Facebook in higher education promotes social but not academic engagement.

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Although there is evidence that academically successful students are engaged with their studies, it has proved difficult to define student engagement clearly. Student engagement is commonly construed as having two dimensions, social and academic. The rapid adoption of social media and digital technologies has ensured increasing interest in using them for improving student engagement. This paper examines Facebook usage among a first year psychology student cohort and reports that although the majority of students (94%) had Facebook accounts and spent an average of one hour per day on Facebook, usage was found to be predominantly social. Personality factors influenced usage patterns, with more conscientious students tending to use Facebook less than less conscientious students. This paper argues that, rather than promoting social engagement in a way that might increase academic engagement, it appears that Facebook is more likely to operate as a distracting influence.

Keywords: facebook, higher education, student engagement, social media

Introduction

Student engagement in the digital age

Student engagement has been identified as a significant predictor of academic performance (Astin, 1984/1999; Pascarella & Terenzini, 2005; Zhao & Kuh, 2004) and is considereddirectly relevant to implementing Chickering and Gamson's principles underpinning good undergraduate learning (Chickering & Gamson, 1987, 1999). Measures of student engagement focus not only on academic factors, but also on social support, interaction between student peers and interaction with tutors and faculty members (Coates, 2007; NSSE, 2005).

In the context of more students entering the tertiary sector thus creating a more diverse student body (Dobson, 2010), less funding is available for student clubs and societies (NUS, 2011), and more students are combining work and study (Pike, Kuh & McKinley, 2008; Polidano & Zakirova, 2011), there is mounting pressure to find ways of keeping students engaged with academic life (Chickering & Gamson, 1999; Coates, 2006; Krause & Coates, 2008; Pike, Kuh & McCormick, 2011). Given that the majority of the incoming student cohort has grown up with digital technology and the internet, and many university services are delivered via the internet, there is increasing interest in engaging with students through new forms of digital communication media. The

push towards use of social media often comes from marketing departments rather than academic staff, and many of the metrics associated with student engagement (discussed below) are more related to student experience than to student learning. It has not been clearly established how increased social interaction might lead to better academic learning, and what role student engagement through social media could play in the academic context. Coates (2007) notes that, since most universities now have student portals and use web-based learning management systems as a central part of course delivery, it is increasingly important to understand the effects of online learning practices. This includes use of social media on student engagement.

The concept of engagement

Although the concept of engagement is intuitive and appealing, engagement has proved a difficult concept to define with clarity. Various methods of assessing engagement run the risk of prematurely reifying concepts forming part of the engagement construct. For example, common survey instruments such as the AUSSE (ACER, n.d.) and NSSE (NSSE, n.d.) include items regarding use of specific tools or processes. Thus features of the institution and the structure, not function, of its services become an integral part of student engagement metric. This leads to confusion between engagement as an attribute of the student, the institution, or the interaction between them, although student engagement metrics are based on data from student surveys.

Early research tended to focus on issues like "time on task" (Brophy, 1983) in a manner aligned with the management and productivity ideas in vogue at the time. Academic views of engagement tend to focus on engagement with the academic discipline as a fundamental goal, whereas ownership of student engagement within the institution tends to be with the recruitment and marketing teams. Their focus is in on institutional course offerings and student attrition, rather than on the academic disciplines themselves. More nuanced views of student engagement recognize there are (at least) two broad meaning of the term (e.g., Nystrand &Gamoran, 1992). The first encompasses a student's willingness to participate in learning activities and do what the institution asks (academic engagement), and second is an affective component which deals with the emotional and social regard the student has toward the institution and the act of studying (social engagement).

