

# User-generated Social Tags Versus Librarian-generated SLSH Terms: A Comparative Analysis in Social Science

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*The present study tries to evaluate user-generated social tags with librarian-generated SLSH terms in three subjects Economics, History and Sociology under Social Science. The study reveals that both social tag vocabulary and SLSH term vocabulary are not the same for all three subjects but are comparatively large in History. Even the study found a terminological difference between both social taggers and the librarian. Social taggers mostly use single-word-based general subject terms, whereas the librarian uses multi-word-based specific subject terms for all subjects. Again, it is found that social taggers use SLSH terms as tags under three subjects but comparatively use all SLSH terms in major books under Economics. Besides, it is also found that social taggers use more terms from book titles than from the librarian. Social taggers use more title-based terms under History than other subjects. Overall, the present study suggests a combination of social tag and SLSH terms that can enhance the accessibility of social science books.*

## Introduction

The internet has become a key component of human life nowadays. People use the internet to perform several tasks in their daily life. The expansion of web search engines and web 2.0 applications are the main features that made the internet popular among common users. Web search engines play an important role in our present scenario by providing search interfaces where any search can be done using keywords or a group of keywords in the form of queries. Users access those search engines according to their needs, searching from small general queries to searching scholarly publications. The success of web search engines relies on the successful assignment of effective metadata that works as a bridge between users' queries and desired web resources. In that sense, metadata is the backbone of those web search engines. Search engines that assign effective metadata can meet more user queries. It is very difficult to locate and retrieve relevant information on the web due to the massive growth of digital information. (Park & Lu, 2009) To minimize the problem and for effective retrieval, libraries have been using different types of descriptive metadata schemas like Dublin core, EAD, MODS, TEI etc., over the years. (Park & Lu, 2009; Fleming & others, 2008) Out of different types of descriptive metadata, subject metadata is crucial, especially in finding a document by its subject. Subject metadata is defined as "information concerning what the resource is about and what it is relevant for",. (Soergel, 2009) With that respect, adequate subject metadata should be assigned to achieve optimal recall and precision unless the inappropriate use of subject metadata can lead

to retrieval failure, which determines the system is unable to retrieve relevant documents. (Sauperl & Saye, 1998; ALA, 2007 & Samanta & Rath, 2021)

Since the past, librarians or technical persons in the libraries have been assigning subject metadata either by using controlled vocabulary terms like Library of Congress Subject Headings (LCSH) or Sears List of Subject Headings (SLSH) or by using author-generated standard subject terms. In contrast to that, Web 2.0 applications like LibraryThing (<https://www.librarything.com/>) have given users a platform where they can catalogue any document by assigning any terms as per their need in the form of keywords. That process is called as 'social tagging' or 'social bookmarking' or 'collaborative tagging', and those assigned keywords are called as 'tags'. The concept of 'social tagging' is derived from the concept of 'folksonomy', which was coined by Thomas Vander Wal in 2005. He defines 'folksonomy' as a combination of two terms; one is (a) folk which means people, and another is (b) taxonomy which means a system of classification. He also defines folksonomy as a personal free tagging of digital resources on social networking sites for the retrieval of one's own information. (Wall, 2022) Zubiaga defines folksonomy as a combination of three elements, users, tags and resources. (Zubiaga et al., 2011) Besides, Voorbij defines social tagging as a process by which users can generate free-form keywords for web-based resources as per their needs. The resources can be anything books (<https://www.librarything.com/>), websites (<https://del.icio.us/>), photo sharing (<https://www.flickr.com/>), videos (<https://www.youtube.com/>), and music (<https://www.last.fm/>) (Voorbij, 2020) Macgregor & Emma McCulloch also describes that collaborative tagging plays two roles at a time, in one way collaborative tagging provides a common space where any user can assign any keyword to any web resource, and in another way, it provides the opportunity where other users can browse the tags and can access the information attached to that tag. (Macgregor & McCulloch, 2006) Social tagging has become popular among users over the years due to its advantages over the traditional cataloguing system. In a social tagging system, anyone can assign any keyword as a tag to any web resource. That means users have the freedom to prefer free-form keywords without consulting any standard vocabulary like Library of Congress Subject Headings (LCSH) or Sears List of Subject Headings (SLSH). In that sense, it facilitates users to share their points of view on a given document. Further, users can update the assigned terms based on their needs as they are the creators of those tags, whereas, in the case of standard vocabulary, it takes too much time to change subject terms. Social tags not only help in resource description but also help to retrieve those resources on the web. It also helps to improve the search by navigating the search direction by suggesting more search terms. (Morrison, 2008; Samanta & Rath, 2021; Wenzler, 2007)



**Figure 1: Sample tags collected from the title “Divided by faith: evangelical religion and the problem of race in America” by Michael O. Emerson, Christian Smith**  
(<https://www.librarything.com/work/84346/223783012>)

