MICROBLOGGING BEST PRACTICES

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ABSTRACT

There has been growing interest in the many uses of microblogging in higher education, from sharing research ideas and results to teaching and learning. Yet few studies have been undertaken to examine systematically how microblogging technologies are used by teachers in a classroom environment. The published studies indicate microblogging tools aide collaboration in the classroom. These studies have not addressed in detail how the use of the technology shapes teaching practice. The research presented in this paper is an exploratory study that examines how and why instructors use microblogging in their classrooms. This study builds upon previous study that looked at how students' behave when using micro-blogging tools. Here, we investigate the lessons learned by instructors who have used this technology as part of their resources to connect with students.

KEYWORDS

Microblogging, Online Teaching, Learning, User Engagement, Collaboration

1. INTRODUCTION

There has been growing interest in the many uses of microblogging in higher education, from sharing research ideas and results to teaching and learning. Yet few studies have been undertaken to examine systematically how microblogging technologies are used by teachers in the classroom. Most of the studies that have been published focus on practical and social applications, usually on Twitter, to enhance pedagogy and support collaboration in the classroom. These studies have not addressed in detail how the use of the technology shapes teaching practice. The research presented in this paper is an exploratory study that examines how and why instructors use microblogging in their classrooms. Seeking to increase student engagement and learning, some instructors at Camosun College as well as in other colleges and universities are asking students to use Twitter, Facebook, the discussion forum in D2L, or other micro-blogging tools to post online questions and comments relevant to course material. Previously, we have investigated and published our findings on the students' behavior when using micro-blogging tools [Froese et al, 2011]. Here, we build upon these findings and investigate the lessons learned by instructors who have used this technology as part of their resources to connect with students. We discovered that popularity can be deceiving and tools such as Twitter, Facebook and Google+ are not always beneficial to students' motivation and learning. Moreover, if these tools are not used with caution they might hinder the students learning experience.

Microblogging is an online tool that allows a small amount of text based content to be published in the user's profile page [Java, Song, Finin and Tsend, 2007]. The most popular microblogging tool is Twitter, which was launched in 2006 and it allows users to post short messages and update status and useful web resources. Microblogging is limited to 140 characters per post on Twitter. The lightweight nature resulting from the posting constraint of microblogging makes it possible for people to post quickly and post often. Some microblogging tools also allow for multimedia content, where users can exchange small elements of multimedia content such as text messages, individual images, and video links [Grosseck and Holotescu 2008]. There is a plethora of studies reported in the literature on the benefits of using microblogging for social and pedagogical purposes. Junco, Heiberger, and Loken [2011] have reported that the use of Twitter encouraged online participation from some students who otherwise might not have participated in class. Similarly, Rankin [2009] noted that the integration of Twitter, as a communication tool, allowed more students to participate in classroom discussion than before. Zhao et al. [2009] also suggest that micro-blogging increases students' motivation, engagement and grades. Ebner and Maurer [2009] stated that

microblogging allowed learners to stay connected and share information in the eLearn community. Microblogging tools were also found to benefit informal learning beyond the classroom. Twitter assignments have been demonstrated to promote active learning by helping students relate the course material to their own experiences both in and outside the classroom [Junco, Heiberger, & Loken, 2011].

Thus, in educational settings, we accept that micro-blogging is used to ask questions, to give opinions, to share resources, to change ideas, to reflect, and to foster informal learning outside the classroom [Ebner et al. 2010]. We noticed that in most of current studies, micro-blogging was a mandatory activity for students, rewarded with marks, and controlled by their instructors. Despite the promising technological features and pedagogical features of microblogging, there is a lack of consensus on the integration of such activities and their impact on facilitating learner interaction. Educators have recognized some drawbacks in the use of microblogging, such as the potential for it being distractive and addictive [Gossec and Holetescu, 2008].

In our previous research [Froese et al, 2011], we analyzed the posts in the chat-room in Connex of a large (160 students), first year class in computer science. These students were encouraged but not rewarded for micro-blogging, and it was an alternative communication media to email or face-to-face interaction. We found out that students communicate through micro-blogging in a quick and concrete fashion, a post is usually a short message of 78 characters in average (note that some micro-blogging tools such as Twitter limit the size of a post to 140 characters). 91% of the students were casual users with less than 15 posts per term whereas only 9% of the students were active micro-bloggers posting between 15 and 40 posts per term. We found that that micro-blogging favors peer support. Students were eager to respond to questions if they knew the answer, even in cases were a question had already been answered in older topics they would still be willing to share answers. We noticed that students were not shy about asking questions from the simple to the more complex. Almost 40% of the posts were in the cognitive domain, asking or providing application, comprehension, or knowledge information. The remaining 60% of the posts were for social interaction or for administrative information related to the class, micro-blogging turned out to be a convenient way of socializing and communicating. We noticed that some students were asking more cognitively complex questions in the first weeks of the course, contrary to what we would have predicted. One can infer that as students become more skillful and familiar with the class material they need less assistance on how to interpret concepts and on how to solve problems. However, students consistently asked for help on finding information such as the syntax of programming instructions or on finding references to complete assignments. However, how to design classroom activities to optimize the positive effects of microblogging remains a challenge for educators. The purpose of this study is to examine student learning under a set of structured microblogging-based activities from the instructor's perspective and to identify the affordances and constraints of the technology.

