Social Media as Higher Education Instruments in Business Administration

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Abstract—**There have been relatively few studies on the appeal of social media when used in conjunction with higher education courses due to the fact that social media in itself has been a relatively new phenomenon. Even though some researchers have claimed that because the use of social media in education blends both informal and formal learning environments, those courses encourage students into the habit of critical thinking and engagement in course topics. On the other hand, there have also been studies that disputed those findings indicating that the use of social media in education has actually inhibited positive learning results. The purpose of this study is to explore the perceptions of current generation of university business management students toward courses that incorporate social media as an educational tool, thereby, to provide some valuable insights into the use of social media to university instructors.**

Index Terms—**Social media, internet, e-education, social networking, online.**

I. INTRODUCTION

Social media is the social interaction among people in which they create, share or exchange information and ideas in virtual communities and networks [1]. Given that social media applications and services have only recently become available, high usage rates indicate a surprisingly rapid take up among large parts of the American and global population. Over the last ten years, social media or social networking websites have seen one of the biggest booms in the online world. With over 69% of all adult internet users using social networking sites today, and upwards to 92% in adults aged 18-29, the social media world has just become another important part of life and daily routine for many people [2].

When trying to understand the concept of a social media, it is as simple as its name makes it out to be: a website where users can be social with one another through the use of a communication medium. Going further into the technicalities of what exactly social media is, they are websites that improve the communication and sharing of information among users by allowing them to interact with one another by sharing photos, videos, and text online among one another and with their communities. Social media allows users to share their interests with others and create communities that reflect who there are as a person, making the entire experience much more personal. The idea of a social media website is to allow the user to explore and search for what interests them, all while

creating connections and increasing communications among the users of that website. Social media is the future of communication between internet users, as well as great promotional tool for businesses.

The use of social media and social networking websites in higher education has gradually proliferated in recent years. Many instructors see social media platforms as means by which more student-centered and social constructivist pedagogies may be designed in an online environment, as it enables students to contribute and collaborate in e-learning environments in a number of ways, a marked difference from first generation e-learning tools that behaved in a more traditional teaching-centered manner and in which social interaction and social learning was much less possible. Social media also provides mechanisms for peer learning and peer assessment, and for the development of active learning communities of practice [3].

Examples of social media technologies that can be used for learning and teaching include: discussion forums, blogs, wikis, and 3D virtual worlds. External social media sites include Facebook, YouTube, Wikipedia, Flickr, Twitter, LinkedIn and Second Life.

Despite advents of the Internet and social media, it has been a general observation that most well-established business management degree programs in the United States have not widely adopted the Internet as a course delivery mode. Of those that do, not many of their courses used social media for learning purposes. One reason for such observation could be that college professors and/or administrators have not been able to obtain unequivocal evidence that social media is an effective learning tool. Moreover, without such evidence, curriculum committees of schools continue to be skeptical about the use of the Internet as a delivery mode and social media as a tool in educating students when it comes to the enforcement of teaching effectiveness.

Consequently, a key question today for many university instructors who are considering the incorporation of social media into their teaching agenda remains: what attitudes do students possess toward the use of social media as an educational tool? This exploratory study aims to unveil some of those student perceptions toward the use of social media in courses by comparing self-reported responses from business management degree program students who have had taken at least one university-level course that incorporated the use of social media in learning to those who never had one . The reason for this separation and comparison is to provide clues to whether first-time students of social media use would have any unrealistic expectations toward the appeal of social media as an educational tool.

II. EVOLUTION OF SOCIAL MEDIA

Social media websites have been around for quite some time now, and while the basics have largely stayed the same, there have been many advances and changes overtime. The first record of anything resembling a social media site was created in Chicago in 1978. Two Chicago computer hobbyists invented the BBS (Bulletin Board System) to inform friends and colleagues of meetings, announcements, and share information through postings. This was the very beginning of a fad that would come to dominate a new generation. The following year, Duke University and University of North Carolina made a similar Bulletin Board that connected their universities with each other. This BBS was called the Usenet.

The true start of social media websites dates back to 1994 when Beverly Hills Internet (BHI) created Geocities, which allowed users to create their own websites modeled after types of urban areas. By 1997, Geocities had over one million users, and by 2009 when it was shut down to the United States, there were over 38 million user webpages. It has since been bought by Yahoo and is only available as a web host in Japan, but it was the start to an era that has taken over the way many people share and receive information.