Due to having many advantages, several libraries implemented social tagging applications like the University of Pennsylvania designed *PennTags*, and the University of Michigan also applied a tool *Mtagger*. Even libraries like Danbury Public Library and San Francisco State University have used LibraryThing for Libraries (LTFL), a social tagging application. (Wenzler, 2007) A few libraries also redesigned their library catalogue from OPAC to SOPAC (Social cataloguing-based Online Public Access Catalogue); the Arbor District Library also used SOPAC, and Darien Library, Connecticut, also used SOPAC 2.0 (<http://www.darienlibrary.org/catalog>). (Furner, 2007; Mendes et al., 2009) With that context, many standalone social tagging applications like Goodreads ([www.goodreads.com](http://www.goodreads.com)), LibraryThing ([www.librarything.com](http://www.librarything.com)) and Anobii ([www.anobii.com](http://www.anobii.com)) etc., have become popular worldwide to meet user needs. (Samanta & Rath, 2021) Despite having advantages, social tags still suffer from inherent vocabulary issues like polysemy, homonyms, and synonyms of terms and lexical anomalies in case of preferring terms like singular vs plural, spelling variants and tenses etc. (Spiteri, 2007). Even tags are full of personal terms that users prefer for self-information retrieval. Those vocabulary problems lead to retrieval issues in web searches. (Golder & Bernardo, 2006; Macgregor & McCulloch, 2006; Steele, 2009). In that context, the present study is a quest to evaluate user-generated social tags along with librarian-generated SLSH terms.

## 2. Review of literature

Several researchers carried out several studies on social tags regarding their incorporation and effectiveness in the library environment. Petek carried out a comparative study among Library & Information Science

Students, Flickr users and Slovene librarians regarding metadata generation on digital images collected from both the Digital Library of Slovenia and Flickr. The purpose of the study was to measure how users and Slovene librarians describe the images. The study found that assigned tags differ majorly from each other, and tagging is done for personal benefit (Petek, 2012). Kipp also conducted a comparative study among three kinds of metadata, tags generated by users, keywords generated by authors and descriptors generated by professionals. The study collected author keywords and descriptors from PubMed and user-generated tags from CiteULike. The study found a difference in the terminological usage of those three metadata. (Kipp, 2011) Vrkic conducted a comparative study among three different types of metadata, author keywords, IEEE-controlled terms and user-generated metadata collected from Mendeley, which were used to describe scientific papers of the Faculty of Electrical Engineering and Computing (FER). The study wanted to know whether author keywords are similar or dissimilar to IEEE terms and social tags. It is found that author keywords are different, which means either they do not use standard subject terms or they are unaware of it. (Vrkic, 2014) Lee and Schleyer also conducted a comparative analysis between Medical Subject Headings (MeSH) assigned by professionals from the MEDLINE database and social tags collected from the CiteULike database. The study was carried out to know whether both vocabularies are similar or dissimilar. It is found that both vocabularies are a little similar. (Lee & Schleyer, 2010)

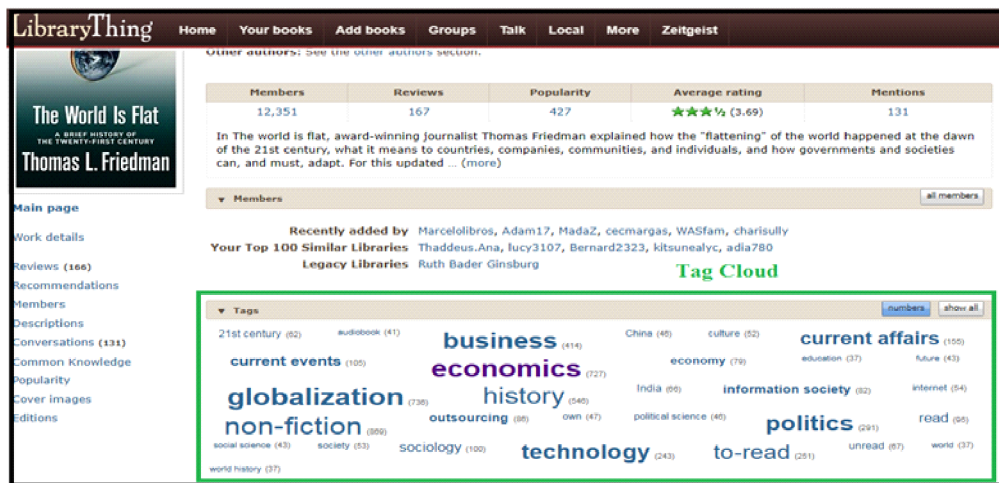
### **3. Objectives**

The present study is intended to measure the applicability and effectiveness of social tags along with the Sears List of Subject Headings (SLSH). With that context, the present study wants to identify (a) whether social tags are similar to SLSH terms from the perspective of document description under Social Science (b) whether social tags could enhance the subject access to Social Science documents in traditional libraries where SLSH terms being followed as subject headings (c) whether social tags complement SLSH terms for description and effective retrieval of social science books in libraries.

