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Reframing Management Education With Social Media

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ABSTRACT

The current and forthcoming generations of students in higher education are digital natives, having been born into a world of computing that has provided them with a high level of comfort and wherewithal with social media. Business and other organizations recognize the importance of creative proficiency in social technologies as an important dimension of human capital. This article is an overview of popular social media platforms and their practical use in higher education. Specifically, Facebook, blogs, YouTube, Twitter, LinkedIn, wikis, Meetup, and Second Life are discussed with examples of use in fostering effective management education. The continued lowering of barriers to the creation of richer media, such as video blogs (vlogs), is assessed. Potential difficulties and drawbacks of implementing social media in higher educational contexts are noted. This article updates Wankel's earlier work from 2009.

KEYWORDS

Social media; collaboration; management education; networking; Web 3.0

Today's management classes are filled with digital natives (Pinheiro & Somões, 2016; Reinhardt, Ebner, Beham, & Costa, 2009). Born into an epoch of pervasive computing including the Internet, digital natives have no memory of a time without widespread computing in homes, libraries, schools, and businesses. As preschoolers, these students played computer games featuring Super Mario and later may have explored the social and virtual realms and simulations of *World of Warcraft* or *Sims Online*. Digital natives are in their element using online tools, including social media, in courses and elsewhere. Social media platforms generally are freely available for public use, driving their adoption by more than 4 billion people, more than 60% of the earth's population (Wong, 2015). These collaborative platforms, known as Web 2.0 technologies, enable a great degree of interactivity that may be harnessed in educational practice (Selwyn, 2007). Digital natives gravitate toward activities involving social interaction. They show a preference for learning in teams and are heavily dependent on their peers (Bullen, Morgan, & Qayyum, 2011; Lai and Kong, 2015). As mentioned in Wankel (2009), all of this means social media are a great way to engage current and incoming students (Junco, 2014; Wankel, 2009). Courses that leverage the power of computer-mediated communication open up the door to rich, extensive interaction that operates beyond the temporal and physical boundaries and constraints of a traditional face-to-face (F2F) class. When realized in practice, such immersion is associated with positive student experiences and outcomes (Al-Sharqi & Hashim, 2016; Mazer, Murphy, & Simonds, 2007; Wankel,

2009), particularly when associated usefully with meaningful course content and assignments (Wong, 2015). Further, student educational networking increases creativity per se (Brady, Holcomb, & Smith, 2010; De-Marcos, Garcia-Lopez, & Garcia-Cabot, 2016; Gaggioli, Mazzoni, Milani, & Riva, 2015).

Social media tools are powerful drivers of change for contemporary management teaching and learning practices, leveraging openness, connectivity, and social interaction (Manca & Ranieri, 2016). Such networks are often 24/7 and thus more in alignment with the sleep and work patterns of millennials than the scheduling of many F2F courses, enabling ongoing growth and agile issue-handling, and monitoring and gauging progress without waiting for the next F2F session (Al-Sharqi & Hashim, 2016; Bledsoe & Pilgrim, 2016; Ellison, Steinfield, & Lampe, 2007; Liu, 2010). An increasing number of educators are looking toward the potential of social media for effective learning (Greenhow & Askari, 2015; Manca & Ranieri, 2015; Tess, 2013). A course grounded in social media provides the learners with ongoing virtual connections to use for assistance as new issues come up for them over time. When the learners use social media for chatting and discussion, it leads to significantly more file sharing and knowledge sharing (Eid & Al-Jabri, 2016). It is useful for students to bolster their social media know-how as such, rather than only focusing on the content conveyed by it, given the attention to social media that nearly all firms are taking. That is, becoming more knowledgeable about business applications of sites such as Facebook can

helpfully differentiate students applying for internships and jobs. Companies are increasingly turning to social networking sites for business activities beyond marketing, including collaboration and recruitment (Hagel & Brown, 2008; Nascimento & da Silveira, 2016).

Still, social media use has been found to be little integrated into teaching practices for a variety of reasons, including institutional constraints (Manca & Ranieri, 2016), such as policies stemming from worries about legal and privacy issues that sometimes constrain social media use by instructors and learners. Although social media have been found to be extremely valuable for teaching and learning in developing countries, actual use by faculty in such places has been found to be minimal (Sobaih, Moustafa, Ghandforoush, & Khan, 2016). In deploying social media, a first step might be an assessment of the relevant digital competencies that students and faculty need to benefit from the deployment of social media as educational tools (Seufert & Meier, 2016).

