Abstract

In data mining, Privacy preservation plays a major role to provide an efficient communication for the users. Several methods have been employed for privacy preservation scheme they are Secured Multiparty Computation (SMC), Data Transformation Technique (DTT) and Cryptographic Technique. Most of the recent works concentrated on SMC and DTT as the data mining sources are mainly distributed in nature. However cryptographic techniques need more overhead for preserving privacy in distributed data mining context. All these existing techniques are worked and concentrated on data sharing and not concerned about the privacy preservation between the participants on distributed data mining. To address these issues more sensitively, in this work, present a privacy preservation scheme using cache-cache mechanism for distributed digital document which includes text, images, etc. In the proposed effective privacy preservation scheme for distributed digital document using cache-cache mechanism [PPS-CCM], digital document sharing is done with cache-cache mechanism to reduce the overhead on increasing document sizes. The cache-cache mechanism maintains a cache inside a cache to preserve the details about the users who shared the secret parts of digital document which has been splitted in a scheme of visual cryptography. An experimental evaluation is done with sample set of digital documents and will be processed with the proposed PPS-CCM to estimate the performance of the proposed work in terms of privacy overhead,
intensity of cache-cache for digital document sharing, Participant density with an existing texture overlapping and Fourier filtering schemes for color images in visual cryptography.

References


Index Terms

Computer Science
Information Security

Keywords
Privacy preservation  Cache-cache mechanism  Digital document (DD)  Visual cryptography
distributed data

Secure Multi party computation

Color images