Without wanting to engage in a detailed review of this literature and debates over terminology, it makes sense to consider student engagement (whatever else it might be) as having cognitive, behavioural and affective aspects. Learning comprisea cognitive processes and outcomes that arise from, and are supported by, appropriate learning behaviours. These are likely to be mediated by affective experience (that is, the desire and motivation to learn) within the academic context. Affect may be the gateway to action (either through positive desire to learn, or through fear of sanction if learning does not occur) but because academic learning is ultimately cognitive in nature, it is not enough merely to activate the affective component by instilling a desire to learn, if it is not accompanied by the requisite cognitive skills to desired learning outcomes. Instructional designs aimed at creating affective engagement without sufficient attention to what behaviours are required for cognitive engagement may fail to promote the required behavioural and cognitive activities for learning to occur (Frederick, Blumenfeld & Paris, 2004). While it is hard to dispute that student engagement is important for student outcomes, it seems that much of the literature has put the cart before the horse. Undoubtedly there is good evidence to show that academically successful students are engaged with their studies, but it is somewhat less clear that increasing the metrics associated with student engagement serves to create good students. On this basis, it is argued that efforts to promote social engagement, for example through use of social media, may not on their own result in improved cognitive engagement required for learning.

Facebook

The rapid adoption of social media, particularly combined with the use of portable digital devices such as mobile phones and tablet PCs, has ensured that universities are becoming increasingly interested in the extent to which social media offer opportunities for improving student engagement. Social networking sites such as Facebook and Twitter (a site based on microblogging and information dissemination) have both been suggested as vehicles for promoting academic engagement with the digitally-proficient cohort of students.

Because Facebook is currently (in mid 2011) the preeminent social networking site, with more than 500 million active users at the time of writing, we focused our study on Facebook use. Typical Facebook users will spend from 10 minutes to more than two hours per day on Facebook (Ryan & Xenos, 2011). Individuals sign up for a Facebook account and create their own profile, in which they have the option to include a range of personal information including: basic identity and demographic information (e.g., name, residence, gender, date of birth), people with whom they have close relationships (e.g., formal relationship status, family members), educational

and work history (e.g., linking to their school, university and places of employment), philosophy (e.g., religion, political views), information about their interests in the arts/entertainment, sports or other activities, and their contact details (e.g., address, phone number).

Users also have the option to request and accept friendships with other users, to join interest groups or networks, and to communicate with others by sending messages to their mailbox, utilising instant messaging, 'poking' other users (interacting with them without conveying any specific semantic content), and commenting on others' profiles. Until recently, there has been limited research on social networking sites such as Facebook. However, over the past five years there has been increase in the number of peer-reviewed articles appearing in the literature (ScienceDirect returned 65 hits for 2006 versus almost 900 for 2010, using the search term "Facebook"). These studies have examined a broad range of topics including how individuals use Facebook (Cheung, Chui & Lee, 2010; Ryan & Xenos, 2011), their motivations for engaging with others online (Ross, Orr, Sisic, Arsenault, Simmering & Orr, 2011), and what psychological factors influence their style of Facebook usage (Amichai-Hamburger & Vinitzky, 2010; Carpenter, Green & LaFlamm, 2011; Mehdizadeh, 2010; Ryan & Xenos, 2011; Wilson, Fornasier, & White, 2010; Zhong, Hardin & Sun, 2011).

Current study

Given the emphasis on social interaction rather than information sharing within the student engagement construct, we chose to investigate the use of Facebook (a medium favouring social interaction) rather than Twitter (a medium favouring information-sharing) in the first year cohort, in terms of its potential to enhance student engagement. The data reported in this paper come from a larger study looking at student use of Facebook and its relationship to a number of personality factors.

Method

Participants

The participants were first year undergraduate psychology students from a Melbourne metropolitan university. Five hundred and forty-eight students participated in the study. Of these, 94% had Facebook accounts. Participants' data were not included in the analyses if they had more than 10 percent missing data. The final sample comprised 396 participants with 302 women and an average age of 20.65 years. Almost the entire final sample (98.5%) had Facebook accounts.

Measures

The scales administered in the current research included measures of Facebook use and the Big Five personality traits delivered online via the Opinio software package (v6.4 available from http://www.objectplanet.com/opinio). These are described below.