The disadvantages of social media in education include the fact that their use can be relatively time-consuming (Al-Sharqi & Hashim, 2016), distracting (Tossel, Kortum, Shepard, Rahmati, & Zhong, 2015), and addictive (Al-Sharqi & Hashim, 2016). Additionally, since social media enable increased access to a wider swath of seemingly course-related information, they can result in added complexity for learners trying to make meaningful use of the welter of facts and examples produced and can cause class discussions to become more tangential. In their use of social media, learners can structure their own knowledge-developing activities to a greater extent, but they are not experts in structuring learning, which can make this aspect of leveraging social media less effective. It is therefore incumbent on instructors to guide students toward effective use of social media for learning. Since social media utilities have grown rapidly, even younger instructors are not guaranteed to have the up-to-date expertise to use social media comfortably or optimally with their learners (Wong, 2015). Since social media interfaces such as LinkedIn's are constantly evolving, directions on a course outline concerning the use of a particularly social media function might well need to be checked and updated regularly. This article provides an overview of teaching approaches and issues using such social media as Facebook, blogs, YouTube, Twitter, LinkedIn, wikis, Meetup, and virtual worlds such as Second Life.

Facebook

The social networking platform of choice among current newcomers to higher education is Facebook (Lenhart, 2015; Selwyn, 2007). Facebook provides each user with a personal webpage called a "profile," readily customizable

through easily used menus. Privacy settings exist to delimit degrees of access different connections have to the contents of a person's profile. For example, personal friends might be granted extensive access, while classmates and professors might be provided with more limited access. By default, "friend" status shares complete access to a person's profile, as well as granting the power to post comments and view photographs. One can send "friend requests" to other Facebook members and correspondingly accept friend requests from other people in order to link up, thus allowing access to view each other's profiles and write on each other's "timelines," which are interactive diary-like blogs of their and their friends' doings and associated comments from other people. These timelines are often embellished with links, photographs, videos, and virtual items or gifts. Special pages can also be created for events and groups.

One of the potential problems of delving into Facebook for a class is that some higher educational institutions have explicit or implied policies constraining its use (Manca & Ranieri, 2016). One study found that instructor Facebook profiles with alcohol or with emotionally loaded language negatively affected student perception of instructor credibility. This effect was found to be stronger for female instructors than for male ones (Hosek & Thompson, 2009; Wang, Novak, Scofield-Snow, Traylor, & Zhou, 2015). Despite these and other issues, increasingly instructors have been able to make Facebook work as an effective pedagogical tool (Atay, 2009; Sturgeon & Walker, 2009; Wang et al., 2015). The writer of this article in his own social-media-filled classes openly expects students to behave in online course activity with the same standards of decorum applied to F2F classes, such as eschewing ad hominem attacks and irrelevant comments.

Facebook can also be used as a platform to promote trends and issues in management education (Bledsoe & Pilgrim, 2016). Leading scholarly management societies now have Facebook groups. For example, OBTS The Teaching Society for Management Educators (obts.org) and the Academy of Management (aom.org) have them. These groups are ready ways to locate links to Facebook profiles of other management instructors to enable deeper interfaces with them (Wankel, 2009). Facebook doings such as birthday notifications enable openings for professors to contact colleagues at other institutions around the world and lead to conversations, comments on recent publications, and suggestions for conference meetings.

Uses of Facebook

A key use of Facebook (and Twitter) for classes is to increase student motivation and involvement. On Facebook, management instructors can arrange a "group"

to function as a class forum. A class Facebook group provides a place for asynchronous course-relevant discourse initiated and participated in by any permutation of students and instructor. By discussing and encountering course-related information in the flexible online context, students may benefit from repeat exposure to and useful internal restructuring of information. Instructors may initiate some threads of discussion, while students may be charged with posting or verifying content for discussion before or after particular class sessions (Selwyn, 2007). A Facebook group can serve as a place where students may elect to post relevant material they encounter by happenstance outside of the main coursework, such as news articles. Accreditation agencies look favorably upon active online interaction, especially in the context of online courses. Such groups may act as “affinity spaces” (Gee, 2004), where people affiliate with each other based on shared management activities, interests, and goals.

Another Facebook function readily adapted to learning contexts is support for “events” created by instructors or as parts of an assignment by learners. To create an event, use the “Events” button on the left sidebar after logging in. Facebook events may be given a name, image, description, date, time, and location. Events may optionally be given a type and subtype, for example, “Education” and “Informational Meeting,” respectively. One may invite some or all Facebook friends or members of a group to RSVP, which may be used to raise awareness among the student body or local community (Holzner, 2009). Further, Facebook has application as recruitment tool for student research assistants or even to gather data for doctoral dissertations (Selwyn, 2007).

