Collaborative Tagging of Multimedia

As the volume of content collectively produced and consumed by users has expanded significantly in the past few years, tagging has emerged as a popular way to annotate and organize that content collectively. Using tags—user-selected, descriptive keywords—to label content gives users the ability to organize content in ways that are useful to themselves as well as to others.

Tagging has been explored largely in the context of written material, such as Web pages, blogs, and other documents. While it’s arguably useful to tag written material for personal and idiosyncratic reasons, full-text indexing and search engines do their job very well. The same kind of indexing doesn’t exist—at least not in any widespread way—for media such as photos, audio, and video, making annotation via tagging all the more useful. This need presents challenges, but also opportunities. The multimedia community is poised to make a significant contribution here.

For this special issue, we have selected articles that explore tagging of multiple types of media. To begin with, Li and Lu present an overview that serves as a helpful introduction to a diverse body of previous work on tagging. Tagging has been interesting to several research communities, including human–computer interaction, information retrieval, library and information science, and others. This article provides a broad introduction to several ways of examining the use of tagging.

Next, Yamamoto, Masuda, Ohira, and Nagao address the complexity of annotating video that arises from including the additional dimension of time. The system they present allows users to add commentary to segments of videos rather than entire videos. Systems such as this could make it much easier to find appropriate video segments, a task that will become important as Internet-based video archives continue to grow.

The final two papers, one by Naaman and Nair and the other by Hunter and Schroeter, demonstrate the use of contextual information to tag photos and associate them with other kinds of media. Naaman and Nair’s ZoneTag system makes it easy to tag digital photos from camera phones, from which an increasingly large number of photos are generated. They also explore some of the benefits and pitfalls of sharing tags and multimedia objects among groups of users. Hunter and Schroeter present a system called Co-Annotea, which uses tagging to bring together objects of different media types so that they can be used in the context of one another, delivering a richer experience.

The articles in this special issue demonstrate that, while even though it’s well-established that tagging is useful for organizing content objects in a rather atomistic way (for example, lists of all objects tagged X), much of tagging’s untapped power is undoubtedly in its ability to bring together objects of multiple media types. Connected through shared tags, collections of photos, text, and video clips from multiple users and other sources can deliver rich, multimedia experiences.
Scott Golder is a researcher in the Social Computing Laboratory at Hewlett-Packard, and will soon begin a PhD program in sociology at Cornell University. His research interests include social networks, social computing, and computer-supported cooperative work. His previous work has examined such topics as social bookmarking, Facebook, Usenet, online poker, and email archives. Golder has an MS in media arts and sciences from the Massachusetts Institute of Technology’s Media Laboratory. Contact him at scott@redlog.net.

Jelena Tešić is a research scientist in the Multimedia Research Group at IBM T.J. Watson Research Center, New York. Her research interests include the challenges of large-scale multimedia content management and analysis, such as context-content mining, collaborative semantic structuring, and the exploration of social-content network relations. Tešić has a Dipl. Ing. from the School of Electrical Engineering, University of Belgrade, Serbia, and a PhD in electrical and computer engineering from University of California, Santa Barbara. Contact her at jtesic@us.ibm.com.

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