International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

ENHANCED PRIVACY POLICY DETECTION FOR SOCIAL NETWORK USING COLLABORATIVE TAG SUPPRESSION

R.Sowmiya, Dr.B.Jayanthi
1.M.Phil Research Scholar 2.Associate Professor
Kongu Arts and Science College (Autonomous)
sowmi024@gmail.com, sjaihere@gmail.com

ABSTRACT- Collaborative tagging is one of the most diffused and popular services available online services. The important purpose of collaborative tagging is to loosely classify resources based on end-user's feedback. Tagging allows end user to loosely classify either offline or online resources based on their feedback, expressed in the form of tags. In this paper focus on the privacy-preserving collaborative tagging service, by showing different and specific privacy-enhancing technology with namely tag suppression model. Tag suppression model can be used to protect end-user privacy. In addition, it analyzes the different multi language filtering model approach can used to effectiveness of a policy-based collaborative tagging system that supports enhanced web access functionalities, like content filtering and discovery, based on preferences specified by end users. The proposed enhanced policy based collaborative tagging makes the privacy enhancing technology with tag suppression methodology. The users tag resources on the web helpful their personal preferences. In order to prevent privacy attackers from profiling users based on their interests, to abstain from tagging definite resources. Tag suppression protects user's privacy to a certain level at the cost of semantic loss acquired by suppressing tags.

Keywords—Web Services, Collaborative tag, tag suppression, policy management, multi language model filtering.

I. INTRODUCTION

Data mining is an analytic process designed to explore and analyze large amounts of data in

International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

search of consistent patterns relationships between specific variables. The ultimate aim of data mining is prediction by applying the findings from analyzed data to new data, data mining models attempt to predict trends, outcomes and user preferences. Information gathering on the Web is pervasive mostly because usage tracking and data mining technology are deeply integrated into most Web based software and application systems and websites these days.

Through search engines, social networking sites and online applications, loads of customer data is collected and stored mainly with the aim of understanding customer needs and improving products and services. This all pervading trend of online data collection, storage and analysis becomes a privacy concern for many. Privacy preserving data mining lets business derive the understanding and trend information they need without invading the personal data boundaries. The basic approach followed in Privacy preserving Data mining is to let users provide a modified value for a sensitive data item or randomize sensitive customer data, so that it prevents the disclosure of any individual data but still can provide data for algorithms to analyze aggregate information, build mining models, and deliver actionable insights to businesses

In this paper main purpose of collaborative tagging is to loosely classify resources based on end-user's online data sets (i.e., tags). The novelty of such an approach to content and resource categorization has been seen, in present a challenging research problem. In fact, collaborative tagging may be the basis for a semantic network connecting online resources based on their characteristics, and not only their URIs. At the same time, the undefined semantics of tags, which are per se ambiguous and expressed in multiple languages, makes it difficult to enforce semantic interoperability and to grant a reasonable level of accuracy when determining the "meaning" of a tag. However, besides the support to policy enforcement, enhanced collaborative tagging requires another layer which addresses an issue so far not deeply investigated, i.e., privacy protection. In addition to the proposed policy control takes care of multi language tagging also. For example, web content taken may be from more than one languages. So privacy preserving collaborative tagging if applied to content with multiple languages, then it becomes more effective to fruitful to end users. In addition, unlike existing

International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

system where the application is not developed for the experimental system, the proposed system develops a web application in which all the above mentioned processes are carried out and so end users make use of it

II. RELATED WORK

Collaborative tagging systems are social data repositories, in which users manage resources using descriptive keywords (tags). An important element of collaborative tagging systems is the tag recommender, which proposes a set of tags to each newly posted resource. In this review discuss the potential role of three tag sources: resource content as well as resource and user profiles in the tag recommendation system. The proposed system compiles a set of resource specific tags, which includes tags related to the title and tags previously used to describe the same resource (resource profile). These tags are checked against user profile tags – a rich, but imprecise source of information about user interests. The result is a set of tags related both to the resource and user. Depending on the character of processed posts this set can be an extension of the common tag recommendation sources, namely resource title and resource profile.

