Social Tagging & Folksonomies:

Indexing, Retrieving…and Beyond?

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ABSTRACT
The purpose of this panel is to look back on seven years of research on folksonomies and tagging systems and to summarize its main contributions as well as to try forecasting the evolution folksonomies will make in the future. Research findings which show the advantages and drawbacks of folksonomies and tagging systems in various scenarios and which may reduce the reluctance of the professional side will be presented. Additionally, the panellists and audience will discuss the new breed of "folksonomies" formed by hashtags, geo-tags, system-tags etc. in order to find the best definitions for folksonomies and folksonomy-like structures.

Keywords
Social tagging, folksonomies

INTRODUCTION
The application of social tagging and the use of folksonomies are widely accepted in Web 2.0 and social media environments. Folksonomies and tagging are both used for personal information management, rediscovery of formerly found web resources or as a means for browsing huge data collections. The first tagging systems were developed and established in 2003 (e.g. delicious) so we can now review about seven years of use of folksonomies in practice and a number of (anecdotal) experiences with this – nowadays not so new – type of knowledge organization system. The peak of publications examining folksonomy research can be found in 2009 and 2010 according to an analysis of ISI's Web of Science reflecting the hype and research discussions about folksonomies, social tagging and tagging systems in 2006 to 2008. The first publications focused on general descriptions of tagging systems or characterizations of folksonomies explaining how tagging systems work (e.g., Golder & Huberman, 2006). Other research discusses the use of folksonomies in professional environments (like libraries or e-commerce; Spiteri, 2007) the comparison of folksonomic vocabulary with controlled vocabularies (e.g., Kipp, 2005), the effectiveness of folksonomies for information retrieval and information discovery (e.g., Lu & Kipp, 2010; Gwizdka, 2009), modelling of folksonomic patterns, user motivations for using tagging systems (e.g., Ames & Naaman, 2007) and detection of user types (e.g., Körner et al., 2010) as well as types of tags (e.g., Heckner, Mühlbauer, & Wolf, 2008), all examining whether and why tagging systems actually work.

As new players are constantly entering the scene of social media applications (e.g. Twitter or Foursquare) new forms of user-generated and system-generated tags (e.g. Twitter's hashtags or Foursquare's geo-tags) become the subject of research. The question here is if such new forms of tags also form a folksonomy or if these tag collections are

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something else. Do such tags have the same goals or are users using them for completely different purposes than the known "traditional" tags? Is it possible to separate or compare some aspects of tagging systems and corresponding "-onomies":

- folksonomy (all tags from an information service),
- personomy (all tags from a person),
- docsonomy (all tags of a concrete document),
- joursonomy (all tags from a concrete journal in a STM bookmarking service),
- tweetonomy (hashtags in Twitter; Wagner & Strohmaier, 2010)?

While most Web 2.0 services rely heavily on folksonomies for describing user-generated content and users seem to like using them, professional services like libraries or information service suppliers still often hesitate to let users tag their content on their platforms. Reasons for this reluctance on the professionals' side can only be assumed but are often summarized as fear of loss of control.

The purpose of this panel is to look back on seven years of research on folksonomies and tagging systems and to summarize its main contributions as well as to try forecasting the evolution of folksonomies in the future. The panel will especially examine research findings which show the drawbacks and advantages of folksonomies and tagging systems in various scenarios and which may reduce the reluctance towards use of folksonomies in a professional context. Additionally, panellists and the audience will discuss the new breed of folksonomies formed by hashtags, geo-tags, system-tags etc. What research needs to be done in this direction? What possibilities do these tags offer in professional settings? Will they fit into "traditional" definitions of folksonomies? What are the best definitions for folksonomies and folksonomy-like structures?

The panellists will draw on their extensive experience to discuss the following topics:

- Pragmatics of folksonomies: How to do things with tags? What can be done with tags?
    - User types
    - Recommender systems
- SemanTags? Semantics in folksonomies
    - Success stories of the combination of folksonomies and ontologies
    - Which types of tags can be found?
    - What types of tags are suitable for what?
- Folksonomies as indexing tool
    - Describing the masses of information on the Web
    - Indexing of non-text documents
    - Facetted indexing by means of tags
- Social information retrieval and tag clouds
    - Social discovery with the help of folksonomies and tagging systems
    - Navigability of folksonomies and tagging systems
    - For what retrieval tasks could folksonomies be appropriate?
    - Are folksonomies able to separate relevant information from irrelevant?
    - Can folksonomies serve in relevance ranking?
- Folksonomies in practice
    - Best practices: their use in libraries, e-commerce, museum catalogues, intranets
    - Reasons of not using folksonomies
- Discussion: Hashtags – new forms of folksonomies?
    - The future of folksonomies?
    - Approaches for making sense of hashtags
- Discussion: Are folksonomies here to stay OR will they soon be gone with the wind?