### **4. Methodology**

The present study tries to measure comparatively social tags along with Sears List of Subject Heading (SLSH) terms in three subjects Economics, History and Sociology under Social Science. The comparison was based on each title from both datasets. The present study has preferred two databases; one is LibraryThing (<https://www.librarything.com>), a social cataloguing website for collecting social tags, and the second one is a database containing a thousand titles with librarian-generated subject headings based on Sears List of Subject Headings (SLSH), 19<sup>th</sup> ed. Though there are many active social cataloguing sites like Goodreads (<https://www.goodreads.com>), Litsy (<https://www.litsy.com>), Anobii (<https://www.anobii.com>), Readgeek (<https://www.readgeek.com>) which have many active users but the present study has selected the LibraryThing database. The reason is that LibraryThing reflects the user-generated tags in alphabetical order through 'Tag Cloud' for each title. In Tag cloud, some tags have large font sizes, and some have small font sizes, that indicates the popularity of those tags under a given title. The present study first collected a

thousand books from every three subjects (Economics, History and Sociology) and, in total, three thousand Social Science books in the English language from the LibraryThing database (<https://www.librarything.com>) and then generated subject headings based on Sears List of Subject Headings (19<sup>th</sup> ed.). The present study used some parameters before the selection of books and terms from both datasets. The present study has selected those books that have been catalogued by at least ten users ( $\geq 10$ ) and had been assigned at least three social tags ( $\geq 3$ ) simultaneously in the LibraryThing database.



**Figure 2: Tag cloud under book title “The World Is Flat: A Brief History of the Twenty-First Century” by Thomas L. Friedman (<https://www.librarything.com/work/836>)**

In the case of selecting terms, the study prefers tag frequency. The assigned tags under a given document visually represent a collection of tags which is called ‘Tag cloud’ in the LibraryThing database. Each tag in the Tag cloud has a specific frequency which determines its usage by users for assigning books. In the case of selecting tags, the present study prefers those tags that have been used at least twice or more ( $\geq 2$ ) in the LibraryThing database. (Samanta & Rath, 2021; Lu, Park & Hu, 2010)

On another side, the present study prepares subject headings for the entire set of data of three different subjects in consultation with Sears List (19<sup>th</sup> ed.). Sears List has low coverage for all the subjects in comparison with other subject heading schemes like Library of Congress Subject Headings (LCSH). This is because Sears List is designed to serve small-sized libraries where entries require more general subject headings rather than specific subject headings. In traditional convention, subject headings using Sears List are prepared like a string of words (Central Asia-History-1991) to enhance the precision of a document. In that string, each subject term is separated from others by a ‘hyphen’ (-). The present study collects each SLSH term separately (those are concatenated by a hyphen) under each string of words to make parity with the social tags. After collecting terms from both datasets, the study calculated unique terms and used some parameters for the evaluation. (Samanta & Rath, 2021)

## 5. Data Analysis

### 5.1 Terminological overlapping

The present study reveals different types of terms like Total Terms (TT), Unique Terms (UT) and Overlapping Terms (OT) under three subjects that were taken under the study before the terminological evaluation. In the case of terminological comparison under Table 1, it is found that overlapping terms comprise a very small portion of social tags in all three subjects but are comparatively high in Sociology (6.55%), followed by Economics (5.53%) and History (3.54%). In another way, the overlapping terms comprise a major portion of SLSH terms in three subjects but are comparatively high in Sociology (77.61%), followed by Economics (67.07%) and History (56.07%). That means users mostly use SLSH terms as social tags, but the librarian uses very few tags as terms. So, it can be said that there is more than a fifty per cent (50%) chance that SLSH terms can be used as tags for three subjects.

**Table 1: Subject-wise terminologies and overlapping scenario**

	Economics			History			Sociology		
	TT	UT	OT	TT	UT	OT	TT	UT	OT
Social tags	20699	2983	165	41313	6123	217	30292	4655	303
SLSH terms	2300	246		3227	387		2673	392	

[TT = Total terms, UT = Unique terms & OT = Overlapping terms]

