Abstract

Data sharing is obvious in present day scenario of digital world, and when data is being shared among various application areas the sensitive data of the individuals is disclosed to the public. An evident awareness about this privacy violation has been created among the people now when compared to the earlier days and they are also showing a real concern towards their privacy in the technology enabled digital world. At one end several studies have been proved that privacy is a primary concern and also suggesting not to disclose too much of individual information, but at the other end people are disclosing their personal information knowingly or unknowingly through online surveys, social networks, online shopping sites, e-commerce, government agencies etc. This information sharing is obvious and it can't be unavoidable. Consequently several techniques have been proposed to protect privacy of the individual disclosed information, but still there is an immense need of new privacy preserving techniques that can equally accommodate with the proportionate expansion of the digital data. Existing privacy techniques applied on the data set assuming all the records are independently sampled, where as in the real world data set the correlations among the records is obvious and needs to
be studied to achieve accurate privacy protection. This paper provides an overview of the
development of privacy preserving models and the further enhancements to be carried out to
accommodate with the diverse privacy requirements and data utilization along with the
correlation study.

References

1. Bharat Bhushan Agarwal and Sumit Prakash Tayal, "Data Mining and Data
2. LjiljanaBrankovic and Vladimir Estivill-Castro, "Privacy Issues In Knowledge Discovery
and Data Mining", In Proceedings of Australian Institute of Computer Ethics Conference,
Melbourne, Victoria, Australia, July 1999
3. Agarwal, R, and Srikanth ,R, “Privacy Preserving Data Mining” Proceeding of Special
Interest Group on Management of Data, pp 439-450, 2000
4. Jian Wang, Yongcheng Lou, Yen Zhao, Jiajin Le, "A Survey on Privacy Preserving Data
5. Anita A. Parmar, Udai Pratap Rao, "Blocking Based approach for Classification Rule
Hiding to Preserve the Privacy in Database", International Symposium on Computer Science
7. B.C.M. Fung, K. Wang, and P.S. Yu, "Anonymizing Classification Data for Privacy
Methods and Techniques", Proceedings of the International Conference on communication and
Computational Intelligence, pp.540-545, December 2010.
9. Xiaolin Zhang, Hongjing Bi, "Research on Privacy Preserving Classification Data Mining
Based on Random Perturbation", International Conference on Information Networking and
10. Jinfei Liu, Jun Luo, and Joshua Zhexue Huang, "Rating: Privacy Preservation for
Multiple Attributes with Different Sensitivity Requirements", International conference on Data
Mining Workshops, pp.666-670, 2011.
Proceeding of Special Interest Group on Management of Data (SIGMOD) Record, Vol. 33, No.
12. Haisheng Li, "Study of Privacy Preserving Data Mining", Third International Symposium
13. Charu C. Aggarwal, Philip S. Yu, "A condensation approach to privacy preserving data
mining", International Conference on Extending Database Technology (EDBT), pp. 183-199,
2004.
14. Nan Zhang; Wei Zhao, "Privacy-Preserving Data Mining Systems," in Computer , vol.40,
no.4, pp.52-58, April 2007.

Index Terms

Computer Science Information Sciences
Keywords

Data Mining, Privacy Preserving Data Mining (PPDM), Correlation, Correlation constraints.