P. Mika et al[1] proposed a demonstrates the application of this representation by showing how community-based semantics emerges from this model through a process of graph transformation. They illustrate ontology emergence by two case studies, an analysis of a large scale folksonomy system and a novel method for the extraction of community-based ontologies from Web pages. Though it considers only two case studies it demonstrates that community based semantics can be analyzed from data.

X. Wu, L. Zhang, and Y. Yu et al[2] proposed explore a complement approach that focuses on the"social annotations of the web" which are annotations manually made by normal web users without a pre-defined formal ontology. Compared to the formal annotations, although social annotations are coarse-grained, informal and vague,

considered as class C and it can be defined as if the class C=1 if two users are related and if the class C=0 means non related pair.

No of Users	No of Images Shared	Similarity
50	100	20
60	150	30
70	250	40
80	315	45
90	392	50
100	470	60
110	540	70
120	615	80
130	692	90
140	767	100

Table 5.1 User Similarity

International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

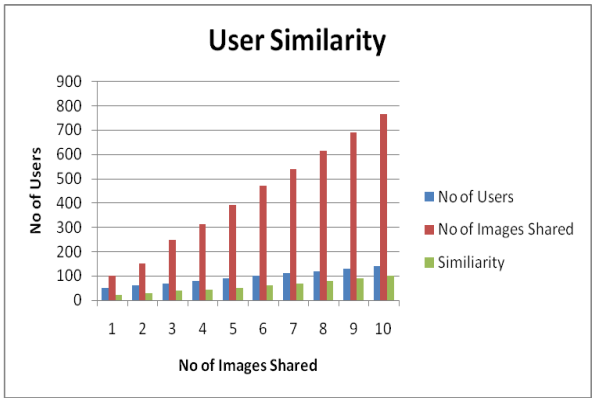

Fig 5.1 User Similarity

B. USER RECOMMENDATION

The Table 5. 2 shows the user recommendation based on the user similiarity with the proposed privelege settings. The probability that two users are related pair or non related is *calculated using the following formula:* $S_{i,j} = S(L_i, L_j) = L_i \cdot L_j / | l_i | \cdot | L_j |$ *and the recommendation is made based on the user probability defined as P(C=1/Si,j).*

The Figure 5.2 shows the user recommendation based on the user similiarity with the proposed privelege settings. *The recommendation is made based on the user probability defined as P(C=1/Si,j).*

S No	Total No of Requests Based on Similarity	No of Recommendations with Privilege Settings
1	1	0
3	3	1
4	1	0
5	1	0
6	2	2
7	2	1
8	3	3
9	2	1
10	7	5
11	1	1

Table 5.2: Recommendations with Priveleged Settings

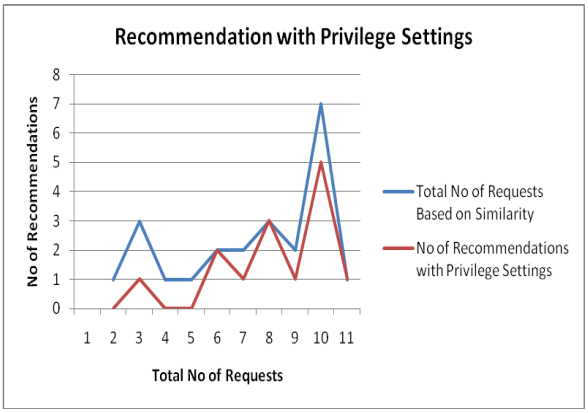

Fig 2: Recommendations with Priveleged Settings

International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

- In this proposed method enables users to specify policies both to block undesired web content and to indicate resources of interest
- Enhanced tag suppression provide users with a mechanism to preserve their privacy while tagging
- Parental control and resource recommendation mechanism provides effectiveness regards of privacy assurance, data effectiveness, and filtering
- The methods are studied to perform the auditing without demanding the local copy of data and thus drastically reduce the communication and computation overhead.
- Four schemes are presented that can be applied in multi web services environment to increase the security aspects

