Student Perceptions of Twitters' Effectiveness for Assessment in a Large Enrollment Online Course

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Abstract

During the Winter and Spring 2014 semesters students registered in the online offering of Human Kinetics and Recreation 1000 (N=589) were asked to participate in two Twitter events encompassing two of the course's assessment activities. In each Twitter event, students were required to post, at minimum, one original tweet and respond to another student's tweet. The use of a tweet feeder widget in the course's learning management system provided a current summary of the dialogue. An aggregate tool was used to assist with tracking of student tweets for assessment purposes.

At the end of the semester students were asked to complete an online survey that sought to ascertain their experience of using Twitter within the course, including its effectiveness as a component of the assessment, and as a means to enhance social presence within the class. The survey also inquired about students' previous and current Twitter use, and requested recommendations on how to use it in future courses. Results of this survey data indicate students perceived Twitter as an effective means of assessment, and an effective means to integrate social presence in the high enrollment course allowing them to feel more connected to their classmates and the course content. Students suggested several ways micro-blogging could be used in future classes. Implications for the use of Twitter for assessment purposes or as a means to enhance social presence are discussed.

Introduction

Human Kinetics and Recreation (HKR) 1000, Fitness and Wellness—a large enrollment online course at Memorial University—embedded Twitter in the course with a goal to create engagement and social presence. Twitter was used as a communication tool for the discussion of two topics: health, wellness and physical activity levels; and nutrition and healthy eating habits. Student participation in these two Twitter events was assessed as part of the course evaluation. Researching social networking, Twitter in particular, helps to contribute to the body of knowledge regarding micro-blogging in formal, higher education.

Human Kinetics and Recreation

Human Kinetics and Recreation branches into three different programs of study including Physical Education, Kinesiology and Recreation. A common value shared by all three programs is the importance of physical activity, sport and recreation in enhancing the well being of society. For the most part, students who study within the School of HKR have a strong knowledge about the importance of sport, recreation and well being and are interested in helping society build this knowledge base. Fitness and Wellness, HKR 1000, is designed as an elective for non-HKR students and provides an introduction to the concepts and interactions between fitness, wellness, quality of life, and longevity (see http://www.mun.ca/regoff/calendar/sectionNo=HKR-0366). Specific topics covered in HKR 1000 include basic principles of physical fitness, including detailed information on cardiorespiratory endurance, muscular strength and endurance, and flexibility, along with important information on nutrition, body composition and stress management. Regardless of one's academic program of study, HKR 1000 provides important, relevant content for all individuals. The material, therefore, of HKR 1000 lends itself well to integrating into student's daily lives and real time reflection using social media.

Social Networking

Social networking is a widespread phenomenon whose growth is allowing more and more Internet users to connect online (Prestrigde, 2014). Among social networks there are micro-blogging websites that allow personal publications and conversations between users (Hsu & Ching, 2012). According to Hsu and Ching (2012), micro-blogging differs from blogging in that posts are limited to a small number of characters and the public aspect of the micro-blogging websites allow posts to be visible to other users (Yakin & Timnaz, 2013). According to Yakin and Tinmaz (2013), Twitter is one of the most popular micro-blogging websites in the world. Twitter functions as a type of email that can be used to form interactions between users world-wide (Bozarth, 2010). Members of the Twitter website can post 140-character length messages that are known as "tweets," forward messages that are created by other members which are called "retweets," reply to tweets, and "tag" other members in a tweet using the "@" sign (Yakin and Timnaz 2013). For example, if a user wanted to tag Memorial University of Newfoundland, they can mention "@MemorialU" in their tweet. There is also a feature called the "hashtag" which uses the symbol "#" to highlight a term in a tweet which will group it with other tweets of the same topic (Forgie et al., 2013). The social networking service of Twitter is available on any Internet-enabled device making it a vehicle to globally share and discuss ideas (Forgie et al., 2013). Social networking can connect individuals, regardless of physical place, creating an online, virtual community.

Technology and Physical Activity

There are enormous potential benefits afforded to one's life from technological advances. It is argued, however, that technology can decrease opportunities for physical activity and subsequently

contributes to an increase in physical inactivity in the technologically-inclined individuals of the world today (Foster et al., 2010).

Interestingly however, mobile technology is a popular modality used by many individuals and therefore may be an appropriate method through which physical activity can be promoted (Vickey et al., 2013). With mobile technology users can access physical activity applications, "apps," which can be tools for encouraging and supporting physical activity (Vickey et al., 2013). These apps are typically inexpensive, not overly complex (Foster et al., 2010) and provide users with a system to plan, monitor and track their physical activity (or nutrition, or sleep, for example) while concurrently providing motivation to achieve health and wellness goals.