The vast majority of higher education students are already familiar with Facebook and its functionalities. Thus, using Facebook for class introductions, group discussions, and so on does not suffer from the same degree of barrier to entry for voluntary use that the use of a less familiar platform would incur. Indeed, students in a course may well already be “friending” one another spontaneously. A Facebook exercise in a course can encourage more connection with disparate members of a course, including handicapped, older, foreign, and commuter students. That is, some students may be hesitant to reach out to others in F2F oral communicational contexts because of insecurity with English language pronunciation and grammar, for example, while feeling more comfortable with text- and photo-grounded communication. In turn, such interaction among diverse students may lead to social bonding and insight into the doings of others, and contribute to increased solidarity among project partners or the class as a whole. In preparing to engage a class via Facebook, it pays to lay out standards for posted content in advance, such as

suggesting avoiding the posting of potentially upsetting or legally dubious content to a class group page. It may be advisable to recommend that students investigate and appropriately set profile privacy limitations, at least for the duration of the course (Vander Veer, 2008).

Instructors might consider connecting with students via sent or received Facebook friend requests for reasons ranging from functional (facilitating administration of a course project) to social. In using Facebook for teaching and learning, instructors and students alike must be aware of the serious privacy concerns endemic to uninformed and incautious use of the powerful sharing platform. As one researcher noted, Facebook is a “weird twilight zone between public and private information” (Cohen, 2009). To illustrate: One instructor of MBA students, upon becoming a Facebook friend of a student, was unwittingly granted access to a sequence of photographs showing the student binge drinking from hoses and then passed out in various poses. The instructor took the step of advising the student to remove the photos or change privacy-permission settings for photo viewing, lest potential employers uncover evidence of drunken antics, to the student’s detriment. If a user account’s privacy settings are left at default values, Facebook’s sharing-centric design is very permissive between connected “friends.”

Taking care in what one posts to Facebook (whether to one’s own or others’ pages) is necessary but not sufficient to protect one’s online image. Others, most often friends or apps, may post content to your Facebook page that can in turn be seen by other friends of yours. Instructors using Facebook should keep an eye on the content posted to their own pages by other actors and remove anything untoward. The content of an unmoderated profile or other active social media page visible to students may diminish student perception of an instructor’s credibility (Mazer et al., 2007). Students may be more comfortable connecting over social media with younger instructors; they may be uncomfortable with sharing access to their Facebook pages with older instructors (Mazer et al., 2007).

Blogs

A “blog” is a Web-based log, journal, or chronicle developed by an individual or group. Different blogs can vary widely in their content. One blog might be an online personal diary of a management course involving travel to a foreign country. A second blog could primarily feature advice and resources for first-time entrepreneurs. Still a third blog may be a stream of business technology news (Bair, 2016). In conjunction with an academic course, blogs can be a great medium

for sharing content among learners and the instructor. The instructor might create a blog covering the progress of the course, session by session. PowerPoint slides, lecture notes, videos of lectures or class sessions, and so on might be included for learners and others (assuming this is openly posted on the Web) to view. Learners can post comments in response to blog entries. Such learner comments may take the form of reactions, critiques, questions, or hyperlinks to relevant articles demonstrating applications. An instructor's blog may enable course coverage of a greater amount of material (Murley, 2008). "Vlog" (video blog) content may be posted containing recordings of important classroom time, assignment directions, test reviews, and the instructor comments on class milestones. Student-created vlog posts also have educational potential. Students may be asked to record vlogs to report on the status of a team project, give an overview a relevant article they encountered, or even as a multimedia presentation as the end product of a larger project. Student blogging associated with a class can enable assessment of the progress learners and their teams are making (Hamid, Waycott, Kurnia, & Chang, 2014). An important motivation for instructor use of blogs (and wikis) is the ability to easily share diverse content with students (Manca & Ranieri, 2016).

Wikis

A wiki is a collaboratively editable website consisting of pages on particular topics, with inline hyperlinks out to other pages in the wiki on related topics as they arise. Wikis can be used for shared knowledge building and learning (Vickers, Field, & Melakoski, 2015). The most famous wiki is Wikipedia, the free encyclopedia. Instructors can create a course wiki to be fleshed out over the arc of a course through student involvement. Wiki page-building duties can be very specifically laid out, or as something for extra credit in a voluntary way. It can be possible, especially in a class with many students, to create teams to develop a course textbook. For example, one team could be assigned the topic of "leadership," and within that team some learners could be researchers locating highly cited leadership articles, while others may be assigned to writing up the useful information from those. Students might be assigned the task of making video interviews with local business leaders. Yet other students could be assigned the task of developing tables, finding images, and developing small boxed cases or critical incidents (briefcase studies). Such a student-developed "textbook" could be put in place, with future classes assigned the task of updating it. Video interviews with local businesspeople might be included for each topic. Perhaps

some members of the wiki might be assigned the task of editing the interviews completed by their peers. With wikis, students become co-producers of the course and therefore take the learning more seriously, are more engaged, and are ready to be critical (Vickers et al., 2015). Of course, this sample format might be adapted to enable projects involving learners from several institutions.

