Abstract

Recently digital forensics has become a prominent activity in crime investigation since computers are increasingly used as tools to commit crimes. During forensic investigation the digital devices such as desktops, notebooks, smart phones etc. found at the crime scene are collected for further investigation. Investigators have to go through humongous amount of data stored on these devices to gather evidence. This activity exceeds the expert's ability of analyzing and interpreting the data. In this context data mining techniques such as clustering are used for automated data analysis. This research work focuses on a novel document clustering model that allows an investigator to semantically cluster the documents stored on a suspect's digital devices with the help of subject suggestions initially provided to him. Providing subject suggestion improves the accuracy and speeds up the process of searching the evidence. Without subject suggestion, the investigators are heedless about the suspect's dataset and fail to give appropriate search query which may delay the process of investigation.
Subject based Clustering for Digital Forensic Investigation with Subject Suggestion


Index Terms

Computer Science

Information Sciences
Keywords
Crime Investigation; Digital Forensic; Semantic Clustering; Subject Suggestion