### Using Social Media to Improve Student-Instructor Communication in an Onlinef Learning Environment

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### **ABSTRACT**

The lack of effective faculty-student interaction has been identified as a main contributor to the high dropout rate in online education. For this paper, the authors conducted an empirical study using a social networking tool, specifically Facebook, to improve student-instructor communication and student performance in an online learning environment. They recruited three sections of an introductory IT course at a public university and divided them into two groups: (1) a treatment group where Facebook was used as an additional communication tool and (2) a control group where the course setting wasn't changed. The authors surveyed the participants' opinions on the use of Facebook in the treatment group, and collected participants' academic performance data for both the treatment and control groups. Their research findings show that the use of Facebook as a supplemental communication method can help an instructor better reach out to students, reduce a course's failure rate, and improve student course performance.

### **KEYWORDS**

Distance Learning, Facebook, Higher Education, Social Media, Student-Instructor Communication

#### 1. INTRODUCTION

Online learning has enjoyed exponential growth in recent years due to the flexibility and convenience it offers students (Moore & Kearsley, 2011). Not only has online enrollment been growing very fast, but more and more colleges and universities consider online learning a critical aspect of their long-term strategies (Allen & Seaman, 2016). One of the greatest challenges in online learning is its high dropout rate (Clay, Rowland, & Packard, 2009), which refers to student failure in or failure to complete a course (Lee & Choi, 2011). Among the various factors contributing to the dropout problem is a lack of instructor-student interaction (Bocchi, Eastman, & Swift, 2004; Ivankova & Stick, 2007; Lee & Choi, 2011). In an attempt to address the lack of instructor-student interaction problem, we adopted a social media tool, namely Facebook, to engage students enrolled in an online introductory IT course and investigated the effectiveness of such an approach.

The remainder of this paper is organized as follows. In section two, we review the literature on online learning and its challenges, as well as the use of social media and Facebook for educational purposes. Section three introduces the research hypotheses. Section four describes the research method for this study. In section five, we present our research findings to illustrate the effectiveness of using Facebook to improve instructor-student communication and student performance. Last, in section six, we discuss the contributions of this study.

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### 2. LITERATURE REVIEW

### 2.1. Online Learning and Its Challenges

An exciting field in higher education that has recently enjoyed exponential growth is online learning (Moore & Kearsley, 2011). Educators have noted that "online learning has been promoted as being more cost effective and convenient than traditional educational environments as well as providing opportunities for more learners to continue their educations" (Richardson and Swan, 2003, p. 69). Students appreciate the convenience and flexibility of online classes, which allow them to study from anywhere, at their own pace and in their own time. Due to these benefits, online enrollment has been growing substantially. According to a 2015 survey of online education in the United States, in fall 2014, more than 5.8 million students took at least one online course – accounting for more than one fourth (28 percent) of all enrolled students – and over 2.8 million students were currently taking courses exclusively online (Allen & Seaman, 2016). Online learning has also become strategically important to many academic institutions. The same 2015 survey revealed that among more than 2,800 colleges and universities participating in the survey, 63.3 percent reported online learning as critical to their institution's long-term strategy.

Despite the exponential growth of online learning and its strategic importance, challenges still exist. The high dropout rate in online courses (as compared to traditional courses) is one of the greatest problems facing educators (Clay et al., 2009). Dropout refers to either a student's failure in or failure to complete a course (Lee & Choi, 2011). Researchers have identified various factors that contribute to the dropout problem, with a lack of instructor-student interaction being one of the main contributors (Bocchi et al., 2004; Ivankova & Stick, 2007; Lee & Choi, 2011). To encourage students to persist in online courses, instructors should give appropriate feedback in a timely manner, provide support to students, and involve students in interactive activities (Ivankova & Stick, 2007).

To address the lack of instructor-student interaction issue, researchers offered multiple suggestions, including using communication technology tools (Poellhuber, Chomienne, & Karsenti, 2008). We chose to use a social media tool, Facebook, to improve instructor-student communication in an online learning environment. Before we describe our approach, a review of the use of social media in general, and Facebook in particular, for educational purposes is discussed.

### 2.2. Using Social Media for Educational Purposes

In a broad sense, social media refers to any media that helps integrate technology into the lives of people for the purpose of communication (Olofsson, Lindberg, & Stodberg, 2011). The use of social media has grown exponentially over the past decade - so has the use of social media in higher education. More and more universities are using social media tools such as social networking sites, wikis, or blogs to interact with and engage students. According to a survey of nearly 1000 university faculty members, 52 percent use social media tools such as wikis, blogs, and podcasts in their classes and more than 30 percent use social networks to communicate with students (Parry, 2010).

There is compelling evidence that social media is a valuable tool to engage students in and outside of the classroom, thereby improving their academic performance. Many recent studies have shown that social media play a central role in online education (Wilson, 2013). Barczyk and Duncan (2013) identified the ways social media have been used in classroom teaching, from replacing email to increasing access to online classroom interaction for "shy" students. Researchers also found that the use of social media tools can promote interaction between instructors and students, thus improving teaching quality in large online classes (Nagel & Kotzé, 2010).

### 2.3. Using Facebook for Educational Purposes

Facebook is one of the most popular social media tools used in the field of education, due to two main reasons. First, Facebook is very popular among students, who are already familiar with its features; this reduces the risk of user resistance to adopt Facebook for learning (LaRue, 2012; McCarthy, 2010;

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