The year 1997 was a big one for social media advances, and many different websites were started giving the user a variety of online experiences. AOL Instant Messenger was created to let users chat with each other. SixDegrees.com allowed people to create profiles and list friends. And, blogging started to take off across the planet. These, started a trend of people connecting with one another via the Internet that would only grow exponentially over time. In 1999, Friends Reunited took off in Great Britain and it is largely remembered as the first social network to achieve prominence and mass use.

Until 2002 and 2003, when Friendster and MySpace were created, social media revolution really took off. LinkedIn was also launched primarily for business connections, but it was Friendster and MySpace that drew the huge crowds that kicked off the social media era. 2004 was another big year for social media websites because MySpace surpassed Friendster in page views and possibly, more importantly, Facebook was created at Harvard as a mean for students to connect with others on campus. It was referred to at first, as the "college version of Friendster," but it soon surpassed both Friendster and MySpace and was even opened up to high school students in 2005. Between 2006 and 2008, Facebook took off and really started to become the industry leader that it is today. The website surpassed MySpace in page views, further expanded membership to anyone over 13, and introduced Facebook Platform, which allowed third party developers to create applications (apps) for the site. This step was a colossal one because it was the start of social media allowing third party developers to create apps or tools used without leaving the social media website and creating more of a one-stop, internet hub where users could receive all of their information rather than have to visit several sites. Facebook also launched its Beacon advertising system, which was the first to look into user browsing and purchase history in order to target specific advertising to each user. These advances were some of the biggest to date, and they have continued to be used, tweaked and upgraded since then in order to create a more personal social media experience.

Over the next several years, the largely successful Twitter and Instagram were launched, and MySpace was redesigned to compete with other hugely successful sites. It is estimated that by the year 2015, over 4 billion users will be on social media sites globally, or nearly 60 percent of Earth's population. The evolution of social media will not stop, as websites continuously attempt to retain and gain new users in order to compete with other sites on the web.

Social media technologies take on many different forms including magazines, Internet forums, weblogs, social blogs, microblogging, wikis, social networks, podcasts, photographs or pictures, video, rating and social bookmarking. Technologies include blogging, picture-sharing, wall-posting, music-sharing, crowdsourcing and voice over IP, to name a few. Social network aggregation can integrate many of the platforms in use.

By applying a set of theories in the field of media research (social presence, media richness) and social processes (self-presentation, self-disclosure), a classification scheme with six different types of social media is created as follow [4]:

1) collaborative projects (for example, Wikipedia)
2) blogs and microblogs (for example, Twitter)
3) content communities (for example, YouTube)
4) social networking sites (for example, Facebook)
5) virtual game-worlds (e.g., *World of Warcraft*)
6) virtual social worlds (e.g. *Second Life*)

However, the boundaries between the different types have become increasingly blurred. For example, Twitter, as a combination of broadcasting service and social network, qualifies as a "social broadcasting technology" [5].

III. SOCIAL MEDIA AS A LEARNING TOOL

When one thinks of social media, one often immediately think of the most known websites such as Facebook or Twitter. However, while many people may think of social media as only being applicable to personal usages, virtual communication and learning via a social media website has slowly been adopted into the education world in every continent. Although advantages to education has been seen in both first and third world countries with the introduction of social media as an educational tool, there have also been many opponents to linking education with online networks, because of the risks for exploitation as well as distraction.

Some of the positive findings associated with the use of social media in education were: increase in participation among students, better communication with instructors, and when used in parallel with existing classroom reading materials, can allow for a "deeper engagement in the topic" [6]. Furthermore, informal learning, or learning that takes place outside of a classroom, has been shown in the past to be a very effective form of education. New ideas and other people's understandings of difficult topics get integrated into one's everyday live through more communication, and that's something that social media has allowed people to do more

than ever before. Because using social media in the classroom results in a blending of the informal and formal learning environments, it helps to get students into the habit of critical thinking and engagement. Also, not only is it a way for students to grasp new ideas, but also gives students the chance to share something that they may be knowledgeable about as well. Because students can learn whatever and whenever they like, studies have found that learning within the context of social media has become highly motivated, autonomous and informal [7]. Perhaps, one of the biggest advantages is that students would be able to learn on their own schedules and learn what they are interested in. This gives students who may not have time to sign up for a class to do their own research and learn at their own pace. Moreover, even though students get to learn from their classes, it is sometimes the learning they do outside of the classroom on their own that facilitates their growth in their degree program [7].

With the rapid growth of social media and the widespread use of the internet, several problems have also presented themselves. One such problems, for example, is what researchers call Internet Addiction Disorder (IAD), and studies suggest that the overuse of social media can change the structure of our brains over [8]. Multitasking and trying to process an abundant amount of information at once while using the internet could seriously affect our ability to form long-term memories. However, that is only the initial wave of study into the issue, and the researchers themselves say that this study lacks a lot of the evidence needed to confidently back up these claims [8].

