

Chapter 5.9

Social Tagging and Learning: The Fuzzy Line between Private and Public Space

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ABSTRACT

Social tagging systems celebrate enormous growth rates on the World Wide Web. This chapter looks at social tagging from an educational perspective, particularly its use for educational environments. The authors identify the processes underlying social tagging from an embodied interaction perspective. The authors will support the thesis that emerging folksonomies are at the base of meaningful interaction processes between user and system and also, at the same time, social processes between groups of people. This chapter argues that the fuzzy line between private and public space plays a crucial role. Moreover, tags represent embodied conceptualizations, whose potential effectiveness for learning will be discussed in this chapter. The authors will provide an example of a learning software for children (Amici, implemented by one of the authors) in which social tagging is used to support sharing in a programming environment to showcase how embodiment of conceptualization as well as constant coupling through moving between private and public space is achieved through tagging in the system.

INTRODUCTION

The field of Human Computer Interaction deals with the natural gap and difficulties in interactions between human beings and machines. From

an educational perspective, we are especially interested in its subfield of social computing as it is concerned with *meaningful* interaction. Interfaces, the contact points between humans and computers, and the underlying interaction can be designed to be more or less familiar and meaning-

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ful for users (Dourish, 2001, p. 100). They can also support interaction between an individual and the computer only, or provide a setting for communication between a larger group of users. This design is especially important in learning systems as the value of social learning is widely known and is decisive for self-steered learning processes using them.

In particular, social computing enables embodiment, i.e. “*the property of our engagement with the world that allows us to make it meaningful*” (ibid., p. 126). On the one hand, as humans are social beings, it seems to be a good idea to introduce social computing as interaction form. On the other hand, people understand and assign meaning to the world because they are embedded in it and other people are always a part of this world according to a phenomenological point of view. DOURISH’S definition of embodied interaction as “*creation, manipulation, and sharing of meaning through engaged interaction with artifacts*” (ibid.) highlights the role of real world experiences and social practices in the processes of creating meaning.

The idea, on which this chapter is based, consists in applying such an embodied interaction perspective to the current success story of *social tagging* (which we assume is a particular technology within social computing), in order to obtain a working design of a learning environment for children. Tagging systems are recently experiencing considerable interest and acceptance (i.e. usage) rates within the Internet community; see e.g. (Murnane, 2006). *Our specific thesis is that this high acceptance is based on its meaningful interaction process with respect to conceptualization*. In particular, these systems make use of the fact that they enable an embodiment of concept development, i.e. embodied conceptualizations, and the underlying processes are therefore valuable for individual learning in a social setting.

Social tagging systems are particularly interesting for learning as they provide the opportunity of individual as well as shared embodied conceptualizations by offering a place in the Internet

users can shape together. Through switching between the private and public conceptualizations the learner is constantly forced to reflect on and recreate meaning.

We start off by introducing social tagging and related academic research. Then we will support our thesis by discussing the social tagging phenomena with respect to learning. Here, folksonomies will be interpreted as *embodied conceptualizations* that support understanding and learning processes. In the next section we elaborate on the fuzzy line between private and public space used by social tagging systems. Later on, we concretely present an implementation of such concept embodiment within the integrated development environment *Amici* for children’s programming.

SOCIAL TAGGING

In contrast to social software, which is the generic term for software that “*enables people to rendezvous, connect or collaborate through computer-mediated communication and to form online communities*” (Wikipedia, 2001), in social tagging systems users more specifically label system-specific objects like bookmarks (e.g., del.icio.us, see www.delicious.org, or scientifically Connotea, see www.connotea.org) or images (e.g., flickr, see www.flickr.com) with any number of free text tags to organize and share their respective objects. Various definitions for the term ‘tagging’ exist, we refer to Beckett: “*Tagging: describing web content using whatever words seem right*” (Beckett, 2006). Formally, tagging systems can be described as tripartitenetworks, i.e. networks “*with three different kinds of nodes (the users, the items and the tags) and where the links relate three nodes of different kinds*” (Lambiotte & Ausloos, 2005, p. 3).

Note that according to this definition tagging systems also connect the user nodes meaning that through using the same tag an implicit connection between different people is made. Therefore

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