Privacy and Territoriality Issues in an Online Social Learning Portal

Mohd Anwar, North Carolina A&T State University, Greensboro, NC, USA
Peter Brusilovsky, University of Pittsburgh, Pittsburgh, PA, USA

ABSTRACT

Following the popularity of Wikipedia, community authoring systems are increasingly in use as content sharing outlets. As such, a Web-based portal for sharing of user-generated content (e.g., course notes, quiz answers, etc.) shows prospect to be a great tool for social E-Learning. Among others, students are expected to be active contributors in such systems in order to offer and receive peer-help. However, privacy and territoriality concerns can be potential barriers to wide adoption of such technology. Understanding the preference for sharing learning content is the first step to address privacy and territoriality concerns of content providers. The authors conduct a survey among students in four university courses in order to learn their preference for sharing notes and quiz answers with three target groups: instructor, peer, and stranger (i.e., someone outside their class). The authors also examine the preference for acceptable method of sharing by inquiring about three methods: “anonymous sharing,” “pseudonymous sharing,” and “sharing with name”. They further investigate the importance of “content type,” “sharing method,” and “accessor type” on the preference for sharing. The survey also reveals respondents’ self-reported reasons for controlling access to their generated learning content. The survey data indicate that even though the respondents have various levels of concerns, almost all of them are willing to share. The authors observe relationships between content type and respondents’ preference over each of these parameters: accessor type, commentator type, and sharing method.

KEYWORDS

Human Factors, Online Learning, Privacy, Social Learning, Territoriality

1. INTRODUCTION

In this day of read-write Web, users emerged from passive content consumers to producers of various kinds of Web content. Most visible among these kinds is user-generated primary content that has become an everyday source of information and knowledge. Yahoo! Answers and Wikipedia are two prime examples of such primary user-generated content, and they present two different but successful models of community authoring. Less visible, but equally important is user-generated secondary content, produced by the users in association with different kinds of traditional and social primary content. Amazon.com product ratings and reviews, blog post comments, Delicious notes and tags are examples of highly popular secondary content.

E-Learning landscape has been equally affected by the gradual transition of users from consumers to producers. However, the balance between primary and secondary content in E-Learning is different. Instructors and other users with good domain knowledge nowadays mostly generate primary content in E-Learning. A good example is provided by communities of practice that now routinely generate learning resources through community authoring. In contrast, secondary content is typically generated.
by students who are rarely capable to generate primary content. Student annotations on lecture slides or electronic texts (henceforth, we refer to this as course notes), discussions of the topics introduced by instructors, ratings of learning content and even student paths through learning content are examples of student-generated and other primary content creators, the majority of modern research on social E-Learning systems focus on student-generated content. The main idea behind these research efforts is that by enabling students to access various kinds of content generated by other students we can significantly improve both the quality of learning and student motivation to learn. For example, the ability to see comments provided by other students to an assigned textbook chapter might help in better understanding its content and relating it to the assigned homework (Farzan & Brusilovsky, 2008). The ability to see the progress of other students working on educational exercises might provide additional motivation to learn (Hsiao, Bakalov, Brusilovksy, & Konig-Ries, 2011).

A range of tools has been created to implement the ideas of social learning, i.e., to assist students in organizing, sharing, and accessing this social content. Among these tools most popular nowadays are social E-Learning portals (Dicheva & Dichev, 2010; Abel, Marenzi, Nejdl, & Zerr, 2009; Wolpers, Memmel, & Giretti, 2009; Janssen et al., 2007). A typical social E-Learning portal simply provides access to a range of primary learning content and enables the students to produce and share various kinds of primary and secondary content: presentation, notes, discussions, bookmarks, comments, ratings, tags, etc. Frequently, these portals also allow end users to produce an easy integration of external social content such as YouTube videos, Delicious bookmarks, or Flickr images.

Needless to say that the success of a social E-Learning portal depends on the active participation of community members in creating this content and on broad sharing of this content. Here, however, the need to broadly disseminate user-created content faces the problem that users are frequently very protective about the content they create. For example, students might not be willing to share their essays and open them for comments (or editing) to their peers. This apparent dilemma may lie in the concerns about privacy and the sense of territoriality of content providers. The privacy concerns include potential threat of being judged by the merit of content, reuse of content out of context, losing competitive advantage, etc. The territoriality feelings may grow out of the sense of attachment to the authored object or commitment to retain the quality of the learning object.

Privacy and territoriality can be expressed by means of articulating the preference for sharing. A sharing preference can be based on three factors: content type, sharing method, and accessor. In the context of community authoring portal, there are generally two types of content a student may contribute: their own work and their comments or insights on someone else’s work. We identify three sharing methods: anonymous sharing, pseudonymous sharing, and sharing with real name.

In anonymous sharing, a student does not want to associate her identity to the content. This is how one can achieve a degree of content privacy. In other words, a search on the content does not reveal any association between the content and its provider. In pseudonymous sharing, a user shares different types of content using different identifiers, called pseudonyms. Through the persistent use of a pseudonym, the user could build a particular sharing profile and earn certain reputation. Not only a pseudonym hides its owner’s true identity, any two different pseudonyms of the same owner should not be linkable. Pseudonymous sharing allows a user to act freely without any repercussion or pressure to share. Let us consider a scenario to understand the advantage of pseudonymous sharing: Alice and Bob are friends. Alice does not want to share her not-so-sure comment on a topic with Bob in fear of being embarrassed. However, Alice knows that Bob can help her understand the topic well. A pseudonym of “Abigail” allows Alice to share the comment with Bob without revealing her true identity. In sharing with name, a student reveals her true identity while sharing. In other words, a search for content reveals association between content and the provider. Such an association is desirable when a student wants to be recognized for her contribution.

We identify three types of accessors who might be interested to consume the content in a community authoring portal: peer, instructor, and stranger. In the context of the study, a content provider is a student and a peer is a fellow student of the content provider in a course. An instructor is the instructor of the course in which the content provider is enrolled. A stranger and the content
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