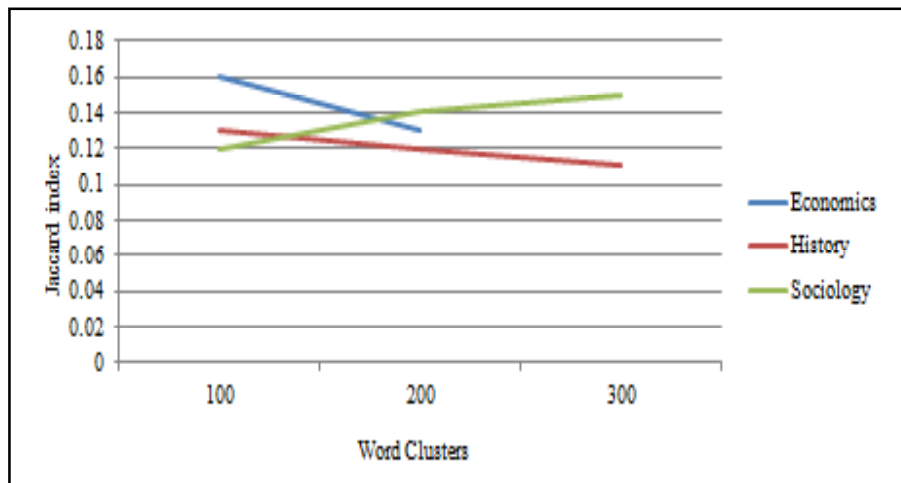
### 5.2 Jaccard Similarity measurement based on word clusters

The study measures the Jaccard Similarity index for three subjects comparatively. The similarity was measured based on the top frequent social tags and the top frequent SLSH terms under three different word clusters (top frequent terms) like top 100 terms, 200 terms and 300 terms for three subjects. Table 2 reveals that the Jaccard Index is very low for all the subjects, where the subject Economics ( $j = 0.15$  based on two-word clusters) has little higher similarity than Sociology (0.14) and History (0.12). That means the users use more subject-based terms for Economics comparatively than other subjects.

**Table 2: Subject-wise Jaccard index in different term levels**

	Word Clusters		
	100	200	300
Economics (J)	0.16	0.13	
History (J)	0.13	0.12	0.11
Sociology (J)	0.12	0.14	0.15

(J = Jaccard index)



**Figure 3: Subject-wise Jaccard index in three subjects**

### 5.3 Top thirty frequent social tags and SLSH terms

In the case of comparing tags with SLSH terms, Table 3 reveals that only a few tags appeared in SLSH term vocabulary for all three subjects (Sociology-13, Economics-12 & History-08), but most of the SLSH terms appeared in social tag vocabulary (Economics-28, Sociology-25 & History-23) comparatively. That means the librarian assigns more subject-based terms for description, whereas social taggers use more SLSH terms for description under three subjects. The study also compares which vocabulary contains more subject-based terms and non-subject-based terms among the three subjects. Again, Table 3 reveals that History (13) contains more subject-based terms than Sociology (11) and Economics (11), whereas Sociology (14) contains more non-subject terms than Economics (13) and History (08) under social tag vocabulary. Apart from that, social tag vocabulary contains some personal terms which have no benefit in document description in three subjects (History-09, Economics-06 and Sociology-05). Another side, Table 3 reveals that Sociology (26) contains more subject-based terms than Economics (25) and History (11), whereas History (19) contains more non-subject terms than Economics (05) and Sociology (04) in the case of SLSH terms vocabulary. Further, Table 3 reveals that social tag vocabulary contains more single-word general terms (Economics & Sociology-23 & History-21), whereas SLSH term vocabulary contains double or more than double-word terms as subject headings (Sociology-20, Economics-14 and History-12). That means users prefer to assign single-word terms as tags, whereas the librarian uses multi-word terms as subject headings. Again, Table 3 indicates that users prefer general subject-based terms, but the librarian prefers specific subject-based terms in document descriptions. It is found that terms like ‘economics’ (899 books by users and 222 books by the librarian), ‘history’ (994 by users and 683 by the librarian) and ‘sociology’ (787 books by users and 146 books by the librarian) are used by both users and the librarian. (Rolla, 2011)

Table 3: Top thirty frequent social tags & SLSH terms in Economics, History & Sociology

Social tags	Economics					History					Sociology				
	Freq. in tag voc.	Freq. in SLSH term voc.	SLSH terms	Social tags	Freq. in tag voc.	Freq. in SLSH term voc.	SLSH terms	Social tags	Freq. in tag voc.	Freq. in SLSH term voc.	SLSH terms	Social tags	Freq. in tag voc.	Freq. in SLSH term voc.	SLSH terms
economics	899	222	economics	history	994	683	history	history	994	683	history	non-fiction	863	287	US
non-fiction	838	-	US	non-fiction	902	-	US	non-fiction	-	319	US	sociology	787	166	social conditions
to-read	564	-	economic conditions	to-read	693	-	world war, 1939-1945	to-read	-	127	world war, 1939-1945	to-read	622	146	sociology
history	557	41	capitalism	american history	514	-	biography	american history	514	343	biography	history	504	79	race relations
politics	495	-	finance	unread	468	-	civil war	unread	468	103	civil war	politics	467	71	women
business	393	2	economic policy	read	461	-	1861-1865	read	461	85	1861-1865	culture	441	54	social classes
finance	355	103	economic development	usa	459	-	campaigns	usa	459	53	campaigns	social science	432	47	social psychology
capitalism	343	125	investments	military history	426	6	great britain	military history	426	65	great britain	unread	342	41	feminism
economy	311	-	socialism	us history	413	-	revolution	us history	413	58	revolution	society	337	41	social change
economic history	280	25	financial crises	20 <sup>th</sup> century	401	19	europa	20 <sup>th</sup> century	401	53	europa	philosophy	334	37	history
political economy	273	4	marxism	politics	391	-	politics and government	politics	391	43	politics and government	read	332	37	social aspects
usa	230	-	history	european history	357	-	germany	european history	357	43	germany	usa	302	33	african americans
read	219	-	banks and banking	war	353	-	india	war	353	35	india	cultural studies	292	31	ethnic relations
unread	216	-	free enterprise	biography	340	123	19 <sup>th</sup> century	biography	340	33	19 <sup>th</sup> century	anthropology	271	31	information technology
sociology	201	3	economic forecasting	europa	330	46	causes	europa	330	32	causes	psychology	265	31	racism
wishlist	201	-	money	military	326	3	france	military	326	32	france	economics	245	30	culture