The use of mobile devices for health purposes has increased dramatically with the rise in smartphone users (Matthews, 2013). Seventeen percent of mobile phone users reported using their phones for accessing health information in September 2011; this figured increased to 31% in September 2012. Also, in September 2011 the number of mobile users of health or fitness apps was 124 million individuals; this number doubled over the next 12 months to reach 247 million (Matthews, 2013). For the health care system, these results demonstrate a foreseeable future in fighting physical inactivity (Vickey et al., 2013).

Through advancements in mobile technology, Mobile Fitness Applications (MFA) have emerged (Vickey et al., 2013). A report published by MobiHealthNews announced over 13,000 health and fitness applications were available to smartphone users through iTunes as of August 2012 (Dolan, 2012). MFA allow the user to track their fitness via global positioning satellite (GPS) technologies built within smartphones and share results and/or progress via the MFA to third-party social networks such as Twitter or Facebook (Vickey et al., 2013). For some individuals, publicity of personal fitness progress may enhance motivation and self-efficacy. For those reluctant to share fitness progress the option to keep information private is available. Regardless, MFA are widely available and used by fitness consumers.

An example of a well-rated MFA is Endomondo, a free (GPS-powered) fitness-tracking application (Vickey et al., 2013). Endomondo can run through several devices such as iPhones, Androids and Garmin watches. This application can track routes, distance, duration and split times while also providing calorie and heart rate counts along with audio feedback on performance (Endomondo, 2012). Endomondo enhances motivation by allowing interactions among users via Twitter or Facebook to encourage users to challenge each other through pep talks as well as competitions (Endomondo, 2012). "Our vision is to make fitness fun…[w] e've worked hard on this app so recreational athletes across the world will like it" reports Christian Birk, the co-founder of Endomondo. By 2012 there were 7 million worldwide Endomondo users with 200,000 workouts being tracked per day and a resulting 28% increase in physical activity engagement in the European user community (Vickey et al., 2013). Other popular MFA include Nike+ which has formed a body of over 1.2 million runners; RunKeeper which was downloaded 170,000 times from the Apple App store as of December 2010 and DailyMile which, by November 2011, had 10.1 million completed workouts reported (Ha, 2010). Clearly, mobile technology has had a positive impact on physical activity levels.

Online Learning through Twitter

Due to some of the recent advancements in mobile technology, mobile learning has become more possible "through the powerful computing capability built into their conveniently small sizes, Internet connectivity, and the availability of many types of easy-to-use mobile software applications" (Johnson et al., 2010). These features allow for the possibility of an innovative use in education because they make it possible for learning to occur in any desired context. Students can take their mobile device into the field where they can apply their knowledge from a real-world perspective (Hsu & Ching 2012). For example, students studying HKR 1000 Fitness and Wellness can share their knowledge about fitness regimes while engaging in physical activity, e.g., at the gym or walking a trail. Using a social network service as an educational tool—especially through a mobile device—allows the student to participate in the instructional process of learning beyond the borders that the traditional learning environment provides. Students are capable of accessing knowledge from anywhere they please and also share that knowledge

from any desired location (Harris & Rea, 2009). This ability to incorporate and transfer learning into daily living increases the authentic learning experience for students.

Social networking increases interactivity among its users and from an educational perspective can enhance active participation and be used as a feedback mechanism (Harrison & Thomas, 2009). The connectivity of mobile devices promotes the use of social learning (Zurita & Nussbaum, 2004) which occurs when a group of learners interact collaboratively, sharing their knowledge and experiences to develop a better framework related to their field or topic of interest while building a community of learning (Lave & Wenger, 1991). Because of the social environment created by a social network, micro-blogging and other applications are efficient for enhancing social learning (Gunawardena et al., 2009).

Regardless of whether completing a course online or on campus, it is the student's responsibility to keep organized and stay on task. Since Twitter arranges information and tweets in chronological order it is an effective method for keeping information organized and accessible for students (Ovadia, 2009). Twitter discussions allow students to share their perspectives and personal experiences without the fear of speaking up within a large classroom community (Bozarth, 2010), especially for first year students in a large class. Junco et al. (2011) studied the effects of Twitter in a first year seminar course. This study concluded that when Twitter was used as a part of the learning process it helped increase engagement and encouraged students to actively participate in the course (Junco et al., 2011). It also demonstrated that Twitter generated social networks among students and instructors and facilitated participation and communication. Twitter generated independent and self-driven learning through an informal type of learning (Dunlap & Lowenthal, 2009).

