Social Media Usage in Higher Education in Online Business Programs

Gracia Castillo and Abubaker Haddud

Abstract The impact of social media usage on students' performance continues to evolve, and it is important to explore the best practices to gain the most benefits. This chapter covers the benefits of social media use in higher education by providing an overview of the emergence of Web 2.0, its main tools and processes, how each of these tools can be used in higher education, and an academic snapshot of social media and students. Also, the chapter provides an evaluation of a current approach through reporting the findings of a study conducted to explore the impact of social media usage on students' engagement and performance. Quantitative research was conducted through the application of an online survey to collect primary data from 96 students studying at six higher education institutions, namely, Central American Technological University (UNITEC), Honduras; University of the Valley of Mexico (UVM), Mexico; Latin American University of Costa Rica (ULATINA), Costa Rica; Inter-American University of Panama (UIP), Panama; CIBERTEC, Peru; and University of the Americas (UDLA), Chile, who were enrolled in an international business program in one of four online business courses [entrepreneurship, marketing, social corporate responsibility, and consumer behavior]. The study revealed that the use of social media tools can help online students become more engaged and interact more effectively with peers and instructors.

Keywords Social media • Social networking • Higher education • Online business programs • Student interaction and engagement

1 The Emergence of Web 2.0 and Social Networking

In 2004, the concept of "Web 2.0" began with a conference brainstorming session between O'Reilly and MediaLive International. The term was an outcome of a discussion about what is known at that time the dot-com crash. Dale Dougherty, Web

G. Castillo
Laureate Network Office, Tegucigalpa, Honduras

A. Haddud (✉)
Online Managemment Programmes, University of Liverpool, Liverpool, United Kingdom
e-mail: abubaker.haddud@online.liverpool.ac.uk

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pioneer, and O'Reilly VP, noted that the Internet was more important than ever bringing in new applications and that the companies that survived the mentioned "crash" have some things in common. Both agreed that the dot-com crash marked a new turning point for the Web and a call to an action such as "Web 2.0" may make sense (O'Reilly, 2005). "Web 2.0 or Social Media is affecting the way people communicate, make decisions, socialise, learn, entertain themselves, interact with each other or even do their shopping" (Constantinides & Fountain, 2008, p. 232). Web 2.0 is defined as the philosophy of mutually maximizing collective intelligence and added value for each participant by formalized and dynamic information sharing and creation (Schroth & Janner, 2007).

1.1 Web 2.0 Tools and Processes

The concept of Web 2.0 is demonstrated by a number of Web-based services and applications (sometimes referred to as "collaboration tools," and these include blogs, wikis, social networking, tagging and social bookmarking, RSS and syndication, audio blogging and podcasting, and multimedia sharing services). Many of these applications are relatively mature and have been in use for a number of years now. New features and capabilities are being added on a regular basis (Andersen, 2007). They are seen to hold considerable potential for addressing the needs of today's diverse students, enhancing their learning experiences through customization, personalization, and rich opportunities for networking and collaboration (Bryant, 2006). Social media resources can be divided into three distinct categories. While one category emphasizes content sharing and organizing sites like Delicious, Digg, Flickr, YouTube, and RSS readers, the second category encompasses content creation and editing Websites such as Blogger, Google Docs, and WordPress. The third category includes social networking sites (SNS) like Facebook, Ning, MySpace, Twitter, and Orkut that serve as online communities that enable users to connect with old or new friends and share ideas and resources (Rutherford, 2010).