Table 3: Top thirty frequent social tags & SLSH terms in Economics, History & Sociology

Social tags	Economics			History			Sociology					
	Freq. in tag voc.	Freq. in SLSH term voc.	Freq. in tag voc.	Social tags	Freq. in tag voc.	Freq. in SLSH term voc.	Social tags	Freq. in tag voc.	Freq. in SLSH term voc.			
globalization	169	20	30	6	301	-	world war, 1914-1918	32	-	232	28	7
philosophy	169	6	29	35	285	1	social conditions	30	16	230	27	1
political science	167	-	28	3	275	33	colonial period	27	58	214	24	-
20 <sup>th</sup> century	163	-	26	4	266	-	england	27	-	210	23	41
money	154	31	25	280	260	-	civilization	26	54	207	23	22
ebook	144	-	24	80	247	-	presidents	26	69	177	22	5
american history	140	-	23	17	234	-	1600-1775	25	-	164	21	36
investing	126	-	22	13	230	-	1775-1783	24	1	161	20	17
marxism	117	43	21	14	225	-	kings and rulers	22	13	158	18	64
kindle	115	-	20	169	210	-	rome	22	45	144	18	23
current affairs	113	-	20	101	200	-	soviet union	22	62	144	18	12
social science	110	-	19	4	191	-	1933-1945	21	1	139	18	2
culture	109	-	18	36	187	-	greece	20	41	138	18	6
society	109	-	18	18	181	-	southern states	20	9	135	18	6

#### 5.4 Individual book-wise matching of social tags with SLSH terms

The study also compares social tags and SLSH terms for each book sampled under the study for three subjects. The purpose of the comparison was to identify the number of books that have at least one common term that appears on both the social tag and SLSH term vocabulary simultaneously. With that context, Fig. 4 reveals that History (884) contains more books comparatively than Sociology (783) and Economics (729), where at least one term matches both vocabularies. Fig. 4 also reveals different matching levels from 0 to 100% between both vocabularies in three subjects comparatively. It is shown that Economics has more books (265) than Sociology (198) and History (185) that have 100% matching between the two vocabularies. Another way, History contains the lowest number of books (116) than Sociology (217) and Economics (271) have 0% matching between both vocabularies. However, the study reveals that all three subjects contain more than 50% of books (highest books in History (683), then Economics (580) and Sociology (570) that have 50 to 100 per cent matching between both vocabularies.