LinkedIn

The most prominent social media platform in business is currently LinkedIn. It is seen by many as primarily a job-locating site, and is indeed used by headhunters to find appropriate candidates. Management educators can go beyond its human resource management applications and teach students how to use it as a collaborative medium. For example, LinkedIn has many groups organized around industries and functional areas. These can be used by students to connect with people who can be resources in answering questions and often contains forums discussing significant current topics in a field. Students can be instructed to find alumni through a common membership in a university alumni group. Such alumni can serve as valuable mentors. LinkedIn has geographic filters to enable finding guest speakers near university campuses who can come to give presentations to courses; or to arrange field trips for students to interesting local firms; or to find experts in universities in other countries who might be visiting lecturers via Skype. LinkedIn also has industry filters that enable each student to customize the making of connections, perhaps associated with an assignment, to people working in organizations and industries that they see as relevant to their career path. LinkedIn also allows specification of position keywords. For example, having students limit a search to people who have the word "president" in their title will generate a group of potential connections who are presidents, vice-presidents, assistant vice-presidents, executive vice-presidents, and so on.

The author of this article has more than 17,000 LinkedIn connections, including many of his institution's alumni. That way, once learners in his classes connect to him, they have as second-level LinkedIn connections thousands of potentially valuable contacts such as alumni near where they wish to locate.

Students might be asked to find and interview managers involved in endeavors they are familiar with or interested in, for example, by searching for alumni in LinkedIn as subjects. Alumni often are very pleased to work with students and offer their advice, provide internship and job leads, and provide encouragement readily. Students may be asked to ask to record interviews with

such connections using questions crafted to elicit business cases relevant to the course. Students may then be tasked with cutting down their recordings to the 10-minute highlights to share with the others in the classroom or online, whether on a course website or through existing video-friendly platforms such as YouTube, Facebook, Google Hangouts, or Vimeo. Making and sharing videos is getting much easier.

Youtube

A wealth of affordable, portable video recording, editing, and publishing options has increasingly enabled the growth of online video. Many new mobile phones are capable of readily recording and sharing video. Easy-to-use video editing tools such as those built in to YouTube help amateurs organize and polish their recordings without expert knowledge. Laptops, sometimes provided by schools, can also be used to record presentations or interviews with a built-in or externally attached microphone and webcam. It is more possible than ever to arrange for all students of a class to have access to portable video cameras for use in a course.

Instructors, too, can easily create and post videos to YouTube, and can find and curate relevant videos created by others. Some types of videos can be relied on for quality, such as TED video presentations and those produced by leading universities such as Harvard. Students in the author's online courses are asked to view a welcome video from the dean at the start of the course, and to view other select videos in conjunction with assignments as the course progresses. There is a veritable wealth of content with management education applications available on YouTube from educators, industry, and private individuals, with fresh additions every day.

Twitter

Twitter is the best-known free microblogging application, with "tweets" (messages) capped at 140 characters' length. Twitter has been hailed as the chief example of mobile Web 2.0 communication, readily viewed and written to on the go (Griswold, 2007). The platform is particularly suited to fast exchanges of thoughts, ideas, and information (Avery-Gomm, Hammer, and Humphries, 2016; Ebner, 2009; Reinhardt et al., 2009). Microblogging can foster participation, engagement, reflection, collaborative learning, and expansion of the range of learning content by veering from the constraints of formal learning settings into informal ones (Gao, Luo, & Zhang, 2012). Appropriate use of Twitter (and Facebook) in education increases student motivation and involvement (Manca & Ranieri, 2016). For instructors, fitting uses include giving

a quick overview of the upcoming class session, handling student questions between classes, or posting hyperlinks to relevant articles right as they are encountered (McFedries, 2007).

As with Facebook, major academic and industry management organizations and events have Twitter accounts. Instructors might, for example, have students follow the Academy of Management account @AOMConnect to see what the topics of cutting-edge management research are.

