Chapter 4.19

E–Tagging in Context:
Information Management across Community Networks

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ABSTRACT

This chapter examines social tagging as annotation: first from the perspective of classification research; and second from the perspective of knowledge representation and knowledge management. Using the context meta-model of the annotation, the authors demonstrate that the model is adequately represented in existing knowledge representation theory: specifically, from the perspective of socially constructed meaning in community networks. Furthermore, the set of tagging representations (that is, triadic networks of the individual, object, and annotation) are explored throughout the knowledge representation domain. In contrast to many commentators, the authors of this chapter conclude that social tagging may effectively be explored via a multidisciplinary approach linking knowledge representation and classification research and creating an open domain network.

INTRODUCTION

Inter-site and intra-site variation of certain aspects of tag production, content, and patterns of use has recently begun to attract attention by commentators in knowledge management (KM) as well as in classification research (CR). Examples include variation in the semantic, syntactic and pragmatic context of tags, as well as in the patterns of production and use of tags within and between individuals and larger social communities. It is conjectured that variation in features of tagging systems (such as

user-interface concerns) are at the root of much of these variations, but there is also a great deal of variance within and between tag sites and communities that relates to the topic and character of the discussion, the nature of social tagging as a speech act, or as a performance that reflects on the identity that speakers construct for themselves. This variation may be seen through comparison of research results within and across various tagging systems, but the subject has not yet received large-scale, thorough investigation.

The term *social tagging* appears to suggest that the process of tagging - annotating a resource with a free-text keyword or phrase - is understood to be connected to some form of underlying "community" or "network" structure. As a result, some perceive a dichotomy between semantic annotation or knowledge management, and the use of social tagging to aggregate opinions (Mika, 2007). In short, a distinction exists between well-formed semantic annotations that enable the development of efficient computational methods for analyzing and interacting with information and the free tags of social networks that are weakly defined and incompletely interpretable. Reflected is a historical bias towards a characterization of knowledge management systems as representative of consensus within a research community or other closed domain, whilst user classifications generally exhibit partial consensus within a loosely defined community.

There is significant disagreement about the forms that this social dimension may take, just as there is a great deal of discussion about the uses of tagging that are considered valid and should be encouraged. The analysis of social tagging has been approached via a number of dimensions, of which the perspective of existing research into areas (such as classification research) is perhaps the most common, with the casting of the tag into broadly researched existing forms (such as keyword, label and annotation). Application of existing research perspectives and theory often highlights valid links with prior and related work

and hence leads to productive research avenues at a cost perhaps of casting the data into a mould in which it fits uncomfortably.

In this chapter, we bring together a set of perspectives on social tagging and cast them into existing models and theory drawn from the knowledge management domain, with the aim of demonstrating the sound theoretical basis for a rapprochement between the two domains. The familiarity of knowledge management research with systems thinking and knowledge as a socially-constructed resource (Good, Kawas, & Wilkinson, 2007) suggests that bridging this gap provides the classification researcher with a rich set of tools and resources to complement existing approaches to research in this area. Knowledge itself is considered a manifestation of information in social systems, a result of interpretation of data (Fuchs, 2004). Many recent tools and techniques focus on exploring aspects of the connection between social tagging and the underlying community, in particular the role of tagging as a means of shared informal annotation. We summarize relevant research results, bringing together areas of investigation linked to various aspects of the process of authoring, reading and making use of tags, including facets of tag use other than the well-known model of personal or shared resource management. A broad, multidisciplinary view allows for more realistic models of tag generation and use, thereby providing a means to make more effective and varied use of existing research tools in the analysis and reuse of social tagging and networking data.

BACKGROUND

Social tagging inherits from previous work on non-hierarchical file systems, designed to solve issues first identified by Barreau and Nardi (1995) that limit the usability and intuitiveness of the hierarchical file system paradigm. Barreau and Nardi found that hierarchical file organization

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