1.1.1 Blogs

The blog, or Weblog, is perhaps the oldest of these applications (Tredinnick, 2006). The term Weblog, or blog, was coined by Jorn Barger in 1997 and refers to a simple Webpage consisting of brief paragraphs of opinion, information, personal diary entries, or links, called posts, arranged chronologically with the most recent first, in the style of an online journal (Andersen, 2007). Blogs can be written by one person or a group of contributors. Entries contain commentaries and links to other Websites, and images as well as a search facility may also be included (Boulos, Maramba, & Wheeler, 2006). Blogs have a variety of formats and might include the user expressing their opinion about a topic or documenting activities. Blogs are interactive in the sense that other users could provide comments on the information posted by the

blog author (Ajjan & Hartshorne, 2008). Blogs have been widely used for educational purposes include searching, tracking, interpreting, and evaluating blogs (Alexander, 2006). Specifically, bogging can be applied in higher education to achieve the following benefits (Grosseck, 2009):

- Use blogs for real-world writing experiences.
- Pull class blogs together into one area for easy tracking.
- Quickly give feedback to students and students to each other.
- Students use peer networks to develop their own knowledge.
- Update new information such as homework and assignments.
- Using comments in blogs can encourage students to help each other with their writing and get responses to a question without getting the same answer 20 times, etc.

1.1.2 Wikis

A wiki is a simple yet powerful Web-based collaborative-authoring (or content-management) system for creating and editing content. It lets anyone add a new article or revise an existing article through a Web browser (Murugesan, 2007). The most well-known wiki implementation is Wikipedia. Wikipedia allows users to modify encyclopedic entries by creating a reviewer and editing structure (Ajjan & Hartshorne, 2008). Wikis are useful in educational settings in that they support individualized learning, allowing for more socially defined search structures and promote collaboration through group editing and peer review (Alexander, 2006). Wikis can specifically be used in higher education as follows (Grosseck, 2009):

- Used for student projects and for collaborating on ideas and organizing documents and resources from individuals and groups of students
- Used as a presentation tool (as e-portfolios), as a group research project for a specific idea, and as a collaborative handout for students, in writing student-created books and journaling, used to manage school and classroom documents
- Used to create and maintain a classroom FAQ, as a classroom discussion and debate area, a as a place to aggregate Web resources, and for supporting committees, working parties, university projects, etc.

1.1.3 Social Networking

Social networks allow users to create personal profiles and establish a variety of networks that connect him/her with family, friends, and other colleagues (Ajjan & Hartshorne, 2008). Informal social networking has existed since the inception of the Web, but sites dedicated to social networking have been expanding exponentially since 2003. These sites collect data about members and then store this information as user profiles (Barsky & Purdon, 2006). While the increase in the use of these sites has generated concerns among parents, school officials, and government officials

about the potential risks posting personal information on these sites, it is evident they have a series of positive pedagogical implications (Ajjan & Hartshorne, 2008). Social networking can specifically be used in higher education as event support and continuation, team and community support, aggregation of social media applications, personal learning environments, etc. (Ajjan & Hartshorne, 2008).

1.1.4 Tagging and Social Bookmarking

Social bookmarking is the process by which users bookmark interesting pages and assign tags to each. Users can then share their tagged bookmarks. Social bookmarking is a great way of capturing contextual knowledge (Murugesan, 2007). Social bookmarking sites allow users to store, describe, and share numerous Web addresses with others. Users can explore bookmark collections of others by subscribing to their bookmark pages (Ajjan & Hartshorne, 2008). In 2003, Joshua Schachter launched del.icio.us – the first social bookmarking service. Inspired by del.icio.us, many kinds of social bookmarking systems have been established recently. The simplicity they offer for creating bookmarks and adding annotations was one of the reasons for their high popularity (Yanbe, Jatowt, Nakamura, & Tanaka, 2007). Tagging and social bookmarking can be used to facilitate collaborative information discovery in higher education as follows (Grosseck, 2009):

- Create a set of resources that can be accessed on any computer connected to the Internet; conduct research and share that research with peers.
- Track author and book updates and groups of students doing a classroom project sharing their bookmarks; rate and review bookmarks to help with students decide on usefulness of resources; set up a group tag in order to share educational resources.
- Share one del.icio.us account between a number of different subject-specific educators in order to share resources with each other, etc.