The Facebook Questionnaire (FQ; Ross et al., 2009)
The FQ is a 28-item questionnaire developed by Ross et al. (2009) to measure basic Facebook use, attitudes towards Facebook and information relating to the posting of personal information. Basic use items were designed to collect information about the use of common functions on Facebook, such as time spent using Facebook, number of Facebook friends, preferred functions (e.g., wall, messages) and reasons for using Facebook (e.g., to communicate with friends). Multiple items were used to assess the different attitudes towards Facebook (e.g., 'I feel out of touch when I haven't logged on to Facebook for a while' and 'I would be sad if Facebook shut down'). Participants were also asked to indicate whether they had posted information on their profiles, including their phone number and mailing address. Response formats on this instrument ranged from dichotomous to five-point rating scales with a number of items requiring a numeric response.

Australian Personality Inventory (API; Murray, Judd, Jackson, Fraser, Komiti, Pattison, & Robbins, 2009)
The API comprises 50 items drawn from the International Personality Item Pool (IPIP) with ten items associated with each of the Big Five traits, namely neuroticism (e.g., 'Panic easily'), extraversion (e.g., 'Make friends easily'), openness (e.g., 'Have a vivid imagination'), agreeableness (e.g., 'Respect others') and conscientiousness (e.g., 'Am always prepared'). Participants were asked to indicate their responses on a five-point scale with responses ranging from 1 (*very inaccurate*) to 5 (*very accurate*). Scores were averaged for each trait (after necessary items were reverse scored), with higher scores indicating higher levels of a trait.

Procedure

Ethics approval for the current research was obtained from the University's Human Research Ethics Committee. Participants were invited to take part in the research during the first week of tutorials via an information sheet distributed in class by their tutor. The information sheet emphasised to students that (a) their participation in the survey was completely voluntary, (b) all processed data would be anonymous, (c) their decision to participate (or not) would not affect their academic evaluation / relationship with the university (d) they were free to discontinue participation at any time, and (e) they were free to omit any questions they did not wish to answer. Participants who agreed to be involved in the study were able to access the online questionnaire through their portal on the university learning management system, where they were directed to the web address for the research. Return of a completed online questionnaire was taken as consent to participate in the research. Participants completed the survey during the first week of semester at a location and time of their choosing. Data were downloaded at the end of the first week, and analysed using SPSS Version 19.0. The data reported in this paper are from the first wave of data from a larger study, which will examine Facebook use and personality over four time points.

Additional data regarding university-badged Facebook pages have been acquired on an *ad hoc* basis by the authors through publicly-accessible groups and pages on Facebook using the university's name as the search term. These additional data are discussed in terms of the role of Facebook in university life and the direction for future research on social media and student engagement, to see how students themselves use Facebook in an academic context.

Results

Facebook Usage

Table 1 shows basic descriptive statistics relating to Facebook usage in our sample. Students spent an average of an hour per day on Facebook, typical usage was 20 and 90 minutes per day with half the sample's usage falling between. There was one exceptionally high user who spent 500 minutes using Facebook per day. Students had an average of 352 Facebook friends. The distribution was positively skewed with 50 percent of students reporting having 300 Facebook friends or less. Typical number of Facebook friends was between 190 and 480 friends, with half of the sample falling within this range. One student had an exceptionally high number of 1600 friends.

Table 1. Descriptive statistics for Facebook usage

	Mean time spent using Facebook per day	*Mean number of logins per day*	*Mean number of Facebook "friends"*	*Mean number of Facebook Groups joined*	*Mean number of photos posted*
Overall (N=390)	65.72 mins (SD = 62.36)	4.83 times (SD = 5.99)	352.70 (SD = 229.68)	66.33 (SD = 212.41)	283.18 (SD = 368.86)

The most preferred function/application of Facebook was the Wall (35.1%), followed by messages (17.9%), photos (17.7%) and events (14.6%). In response to the question, "Why do you like Facebook?" the most common response was "It is how I communicate with my friends" (55.9%), followed by "It allows me to communicate with people from my past" (17.2%). Only 4.9% suggested it provides them with information.

