

Chapter 14

Revealing Student Blogging Activities Using RSS Feeds and LMS Logs

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ABSTRACT

Blogs are an easy-to-use, free alternative to classic means of computer-mediated communication. Moreover, they are authentically aligned with web activity patterns of today's students. The body of studies on integrating and implementing blogs in various educational settings has grown rapidly recently; however, it is often difficult to distill practical advice from these studies since the application contexts, pedagogical objectives, and research methodology differ greatly. This paper takes a step toward an improved understanding of employing blogs in education by presenting a follow-up case study on using blogs as reflective journals in an undergraduate computer-science lab course. This study includes lessons learned and adaptations following from the first-time application, the underlying pedagogical strategy, and a detailed analysis and discussion of blogging activity data obtained from RSS feeds and LMS logs.

INTRODUCTION

Blogs are a convenient and increasingly popular means of introducing Web 2.0 for educational purposes into the classroom. Teachers with a passion for learner-centered education have recognized

the educational potential of Web 2.0 tools such as wikis, social bookmarking, or blogs, which offer accessible, easy-to-use and cheap (Rosenbloom, 2004) means of collaboration, expression, communication, reflection and many more creative, spontaneous facets of participation and knowledge building (Yuang, 2008) in the off-campus space. Essentially, a blog is a personal web page that

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is updated periodically by the blogger through posting (typically short) hypertext entries. These entries are presented in reverse-chronological order to visitors, who are typically allowed to post comments to blog entries. Most blogs are hosted on publicly available, free blog hosting services that provide state-of-the-art features such as offering permalinks, maintaining blogrolls, downloading web feeds for content syndication, and enabling personalization of the blog page using all sorts of visual layouts and gadgets. The success of blogs can largely be attributed to the social power and the simplicity of blog technology (Blood, 2004) and process: a new personal blog is only few mouse clicks away, and posting a new blog entry is as convenient as sending an email.

As a form of communication supporting highly diverse personal motivations (Nardi, Schiano, Gumbrecht, & Swartz, 2004), blogs have been successful on the Web for over a decade now; it is accepted that in the educational context blogs as a tool have inherent value beyond mere provision of information (Hall & Davison, 2007), e.g., for collaborative production and exchange of learning resources (Tomberg & Laanpere, 2008). It is also evident that participation in the blogosphere—either as a reader or as a contributor—is an integral part of the daily lives of the current generation of students (Wong, Vrijmoed, & Wong, 2008). Nonetheless, it appears that in educational settings we are still in a phase of collecting experiences. There are numerous studies and theoretical investigations available in the literature on successes and failures of integrating blogs into web-based or hybrid course environments (Kim, 2008). Previously reported uses of blogs in education include, for instance, the facilitation of collaborative learning by having students publish their work in a blog and receiving comments, feedback as well as support by peers and teachers (e.g., Berman & Katoma, 2007; Chang & Chen, 2007; Chang, Chang, & Chen, 2008; Hall & Davison, 2007); or offering the students a means of reflection on their work on assignments, the obtained results, and their learn-

ing process and progress (e.g., Carroll, Calvo, & Markauskaite, 2006; Lin & Yuan, 2006; Xie, Ke, & Sharma, 2008). For instance, this can be used in overarching e-portfolio scenarios (Chuang, *in press*) or simply as a “spontaneous and authentic” (Ray & Coulter, 2008) alternative to classic means of web-based communication.

Some reports also deal with failed first-time introduction of blogs (e.g., Divitini, Haugalokken, & Morken, 2005)—as with any other new technology, building up expertise requires time, resources, and thorough reflection of lessons learned. We need to go beyond the novelty of using blogs in education and towards building a solid foundation of successful practice based on research (West, Wright, Gabbitas, & Graham, 2006). It is not easy to identify those foundations and handy pieces of practical advice in the current body of academic papers on student blogging. This paper aims to take a further step in improving the current situation by reporting results of quantitative analysis of blogging and LMS (Learning Management System) log data during the application of student blogs in a computer science lab course. We present empirical observations of relationships between blogging behavior and student academic performance, as well as a model of blogging activity within the course community. The model aligns different variables of blog participation (e.g., visiting peers, commenting, and posting blog entries) and empirically investigates relationships in the variables using obtained log and feed data.

The paper is structured as follows. In the next section we describe the context of the course in which blogs were employed. This is followed up in Section 3 by a presentation of design details of the blog portal, which we implemented as an extension to our LMS to provide a seamless integration of blogging activities into the LMS. In Section 4 we present findings obtained from quantitative analysis of collected data and align the observed blogging activity variables in a correlation model. In the last section, we discuss the findings and present a conclusion and outlook on further work.

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