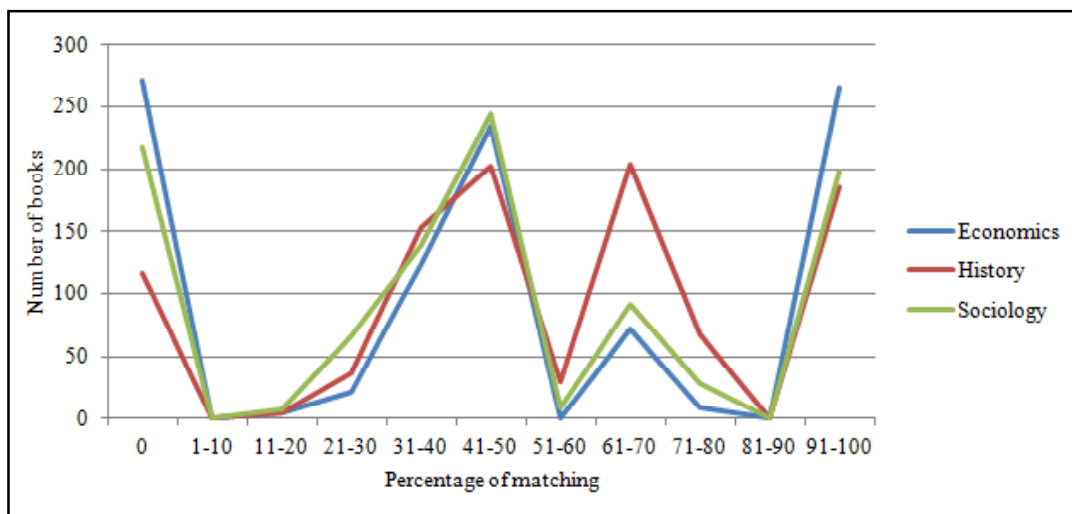


Figure 4: Title-wise matching of social tags with SLSH terms in three subjects

#### 5.5 Social tags & SLSH terms compared with each book title

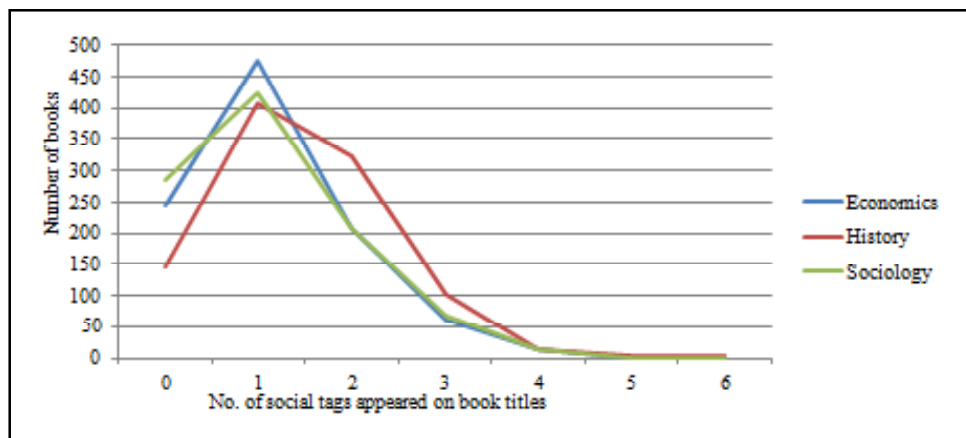
The study compares social tags with SLSH terms for each book title to identify which subject contains more unique tags and unique SLSH terms that appear on book titles. Table 4 reveals that History contains more unique tags (696) than Sociology (564) and Economics (444). Also, Table 4 reveals that Sociology contains more unique SLSH terms (142) than History (113) and Economics (73). Table 4 reveals that social tags that appeared on book titles are below 15% for three subjects. It means social tag vocabulary contains more than 85% of terms other than title-based terms. That clearly indicates social taggers mostly use title-based terms for tagging, whereas the librarian has used mostly subject-based terms.

**Table 4: Total terms, unique terms that appeared on book titles subject wise**

	Economics			History			Sociology		
	TT	UT	%	TT	UT	%	TT	UT	%
Social tags	1264	444	14.88 of TUST	1446	696	11.37 of TUST	1284	564	12.12 of TUST
SLSH terms	385	73	29.67 of TUSLSH	431	113	29.2 of TUSLSH	363	142	36.22 of TUSLSH

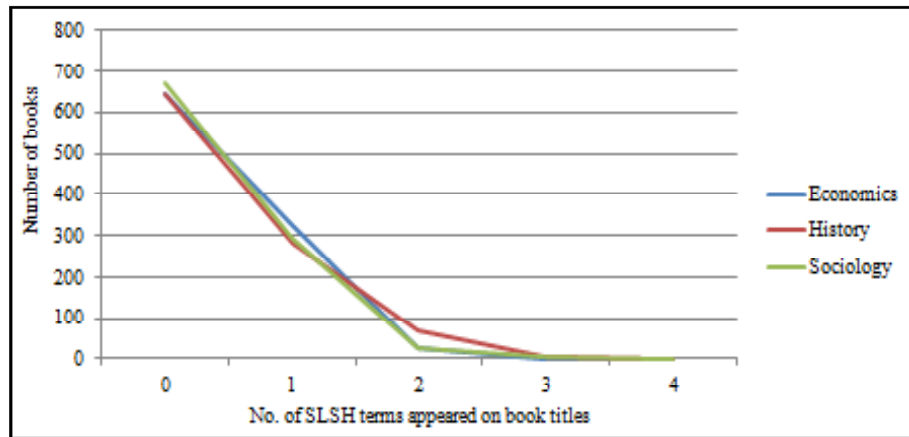
[TT = Total Terms, UT= Unique Terms, TUST= Total Unique Social tags, TUSLSH= Total Unique SLSH terms]

The study also measures zero tags to six tags that appeared on each book title under each subject. Fig. 5 reveals that the subject Sociology (285), followed by Economics (243) and History (146), has major books which contain zero tags appearing on book titles. Another way, Economics (474), followed by Sociology (425) and History (409), contains major books where at least one tag appeared on the titles. That means the study reveals that major books contain at least one tag that appeared on book titles for all three subjects. Again it is to measure how many SLSH terms appeared on book titles. Fig. 6 indicates that Sociology (673), followed by Economics (646) and History (643), contains more books that have zero terms appearing on book titles. Another way, Economics (326) contains the highest number of books which have at least one term that appeared on titles, followed by Sociology (295) and History (284).