In a case study conducted by Yakin and Timnaz (2013), Twitter, because of its popularity, was analyzed for its use in a higher education course. Participants (n=48) completed a quantitative survey before, during and after completing a course that used Twitter as an educational tool (Yakin & Timnaz, 2013). Seven open-ended (qualitative) questions were also used at the end of the study, aiming to complement the quantitative results and investigate the advantages, or disadvantages, of using Twitter as an instructional tool (Yakin & Timnaz, 2013). The results demonstrated that Twitter usage of students increased as the course progressed (Yakin & Timnaz, 2013). As the usage of Twitter increased throughout the course, students' levels of perceived competency and belief in Twitter as a learning tool increased as well. Results indicated Twitter offered a more enjoyable setting for learning by adding fun to education, helped students increase self-confidence in expressing themselves, and increased course effectiveness by allowing students to create and share knowledge quickly (Yakin & Timnaz, 2013). Overall the results of this study illustrate the beneficial use of Twitter as a part of the educational and instructional process in a higher education course

Based on the available literature, Twitter seems to be an appropriate tool to encourage engagement and active participation in large online classes. The current project was designed to further explore the impact of Twitter as part of an assessment while striving to create engagement and social presence within the course.

Methods

As the use of Twitter for assessment and fostering of social presence in this high enrolment course was a new instructional intervention, we determined to assess the effectiveness of its implementation by evaluating it from the student perspective. An evaluative approach was employed. Through surveys, students were asked to evaluate the effectiveness of the Twitter assessment activities and Twitter's impact on the learning community.

Participants

Part of the evaluation in the online offering of HKR 1000, Fitness and Wellness, from the Winter 2014 and Spring 2014 course offerings asked students to participate in two Twitter events over the course of the term. In total, 418 (Winter 2014) and 171 (Spring 2014) students enrolled in HKR 1000 with 226

students completing the survey at the end of the semesters. Although no specific demographic information was gathered, students were all undergraduate students, typically in their first or second year of study. Survey response rates were 45.7% for the winter course offering and 20.5% for the spring offering, with an overall response rate of 38.4%. Acceptable average response rates for surveys range from 26% (Hamilton, 2003) to 30% for online surveys (Instructional Assessment Resources, 2011), indicating the quantity of responses from HKR 1000 students is typical and valid.

Apparatus

HKR 1000 was delivered through Desire2Learn (D2L), the learning management system (LMS) adopted by Memorial University. A tweet feeder widget in the course's LMS provided a current summary of the Twitter dialogue while an aggregate tool assisted with tracking the student tweets for assessment purposes. An online survey was made available to the students through D2L to assess student engagement and social presence. The survey posed 20 questions and provided a drop-down menu with responses for 13 of these questions. Three questions required a yes/no response and three short answer questions were included. One fill-in-the-blank question asked students to provide three words to describe the use of Twitter as an assessment tool. Background information was gathered on the frequency of previous Twitter use and the number of accounts students had prior to the course. In addition, the link between Twitter and the course assignment was explored by first asking students how often they tweeted, and second, by asking them to compare the Twitter assignment to discussion forums they may have used in other online courses. A sense of community was explored by asking students if Twitter brought them closer to their classmates and the contributions of Twitter to a sense of community.

Procedure

There were two Twitter events scheduled throughout the semester. The events were brief (in this case, seven days), intensive discussions about a topic related to the course. During week 5 of each semester, students submitted details pertaining to their health, wellness and physical activity levels through an online lab activity. The summary of this lab activity was presented, in aggregate form, to the class. The first Twitter event asked the students to comment, based on their course readings and the class information circulated, on the overall health and wellness of students in their HKR 1000 class.

The second Twitter event occurred during week 11. It was based upon an assigned course reading and video on healthy eating. Students were encouraged to discuss nutrition and healthy eating habits, focusing on the use of vitamins and supplements. Here the discussion was guided by specific questions, including "What did you learn about the nutritional value of food that you maybe did not know before?," "What did you learn about the role that vitamins and vitamin supplements can/do play in a healthy diet?" and "What are your thoughts on the controversy surrounding vitamin supplementation?" Teaching assistants were responsible for grading the students' tweets. Each Twitter event was worth 5% of the student's overall grade in HKR 1000 and students were required to complete one original tweet and to respond to another student's tweet for grading purposes (at minimum). For both the original and response tweets 1.5 points (out of 2.5 total points) was awarded for tweet completion and another point was awarded for tweet quality. Students needed to demonstrate their thoughts about the topic for the quality component. For instance, "68% of our class gets enough sleep" would not get full marks but "68% of our class gets enough sleep which can help people focus and be more alert all day" would get a better mark.

