

Emerging and prospering trends in crime analysis and investigation systems: a literature review

ABSTRACT

Crime analysis and investigation systems play a critical role in battling crime and war against terrorism. This paper is a detailed literature review on current crime analysis and investigation systems developed to date. The reviewed literature is divided into two broad categories, "ontologies" and "clustering and classification". The paper encompasses a detailed discussion on systems belonging to both categories. During literature review, it was discovered that over the years evolving crime systems took inspiration from their predecessors, in terms of functionality and features. Therefore, some interesting trends were identified. These trends gradually prospered with the passage of time, strengthening the capabilities of the evolving systems. This paper discusses these trends in detail, and also anticipates the key features and design for the future generation of crime systems.

Keyword: Crime analysis systems; Crime investigation systems; Ontologies; Clustering; Classification; Topic detection; Topic tracking