FOLKSONOMICAL TAGGING SYSTEM: LIBRARY AND INFORMATION SCIENCE LITERATURE

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Abstract

The present work is an effort to understand tagging system using articles published in LIS field. This work is also an attempt to design a model system to represent folksonomical vocabularies. This is also attempt to find out the trends and usages of natural language in LIS articles. It has been found that folksonomical terms and natural phrases are being used extensively in regard to this subject.

Keywords: *Tag, Control vocabulary, Folksonomic vocabulary*

Introduction

Folksonomy are encouraging users to organize information in their own way and involves the user actively. Earlier all terms are authorized and under control vocabulary but every day, contested by asking people how they use uncontrolled term, now, in the age of internet, information (metadata) are away from authorized control keywords to folksonomical tagging.

Folksonomy concentrate on user-generated categorization principles that are both private and public. The term was coined in 2003 by an information architect Thomas Vander Wal (Smith 2004). It is a neologism consisting of a combination of the words *folk* and *taxonomy*. Taxonomy is derived from the Greek words, *taxis* and *nomos*. *Taxis* means classification and *nomos* means management

Literature review

In Hecks' article it has been found that researchers are evaluated by the user and tag-based data from a social bookmarking service Cite ULike (Heck, 2012). Adam Sobaniec told that document describes the sample implementation of a very popular classification method and uploading of new key word in the modern internet web applications folksonomy of content based on the ART-1 neural network (Adam Sobaniec, 2012). Simon Boung-Yew Lau , Chien-Sing Lee

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This Table shows the distribution of keywords which follows the frequential keywords system in both interface. Few keywords are used 2 times; their majority of keywords (52.23% of keywords) are assigned in folksonomical terms. 47.76% terms are non folksonomy. Among the keywords those are used 3 times, we have seen 41.37% are folksonomy and 58.62% are non folksonomy. The 4 times used tags is rather small in numbers out of which 29.41% are folksonomy and 70.58% are non folksonomy. Among the 5 times used terms 44.44% are assigned as folksonomical terms and 55.55% are not. Some tags are used 6 times out of which 25% are folksonomical and 75 % are non folksonomical. In case of 10 terms which are used 8 times 60% are folksonomical 40% are non folksonomical. 9 times used keywords are few with 20% and 80% are folksonomical and non folksonomical terms respectively.

Conclusion

We may consider those tags, which appear more than twenty times in the LIS literature during the fifteen years period under study, as 'folksonomical terms'. In our study we have found that only one term i.e. 'digital library' and 'electronic resources' appear twenty six times. So 'electronic resources' is considered as folksonomical term used in library and information science literature. The tags which appear more than ten times are yet to be to be regarded as 'folksonomical terms'. In this study we have found that these times 'electronic journals', 'electronic learning', 'authorship pattern', 'bibliometrics study' have appeared more than ten times during the last fifteen years. For the time being we should keep observing whether these terms are appearing in higher numbers in future in the literatures of library and information science. Certain future years can make these terms as folksonomical terms in library and information science literature. For rest of the tags it would need a few more years to be concluded.

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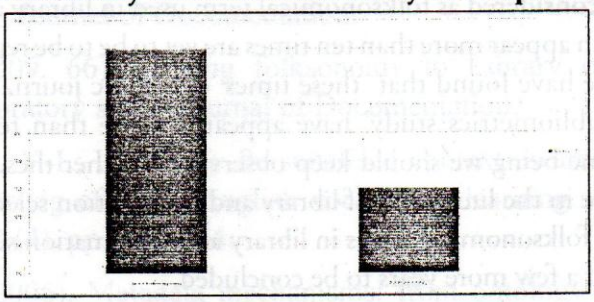
Table 6: commonly used keywords

Keywords	Frequency
Digital Library	26
Electronic resources	26
Electronic journal	19
Open source software	18
Bibliometrics	18
India	14
Digitization	12

This study examined total 1240 terms that are available in LIS journals published by Professional Associations and Institutions in India during 1998-2012. The popular tag 'open source software' and 'bibliometrics' used 18 times, followed by 'Electronic journal' used 19 times. The most popular terms are the 'digital library' and 'electronic resources' used 26 times.

Figure 3 : Folksonomy and non folksonomy of Frequential keywords



In the full data set, there were used frequential terms are 161. This count are combined folksonomical keywords and controlled vocabularies keywords. 83 keywords are related to the descriptors that are non folksonomy or controlled terms, but 78 terms are not related to controlled terms that called folksonomical term.

Table 8: Distribution of keyword by used

Number of times a term is used	Total no of frequential term	Folksonomy	%	Non Folksonomy	%
2 times used	67	35	52.23	32	47.76
3 times used	29	17	41.37	12	58.62
4 times used	17	5	29.41	12	70.58
5 times used	9	4	44.44	5	55.55
6 time used	4	1	25	3	75
8 time used	10	6	60	4	40
9 time used	5	2	20	4	80

Table 3: General and controlled terms

Total keywords	Terms not found in any control vocabulary (General terms)	%	Control vocabulary	%
1240	1002	80.80	238	19.19

About 80.80% of the whole populations are general terms and only 19.19% terms are available in controlled vocabulary lists. Among them, the number of occurrence will be judged in the following situation depending on occurrence of these sequential used terms. We may consider that most of these terms are usage terms.