At the end of the semester, week 13, the Twitter evaluation survey (see Appendix A) was distributed electronically to all registered students. The survey was designed to explore Twitter use within the course, Twitter's effectiveness as a component of the assessment, and Twitter's effectiveness as a means to enhance social presence within the class. No course grades were linked to the survey completion. The survey was anonymous.

Results

The combined results of both course offerings are presented according to the sections of the survey.

Background use of Twitter

Students were asked about their Twitter use background. Seventy-nine percent of students reported having a Twitter account prior to completing the online course, with 48% regularly using their account for personal matters. Another 33% reported having an account but using it infrequently. Most students (84%) had only one Twitter account and 94% reported never using Twitter as an assessment tool during their post-secondary education.

Twitter Event Assignment

The second section examined students' reactions to the Twitter event assignment. Although students were asked to tweet two times during each of two Twitter events, 61% report tweeting a bit more than minimally required with another 12% indicating they tweeted a great deal more than minimally required. Only 27% tweeted the minimal amount required (twice).

Student perception of the Twitter events was important. In response to the question "how did you feel about the Twitter events being tied to other assignments in the course?," 64% responded they liked it very much, 31% stated it did not matter one way or another and only 5% claimed not to like it at all.

Ninety-seven percent of students viewed the Twitter assignments as less work (69%) or about the same amount of work (28%) as compared to other in-class assignments. In comparison to discussion forums in other online courses 71% of students in HKR 1000 liked the Twitter events better than discussion forum activities. Another 18% however claimed never to use discussion forums before and therefore had no metric for comparison. One student commented "I would choose to use Twitter over discussion forums! Twitter seemed more effective and the challenge to get a certain number of characters was awesome! It made getting your point across so much more challen[g]ing, but fun!" (W14 student). Another comment from a student in the second case noted: "Creating a short quick discussion between students" (S14 student).

Only 11% of students claimed Twitter did not allow them to think more about the course material, while others claimed they thought more deeply (38%) or somewhat more deeply (51%) about course content. Most students (60%) had no issues communicating their thoughts through Twitter, however 34% felt somewhat challenged getting their ideas across.

Sense of Community

One goal of the two Twitter events was to increase students' sense of community in very large online classes. The third section of the survey inquired about students' sense of community resulting from Twitter use. Although 60% of students did not report feeling closer to their classmates, 30% reported feeling really connected to their class while another 34% indicated they connected with a few individuals, but not the class as a whole. Given the large size of the classes, one student's comment, "I normally wouldn't talk to classmates, as I am a very shy person" but "when using Twitter I found it easier to reply to something they said" (W14 student) shows that Twitter can afford students a means to communicate with and connect to classmates. In general, the comments surrounding the sense of community fostered by Twitter included acknowledging that students overcame shyness, feeling as if they were part of a group, and creating casual conversation along with answering course-related questions.

Students acknowledged the real-time aspect of Twitter, and one student commented: "By being able to see everyone's updates almost instantly via the twitter feed, it made me feel more connected to the

people completing the course with me" (W14 student). Only 15% reported participating in the Twitter events only as a means to an end—for communication and grades only.

Students were asked to compare HKR 1000 to other online courses they had taken and reflect on the sense of community they experienced. Thirty-six percent reported feeling about the same degree of connectedness as other courses while 43% claimed feeling more connected.

General Use of Twitter

The fourth section inquired about students' general use of Twitter in the course. During the term, 9% of students reported having software issues using Twitter, 3% had technology issues and another 28% had issues with the character limitation of Twitter. Overall, 67% of students expected to use Twitter about the same amount as before the course and another 15% thought they might increase their twitter use once the online course ended.

Students were also asked to use three words to describe the use of Twitter within HKR 1000. Two researchers then independently coded the words as neutral, positive or negative and compared their work. A high degree of inter-rater reliability was observed. Overall, 82.10% of the words used were considered positive, with "fun," "easy," and "interesting" being the most common positive words. Only 4.65% of the words were deemed negative, with "boo" being the most common negative word, followed closely by "ineffective," "annoying," and "pointless." Neutral words (12.22%) included "different" and "challenging" and references to Twitter's character limit "140."