Personality factors influencing Facebook usage

Patterns of Facebook usage based on psychological factors incorporated in the five factor model of personality (Costa & McCrae, 1992) were analysed for the larger study and data on three of the factors, conscientiousness, extraversion and neuroticism are presented in Table 2. As can be seen from Table 2, students scoring high on conscientiousness spent less time on Facebook, had fewer Facebook friends, belonged to fewer groups and posted fewer photos to Facebook than those scoring low on conscientiousness. That is to say, students who are more conscientious used Facebook less than those who were less so. Table 2 also reveals that students scoring high on extraversion or neuroticism had more Facebook friends and belonged to more groups than those scoring low on these traits. Those scoring high on neuroticism spent the most time on Facebook and belonged to more groups, but posted fewer photos than those low on neuroticism.

Table 2. Facebook use based on personality factors of conscientiousness, neuroticism and extraversion.

	Conscientiousness		Neuroticism		Extroversion	
	Low M (SD)	High M (SD)	Low M (SD)	High M (SD)	Low M (SD)	High M (SD)
Time spent using Facebook per day	82.17 (78.04)	55.42 (48.77)	59.13 (57.14)	82.20 (81.77)	67.57 (64.97)	73.05 (74.50)
Number of Facebook Friends	393.31 (261.46)	282.52 (182.14)	365.09 (238.40)	363.73 (241.95)	279.71 (242.37)	441.22 (227.34)
Number of Facebook Groups	105.55 (246.29)	36.93 (79.60)	24.32 (57.87)	111.59 (331.56)	42.43 (83.46)	118.49 (355.42)
Number of Photos	294.15 (327.24)	237.75 (384.74)	300.64 (425.03)	259.38 (273.17)	161.09 (215.55)	385.07 (362.27)

Students high on neuroticism actively block certain users viewing their Facebook content via a "block list" more so than those low on neuroticism (40.4% versus 27%) although similar numbers prefer the wall to messages (58.7% versus 51.3%) and listed the wall as their preferred function (31.7% versus 31.9%), followed by messages (18.3% versus 19.5%). Students high on extraversion prefer the wall to messages compared with those low on extraversion (62.6% versus 53.8%) and check the wall more than once daily (53.3% versus 27.4%). A more detailed analysis of the influence of personality on Facebook usage will be presented in a forthcoming paper.

University-badged Facebook groups

A number of University-badged Facebook groups were identified by searching Facebook using the university's name as the search term. Two of these groups were student groups specific to the psychology discipline, one under the "Clubs and Societies" heading and one under the "Academic Groups" heading. Both groups seemed to have similar overlapping purpose and overlapping membership and almost all the wall posts were messages to recruit participants for Honours research projects. A number of pages for specific units of study were located, and students used these pages for both social and academic exchanges. Academic exchanges were in the form of requests to share notes, procedural and administrative information relevant to assignments and assessments and to share their feelings of stress about workloads or marks, but rarely included academic discussion of psychological concepts.

One University-badged Facebook entity was named after a specific university campus (identified under "People" rather than "groups"). The role of the entity was to answer student questions (e.g., "hey guys, when/how do i find out my timetable for next semester?"), to publicise information (e.g., "If anyone is interested in Studying Abroad or Exchange there will be an information desk down in the atrium tomorrow between 12pm - 2pm!") and to advertise campus events (e.g., "free tea, coffee, biscuits in the Library today in the new room near the library entrance"). The page was fairly active and seemed to provide a useful interaction with students.