Many university instructors have expressed that they look forward to the day that several classrooms full of students can be taught entirely over the Internet [9]. While there are promising ideas for new ways to teach and learn, there is the unresolved issue of safety and security on the Internet [10]. With more and more cyber-crimes being committed every day, many of which are stolen identity, or phishing for passwords, the issue of Internet Insecurity is by far the biggest disadvantage when it comes to the use of Social Media in education [11]. Yet, there has been a serious lack of study into the topic and before social media can be fully integrated into classrooms around the world, more needs to be learned about Internet safety. Until then, will instructors/students be willing to let themselves be freely engaged with social media to the extent which is needed for them to teach/learn effectively [12].

Other disadvantages that come with the usage of social media is the risk of cyber-bullying, which is any deliberate use of social media in accordance to communicate false, embarrassing, or hostile information about or to another person. In addition, researchers have proposed a new phenomenon called Facebook depression-which can also intertwine with other social networking sites as well-defined as depression that develops when individuals spend a great deal of time on social media sites and then begin to exhibit classic symptoms of behavior which then may put them at risk for social isolation, anxiety, and sometimes self-destructive behavior [13]. Little by little, Internet and mobile technology seems to be subtly destroying the meaningfulness of interactions people have with others, disconnecting people from the world around them, and leading to an imminent sense of isolation in today's society [14]. Instead of spending time in person with others, many people would simple call, text or instant message them. It should come as no surprise that face-to-face interaction has been proven in studies to comfort people and provide people with some important sense of well-being. But, with social media, people ultimately end up seeing other people face-to-face a lot less.

IV. RESEARCH METHODOLOGY AND RESULTS

In the attempt to unveil whether social media would become an effective education tool in preparing the next generation of business managers, 238 undergraduate students from at an American public university undertaking business management courses were used as subjects in a questionnaire survey study. The survey questions were pretested to ensure clarity is optimal and that no questions could be interpreted in more than one way. Student subjects were divided into two groups based on whether they had completed at least one university-level business management course that incorporated social media as a learning tool. The purpose of maintaining such a separation is to determine, through comparison with those who already had at least one university-level business management course that incorporated social media, whether first-time students of social media use would possess any unrealistic expectations toward the appeal of social media as a learning tool. Among all 238 subjects who participated in the survey, 75 had undertaken a university-level business management course that utilized social media. That left 163 subjects without the experience of completing a business management course that incorporated social media. This paper shall name these two groups as: The Non-Experience Group and The Experienced Group. All subjects responded to the questionnaire survey anonymously.

The actual questions used in the survey were as follow:

For each question, please kindly circle a response that most accurate describes your perception.

I would prefer to take courses from instructors who incorporate social media as a teaching method.

Yes   Neutral   No

I would prefer to have class interactions in a social media environment than in a classroom environment.

Yes   Neutral   No

I would remember course materials better if learning was facilitated through social media than without social media.

Yes   No

I would learn course materials with less effort if learning was facilitated through social media than without social media.

Yes   No

I could learn beyond the boundary of a course if learning was facilitated through social media than without social media.

Yes   No

Please provide quality opinions below, if any:

Results tabulated from all student subjects responses are as follow. There were no omitted or invalid responses found.

TABLE I: DISTRIBUTION OF RESPONSES FROM THE NON-EXPERIENCE GROUP

I would prefer to take courses from instructors who incorporate social media as a teaching method.	Yes = 138 Neutral = 6 No = 19	Yes = 84% Neutral = 4% No = 12%
I would prefer to have class interactions in a social media environment than in a classroom environment.	Yes = 119 Neutral = 27 No = 17	Yes = 73% Neutral = 17% No = 10%
I would remember course materials better if learning was facilitated through social media than without it.	Yes = 131 No = 36	Yes = 80% No = 20%
I would learn course materials with less effort if learning was facilitated through social media than without it.	Yes = 135 No = 38	Yes = 83% No = 17%
I could learn beyond the boundary of a course if learning was facilitated through social media than without it.	Yes = 149 No = 14	Yes = 91% No = 9%