1.1.5 RSS and Syndication

Really simple syndication (RSS) is a service that rapidly disseminates awareness of new information. Searchers can use RSS to be alerted to relevant news headlines, blog postings, podcasts from radio, tables of contents of published electronic journals, and updates on results from a previous search (McLean, Richards, & Wardman, 2007). RSS and syndication can be utilized in higher education as follows (Grosseck, 2009):

- Professional development, time saving; updated information in teaching area information coming from constraining sources; sharing work with other educators.
- RSS feeds can potentially replace traditional email lists, reducing email overload.

- RSS feeds can be used to keep course-specific Webpages up-to-date and provide details about news and events etc.

1.1.6 Podcasting

A digital recording, or podcast, is produced and then played on a digital media player. The digital recording is commonly in the form of an audio file, but it may also include video. The downloaded digital media files can be played on a range of devices (Sandars & Schroter, 2007). Podcasting is a popular form of audio recording that has an associated RSS feed for subscribing to new audio recordings. Students could record themselves reflecting or reporting on their progress in an assignment or project, or they could record an interview with an expert in the field, etc. (Cochrane & Bateman, 2010).

1.1.7 Multimedia Sharing

Visual media can be uploaded and stored on a Website, such as Flickr (www.flickr.com) for photographs and YouTube (www.youtube.com) for videos. These media can then be shared with others (Sandars & Schroter, 2007). Multimedia sharing is identified as one of the main characteristics of social Web technology. This multimedia-oriented feature has enabled people to store and share their own produced pictures, videos, audio, and other multimedia files in social Web space. In addition, it allows people to search, tag, and comment on shared media (Panahi, Watson, & Partridge, 2012). Multimedia/video sharing can be used in higher education in a form of video professional development on own terms, create an own subject-specific videos with students, use video sharing sites to find videos on current issues, etc. (Grosseck, 2009).

1.1.8 Photo Sharing

Image sharing sites are designed to facilitate asynchronous public sharing of images. Users can utilize these to source and share image resources. Flickr (http://flickr.com) provides a large repository of publicly shared photos (and more recently videos) that people can use or share (Bower, 2015). Photo sharing can be utilized in higher education as follows (Grosseck, 2009):

- Share, comment, and add notes to photos or images to be used in the classroom.
- Inspire writing and creativity; create a presentation using the photos.
- Use tags to find photos of areas and events around the world for use in the classroom.

- Post student presentations to an authentic audience and get feedback from around the world; share professional development materials and have it available anywhere, anytime, to anyone; post presentations of special events.

1.2 Four Social Networking Sites

1.2.1 Facebook

Facebook was created in February 2004 by Mark Zuckerberg at Harvard University. While its membership was originally limited to Ivy League college students, membership was later (since 11 September 2006) extended to anyone worldwide with a valid email address (Bosch, 2009). Facebook has come to dominate college students' personal lives and has become invaluable tools for maintaining interpersonal relationships, exchanging information, and providing entertainment value (Camus et al., 2016). Facebook has become an important site for the informal, cultural learning of "being" a student, with online interactions and experiences allowing roles to be learned, values understood, and identities shaped. Facebook should therefore be seen as an increasingly important element of students' meaning-making activities, especially where they reconstruct past events and thereby confer meaning onto the overarching university experience (Selwyn, 2009).

Facebook's networking and social communication capabilities can benefit both the instructor and the student by tapping into a greater number of learning styles, providing an alternative to the traditional lecture format, creating an online classroom community, and increasing teacher-student and student-student interaction (Munoz & Towner, 2009). Facebook allows users to create private groups restricting access to permitted users only. This feature can be used to create virtual classrooms, and only students enrolled in these classes can be invited to join and keep the undertaken activities within these group spaces private.