Another style of Facebook page, a Community page called <University Name> Stalkerspace was identified, along with similarly styled pages for the majority of Australian universities and many well-known international universities. These "stalkerspaces" are sites for people to make humorous observations about the people around them (e.g., "major lol @ guy snoring on level 3 at library!", or to invite people they have seen in passing to interact with them (e.g., "To the hot asian in the black, hello ;)"). This is an excerpt from the official description of one such Community page: "<University Name> StalkerSpace is a group that aims to connect <University Name> students that may have otherwise lost each other in the sea of faces of your lecture theatre (or simply around the traps)." With over 2000 "likes", the site is well-utilised.

Discussion

Summary of findings

Nearly all students have a Facebook account. The majority of those who do not use Facebook appear to have made a conscious choice not to. The main use for Facebook as identified from the survey data seems to be social interaction. The focus of student-initiated university-badged Facebook sites was also predominantly social, or for the recruiting of participants for student research projects. Very few students use it to seek information,

however, this finding should be interpreted with some caution. Given that Facebook is predominantly used for social interaction and relatively few survey items asked specific questions about obtaining information, respondents may not have given much thought to this aspect of Facebook usage.

Different personality factors appeared to influence patterns of usage of Facebook. Of most relevance to this paper, students who scored high on conscientiousness did not use Facebook as much as those who scored lower on this attribute, suggesting that they were less likely to be distracted from their studies by Facebook use. That is to say, conscientious students stayed away from Facebook, rather than using Facebook as a means to engage more with their studies, supporting the characterisation of Facebook as a social medium rather than a medium for academic interaction. Students who scored higher on neuroticism spent more time on Facebook and belonged to more groups than those who scored low on this factor. Although they had a similar number of friends, they posted fewer photos of themselves and used block lists more than students scoring low on neuroticism. Facebook as a medium supports the ability to find out about the social and personal life of Facebook friends without actively engaging with them – as noted by Postman (1985/2005) with respect to television, the so-called 'social' engagement promoted by Facebook is engagement with the medium through which the external world is being viewed (Facebook), rather than with the external world itself. Insofar as high levels of neuroticism are related to less satisfying social relationships (e.g., Denissen & Penke, 2008), it would seem that the use of Facebook does not actively promote social engagement with people through its interface (e.g., using the chat tool as a proxy for speaking), but rather, allows engagement with the Facebook site to be a proxy for social engagement with real people. Thus Facebook as a tool to promote social engagement for students who are below the norm on this factor may not be effective, but worse still, may serve to draw attention to a readily available source of distraction from academic engagement.

Students scoring high on extraversion had more friends, belonged to more groups, posted more photos of themselves and were more likely to check their Wall more than once daily, none of which is in the least bit surprising - Facebook offers a medium through which they could express the extraversion factor of their personality. Students scoring lower on extraversion did not interact with as many people or share as much personal information.

The snapshot of data presented here suggests that personality factors influence patterns of usage of Facebook, so that Facebook use reflects personality rather than providing an unbiased avenue for improving social interactions across the board. The relationship between Facebook usage and personality revealed by our data will be discussed at greater length elsewhere. However the implication of the effect of personality factors on Facebook usage for people planning to use Facebook to promote social engagement within their student cohort is that Facebook provides a medium through which students can exhibit their personality traits and engage socially in their own individual style, but does not enforce or encourage any particular form of social behaviour, such social behaviour that might result in increased academic engagement. Indeed, Facebook may act as a distractor, seducing the less conscientious students from their studies, and providing a platform for people to express their personality and relationships with others in the Facebook world.

Facebook as a distractor

In the course of the study, we had much anecdotal evidence to support the notion that many students find Facebook distracting and intrusive in class. This is in accordance with previous literature (Madge, Meek, Wellens & Hooley, 2009) that, although students can use Facebook to work on assignments with fellow students (e.g., using chat to facilitate direct engagement with academic work), students mostly use Facebook to set up times for face-to-face meetings to work on assignments (facilitating social engagement around future academic engagement).