PANEL STYLE

The panel should last 1.5 hours. Panellists will present their research focus and will give a short review of their work on this topic in 10-15 minutes. At the end of the presentation panellists will raise questions based on their topic which will be discussed in the panel and with the audience (e.g., fish bowl discussion style). The questions should motivate the audience to think about the future of folksonomies.

PANELLISTS

In the following section we give brief presentations of the panellists and their research foci. Moreover, we explain in which way and with which aspects of folksonomies and social tagging the panellists are concerned in the discussion.

Tamara Heck

(Doctoral Candidate, Department of Information Science, Heinrich-Heine-University Düsseldorf). Her research is concerned with tagging and STM-social bookmarking systems as well as with communities of practice in knowledge management (Heck & Peters, 2010). Moreover, Tamara studies the efficiency of tags used in recommender systems, especially the tags' benefits while recommending experts.

Tamara's Contribution as Panellist

Tamara will discuss her findings on how tags in social bookmarking systems can help to locate and to recommend similar users for a specific target user. She will also report on her experiences with different tools for building user clusters and will show which cluster tool works best for expert recommendation.

JACEK GWIZDKA

(Assistant Professor, Department of Library and Information Science, Rutgers University). His research focuses on the cognitive factors of humans involved in information search tasks. Based on these findings he develops new interfaces for human computer interaction and for personalization of information systems.

Jacek's Contribution as Panellist
Jacek will present his research on cognitive load during search and browsing via tag clouds (Gwizdka, 2009; 2010). He will also discuss the role of tags in information search and navigation between documents.

MARGARET E. I. KIPP

(Assistant Professor, School of Information Studies, University of Wisconsin Milwaukee). Her research focuses on social tagging, Web 2.0 and Library 2.0 and metadata in the context of its use in information organization and information retrieval. She examines the similarities and differences between tags and controlled vocabularies and the use of tags in information retrieval.

Margaret's Contribution as Panellist
Margaret will act as moderator and panellist. She has expertise in the evaluation of the retrieval effectiveness of folksonomies as well as in analyzing similarities and differences between folksonomic terms and controlled vocabularies (Kipp, 2005; Kipp, 2011; Kipp & Campbell, 2010). Moreover, she researches the unconventional use of tags as task-, person- and time markers (e.g. "gtd", "to_read", "@John") in personal information management. She and Kun will discuss their research on tagging and information retrieval.

KUN LU

(Doctoral Candidate, School of Information Studies, University of Wisconsin Milwaukee). His research focuses on information retrieval systems modelling and applied informetrics.

Kun's Contribution as Panellist
Kun will discuss the results of a project with Margaret on the use of tags and author keywords for improving information retrieval using query expansion techniques and different retrieval model implementations (Lu & Kipp, 2010).

ISABELLA PETERS

(Senior Researcher, Department of Information Science, Heinrich-Heine-University Düsseldorf). Her research focuses on folksonomies as tools for knowledge representation and information retrieval, the combination of traditional methods of knowledge representation and folksonomies in the sense of tag gardening, the evaluation of user-generated content for its use in relevance ranking and the use of Web 2.0 in corporate knowledge management and academia (Peters, 2009).

Isabella's Contribution as Panellist
Isabella will act as moderator and panellist. She will present research findings about the quality of tags and their use in information retrieval and relevance ranking of found web resources. Moreover, she will draw attention to new forms of tags (both user-generated and system tags) now findable in web services like Twitter (here: hashtags), Flickr (here: geo-tags or camera-tags) or Foursquare (here: geo-tags).

DIANE RASMUSSEN NEAL

(Assistant Professor, Faculty of Information & Media Studies, University of Western Ontario). She is interested in indexing and retrieval of non-text documents, the representation of emotions via tagging, information organization and metadata, the visualization of information and its relation for interface design as well as online consumer health information.

Diane's Contribution as Panellist
Diane will present her work on folksonomy-based indexing of non-textual documents (e.g. videos or photos). Special emphases will be laid on her experiences with the indexing and retrieving of emotional-laden documents as well as the practical application and use of emotional tags (Neal, 2010; Knautz et al., 2011).

LOUISE SPITERI

(Associate Professor, Director of School of Information Management, Dalhousie University Halifax). Her research interests comprise information organization, the incorporation of folksonomies and social tagging in library catalogues, social discovery systems, faceted folksonomies and tagging systems (Spiteri, 2010) as well as transformation of library catalogues into virtual social spaces.

Louise's Contribution as Panellist
Louise's work focuses on faceted indexing and its application to tagging systems and folksonomies. She will report on how folksonomies are used in professional library and knowledge management scenarios (Spiteri, 2007; Makani & Spiteri, 2010). Additionally, she will discuss what problems may arise when using folksonomies as well as suggest opportunities for enhancing tagging systems to meet the requirements of professional users.

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