 2.0, blogs and wikis to enhance their learning (Devaney, 2008). Therefore, when these students enter University, they are likely to be comfortable and motivated to use technology in presenting assessments in a new and interactive manner. Just as academics should be harnessing technology for more effective teaching (Biggs, 2003) they should also be harnessing technology for more effective learning.

**Method**

A method was developed to test the impact of using smartphones and Facebook on the student learning experience, as well as introduce technology skills as a graduate attribute outcome. It should be noted that this is not the same as using technology to replace education. There have been mixed reports on the value of using podcasts and videos to replace traditional lecture environments. This research was only linked with exploring using technology in the form of smartphones and Facebook as part of the
development of an assessment piece, rather than focus on the use of technology as an alternative method of delivering content.

Due to the recent development of the technology being used, there is a lack of published research associated with use of Facebook or smartphones as a tool to enhance student learning. Therefore this research was largely exploratory, and was essentially designed to further test the research findings by Uden (2007). That is, the research aimed to test whether the use of smartphones and Facebook improved student motivation, created a sense of independent and collaborative learning and encouraged a sense of responsibility.

The students were able to utilise their smartphone and Facebook in researching and delivering their major assessment piece. This was done through linking directly with a major tourism operator, Sovereign Hill, as well as Telstra who were partners in this project and were involved in the final delivery of assessment findings by the students. This study used qualitative methods to assess the student experience in delivering an assessment in conjunction with an industry partner, through current technology. The students’ major assessment piece involved applying course content of futurology and contemporary tourism issues directly to a major tourism enterprise, Sovereign Hill. It involved researching and delivering this through utilising current technology to enhance their learning experience. This technology involved using a smartphone to support field research and upload material in the form of still images and / or video with captions directly to Facebook. This was to be done on site, using Telstra’s nextG 3G Network. As the wi-fi at Sovereign Hill is inconsistent it was necessary to use 3G technology for this to be possible.

When the final assessment was submitted by the students, qualitative interviews were conducted in order to assess the experiences post-assessment. As the cohort for the subject comprised only 12 students, quantitative research was not appropriate. Exploratory qualitative research was deemed most suitable for this pilot project. In total ten questions were asked to explore these issues. Thematic analysis was used to explore key themes emerging from the research.

**Research Findings**

Interviews were conducted with all twelve students. Students appeared motivated and had a high lecture attendance rate (average 94%) throughout the semester. The students seemed keen to come to class each Monday, despite the time (8:30am – 11:30am Mondays). The purpose of this research paper is to outline the student experiences. As such, these experiences will be discussed in the order that the questions were asked.

**Question 1**

This question asked: ‘Please indicate what you thought about undertaking a major assessment piece for this course, involving the use of a smartphone (eg iPhone) and Facebook.’ Overall, a strong theme came through for all students regarding the experience being a favourable one. All 12 students described the assignment as being “enjoyable”, “interesting”, “exciting” or other positive descriptors. Some students were especially enthusiastic in their responses, such as one student (respondent 2) who referred to the assignment as “a very enjoyable task which had plenty of room for new ideas and creativity.” Similarly, (respondent 5) “I thought the use of a smartphone in undertaking a major piece of assessment was a useful learning experience. This enhanced learning experience and information retention.” The level of difficulty in using the devices seemed greatest for those who had a Treo Pro Palm, which was the most expensive of the three devices.
Question 2
The second question asked students to outline what aspects about the task were favourable. The question was worded: 'Please nominate what aspects, if any, about undertaking a major assessment piece for this course, involving the use of a smartphone (e.g., iPhone) and Facebook were good.' Key themes came through regarding learning and technology being a positive experience. Some particular comments related to the concept involving “innovative learning” (respondent 3) and was an “opportunity to understand in depth the topic” (respondent 1).

Question 3
The third question asked students to outline what aspects about the task were of concern. Question three was worded: ‘Please list any aspects about undertaking a major assessment piece for this course, involving the use of a smartphone (e.g. iPhone) and Facebook, that were of concern.’ Interestingly, despite Bugeja (2006) referring to today’s higher education students as the Facebook generation and stating that students are regular visitors to the site, seven of the 12 students actually reported difficulty in working out how to use Facebook. In addition, despite technology emerging as a key advantage in the previous question, technology also featured as a theme for concern for the students. Some students reported “technology failure” (respondent 2), “occasional unreliability of technology” (respondent 1) and cited it was difficult “to understand concepts of new technology” (respondent 5).