1.2.2 Twitter

Twitter is a social networking site that is often termed a microblogging service (Tess, 2013). Twitter helps engage learners using a media application in which they are interested. It enables educators to curb the traditionalist comprehension-based model and encourages critical thinking, synthesis, and evaluation throughout the learning process. Twitter allows learners and educators to interact via "Tweets" via smartphones, laptops, or any device with Internet access (Rockinson-Szapkiw & Szapkiw, 2011). Twitter may allow students to learn in informal settings, have more control over their learning as it can create communities of inquiry, have an avenue to share ideas and communicate with peers and teachers, and receive an immediate feedback and documentation of learning activities over time (Forgie et al., 2013). The integration of Twitter as a communication tool encouraged participation from

some students who otherwise may not be active participants in class and provided then with opportunities to communicate virtually at any time (Junco, Heiberger, & Loken, 2011). While many may perceive 140 characters restrictive in the amount and type of information that can be shared (Lovejoy, Waters, & Saxton, 2012), this can be seen as a way of fostering concise communicate.

1.2.3 Google+

Google+ was launched in June 2011 as a free social networking site based on the concept of "Circles." Circles allow members to group people they follow on Google+ into categories thereby providing the means to target comments to specific audiences. Hangout, the name for the videoconferencing feature of Google+, was initiated in August 2011, and the ability to create video posts directly on Google+ was added in January 2012. All three features, Circles, Hangout, and video posts, can be used to form a discussion platform and collaborative space for an online course (Strudler & Grove, 2013). Google+ can improve students' collaboration through Circles, conducting research for projects with "sparks" improving the student-instructor relationship by using social media, and support blended e-learning with the Hangout functionality (Erkollar & Oberer, 2013).

1.2.4 YouTube

YouTube, originating in 2005, is a Website that invites people to create and upload their own videos and to view, share, and comment on others' contributions (Sherer & Shea, 2011). Various organizations such as businesses, television broadcasters, universities, political parties, and nongovernmental organizations have set up YouTube channels in order to deliver their message to a wider audience (Clifton & Mann, 2011). YouTube has emerged as a major host of online video content and is now the third most popular Website behind Google and Facebook. The use of video in education can be an effective way of engaging students and supporting their understanding (Tan & Pearce, 2012). YouTube has also been shown as a tool that can help students participate in the educational process and learn effectively, by preparing and recording an individual report for submission to the class or through collaboration with other students to complete a project (McNeill, Rice, & Wright, 2016).

2 Social Media and Students: An Academic Snapshot

Social media are popular for education, not least because young adults, who attend courses at university, are familiar with these systems and most of them use it frequently (Erkollar & Oberer, 2013). Newer forms of social media differ from older,

traditional broadcast media in that they enable peer-to-peer messages, as opposed to unidirectional transmission of one-to-many media content (DeAndrea, Ellison, LaRose, Steinfield, & Fiore, 2012). Social media is a twenty-first-century term used to broadly define a variety of networked tools or technologies that emphasize the social aspects of the Internet as a channel for communication, collaboration, and creative expression and is often interchangeable with the terms Web 2.0 and social software. In higher education, institutions are still primarily relying on traditional platforms such as course and learning management systems (LMS) that do not capitalize on the pedagogical affordances of social media (Dabbagh & Reo, 2011). Social media usage within higher education can benefit the students in different ways, for example, greater student engagement, greater student interest, and students taking more control of their education and more responsibility for their education (Blankenship, 2011). The following three sections present how social media usage promotes student engagement, delivered quality, and improved student interactions.

2.1 Social Media and Collaboration Tools for Student Engagement

Student engagement is defined as the time and effort students invest in educational activities that are empirically linked to desired college outcomes (Kuh et al., 2006). Engagement may include investment in the academic experience of college, interaction with peer students, interaction with faculty, and involvement in cocurricular activities (Junco et al., 2011). Student engagement with lectures, participation in seminars, and deep immersion in a subject matter have declined in recent years (Cole, 2009). At the same time, education has been undergoing a paradigm shift moving away from teaching-as-instruction toward student-centered learning, and as a consequence, curricula have been increasingly designed around learning outcomes rather than content (Lin & Hsieh, 2001). Using social media to support educational endeavors leverages the benefits of in-person learning communities with the benefits of using technology to support student engagement (Rutherford, 2010). Higher education administrators, faculty, and staff have an opportunity to help students use Facebook in ways that are beneficial to their engagement and, by extension, to their overall academic experience (Junco, 2011). Furthermore, student learning is positively impacted by learning communities, and there is a positive relationship between academic uses of technology and the occurrences of active and collaborative learning and the frequency of student-faculty interactions. Both of these benefits directly promote and enhance student engagement (Rutherford, 2010). Beltran-Cruz and Cruz (2013) demonstrated that instructors that communicate with students through course-based social networks increase student engagement in these online environments enhancing educational learning outcomes by using Facebook as a specific social platform.