We also had anecdotal evidence to suggest that many students turn to Facebook when they are "bored" or to provide a mental break when they feel overly-challenged. In either case, Facebook offers an easy option to avoid dealing with the academic issue (of boredom or challenge), which ties in with the finding of Zhong et al. (2011) that students scoring low on the need for cognition (Cacioppo & Petty, 1982) use social media more than those scoring high on this attribute. If this pattern of usage is typical, then Facebook may act as a preferred form of distraction through its ready availability, and the association of Facebook with distraction may serve to reduce its potential as a tool for promoting academic engagement. The design of Facebook makes this particularly likely since it is specifically designed to promote interaction with people and products, and to entertain – it aims to capture attention and keep people engaged with their world through its interface. It does not currently have any interface controls that could be used to focus students on study-relevant forms of interaction. While the

familiarity of Facebook may be useful for new students to engage socially within the unfamiliar academic learning environment, Facebook usage may better be construed an indicator of the problem of disengagement (distraction) from study, rather than a potential solution to the problem. It is important to note that the solution to the problem of disengagement due to boredom is likely to be quite different from the solution to the problem of disengagement due to overly-challenging academic content, despite one of the symptoms of disengagement (Facebook usage as displacement activity) being the same. The next phase of our study includes additional questions on boredom with respect to Facebook use and a recent report suggests that boredom is a significant factor in university attrition rates (Coates & Ransome, 2011).

University-badged pages

Facebook community pages (e.g., Stalkerspace) show that students can and do use Facebook to increase social engagement, but this form of social engagement is not likely to result in direct academic benefit, and we argue that it is not the role of the institution to invade that space academically. On the other hand, the Campus "person" is a good interface to engage with students on non-academic matters, but anecdotal evidence from this study and data from elsewhere (Madge, Meek, Wellens & Hooley, 2009; Mazer, Murphy & Simonds, 2007) suggests that students (especially undergraduate students) do not want to interact with academic staff through their personal pages on Facebook. It may simply be that the interface is not conducive to conducting academic conversations. It is also possible that students find engaging with instructors and mentors in a forum they construe as part of their social world creates a sense of unease. Traditional roles and "social distance" may still need to be maintained in cyberspace, but the means for doing so are still emerging. In this light, the possibility of using other role-based "entities" such as Unit pages for individual units of study (modelled on the Campus "person") might provide an opportunity to give academic support to students in an quasi-anonymous, less threatening environment than the formal LMS environment.

Student engagement typologies

As discussed earlier, student engagement is multi-faceted and has proved difficult to define. In an attempt to address this complexity, Coates and colleagues (Coates, 2007; Krause & Coates, 2008) have modelled social engagement and academic engagement as two orthogonal dimensions of the engagement space. Using this framework, student engagement can then be classified into four types based on scores along each dimension (see Figure 1). According to this typology, students who are high on academic engagement and high on social engagement are intensely engaged with their studies, whereas those who are high on academic engagement but low on social engagement are a more independent study type. Students who are low on academic engagement and low on social engagement have a passive approach to study whereas those who are low on academic engagement but high on social engagement have a collaborative approach to study. Coates proposes that the engagement typology is a state rather than trait construct, and students may show different types of engagement at different phases of their study. The advantage of this typology is that it allows the possibility for different strategies to target different types of student engagement.