Question 4
The fourth question asked students to outline their experience and to indicate whether overall, it was good or bad. This question was: ‘Overall, do you think that undertaking a major assessment for a third-year University-course utilising technology in the manner in which you were expected to do for this course was a good thing or bad thing? Please provide as much detail in your response as you can.’ One student indicated that overall it was a bad experience because they had “too many assessments and not enough time to learn the technology” (respondent 12). The other 11 stated it was a positive experience, describing it as “great” (respondent 1 and 3), a “fantastic experience” (respondent 1) and “good” (respondent 2, 4, 5, 6, 7, 8, 10, 11). The importance of becoming familiar with technology before entering the workforce was also raised by the majority (eight) of the respondents.

Question 5
The fifth question asked students to indicate how much time was spent familiarising themselves with the technology. In particular, the question was to establish whether the students used any non-essential time due to the enjoyment of using technology. The question was worded: ‘In thinking about the amount of time you spent using your smartphone and Facebook site, did you find you spent any extra non-essential time familiarising yourself with these spheres? If so, was it because you wanted to? Please provide as much information as you can regarding this.’ In general, the students reported spending extra time in familiarising themselves with either the smartphone or Facebook or both. One student commented that they “spent nearly a whole night to familiarise” themselves with their iPhone “but it was a good thing (as) I was curious about it” (respondent 4). Another student commented that it made them “go out and get (their) own Facebook page” (respondent 5). Another student stated “Yes! I am not very up to date with technology but I found learning about Facebook and how to upload pics from the smartphones useful and I’m sure I’ll use this knowledge in the future” (respondent 8). A particularly interesting comment came from respondent 10 who said “Yes, because I wanted to test drive the phone. I tested mainly the application ability of the iPhone. This led me to purchasing one for my own use.”

Question 6
The sixth question asked students to indicate whether they devoted less time or more time to the major assessment task than they would ordinarily devote to an
assessment piece of that size. They were also asked to explain why they thought this occurred. The question was worded as: ‘Do you think that you devoted less or more time to the major assessment task for Contemporary Tourism Issues than you would ordinarily do? Please provide details on why you think that was.’ All but one student stated that they had spent more time than they ordinarily would on their major assignment. Interestingly, a number of the comments indicated pleasure rather than resentment in devoting extra time to the task. For example, one student said that they spent “more” time as they “wanted to show extra effort for a unique task. Use of technology pushed me further to look into components of [the] report more thoroughly” (respondent 1). Similarly, another student claimed that they “spent a lot of time brainstorming before starting. Creative ideas take time to develop” (respondent 3). Another student stated that they “devoted more time to this assessment than others. Because it was a new style of doing assignment. I never had an experience like that” (respondent 4). The comment was also made that “it was also fun, although there was a structure we had a lot of free-reign over the assignment” (respondent 9) and it involved “specific critical thinking” (respondent 10).

Question 7
The seventh question enquired about the student experience with regards to the learning environment. The question was: ‘Do you think that you learned more or less from the major assessment task for Contemporary Tourism Issues compared to other assignments you have done in the past? Please provide as much detail as possible to explain your answer.’ Only one student though they learned “probably less” (respondent 12). All other students said that they felt that they had learned more from the experience compared with other assignments that they had previously done. Particular comments related to the depth of learning and the “better understanding.” For example one student wrote: “learned more – technology increase interest and enthusiasm. Gave more flexibility – field trip personalised assessment and gave a better understanding” (respondent 1). Similarly, respondent 5 stated “More. I believe that this piece of assessment was an interesting and effective learning experience. The ability to apply the theory to a local tourist attraction, coupled with the use of technology was effective in enhancing the learning experience.” Respondent 6 stated “I found myself to be much more involved in this project; a much more interactive way to learn.” Similarly, respondent 10 stated “More in a critical thinking and observation sense I learned more.”

Question 8
The eighth question specifically aimed to address the points raised by Uden (2007) regarding whether the use of WMDs enhances motivation, independent learning, collaborative learning and a sense of responsibility. The students were asked whether it actually had any positive impact on their learning, and all but one stated that it had (see Table 1). The other 11 thought it had increased their level of motivation, increased their independent learning, and encouraged a sense of responsibility. Ten of the 12 students though it had also increased their collaborative learning. One student added that the assignment also had a positive impact on creativity. As such, the student experience was positive and supported the findings from Uden (2007).
Table 1:
**Impact of smartphone and Facebook on learning**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Not sure</th>
</tr>
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<tbody>
<tr>
<td>Your level of motivation</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Independent learning</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Collaborative learning</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Encourage a sense of responsibility</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other (please state) creative thinking</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>

Qn 8. Did the use of a smartphone and Facebook have any positive impact on any of the following?

