A System to Analyze an Effect of Privacy Protection on Direct Discrimination

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Abstract

Recently, it is observed that data mining technique comes across two major potential risks from social perspective: discrimination and privacy violation. Discrimination means treating people unfairly, just because they belong to minority group, without taking into account their individual qualification. Data mining technique undergoes risk of discrimination, if data mining tasks are performed using discriminatory dataset. Discrimination Prevention Data Mining is an area, which deals with discovering, preventing and measuring discrimination. Privacy provides right to a person to decide whether to disclose or not to disclose his/her sensitive information. Privacy violation occurs if a person’s sensitive information is disclosed as a result of data mining tasks. Privacy Preserving Data Publishing is an area, which provides methods for publishing useful information while preserving data privacy. Recently, it is identified that these two areas are dependent on each other. So it is important to bridge the research gap between these areas. In this paper, our implemented system is described, which is useful to analyze effect of privacy protection methods on discrimination. Results of our system provide effect of different privacy protection methods on direct discrimination.
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References


Index Terms
Keywords

discrimination prevention, privacy protection, discrimination discovery, data anonymization methods