**Figure 5: Subject-wise Social tags appearing scenario on book titles**

Further, the study measures the number of books where at least one tag appeared on book titles. Table 5 indicates that the subject History contains the highest number of books (854), followed by Sociology (779) and Economics (757), where at least one tag appeared on book titles. It is also found that History (331) contains more books that have at least one SLSH term appearing on titles, followed by Economics (354) and Sociology (329).



**Figure 6: Subject-wise SLSH terms appearing scenario on book titles**

**Table 5: Social tags & SLSH terms appeared on book titles**

	No. of books where at least one social tag appeared	No. of books where at least one SLSH term appeared	No. of books where both appeared
Economics	757	354	315
History	854	357	331
Sociology	779	329	288

It is also found that the subject History contains more books (331) where both terms appeared on titles, followed by Economics (315) and Sociology (288), respectively. Moreover, the study reveals that in major books where social tags appeared on book titles than SLSH terms. (Lu, Park & Hu, 2010; Aanonsen, 1987; Bottle & Preibish, 1970).

## 6. Findings of the Study

Terminological overlapping reveals that a good number of tags were used by the users in three subjects. That means users have good intentions for tagging Social Science books in the LibraryThing database. Even the subject-wise volume of tags indicates that users are more active in tagging History books than Sociology and Economics books. Besides, it is also revealed that the librarian uses little tags as SLSH terms, whereas social taggers use a good number of SLSH terms as tags for Sociology books than for Economics and History books. In the case of similarity between top frequent social tags and top frequent SLSH terms, the study reveals that both social taggers and the librarian use different terms. This is because they both have different perspectives for assigning terms. Social taggers use some subject-based terms, some non-

subject terms and some personal terms, whereas the librarian uses mostly subject-based terms. This is because social taggers do not use any kinds of control vocabulary devices for tagging; they use any free-form keywords as tags. On the other hand, the librarian uses different control vocabulary devices such as Sears List of Subject Headings (SLSH) for generating subject headings. Out of the top thirty terms, it is revealed that social taggers prefer to use single-word terms as tags, but the librarian prefers to use double-word or multi-word terms as subject headings. Even the term analysis in depth reveals that social taggers prefer general subject-based terms, but the librarian prefers specific subject-based terms for subject headings under three subjects. Further, it is identified that social taggers and the librarian both use at least one common term in most History books. It is found that social taggers mostly use SLSH terms as tags for all three subjects, but comparatively, they use them more in the case of Economics books. In the case of selecting terms, it is identified that social taggers mostly use title-based terms in the case of History books than other subjects. In contrast to that, the librarian uses a little title-based term under three subjects. This is because the librarian uses controlled vocabulary devices for assigning SLSH terms and uses those terms that are relevant to the document. On the other way, social taggers do not use any standard vocabulary for tagging.

## **7. Conclusion**

The present study was conducted to measure the social tagging scenario and its usage in libraries where the Sears List of Subject Headings is being followed. The overall analysis of the present study reveals that three subjects Economics, History and Sociology, have more or less the same kind of tagging applications, and social tags are a little similar to SLSH terms under the three subjects. Overall it is identified that both social taggers and the librarian have different intentions for document description. Social taggers use single-word general subject-based terms, whereas the librarian uses multi-word specific subject headings. Even some taggers use subject-based terms that actually define the document, but most of the taggers use non-subject terms and personal terms for self-information retrieval like 'read', 'read in 2015' and 'kindle' etc., which have no benefit in the case of document description. This is because social taggers do not use any types of controlled vocabulary for tagging, but the librarian uses vocabulary control devices such as the Sears List of Subject Headings (SLSH) for resource descriptions. For that reason, the librarian can assign more controlled and specific terms that can describe the subject well.

Moreover, it is recommended that if libraries want to adopt social tags, they have to set up strong guidelines regarding which types of tags can be accepted and which are not. The present study also recommends if libraries think to adapt both perspectives (users and the librarian), that could be more effective for libraries. That means social tags cannot provide the subject access to documents alone. Instead, a combination of social tags and SLSH terms can describe the social science books in such a way that they can accept a variety of subject-based searches from library users. In this way, libraries not only enhance the accessibility of library collections but fulfil the needs of users.