**Question 9**
The ninth question specifically aimed to establish whether the students felt that their information retention had been heightened through the experience. The question was worded as: 'Do you think that information retention has been heightened through the major assessment type used in Contemporary Tourism Issues? (provide as much detail as possible.)' The students providing responses all felt that it either possibly had, or definitely had in some way. Two students referred specifically to the nature of the task that “heightened” their interest, which led to a richer level of information retention.

**Question 10**
The tenth and final question asked for any other comments the students may like to make concerning the project. One comment was “Grateful to (lecturer) for putting together a fantastic report, that unlike most other assessments, I’ll remember!” (respondent 1). The notion of enjoyment in undertaking the assessment seemed strong from a number of the students. Another similar comment was “I felt very excited about developing recommendations for Sovereign Hill, visiting the attraction, taking photos and filming activities to support my arguments. So excited I couldn’t sleep!!” (respondent 3).

**Discussion and Conclusion**

Two themes emerged from the analysis of this research. The first concerns the assertion in previous literature that the Facebook generation understand technology. One student struggled constantly with their smartphone, was unable to use it effectively, and as such found the experience more trying than the others, although they still admitted in their feedback that the experience had been interesting and that their information retention was “perhaps” heightened by the experience. This student’s lack of technology skills, including experiencing difficulty establishing a Facebook site, highlighted that not all of today’s youth are comfortable with technology. In fact, it was surprising that in the first lecture when the students were asked who had a Facebook site, only three raised their hands. Many of the students reported difficulty uploading images onto Facebook. Clearly, not all students grasp new technology easily, and whilst they generally reported to have enjoyed the challenge and the opportunity to trial technology, half of the students struggled with the technology in some way during the semester.

The second finding concerns the motivation and enjoyment of students. The notion of enjoyment in undertaking the assessment seemed strong from many of the students, with 11 out of 12 of the students stating in response to Question Four, that the overall experience was great. A majority (nine out of 12) of the students believed they had learned more in that style of assessment piece than previous assignments. Nine out of the 12 students felt that the use of technology had enhanced their learning experience. In fact, unsolicited emails from the students after the subject was finished...
were filled with praise over the experience. A number of these students mentioned that it had been the best subject they had undertaken. One student email stated:

I also want to thank you, for leading the more enjoyable, interesting and insightful course I have participated in during the last 2.5 years at uni. Every Monday after class I felt stimulated and excited to be a tourism student! I believe that this course has taught me to ‘really’ use my analysis skills….I’ll miss our Monday morning class....I feel confident that I have ‘really’ learned the topics and gained valuable lessons that will stay with me.

Such enthusiastic comments indicate a strong level of engagement and heightened learning experience. Whilst retention could only be properly tested a number of months down the track, the project does indicate that smartphones and Facebook can be used to create a unique and enjoyable learning experience. As a result, this research adds additional support to the findings by Uden (2007) that wireless mobile devices can be used in assessments to improve motivation, a sense of responsibility, independent learning, and collaborative learning.

Overall, the outcomes of this project seem to indicate that use of technology in developing an assessment piece can be an enriching experience. The fact that the subject enjoyed an average lecture attendance of 94% for an 8:30 – 11:30 Monday lecture time was pleasing, particularly in a time when attendance in lectures has been decreasing (Nolan, 2009). The official Student Evaluation of the Course (SEC) was 4.9 out of 5.0.

Whilst there can be a range of contributing factors explaining why this initiative was successful, the qualitative feedback does indicate that the technology enhanced the experience for the students. In addition, since social media is increasingly being recognised as an important marketing tool in business, and that not all of the cohort of students were familiar with social media, it seems important to include this in the learning. Many of the students in the cohort had difficulty using Facebook, did not have a facebook site, and most had not even heard of Twitter and other social media forums. With those students almost ready to enter industry, educators need to revisit their traditional educational practices to ensure that today’s graduates are fully equipped to meet the needs of industry.

Whilst the outcomes of this project are limited to the small cohort that it was trialled through, it does reinforce previous findings (Uden, 2007) and seems to indicate the worth in using such means to improve the student experience. Naturally, the exact mechanism of this project could not be replicated for large cohorts of students due to the cost of providing smartphones. However, an increasing proportion of students now possess smartphones, often with large data allowances. Most of today’s undergraduate students do not wear watches, and many do not have landlines or internet connections. Their smartphone is their alarm clock, their watch, their phone, and their internet connection. It may be that very soon, virtually all of tomorrow’s students possess the very tools necessary to replicate this project regardless of cohort size. Testing this for additional cohorts would be useful to establish whether similar findings arise to justify ongoing adoption of these techniques.
References