General Student Comments

The final section of the survey sought to provide a forum for students to report any other comments they had regarding the use of Twitter in a university course through open-ended responses. One commented, "At first I was very skeptical using Twitter for the course since I was not very familiar with using it prior. However, I really enjoyed using Twitter as a part of this course. It was something new and different that hasn't been done a lot of courses in the past and it has made the course more enjoyable" (W14 student). Some other responses included: "I think it's awesome! Personally, I made a separate account for my university courses so that my personal tweets aren't seen by my professor. Definitely a good suggestion to make to people!" (W14 student); "I still don't really understand how to use it or what it's for, it seems like a technological version of attention deficit disorder. A lot of personal thoughts about cats and nail polish which I do not have time for. I can appreciate [its] utility and ability to integrate course content into tweets and that it is built into the brains of many self centered young people now, but I can't stand it" (W14 student); "I think it is a great way to learn how to use social media in a positive way and encourages positive use of this site compared to daily use" (S14 student).

Discussion

Numerous positive results were evident from this project. Young, university undergraduate-aged students are familiar with social media and embraced the Twitter events embedded within the online undergraduate course. Twitter was an effective means to integrate a social presence in the course and an effective means to assess students. Results suggested students felt more connected to both their classmates and the course content through the Twitter activities. Given the life-relevant content of HKR 1000, students were able to apply course content in real world settings, creating authentic learning and assessment. Associating the Twitter event to other class activities and assignments was an effective learning design. Students responded well to this approach with a small minority (5%) not being in favor of it. The time on task was considered about the same or less work than other traditional modes of assessment in online courses, such as a discussion forum. Students reported in favor of this as well. Though challenged to adhere to 140-character limit, students felt intellectually stimulated with this

assessment activity. By extending the virtual classroom with micro-blogging, students were able to demonstrate reflective and critical thinking in contributing to the event's discussion.

Important implications for course design with micro-blogging were discovered throughout this project. First, it is advisable for students to have an academic Twitter account to ensure they are identifiable and compatible with student's names in the course grade book. A practice event, prior to the assessment event is useful, particularly for the students who lack prior Twitter experience. The outline for the tweets and the restricted time frame for the Twitter events are important to enhance the social presence within the class.

Use of a tweet aggregator assists with assignment marking. Ideally incorporating one in a course which matches tweets to student names would ease the logistic overhead of identifying students and tweets. This feature may need a customized application which some institutions may be able to build. Otherwise, there are several commercial aggregators which could be used in the assessment process.

In regards to using Twitter in any course, not to mention a Human Kinetics course, there needs to be a balance between physical and tweeting activities. This balance would aid in combating the issues raised by Foster et al. (2013) related to the decrease in physical activity among those whose technology use is higher. The mobility of Twitter supports its use as part of a regular, active lifestyle (Vickey et al. 2013). Foster et al. (2010) suggest that mobile technology may be a suitable method by which to promote physical activity. Brief events of mobile technology use during the semester, such as during a tweet event, support this recommended use. Additionally, Matthews' (2013) report of the increased use of mobile devices for health purposes also supports this application.

Activities focused on course content will make the Twitter events more meaningful for students. Building on previous activities as well helps both reinforce important course concepts while allowing students time to reflect and share their critical reflections on the course topics. By maximizing the portability of mobile devices students' focus could be directed toward learning course content and sharing their knowledge with their learning communities. This approach is also supported by Hsu & Ching (2012) and Harris & Rea (2009) each of whom recommend incorporating activities that take advantage of students' varied learning contexts and temporalities.

The technology's use should be secondary to the educational purpose. Students can keep up on the dialogue and move on when the Twitter event is done. Social networking increases interactivity, active participation, and responsive feedback (Harrison & Thomas, 2009). The social learning afforded by tweeting strengthens the class's sense of community and togetherness. Junco et al. (2011) reported that Twitter helped increase engagement and encouraged students to actively participate. This was also reiterated by Yakin and Timnaz (2013) who suggested that Twitter provided an enjoyable learning environment, added fun to education and increased course effectiveness as students were able to create and share knowledge quickly.

Although there were a number of limitations to this project, the response rate for the survey reassures us the information gathered is reflective of students' perceptions. In an attempt to more accurately quantify Twitter's effectiveness, future research might compare student perceptions of course content, evaluation, and sense of community for courses offered both with and without micro-blogging.