2.2 Social Media and Enhancing Quality in Online Education

The growing popularity of social media applications indicates that by providing additional avenues and purposes for communications among students and faculty, social communications can become a contributor to successful learning. Interaction has long been recognized as a key indicator of quality in online courses (Roblyer, McDaniel, Webb, Herman, & Witty, 2010). The use of social media tools can provide personalized learning environments that can increase the quality and quantity of participation in online courses. Wakefield, Warren, and Alsobrook (2011) show that there is a relationship between social presence, perceived learning, interaction in the classroom, and course satisfaction with social media implementation in online classrooms. This can lead to fostering communication which in turn complements perceptions of engagement and perceptions of quality of education (Welch & Bonnan-White, 2012). Quality in education is reflected through engagement and participation of students in the online classroom. When students are highly involved and communicative within the environment provided, it leads to more interest in the topics of study, and more discussion is fostered and accomplished. Gonzalez, Leidner, Riemenschneider, and Koch (2013) explain that when higher education environments are not engaged in social media for communication with students, they are not using these outlets to their full potential. Social media plays an important role in the way educators approach students to encourage participation and engagement. Evans (2013) states that there is a positive relationship between social media tools usage, such as Twitter, and the way that students actively participate in shaping their experience and vice versa.

2.3 Online Platforms and Social Media to Improve Interaction

Increasing student engagement is positively related to student utilization of social media tools, for example, Facebook, Twitter, and other social interactive tools or microblogs. Such tools can create stimulating environments for online classrooms to encourage interactions between students and with faculty with the increment of these types of interactions providing a basis for increased student engagement (Welch & Bonnan-White, 2012). Such social media tools can help learners interact with peers in a way that can help them make sense of the subject matter they are studying and provide an efficient way to maintain communication and social connectivity (Veletsianos & Navarrete, 2012). The interactions between students in an online education system support active participation which is an important element in making the learning experience a success (Tarantino, McDonough, & Hua, 2013). Increased interest in online education made institutions address the key challenge this mode of instruction faces which is to develop and incorporate a social presence for students to keep the sense of human contact that is sometimes lost in online settings for education (Mathieson & Leafman, 2014). Obtaining this from current

LMS seems far-fetched since often these learning platforms are restrictive and lack flexibility. Mathieson and Leafman (2014) emphasize that it is important to tackle this issue to establish a relationship between students' perception of social presence and students' satisfaction with the course.

3 Current Approach

In 2015, the authors of this chapter have conducted a research study to explore the impact of social media tool usage on student performance enrolled in online business courses in a number of higher education institutes. A quantitative methodology was selected through the use of an online survey to collect the primary data for this study. Data was collected from 96 students studying at six higher education institutions, namely, Central American Technological University (UNITEC), Honduras; University of the Valley of Mexico (UVM), Mexico; Latin American University of Costa Rica (ULATINA), Costa Rica; Inter-American University of Panama (UIP), Panama; CIBERTEC, Peru; and University of the Americas (UDLA), Chile, who were enrolled in an international business program in one of four online business courses [entrepreneurship, marketing, social corporate responsibility, and consumer behavior]. The survey included 12 questions and was administrated through the use of Qualtrics survey software. Table 1 illustrates each of the 12 questions, the available answers, and the participants' responses for each response option.