Twitter features

Facebook "friend" status is mutual, whereas a Twitter "follow" is unidirectional: Twitter followers will be notified of the followed user's tweets. An "unprotected" account's tweets are public even to nonusers, and follow requests are automatically accepted; a "protected" account's tweets are visible only to all followers, and follow requests must be individually approved (Twitter, 2016). It is best for instructor Twitter accounts to be set to "protected" unless public visibility is desired. Tweeting a message at one or more accounts (by including "@<username>" in the message) sends notifications to those named but does not make the message private. As with other social media platforms, it is important to remember that even a private message may be unexpectedly shared out beyond your vision or control, for example, by the recipient saving and sharing a screenshot of your "protected" tweet.

Tweets can be labeled by the creator with one or more "hashtags," which function as category labels. A hashtag is added by including "#<tagname>" in the message. Users may elect to follow particular hashtags in use by the public to monitor the stream of public tweets on pertinent topics. Instructors may usefully label their own tweets for their students; a tweet to announce a change in an exam date for MGT 101 might be written as "Change in #exam date for #MGT101 to Tuesday."

Another useful Twitter feature is the ability to automatically push notification tweets out from other online activity. For example, a class blog may be set up to automatically tweet out announcements when a new post is created, and a class YouTube channel might similarly send out a tweet heralding the release of a new video.

Twitter for learning

Twitter can be used to foster a network of spontaneous contributions of ideas, hyperlinks, and other resources collaborating on the development of a larger support base (Wankel, 2009), ideally contributing to a more enriched course (Ebner, 2009). Instructors and students may tweet links and comments on emerging relevant

news articles. This can be used, for example, to track the current activities of business firms globally. Students can tweet questions, notes, or lecture summaries to the professor and one another, bringing the class along together. The instructor can collect and field questions students are raising before the class. Instructors may also tweet out useful and motivating reminders in advance of a session, such as “I am looking forward to our guest speaker from Uber today!” or “Remember to bring your textbook to class today!”

Linda Menck used Twitter with students while teaching a course on advertising and public relations. She found her students communicating more about the course because of Twitter use. In reading what students tweeted, she was pleased to see students sharing relevant links and she was empowered to spot areas where students found the material unclear. She was once able to shock and connect with her students by informally tweeting “Going into a 3-hour faculty meeting. Time to catch up on my sleep!” (Perez, 2009).

Certain classes may be asked to follow various course-related hashtags to stay abreast of the public tweeting on those topics. Learners can be encouraged to engage students in other management schools around the world via tweets, or to chat with real-world executives. A class may be asked to find and follow the tags used for a business news story in more than one language, for example, discussion of a multinational merger. Then, using free online translation tools such as those provided by Google, Bing, and others, students can see both domestic and foreign media coverage and reactions.

Live tweeting

Live tweeting is the practice of publishing tweets on an event as it unfolds in real time (Kinsky & Bruce, 2015; Ross, Terras, Warwick, & Welsh, 2011). Some instructors allow tweeting during class sessions to involve and excite learners about the session’s discussions and topics. At Marquette University, professor Gee Ekechi assigns some students to live tweet guest speakers’ thoughts during the presentation. This exercise is intended to foster the development of listening, information gathering, multitasking, and terse executive summary style writing skills. It also forces students to pay attention and develops the classroom community environment via increasing interaction (Perez, 2009; Wankel, 2009). Live tweeting is useful during class outings to company headquarters or such, especially when some students are unable to join in person.

Nowadays conferences and industry events are typically live tweeted by some organizers and attendees, both officially and as an informal back channel of

communication and commentary (Ross et al., 2011). Instructors can have students research and follow the official and unofficial hashtags used by conference attendees, allowing for monitoring of the event and engagement with its people without the inconvenience and expense of physical attendance.

Tweeting as distraction: A generational divide

A non-social-media-oriented instructor might be dismayed by observing students tweeting during a class session, believing them to be distracted from the focus at the front of the room. However, students might be encouraged to clarify instructor comments by tweeting and be required to provide examples of their class-contributing tweets each session (Reinhardt et al., 2009). Indeed, today’s students are most engaged when simultaneously receiving information from a range of media and sources. That is, for example, how this author’s Ivy League student son proceeded through secondary school doing math and science assignments while watching movies, chat, text messaging, and listening to music simultaneously. As someone who entered secondary school in 1961, this author has to wait for the proverbial pin to complete its drop in order to focus in a way that seems peculiar to students in the first quarter of the 21st century (Wankel, 2009). Instructors, rather than being uneasy with students tweeting during a session, might require students to be part of an ongoing Twitter discussion of ideas and points being raised by the instructor and have this stream projected, perhaps alongside the lecture slides. Rather than being penalized, students would be given credit for their tweets and the instructor might maintain his or her calm.