Year wise growth of data as per number of occurrence of terms

Table 4: Year wise occurrence of terms

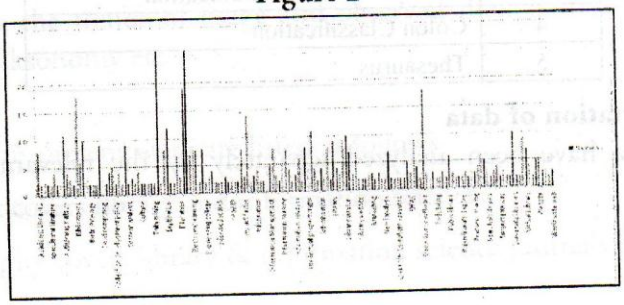
Sl No	Year	Frequency	%
1	1998	0	0
2	1999	0	0
3	2000	2	0.07
4	2001	1	0.27
5	2002	16	1.26
6	2003	31	2.44
7	2004	27	2.12
8	2005	33	2.12
9	2006	69	5.43
10	2007	80	0.06
11	2008	101	7.95
12	2009	131	10.32
13	2010	133	10.48
14	2011	235	18.51
15	2012	410	32.30

The Table 5 displayed that the frequency of keywords are increasing day by day with a trend of 0% in 1998 to 32.30% in 2012.

Commonly used keywords

According to bibliographic data available from the journals under study the total number of accessible terms is 1298, out of which the most commonly used keywords are 131.

Figure 2



- the time period covers 1998-2012;
- Journals published by professional associations and institutions;
- Language covers the English.

Methodology

For collection of necessary data for the study the survey method has been followed. The research design of the present study is based on descriptive design and probability sampling method. The sampling procedure selected for the study is based on stratified sampling.

Data collection

The study has been made on the basis of individual journal. The total numbers of Universities in all over India are now 514 and Library and Information Science Departments available in these Universities are 210. From amongst these 210 Universities, we have selected only seven LIS departments with their LIS journals. In addition of that two Library Associations and five Institutions, all over the India, are taken into consideration for the study.

Table 1: Total Data Collected

Total Volumes of Journals	Total Articles	Total Key Words	Usage Terms	Controlled Terms
322	1610	1240	1002	238

There are total 322 volumes of journals under study consists of 1610 articles. We found a total of 1240 key words from these articles. Out of which 1002 terms are general usage and 238 terms are controlled vocabulary terms.

Data analysis

The analysis has been made on the basis on the above information. A survey has been made in order to check the availability of the terms within the following tools.

Table 2: List of Comparative standard tools

Sl. No.	Title
1	Library of Congress Subject Heading
2	Sear's List of Subject Heading
3	Dewey Decimal Classification
4	Colon Classification
5	Thesaurus

Analysis and interpretation of data

The collected data have been analyzed separately by the relevant statistical tools and techniques.

& Yashwant Prasad Singh said that the propose to collaboratively annotate learning resources with a lightweight resource annotation metadata schema complemented by a folksonomy derived semantic model (Simon Boung-Yew Lau a, 2012). Yejun Wu in her book described that knowledge organizes behavior, or how and why people organize knowledge, in various contexts of social bookmarking and social cataloging Web 2.0 sites, such as folksonomies and tag clouds (Wu Y. , 2012). According to Frederic Font, Joan Serra and Xavier Serra, tag recommendation strategies can help users in adding meaningful tags to the resources being described (Frederic Font X. S., 2012). Carrie Pirmann described in his article that control vocabulary is used in library catalogue but most of the users use natural language like folksonomy in library enhancing subject access to materials in OPAC. He examined the usability of tags through usability testing with the 'Library Thing' for libraries catalogue enhancement (Pirmann, 2012).

Research problems

With the invention of internet, the style representation and publication nascent micro thought have been changed remarkably in various subjects. Library and information science is no such exception. Since last few years it has been found that in order to represent the thought content, the authors of library and information science are using more and more phrases, natural languages than the standard control vocabulary and have thus developed a new style and terms popularly known as folksonomy, to represent the thought content of subjects. So we should accept and welcome folksonomical tagging system for creating metadata system and information retrieval process for multi- indexing and also adding future social OPAC (SOPAC) system for library and information centre.

Research significances

- Trends of usage of phrase, natural language, folksonomy by the authors in library and information science journals are increasing since last two decades;
- There is hardly found any attempt to build up a model system for folksonomical terms.

Objectives of the study

The objectives of this study are:

- to identify keywords available in the articles of library and information science journals published in India during 1998 to 2012 and use them for the folksonomical study.
- to find out the trends of usage and observed their pattern like control vocabulary, phrases, folksonomy etc.

Scope of the study

The scopes of this present work are listed as follows-

- the subject covers library and information science;
- the geography covers library & information science journals published in India;