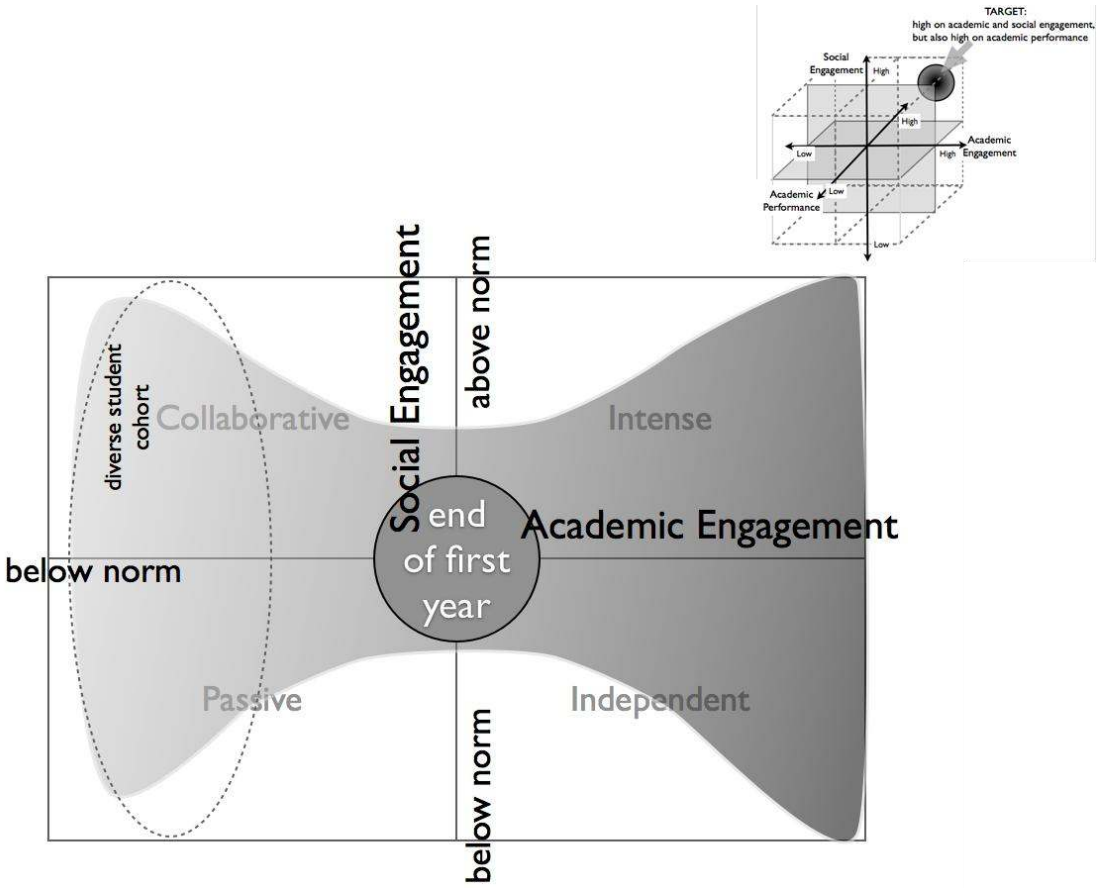

Figure 1. Typology of student engagement adapted from Coates (2007) and described further in the text.

Figure 1 shows the diverse student cohort entering the university (dotted oval) as being generally low on academic engagement but covering the whole spectrum of social engagement. The shaded background serves as a funnel aiming to bring people to a common level on both social and academic engagement by the end of first year (middle circle), and aiming to move them to the higher end of the academic engagement scale in later years (dark end of shaded gradient). While it is quite clear that a low level of academic engagement is not desirable for a university, it is not clear whether there should be a preference for very intense or very independent engagement types.

Of particular interest with respect to this study is that social engagement may operate differently for different types of students at the low end of the academic engagement scale. For example, passive students (students who are low on both academic and social engagement) may improve academic engagement by increasing their level of social engagement, for example through use of the familiar medium of Facebook. However, if passive students are also high on neuroticism and personality affects Facebook usage, media such as Facebook may provide a distractor which is a proxy for engagement, rather than providing real engagement, and as such, may reduce rather than increase academic engagement. In contrast, collaborative students may improve their academic engagement by *decreasing* their level of social engagement and becoming more independent in their learning. Data from this study showed that more conscientious students used Facebook less than others, suggesting that collaborative students may want to avoid using Facebook to increase their academic engagement. One thing missing from the Coates typology is a third dimension reflecting academic performance. The inset three dimensional space in Figure 1 includes a performance domain. The target zone identifies a high level of academic performance motivated by academic engagement and supported by social engagement. The data from this study suggest that using social network sites such as Facebook may aid more passive students in becoming socially engaged, but may serve as a serious distractor for more collaborative students, and on this basis, we urge caution in adopting Facebook for use within academic learning contexts.