VI CONCLUSION

In this proposed scheme are developed for verifying the connection between the levels of the privacy that each user will have to communicate will be shown in this method. More over this approach will limit the file uploading and the rejected status and the accept status for the every users. This paper limits the user from different category of sharing the data and to the group. This also ensure the connection between the users. In this proposed scheme can be further enhanced with possibility to block the unwanted or the unnecessary word that is to the group or the user. Facilitate users to process the authenticate and spam the unwanted comment in the transaction and facilities like fast data backup and restoration in case of data loss situations to be explored in future researches. A privacy preserving collaborative tagging if applied to content with multiple languages, and then it becomes more effective to fruitful to end users. Future work includes the development of a full prototype for the experimented system and it's testing and use in further scenarios

VII REFERENCES

[1] P. Mika, "Ontologies Are Us: A Unified Model of Social Networks and Semantics," Proc. Int'l Semantic Web Conf. (ISWC '05), Y. Gil, E. Motta, V. Benjamins, and M. Musen, eds., pp. 522-536, 2005.

[2] X. Wu, L. Zhang, and Y. Yu, "Exploring Social Annotations for the Semantic Web," Proc. 15th Int'l World Wide Web Conf. (WWW), pp. 417-426, 2006.

[3] B. Markines, C. Cattuto, F. Menczer, D. Benz, A. Hotho, and S.Gerd, "Evaluating Similarity Measures for Emergent Semantics of Social Tagging," Proc. 18th Int'l Conf. World Wide Web (WWW), pp. 641-650, 2009.

[4] C. Marlow, M. Naaman, D. Boyd, and M. Davis, "HT06, Tagging Paper, Taxonomy, Flickr, Academic Article, to Read," Proc. 17th

International Journal of Computer Science
Scholarly Peer Reviewed Research Journal - PRESS - OPEN ACCESS
ISSN: 2348-6600
http://www.ijcsjournal.com Volume 5, Issue 1, No 3, 2017 ISSN: 2348-6600
Reference ID: IJCS-169 PAGE NO: 1031-1036
Sri Vasavi College, Erode Self-Finance Wing 3rd February 2017
National Conference on Computer and Communication NCCC'17
http://www.srivasavi.ac.in/ nccc2017@gmail.com

Conf. Hypertext and Hypermedia (H PERTEXT), pp. 31-40, 2006.

[5] B. Carminati, E. Ferrari, and A. Perego, "Combining Social Networks and Semantic Web Technologies for Personalizing Web Access," Proc. Fourth Int'l Conf. Collaborative Computing: Networking, Applications and Worksharing, pp. 126-144, 2008.

[6] R. Gross and A. Acquisti, "Information Revelation and Privacy in Online Social Networks," Proc. ACM Workshop Privacy Electronic Soc. (WPES), pp. 71-80, 2005.

[7] S.B. Barnes, "A Privacy Paradox: Social Networking in the United States," First Monday, vol. 11, no. 9, Sept. 2006.

[8] J. Parra-Arnau, D. Rebollo-Monedero, and J. Forne ´, "A Privacy- Preserving Architecture for the Semantic Web Based on Tag Suppression," Proc. Seventh Int'l Conf. Trust, Privacy, Security, Digital Business (TrustBus), pp. 58-68, Aug. 2010.

[9] J. Vob, "Tagging, Folksonomy & Co - Renaissance of Manual Indexing?" Computer Research Repository, vol. abs/cs/0701072, 2007.

[10] G. Adomavicius and A. Tuzhilin, "Toward the Next Generation of Recommender Systems: A Survey of the State-of-the-Art and Possible Extensions," IEEE Trans. Knowledge Data Eng., vol. 17, roc. 15th Int. Conf. Multimedia, 2007, pp. 631–640.