TABLE II: DISTRIBUTION OF RESPONSES FROM THE EXPERIENCED GROUP

I would prefer to take courses from instructors who incorporate social media as a teaching method.	Yes = 38 Neutral = 8 No = 29	Yes = 51% Neutral= 11% No = 38%
I would prefer to have class interactions in a social media environment than in a classroom environment.	Yes = 33 Neutral = 7 No = 35	Yes = 45% Neutral = 9% No = 46%
I would remember course materials better if learning was facilitated through social media than without it.	Yes = 28 No = 47	Yes = 37% No = 63%
I would learn course materials with less effort if learning was facilitated through social media than without it.	Yes = 25 No = 50	Yes = 33% No = 67%
I could learn beyond the boundary of a course if learning was facilitated through social media than without it.	Yes = 59 No = 16	Yes = 79% No = 21%

V. RESULTS AND DISCUSSION

Between the two groups, responses on whether students could learn beyond the boundary of a course if learning was facilitated through social media was the closest with 91% versus 79%. Such observation was largely in alignment with the general belief that both groups are young adults who grew up with the Internet and thus, are highly proficient in using the Internet and are experienced with knowledge acquisition in a virtual environment.

For the Non-Experience group, responses to all questions were highly favorable with 73% being the lowest score that favored social media. Compared to the Experience Group from which four out of five questions scored below 50%, the comparison was a striking surprise, however. Prior to conducting the survey, although the expectation was that the Non-Experienced Group would provide high scores of favorability on most, if not all, questions due to their enthusiasm in wishing to experience a course that incorporates social media, the observation of such low scores of social media favorability from the Experienced Group was unanticipated.

Among the many qualitative comments provided, the Experienced Group subjects often conveyed that the use of social media in course topic learning had translated into a loose structure which they could not operate effectively within. For example, several subjects had indicated that although social media facilitated the exchange of a vast amount of information, they felt not only overwhelmed but also uncomfortable as to what information was important or are more relevant when it comes to preparing for tests. In addition, students complained that there was generally a lack of immediacy with feedbacks with two-way communication exchanges provided by many social media platforms. Unless communicating parties are online simultaneously, they would have to wait for responses. Among other comments were that social media was a great way of acquiring lots of information beyond what they could obtain in a classroom setting, but that would also unnecessarily add complexity to a given topic when discussions went off tangent or went beyond the scopes of the texts. Perhaps, the following comments summed it up best: "It is not the same as finding information due to the love of a hobby or making a purchase decision", "The more we discussed the less we know about something. That was not very encouraging", "I like having social media use for a class because I would not have been able to ask questions I that would have wanted to ask during class."

The Non Experienced Group, on the other hand, often provided positive opinions, including and are similar to, "we are all so used to social media already, why not make use of it for our classes", "I could get more spot-on information needed in a given time window", "Can't wait to take one such class, it would be exciting.", "It should be nice since it would be like studying in a group without having to be in the same place at the same time."

Unfortunately, Mobile Learning, Cloud Based Learning, Online Learning, Open-Source Learning are only some of the solutions that make the learning process leave the classroom and enable students to experience it at any time and place. Using social media as an education tool would require changes or adjustments in student-teacher relationships. There need to be a switch from the teacher being the central figure to the student being the central figure and the teacher serving more of a guide of the knowledge acquisition process [15]. This switch necessary because of the increasing amount of knowledge that is available online to the students these days. Learning process breakdowns could occur whenever student and instructor expectations are not in alignment. Not to mention that expectations could very well be changing during the course of learning. On the other hand, one would logically question that how could students be central to the crafting of a learning blueprint for a course when they are not experts in the field or topic? The answer to the question would hinge on how proficient the instructor is in the guiding process. It is not an easy task especial for those who are not accustomed to this new role. This would also mean that the instructor would no longer be confined to traditional teaching schedules as he or she may very well be required to constantly or frequently monitor information exchanges among students, thereby providing timely advice and feedback on an on-going basis.

Even though many instructors have also been taking the time to learn features and impacts of social media websites and platforms such as Twitter, Facebook and Whatsapp, many older instructors are somewhat lost when it comes to technology. Because social media has only gained popularity in recent years, even the younger instructors could be facing issues that they never had to deal with previously. Even though it has been reported that many instructors are trying to keep up as best as they can with the new phenomenon of social media, 50% have expressed that they felt overwhelmed.

Since social media is fairly new and schools are just starting to incorporate social media as an education tool in curriculum, one critical success factor would rest upon how long it will take instructors to get up to par with students and be confident using social media websites and platforms [16]. The current generation of undergraduate business management students are citizens of generations Y and Z. In other words, they grew up with the Internet and are digital natives. Whereas, most university instructors did not and are not.