Social Media and Learning Management Systems

An important issue concerning Facebook in an academic context is that the lack of control an instructor has over the interface severely limits its usefulness as a tool for direct education. While instructors can contribute content, they have no control over the structure or appearance of pages and no means of editing or moderating student interactions with content once posted. With such limited scope for academics to contribute to the instructional design, there is consequently limited scope to promote the behaviours and cognitions that contribute to engagement and learning.

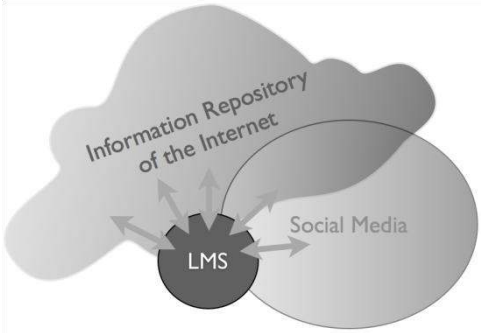

Figure 2. Learning Management Systems as the interface between the University and the Internet.

While Web 2.0 technologies including Facebook have been touted as offering untapped potential for innovative teaching and learning, institutionally-based Learning Management Systems (LMS) with their conservatively structured interfaces and corporate ownership, serve to recreate institutional boundaries to ensure that formal learning is contained within its own "space". Although the inherent philosophy of ownership of content and the lack of flexibility of institutionally-controlled LMSes has been an ongoing issue for many academics, perhaps the time has come where these constraining layers of control have advantages. From an institutional perspective, the LMS defines the institutional boundaries with as much clarity as is possible in cyberspace, and defines institutional roles by what they are permitted to do. Importantly, it clearly it leaves the dangers of Stalkerspace sites and uncontrolled interpersonal interactions on Facebook beyond the campus boundary.

Given that most LMSes can replicate many of the interaction functions of Facebook, the value of social media tools in an academic environment may by solely psychological, e.g., promoting positive affect, and norming experiences. Use of social media may not directly create academic engagement, but may make successful engagement more likely for a subset of students. However there are many issues to resolve before pursuing such a path. As depicted in Figure 2, a university LMS acts as the institutional gateway to the world of the internet, both as a vast information repository and as a vast social network, and it may be prudent to maintain such gateways until the governance of cyberspace and the boundaries of educational responsibility are more clearly defined.

Conclusions and Future Research

In this paper, we consider the role of social media in increasing student engagement. We argue that the aim of first year university is to moderate academic and social engagement to a common level to ensure that students become sufficiently engaged with their studies to want to continue at university. To achieve this outcome, students exhibiting different types of engagement may need different interventions, to foster collaboration for some students and to foster independence for others. As students progress to later years, the target engagement zone will be skewed more to the high end of the academic engagement scale.

We have argued that Facebook, a medium for social interaction, has only a limited role, if any, to play in promoting student engagement from an academic or institutional perspective. As noted earlier, Twitter is by design more of an information-sharing service than a site for social interaction. Therefore, it may be that Twitter has more potential for improving academic engagement. Twitter, a microblogging service, offers a different type of social network service from Facebook sitting somewhere between a social network and a news service (Kwak, Kee, Park & Moon, 2010). Twitter posts (tweets) are designed to be brief and topical, and people can follow other people (have their tweets sent to them) or can interact via the Twitter website. The short format of

tweets (140 characters) encourages conciseness, and the ability to tag themes requires meta-awareness of content and audience, so that tweeting uses cognitive skills also valued in academia. The concept of microblogging (pushing out small amounts of information with transient temporal relevance) uses the social network as a vehicle for information flow, rather than as a vehicle for strengthening interpersonal bonds. This apparently simpler technology is possibly better suited to creating interactions which are more clearly cognitively and behaviourally relevant to successful learning.

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