2. METHODOLOGY

We conducted five interviews with instructors who had used micro-blogging as communication media with students. Our participants had experience with tools such as Tweeter; Facebook; Google groups; and discussion frameworks such as WebCT, Moodle and D2L. Instructors of face-to-face courses used micro-blogging as an alternative communication media, whereas for instructors of online or hybrid courses, it was the main communication media. We asked instructors open questions aimed at finding what are the factors that lead to successful online micro-blogging discussions. Examples of questions are: tell us about your experience with micro-blogging, how do to you keep students engaged in the micro-blogging activity, and describe your best/worst experience with micro-blogging. Two researchers lead the interviews, recorded, and took notes during the interviews. Interviews were transcribed, coded, and analyzed to discover trends and emerging themes. There were two main themes that emerged in the codes of the interviews: instructors' motivation for using micro-blogging and advantages of using micro-blogging.

Instructors' motivation: The instructors' motivation to use micro-blogging tools were to get quicker feedback from students, to increase communication with (and among) students outside the classroom, to have a voice to the less vocal students, to have a space were students could be more reflective on their input and comments, to have a channel for discussions regarding class content or administrative issues, and to create a sense of community on an online course.

Advantages of using micro-blogging: The use of microblogging leads the student to become active learners and to learn effectively without being watched by the instructor, it gives voice to the quiet students who otherwise would not express their comment of ideas in class. It provides the student with the opportunity of having other student to critic and validates their ideas and with criticism comes a valuable opportunity to debate different ideas. This interaction provides an opportunity for weaker students to see others' work and motivates them to aim at higher standard for their own work.

3. FINDINGS AND RECOMMENDATIONS

Our findings corroborate with the theories of online teaching and learning when using microblogging tools in a classroom setting. For example, according to Downes' [2006] and Siemens' [2004] theory of connectivisim, learners should be given the opportunity to explore learning and not be overloaded with information. The study also confirmed observations that *instructors* have become facilitators of construction and discovery of knowledge by promoting organized exchange and discussions.

The study further confirmed that instruction needs to be concise and clear and this was crucial to the success of incorporating microblogging for online discussions in the course content. Another aspect of interest was that the choice of microblogging tool is very important as the familiarity of the tool facilitates learning. The study showed that the content used for discussions and their relevancy and challenge were important to the participation and engagement of the student. This supports Keller's proposed ARCS model (Attention, Relevance, Confidence, Satisfaction) for motivating learners during learning [Keller, 1983; Keller & Suzuki, 1988].

The findings for effective use of microblogging were classified into four sub-themes: organization of the discussions, definition of clear instructions, the change in the role of the instructor, and how to choose a microblogging tool. These subthemes are described as: *Organization of the discussions, Define clear instructions, the Role of the instructor, Choosing the micro-blogging tool*

- *Organization of the discussions* - Micro-blogging discussions should be organized by topics so that students do not get overwhelmed, students should not be allowed to create new discussion topics, but they should have a space to post general questions or requests. Micro-blogging discussions work better with small groups, if the discussion is about class content then a group of five or six students will be ideal. For general administrative questions larger groups work well. Students seem to enjoy taking turns to moderate the discussions in a term. The discussion topics should be judiciously chosen, prepared, and set up well in advance, preferably before the course starts, many students nowadays have full time jobs and a family to raise and they make an analysis of the cost-benefit of a task before deciding how much time and attention they will devote to it.

- *Define clear instructions* - Instructors should describe exactly what the students are suppose to do, what the policies are, and how the students will be marked. Instructors should indicate exactly how many posts students need for participation marks, what is the time frame for posting, and whether there is a reward for early posting. Instructors should give examples of what they consider good and bad posts for their course. It is strongly advisable to have a colleague to edit the instructions so there is no ambiguity. Each assigned discussion should be relevant to the course content and have an objective that is clear for the students. The instructor should define policies for the expected online behaviour. Instructors have observed that students perform better when they are rewarded by their online participation just like in-classroom participation and that marks are the students preferred reward; another attractive reward is to tie the discussion to the questions in the exams.

- *The role of the instructor* - The role of the instructor in a micro-blogging discussion is more as a facilitator and less as a lecturer and should introduce the idea of micro-blogging with excitement, students appreciate an enthusiastic instructor and will increase their changes of having a positive learning experience. It has been observed that students perform better when instructors maintain an online presence, it seems that students get discouraged when the instructor "is never there". Instructors should synthetize and talk about the posts commenting on important issues that might have been rose online. Instructors should be more active answering questions at the beginning of the term and then become less dominant of the discussion as time progresses to give students the opportunity to create a community of learners where students can support each other. The instructor should encourage and acknowledge students to answer questions posted by other

students. It is advisable that the instructor reminds the students about their micro-blogging discussion commitments, a short email, a comment in class, or a small video would keep the student aware of their to-do's and timelines.

- *Choosing the micro-blogging tool* - Instructors should know their target audience. If students are already familiar with D2L, Moodle, or Connex the instructor should consider using the discussion forum in those tools, it is easier for students to go to "one" place. The instructor should be familiar with the chosen tool well in advance so technical issues do not come up by surprise. Students who already know how to use the tool have a higher probability of having a positive experience with micro-blogging. Instructors should not assume that all students are computer-literate. If possible, in a face-to-face class, the instructor should demo a micro-blogging discussion. CONCLUSION and Recommendations

To summarize, our findings corroborate with the theories of online teaching and learning when using microblogging tools in a classroom setting. *Learners* should be given the opportunity to explore learning and not be overloaded with information. *Instructors* have become facilitators of construction and discovery of knowledge by promoting organized exchange and discussions. *Content* needs to be concise and clear and this was crucial to the success of incorporating microblogging for online discussions in the course content. The study showed that the content used for discussions and their relevancy and challenge were important to the participation and engagement of the student.

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