Abstract

Developments in current information technology are leading to the increased capture and storage of information about people and their activities. This raises serious concerns about the which data items are sensitive and how to detect these sensitive data items. Data privacy has become a very important concern in data publication in this modern era. The protection of data privacy depends on exactly what needs to be kept secret, thus, sensitive data. Protecting data privacy is a complicated task that takes into consideration what needs to be kept confidential. However, current privacy modeling techniques assume sensitive data items. This paper considers the detection of sensitive data items in data publication for research purposes. We attempt to theoretically formalize a model for detecting sensitive data using a directed graph. We identify transitions that have a lot of sensitive data items published to them; critical transitions. Furthermore, the state that is most risky to the user to traverse in the graph, termed the
17. R. J. Bayardo, Y. Ma, and R. Srikant. Scaling up all pairs similarity search. In WWW,


Index Terms

Computer Science Information Systems

Keywords

Sensitive Data items, Data Publication, User Transition