4 Key Findings

The surveyed students reported that the interaction levels with their instructors on the used LMS [Blackboard] were relatively high. Whereas, the interaction level with peers using the same medium was relatively low. This is, perhaps, because of the nature of online classes' setup where the delivery of materials is more instructor led and directed. About two-thirds of the surveyed students stated that they used social networks to interact with peers and/or instructors for academic purposes outside the classroom online learning management system (Blackboard). This percentage remains low compared to the widespread and use of social media in general. Among Facebook, Twitter, YouTube, and Google+, the majority of students reported using the Facebook more often. This was an interesting findings where Twitter and YouTube had zeros responses. However, the majority of surveyed students stated that they used social media tools to communicate with instructors and this has facilitated the interaction process in the online courses. The majority of students agreed that the use of social media improved their interaction in the online learning process.

From these findings, social media tools can be used as effective tools in helping students engage and interact more efficiently with peers and instructors when taking

Table 1 Survey questions with participants' answers

	Question	Possible answers with participants' response percentages					
1	Age	18 years or less (5%)	19–21 years (44%)	22–24 years old (33%)	25 years or more (18%)		
2	Course I am part of	Entrepreneurship (57%)	Marketing (14%)	Corporate social responsibility (10%)	Consumer behavior (19%)		
3	Institution in which you study	Central American Technological University (UNITEC) – Honduras (5%)	University of the Valley of Mexico (UVM) – Mexico (63%)	Latin American University of Costa Rica (ULATINA) – Costa Rica (5%)	Inter-American University of Panama (UIP) – Panama (8%)	CIBERTEC – Peru (5%)	University of the Americas (UDLA) – Chile (16%)
4	How would you rate your experience taking an online course?	Very dissatisfied (15%)	Unsatisfied (21%)	Neutral (28%)	Satisfied (29%)	Very satisfied (7%)	
5	How would you rate the interaction with your peers that you experienced with the online classroom collaboration tools (Blackboard)?	Remarkably strong (5%)	Strong (11%)	Competent (36%)	Needs improvement (29%)	Need to improve significantly (18%)	

(continued)

Table 1 (continued)

	Question	Possible answers with participants' response percentages					
6	How would you rate the interaction with your instructor who experimented with the online classroom collaboration tools (Blackboard)?	Remarkably strong (17%)	Strong (31%)	Competent (26%)	Needs improvement (14%)	Need to improve significantly (13%)	
7	Have you used social networks to interact with your peers and/or instructor for academic purposes outside the classroom online?	Yes (64%)			No (36%)		
8	Which social networks did you use?	Facebook (82%)	Twitter (0%)	YouTube (0%)	Google+ (3%)	Other (15%)	
9	How would you rate interaction with your peers within the social network you used?	Remarkably strong (15%)	Strong (41%)	Competent (31%)	Needs improvement (11%)	Need to improve significantly (2%)	

	Question	Possible answers with participants' response percentages					
10	How would you rate the interaction with your instructor within the social network you used?	Remarkably strong (16%)	Strong (28%)	Competent (21%)	Needs improvement (11%)	Need to improve significantly (23%)	
11	Do you consider that the use of social networks helped your participation in the online course?	Yes (87%)	No (13%)				
12	How would you rate your commitment to the subject taught in the online class?	Remarkably strong (25%)	Strong (33%)	Competent (20%)	Needs improvement (14%)	Need to improve significantly (8%)	

online courses. Higher education institutions may put more effort in officially promoting the use of these tools and help students capture the benefits from engaging and interacting on these mediums. This can be done by developing some course materials, requiring the completion of certain assignment, or creating some discussion forums on different social networking tools. This study was limited to students taking undergraduate online business courses, and further studies may expand to explore other courses, levels, and institutions. Also, this study was limited to higher education institutions based in six South American countries. Duplicating the study to include students from different geographical areas is recommended. Another recommended research may include attempting to measure the impact social media tools usage has on student engagement, interaction, and performance in general.

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