Meetup

Meetup is a website where users can find groups of geographically proximate members sharing interests and activities. These groups can be used to host events that members are invited to physically attend. The service has implications for “connected learning,” through which learning is not restricted only to a dedicated space, but takes place across many places and experiences (Bilandzic & Foth, 2017; Wankel & Wankel, 2016). The range of activities organized via Meetup is broad, but one salient use is industry networking. One can search for Meetups by topic, including the “Career and Business” and “Social Media” topics, and a plethora of subtopics. At the time of writing, the Social Media topic contained more than 600,000 individual users as members and nearly 2,000 distinct Meetup groups. The results of a search for Career and Business Meetups available near the author ran the

gamut, including “Technology Startups Meetup,” “Women Entrepreneurs,” “Gay Professionals,” and “Green Business Allies.” Students may be asked to locate and attend relevant Meetups proximate to them, even if the class consists of geographically dispersed online learners, leveraging at once both the connective power of the Internet and that of face-to-face interaction. They may be asked to interview other attendees, to compare Meetups of different groups of businesspeople, to find local (to the student) business-world subjects for student projects, and so on.

Virtual worlds: Second Life

After the opening in 2003 of the Second Life virtual world, a significant number of educators began trying out its immersive interface. It became the virtual world of choice for education (Hinrichs & Wankel, 2011, 2012; Wankel & Kingsley, 2009; Warburton, 2009). Second Life’s technology enables learners and instructors to hold synchronous classes and collaborate on projects in simulated environments such as hospitals.

Second Life is an array of online three-dimensional digital places and the digital avatars of users operating in those spaces. Its freeform nature, without prespecified goals or activities, differentiates it from games (O’Connor & Sakshaug, 2009). The visual, auditory, and kinesthetic realism gives a sense of being there, and contributes to a strong sense of live cohabitation when multiple users’ avatars are present (Warburton, 2009). For education, Second Life has use as a tool through which groups that are dispersed in the real world can interact with one another and a great diversity of digital objects (O’Hara, 2009). Multiuser virtual worlds in some ways replicate and in other ways extend far beyond physical classrooms (Haycock & Kemp, 2008).

Benefits of learning in virtual worlds

A major benefit of using Second Life is the ability for people to join together online for activities that might normally be done face-to-face, preserving key parts of face-to-face experiences that are not as well kept via other online social media. Learners can work together in teams: sharing documents, PowerPoints, videos, and commentary in both natural voice and text (Wankel, 2009). Importantly, Second Life can fit the preference of the digital natives of today’s students (Jarmon, Traphagan, Mayrath, & Trivedi, 2009), being nonchanneled, interactive, collaborative, international, unpredictable, exciting, and novel (Wankel, 2009). Students may be exposed to virtual objects and environments that would be hard to experience with similar effort in an F2 F session (Jana & McConnon, 2006).

Simulated environments in Second Life enable workable collaboration (Hinrichs & Wankel, 2011, 2012; Wagner, 2009; Wankel & Kingsley, 2009) without needing to be tied to use of a particular physical space. Second Life and other such multiuser virtual environments are readily used for designing and running role-playing learning. Performance action-based activities, such as improvisation built with a progression of steps or supporting activities, enables experiential learning (Jarmon et al., 2009).

Course activity ideas

Second Life’s open-ended nature fosters a vast array of academic activity. The following list of suggestions for Second Life activities in higher educational contexts is by no means complete, given the open-ended nature of the platform.

A key use of Second Life is arranging meetings that may be inconvenient or even impossible to hold in person. For example, the 18th Annual National Service-Learning Conference was hosted purely in Second Life (PR Newswire, 2007). For classes, the platform can make it easier to bring in guest speakers, who may come to a digital class from anywhere in the world and show slides or films in addition to lecturing and holding discussions. In the weeks before an F2F course first meets, an instructor may arrange virtual world meetings in which to conduct introductions, discuss course requirements and materials, and field student questions.

Another salient way to use Second Life for learning is to take advantage of its suitability for simulations and role-playing exercises. Students at the School of Library and Information Science at San Jose State University use Second Life to practice assisting library patrons in a virtual space (Haycock & Kemp, 2008). Similarly, Harvard Law School hosted mock trials based on real conflicts in Second Life (Seton Hall School of Law, 2007).

