Abstract

The Trinidad and Tobago Police Service (TTPS) is currently faced with large volumes of criminal data that continues to grow daily and which are required to be processed and transformed into useful information and where data mining can greatly improve crime analysis and aid in preventing and reducing crime. Currently, crime analysts attached to the analytical department of the TTPS are required to unravel the complexities in data to assist operational personnel in arresting offenders and also in directing crime prevention strategies. With the current volume of crime being committed and the awareness of modern criminals, this is becoming a very daunting task. The ability to analyze huge volumes of data with its inherent complexities without the use of computational support puts a strain on human resources.

Because of the speed and advances in the field of data mining within recent years, independent studies on its impact on policing are only now getting on the way. It is particularly important in this respect to examine the benefits which the TTPS can derive through a careful implementation of this technology. The infamous events of July, 1990 in Trinidad and Tobago heralded the need for predictive policing and exacerbated concerns about national security by the local law enforcement agency. Accurately and efficiently analyzing the organization's ever growing volume of crime data is a major challenge facing the TTPS. This paper presents a case for implementing data mining (knowledge discovery in databases -KDD) within the TTPS as a tool for predictive analytics of crime data. It is hoped that this technology will provide decision makers with intelligence from the crime data to inform their strategic planning.
discusses the challenges of implementing data mining with special discussion of key issues relating to data integrity and the information technology (IT) infrastructure required to support data mining. It concludes by suggesting the internal information technology (IT) infrastructural changes needed to facilitate its implementation in the TTPS.

References

- Human Resource Branch of the Trinidad and Tobago Police Service (HRB-TTPS)

Index Terms

Computer Science

Security
Keywords
Predictive policing  Data Mining  Artificial Intelligence  Uniform Crime Recording System (UCR)