## References

1. Park, J & Lu, C. (2009). Application of semi-automatic metadata generation in libraries: Types, tools, and techniques. *Library & Information Science Research*, 31(4), 225-231.
2. Fleming, A., Mering, M., & Wolfe, J. A. (2008). Library personnel's role in the creation of metadata: A survey of academic libraries. *Technical Services Quarterly*, 25(4), 1-15.
3. Soergel, D. (2009). Digital Libraries and Knowledge Organization. In Kruk, S R and McDaniel, B (Eds.). *Semantic Digital Libraries*, (pp. 9-39). Berlin: Springer, 2009. <https://www.dsoergel.com/UBLIS514DS-Chapter1Soergel.pdf> (Accessed on 12/08/2022)
4. Sauperl, A., & Saye, J. D. (1998). Subject determination during the cataloging process: An intensive study of five catalogers. *Advances in Classification Research Online*, 9(1), 119-138.
5. American Library Association (2007). SAC SC on Subject Data in the Metadata and Subject Analysis. <https://www.ala.org/alcts/mgrps/camms/cmtes/sac/inact/metadataandsubje/report> (Accessed on 14/08/2022)
6. Samanta, K. S., & Rath, D. S. (2021). Measuring the applicability of user-generated social tags along with expert-generated LCSH descriptors in Sociology: a heuristic study. *Annals of Library and Information Studies*, 68 (March 2021), 28-38.
7. Wall, T V, Folksonomy. <http://vanderwal.net/> (Accessed on 10/08/2022)
8. Zubiaga, A., Körner, C., & Strohmaier, M. (2011, June). Tags vs shelves: from social tagging to social classification. In *Proceedings of the 22nd ACM conference on Hypertext and hypermedia* (pp. 93-102). <https://dl.acm.org/doi/pdf/10.1145/1995966.1995981> (Accessed on 14/08/2022)
9. Voorbij, H. (2012). The value of LibraryThing tags for academic libraries. *Online information review*, 36(2), 197-217.
10. Macgregor, G., & McCulloch, E. (2006). Collaborative tagging as a knowledge organisation and resource discovery tool. *Library review*, 55(5), 291-300.
11. Morrison, P. J. (2008). Tagging and searching: Search retrieval effectiveness of folksonomies on the World Wide Web. *Information Processing & Management*, 44(4), 1562-1579.
12. Wenzler J, LibraryThing and the library catalog: adding collective intelligence to the OPAC. 2007. In *Proceedings of the paper presented at the Workshop on Next Generation Libraries*. California Academic Research Libraries, North Information Technology Interest Group, San Francisco, CA, 7 September 2007. <http://www.carl-acrl.org/ig/carlitn/9.07.2007/LTFL.pdf> (Accessed on 14/08/2022)
13. Furner J, User tagging of library resources: toward a framework for system evaluation, in the proceedings of the World Library and Information Congress: 73rd IFLA General Conference and Council, Durban, South Africa, 19-23 August 2007. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.109.5202&rep=rep1&type=pdf> (Accessed on 13/08/2022)

14. Mendes, L. H., Quiñonez-Skinner, J., & Skaggs, D. (2009). Subjecting the catalog to tagging. *Library Hi Tech*, 27(1), 30-41.
15. Spiteri L.F. (2007). The structure and form of folksonomy tags: the road to the public library catalog, *Information Technology and Libraries*, 26(3), 13-25.
16. Golder S A and Bernardo A H. (2006). Usage patterns of collaborative tagging systems, *Journal of Information Science*, 32(2), 198-208.
17. Steele T D. (2009). The new cooperative cataloging, *Library Hi Tech*, 27(1), 68-77
18. Petek, M. (2012). Comparing user-generated and librarian-generated metadata on digital images. *OCLC Systems & Services: International digital library perspectives*, 28(2), 101-111.
19. Kipp, M. E. (2011). Tagging of biomedical articles on CiteULike: A comparison of user, author and professional indexing. *Knowledge Organization*, 38(3), 245-261.
20. Vrkic, D. (2014). Are they a perfect match? Analysis of usage of author suggested keywords, IEEE terms and social tags. In 2014 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO) (pp. 732-737). IEEE. <https://www.researchgate.net/publication/263964683> (Accessed on 18/08/2022)
21. Lee, D. H., & Schleyer, T. A comparison of meSH terms and CiteULike social tags as metadata for the same items. In *Proceedings of the 1st ACM International Health Informatics Symposium* (pp. 445-448), 2010. <https://dl.acm.org/doi/pdf/10.1145/1882992.1883060> (Accessed on 14/08/2022)
22. Lu, C., Park, J. R., & Hu, X. (2010). User tags versus expert-assigned subject terms: A comparison of LibraryThing tags and Library of Congress Subject Headings. *Journal of information science*, 36(6), 763-779.
23. Rolla, P. J. (2011). User tags versus subject headings. *Library Resources & Technical Services*, 53(3), 174-184.
24. Aanonson, J. (1987). A comparison of keyword subject searching on six British university OPACs. *Online Review*, 11(5), 303-313.
25. Bottle, R. T., & Preibish, C. I. (1970). The proposed KWIC index for psychology: an experimental test of its effectiveness. *Journal of the American Society for Information Science*, 21(6), 427.

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