This author has developed Second Life exercises for learners in which they study the business models of entrepreneurs operating real businesses in the virtual world. For example, a student can go into a virtual world nightclub and ask to speak to the owner(s) and interview them about their revenue model, marketing approaches, recruitment compensation, production, outsourcing, and other management functions. At that point the student can be given the assignment of formulating his or her own virtual-world business strategies, including implementation steps for their own virtual world businesses (Wankel, 2009). At Central Michigan University students collaborated with the United Nations to develop procedures for not-for-profits to raise financial resources using a simulated

world interface (Hansen, 2008). Another example is that of a Second Life virtual marathon sponsored by the American Cancer Society, which brought \$115,000.

Learners can be shown foreign environments and situations through virtual simulations without the need for investing in real-world travel expenses. Of course, less exotic venues can be explicated using Second Life. For example, students can visit Second Life versions of key offices on campus staffed by actual university members. A reference librarian, a financial aid counselor, an athletics academic support staff person, a food service official, a gymnasium staff member, a study-abroad representative, or representatives of every academic department and program and so on can be met by students before they set foot on the real-world campus (Sanchez, 2009a). Second Life can also be used to enable learners and other university members to practice handling dangerous situations. For example, new instructors might be trained in how to handle receipt of an alert of a shooter in their building. The University of Maryland has created virtual simulations that enable its staff and students to practice responding to disaster scenarios without the risk entailed with deploying actual equipment (Semuels, 2008).

Second Life users are able to customize virtual realities that others such as learners can meaningfully experience. In some situations, learners may be recruited to creatively put together a virtual experiential exercise that other learners can explore and react to. For example, students could report on the key experience that each has had in their most productive internship. This might involve recreating work environments or displays of photos or documents (Wankel, 2009).

One stimulating project is to have students create avatars diverging demographically from their normal selves and then have the students report on how others reacted to their new personae. In a virtual world a student can have many different avatar visages to deploy, involving a diversity of ethnicities, ages, genders, or (dis)abilities (MacLeod, 2008).

The assignments in Second Life can relate to other course-related uses of online tools. For example, learners using Second Life experiences in a curriculum might be required to blog their ideas for course improvements, including uses of Second Life, and to suggest future projects for learners in upcoming terms (Wankel, 2009).

Deploying learners into a virtual world

As surprising as it might be, some learners in the 21st century are intimidated at the prospect of independently developing an avatar and working on projects in a virtual world (Dodson, 2008). One approach is to

partner the unsure learners with those who feel quite comfortable in virtual-world activities. A cadre of supporting people might be assembled to encourage and help learners, including the instructor, university computer-center staff, research assistants, and students from prior terms. Many instructors, including the author of this article, have been successful using peer facilitation by the most tech-savvy students in a particular class.

Some universities believe that having a simulation of their real-world campuses is an ideal stepping-stone into virtual-world experiences for learners (Haycock & Kemp, 2008). Institutions such as the University of Cincinnati have created virtual replications of their classroom environments for their students and faculty (Haines, 2007). Though a university's online facilities need not resemble brick-and-mortar versions in the real world, some universities such as Harvard have created virtual simulations of actual on-campus buildings and facilities. As is the case with technologies in general, there is a wide range of comfort and competence among users of virtual worlds in classroom situations. However, when presented as a course requirement associated with a grade in the course, the preponderance of learners will work to align their competencies with the required levels. And most succeed in the virtual world (O'Connor & Sakshaug, 2009).

There are a number of important resources supporting educators using Second Life; one notable email-based discussion group is the Second Life Educators Discussion (SLED) (Second Life Educators, 2009). Also, there are wikis and blogs lending support.

Caveats

A caveat associated with the introduction of Second Life into a class is the large amount of time for new users to gain comfort and know-how to be active in Second Life (Sanchez, 2009a). That is, having a brief use of the technology might seem out of whack to learners who do not see the return on time invested. Learners may be put off by Second Life exercises that seem inchoate or not sharply tied to course objectives (Sanchez, 2009b). As is the case with course assignments and projects generally, Second Life assignments should include the garnering of improvement suggestions and assessments from learners (Sanchez, 2009a).

Just as in real life, Second Life has places and people's actions that might be construed as out of alignment with the norms of university culture (Wankel, 2009). Therefore, it is best for learners to use viewer clients that filter out mature content or at least warn learners about the potential for running into untoward things (Berger, 2008). The virtual-world places of

universities should be set to restrict mature content. Students should be provided with a few safe landmarks to which they might be quickly teleported if they encounter an unseemly stranger or situation.