Conclusion

The current study indicates that Twitter seems to be an appropriate tool to encourage engagement and active participation in large online classes. For students who are conversant with Twitter it is a natural adaptation; while those new to the technologically mobile social medium require minimum up-front effort to gain conversance. Twitter's use ought to be carefully considered and closely tied to other class activities and content. Regardless of how Twitter is used in a course, it should be clearly communicated to students why it is being used. This may include using it for communication of course logistics, reporting on current events, or other assessment-related activities. Care in the course's learning design is important. This includes careful selection of supporting tools for tweet aggregation and evaluation to facilitate the

instructional evaluation process. Designing Twitter activities that tied to previous course activities or assignments seems to be an effective approach to learning design.

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Appendix A

Survey Questions
Background on use of Twitter
1. Did you have a Twitter account prior to HKR 1000?
   - Yes
   - No
2. If you answered yes to the previous question, how often did you use your Twitter account prior to the HKR 1000 course?
   - I used it regularly for personal matters.
   - I used it regularly for personal and other course-related matters.
   - I set up an account, but used it infrequently.
   - I did not have a Twitter account prior to HKR 1000.
3. How many Twitter accounts do you currently have?
   - 1
   - 2
   - 3+
4. In how many other courses have you used Twitter at this university?
   - 1
   - 2
   - 3
   - 4
   - 5+

Twitter Event Assignment
5. How many times did you tweet for the activities in HKR 1000?
   - I did not participate in the tweet events.
   - The minimal amount required.
   - A bit more than minimally required.
   - A great deal more than minimally required.
6. How did you feel about the Twitter events being tied to other assignments in the course (HKR 1000)?
   - I liked it very much.
   - It did not matter to me one way or the other.
   - I did not like it at all.
7. How do the Twitter event assignments compare to in-class assignments?
   - More work
   - Less work
   - About the same
   - I don't know
8. How do the Twitter event assignments compare to use of the discussion forum in other online courses?
   - I like them better than discussion forum activities.
   - I like them less than discussion forum activities.
   - I like them about the same as discussion forum activities.
   - I cannot say as I've never used the discussion forum in a course before.
9. Did the use of Twitter make you think about the course content more than if it were not used?
   - Yes, using Twitter allowed me to think deeply on the course material.
   - Yes, using Twitter allowed me to think somewhat.
   - No, using Twitter did not allow me to think more on the course material.
   - I cannot say as I did not participate in the Twitter activities.
10. How did the use of Twitter challenge communication of your learning in HKR 1000?
   - I had no issues communicating my thoughts using Twitter. It was very effective.
   - It was somewhat challenging getting my ideas across effectively using Twitter.
   - It was very challenging getting my ideas across effectively using Twitter. I really had to work at it.
   - I found using Twitter very ineffective for communicating my thoughts, I could not say things as I wanted to.

Sense of Community
11. Do you feel the use of Twitter helped bring you closer to your classmates?
   - Yes
   - No

12. If you said yes to the question about Twitter bringing you closer to your classmates (the previous question) please describe in what way this happened.

13. How did the use of Twitter contribute to your sense of community (belonging) in HKR 1000?

- I feel I really connected with my class. I look forward to classes like these in the future.
- I feel I connected with a few individuals in my class, but not the class as a whole.
- I feel I did not really connect to anyone in the class at all, though it would have been nice.
- It was a means to an end - communication and grades, period.

14. Thinking about HKR 1000 and other distance (online) courses you are taking/have taken, how does it compare in terms of sense of community (belonging)?
    - I felt more connected in this course.
    - I about the same degree of connectedness in this course as others.
    - I felt less connected in this course.
    - Not applicable.

General Usage of Twitter

15. What three words would you use to describe your use of Twitter this semester in HKR1000?
16. How do you see yourself continuing to use Twitter after this course is over?
    - I expect to use it more than before the course (HKR 1000).
    - I expect to use it about the same as before the course (HKR 1000).
    - I expect to use it only if required for another course, not for personal use.
    - I don't know.
17. In what situation would you recommend the use of Twitter in courses in the future?
18. What sorts of issues, if any, did you experience when using Twitter for HKR 1000? (Select all that apply.)
    - I had no issues.
    - I had technology issues (hardware, computers, phone, etc.).
    - I had software issues (first time using Twitter, etc.).
    - I had issues with the character limitation of Twitter.
19. Did you tweet using the hashtag *HKR1000W14* other than during the required Twitter Events?
    - Yes
    - No

Other Comments

20. Is there anything else you wish to comment on regarding the use of Twitter in a university course?