VI. Conclusion

Since social media's emergence, millions of users have adopted the use of social media into daily practices. The idea of using social media as an educational tool in higher education is not new. However, the time of vastly integrating social media into program curricula may not have been matured yet that juncture is not far away. It is expected that a learning environment created through the use of social media shall be entirely manipulated by students themselves based on their learning needs and motivations, as well as effective and efficient facilitation from instructors. University and Colleges, other institutions of higher learning as well as e-learning technology vendors ought to be prepared for their arrival and not be caught by a surprise arising out of mismatched expectations.

This study has several limitations. First, many Experienced Group subjects had undergone varying degree of teachings style and prescribed usage of social media due to their completion of courses under different instructors. Hence, reliability of the survey results might have been compromised. Second, results obtained from using business undergraduate students may very well not be applicable to business graduate students who possess superior knowledge due to their years of professional working experiences. Third, this was an exploratory study conducted within the context of the American student learning culture and habit. Conducting the same study using students of other learning cultures and habits may possibly produce different results. It is highly recommended that researchers planning to pursue further studies in the topic pay careful attention to those factors just mentioned.

References

[1] T. Ahlqvist, A. Bäck, M. Halonen, and S. Heinonen, "Social media road maps exploring the futures triggered by social media," *VTT Tiedotteita-Valtion Teknillinen Tutkimuskeskus*, vol. 13, 2008.

[2] M. Duggan and J. Brenner. (February, 2012). The demographics of socia media users. [Online]. Available: http://www.pewinternet.org/2013/02/14/the-demographics-of-social-media-users-2012/

[3] E. Wenger, N. White, and D. Smith, *Digital Habitats: Stewarding Technology for Community*, Portland, OR: CPSquare, 2009.

[4] A. M. Kaplan and M. Haenlein, "Users of the world, unite! The challenges and opportunities of Social Media," *Business Horizons*, vol. 53, no. 1, pp. 59-68, 2010.

[5] Z. Shi, H. Rui, and A. B. Whinston, "Content sharing in a social broadcasting environment: Evidence from Twitter," *MIS Quarterly*.

[6] L. Lockyer and J. Patterson, "Integrating social networking technologies in education: A case study of a formal learning environment," in *Proc. International Conference on Advanced Learning Technologies*, Santander, Spain, 1-5 July 2008, pp. 529-533.

[7] N. Dabbagh and A. Kitsantas, "Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning," *The Internet and Higher Education,* vol. 15, no. 1, pp. 3-8, 2012.

[8] F. Lin, Y. Zhou, Y. Du, L. Qin, and Z. Zhao, "Abnormal white matter integrity in adolescents with internet addiction disorder: A tract-based spatial statistics study," *PLoS ONE*, vol. 7, no. 1, 2012.

[9] A. Craven. (August, 2014). Is social media the future of university education? *Social Media Week: Sydney*. [Online]. Available: http://socialmediaweek.org/sydney/2014/08/08/future-university-education-begun/

[10] T. Druart. (2013). What role does social media have in education? *Navigator: Compass Learning*. [Online]. Available: http://navigator.compasslearning.com/technology/social-media-in-education/?utm_source=youtube&utm_medium=description&utm_campaign=navigator

[11] K. Silius, M. Kailanto, and A-M. Tervakari, "Evaluating the quality of social media in an educational context," *Int. J. of Emerging Technologies in Learning*, vol. 6, no. 3, pp. 21-27, 2011.

[12] V. Cox. (2014). What will social media be like in the future? *Business 2 Community*. [Online]. Available: http://www.business2community.com/social-media/will-social-media-like-future-0876921#ItEdOgY0r1tl0Rpz.99

[13] M. Nilles. (January, 2012). Technology is destroying the quality of human interaction. *The Bottom Line*. [Online]. Available: https://thebottomline.as.ucsb.edu/2012/01/technology-is-destroying-the-quality-of-human-interaction

[14] G. O'Keeffe and K. Clarke-Pearson. (March, 2011). Clinical Report-the Impact of Social Media on Children, Adolescents, and Families. *American Academy of Pediatrics*. [Online]. Available: http://pediatrics.aappublications.org/content/early/2011/03/28/peds.2011-0054.abstract

[15] J. Galecka, A. Guzik, and M. Mizerka. (December, 2014). What will the school of the future look like? - Trends that are changing education. *Young Digital Planet*. [Online]. Available: http://www.ydp.eu/resources/what-will-the-school-of-the-future-look-like-trends-that-are-changing-education

[16] S. C.-Y. Yuen and P. K. Yuen, "Teachers' perceptions, interests, and use of web 2.0 tools in education," in *Proc. 2011 International Conference on Chinese American Educational Research & Development Association (CAERDA)*, New Orleans, Louisiana, April 2011.

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