Upcoming developments

The successful and ongoing development of virtual reality (VR) technology, such as the Oculus Rift, has implications as a next step for online virtual worlds. In 2016, Second Life's creators announced impending release for "Project Sansar," a project set to act as a platform for creating social VR experiences. Project Sansar thus seeks to bring virtual reality technology to the concepts behind Second Life (Young, 2016). This will presumably lead to opportunities for learners to experience, for example, factory and other environments in deeper ways through VR immersion. While Project Sansar will be optimized for VR headsets, it will be accessible through normal personal computers (PCs) and mobile devices as well. A major goal of the project is to make it easy for people to create VR environments and experiences, opening up VR possibilities to individuals and organizations without needing teams of engineers (Pangburn, 2016). Project Sansar is undergoing testing by Second Life content creators for a 2017 release (Linden Lab, 2016).

Instructor-created mobile apps

Much as video creation continues to become easier and more accessible, the design and development of custom mobile apps for use in one or more specific courses are increasingly coming into the range of instructors without expert knowledge. Knowles and Cooner, professors of social work, have reported on the successful use of their own mobile app by online international teams of students (Cooner, Knowles, & Stout, 2016; Knowles & Cooner, 2016). The app places the player-student in the role of a social worker confronted with a variety of cases and choices therein. The case outcome is affected by the choices the students make. Students have generally responded very positively to the app's use. The creators acknowledge their above-average experience in app creation, but point out that app creation continues to become easier and more accessible, paving the way for exciting new developments in class-specific custom apps.

Web 3.0

The evolution of the Web from the collaborative emphasis of Web 2.0 to the artificial intelligence (AI)-guided agent-based mediation and linked data of Web 3.0, the

Semantic Web, is territory for future management education developments. Faculty and students can increasingly rely on ongoing automatic searches for updates on companies and management activities around the world. It soon might be a common student assignment to leverage the power of the Semantic Web by developing an application for structuring disparate Web information into important knowledge. There has been a shift from instructor-driven information to student-driven learning, where the aim is to have students understand how they can learn from various sources of information and information retrieval (Wu & King, 2015). The development of technologically enhanced learning environments is part of a larger movement to optimize learning environments that encourage active engagement and interaction, as in "flipped classrooms" (Daniel, 2015).

Conclusion

Today's learners are digital natives who grew up alongside online games and social media applications (Palfrey & Gasser, 2008; Tapscott, 2009). Today's management instructors can develop global online courses including networked communities of learners across multiple platforms (Bledsoe & Pilgrim, 2016), and today's businesses value talent capable of productive use of digital environments. This article has provided an overview of using Facebook, blogs, YouTube, Twitter, LinkedIn, Meetup, wikis, and Second Life for learning.

The gap between the experiences of physical and digital reality is dissipating as new and emerging platforms are deployed (Quitney & Rainie, 2008). In late 2016, the film *Billy Lynn's Long Halftime Walk* was released in 120 frames per second form with three dimensions (3D). The point is that the ability to display hyperrealism is rapidly advancing, making virtual-world technologies more attractive. Increasingly, assisted by online translation utilities and communication platforms, large groups of geographically separated participants are able to collaborate successfully online (Witbrock, 2008). The Web is more than ever integrating with the real world (Garrett, 2008), a trend this author expects to continue. This author is in the process of developing a textbook of management with a team of nearly 1,000 professors spread across 90 nations (Wankel & Global Team, forthcoming). The collaborative textbook project leverages crowdsourcing via Web 2.0 technology. Distributed collaboration is being used to solve problems in ever more areas, aided by powerful tools for interaction. Advancements in artificial intelligence and context recognition are enabling new ways of finding information. For example, if a student is researching a business plan for

establishing a surfboard rental business in a Chinese resort, Web 3.0 applications might recommend particular related businesses that might be suppliers or competitors in the region that the student is targeting in his or her report (Ohler, 2008; Wankel, 2009). Digital platforms such as those covered here will play ever more central roles in management education.

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About the author

Charles Wankel, a professor of management at St. John's University, Queens, NY, earned his doctorate from New York University. He has authored and edited numerous articles and books, including *Higher Education in Virtual Worlds* (Emerald, 2009), *Emerging Web 3.0/Semantic Web Applications in Higher Education* (Information Age, 2015), *Educating Educators with Social Media* (Emerald, 2011), *Increasing Student Engagement and Retention Using Mobile Applications* (Emerald, 2013), *Higher Education Administration with Social Media* (Emerald, 2011), *Transforming Virtual World Learning* (Emerald, 2011), *Engaging the Avatar* (Information Age, 2012), and *Cutting-Edge Social Media Approaches to Business Education* (Information Age, 2010). He is the director of several scholarly virtual communities for management professors. He has been a visiting professor in Lithuania at the Kaunas University of Technology (Fulbright Fellowship) and the University of Vilnius (United Nations Development Program and Soros Foundation funding). He can be reached at wankelc@stjohns.edu.

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