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Data Analysis

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Data analysis

Structured data is data that is already organized in tables, such as date, location and information involved in occurrences.

Let's explore the different analyzes possible with this data.

- **Georeferencing Analysis:** the collection of information about the location of occurrences, even if basic, helps to understand the routes used by criminals and the impact of their activities on communities. This makes it possible to create models to identify paths and influences, even without directly capturing criminals. Patterns in movement, such as preference for certain types of transport, can be identified.

Data analysis



- **Identification of Anomalous Regions:** Identifying areas with fewer occurrences than expected can reveal problems such as lack of resources, corruption or collusion by public agents. This is relevant, for example, in large cities like São Paulo or at the borders, where certain regions can be chosen by criminals.
- **Profiling Criminals:** It is possible to create predictive models to understand seasonality, fluctuations in demand for illicit products and other factors that make criminal activity more predictable. Models can anticipate large shipments and the domination of areas by criminal groups.
- **Analysis of Relationship Networks:** Based on information about those involved in occurrences, it is possible to build relationship networks between individuals. This can help identify the importance of people in criminal groups, their belonging to these groups and the profile of the people recruited.

Data analysis



- **Text Information Extraction:** Advanced text comparison techniques can extract relevant information from the occurrences texts. This includes identifying vehicle brands and license plates, physical characteristics of individuals, use of violence, volume of drugs or values seized, among others.
- **Information Structuring:** The standardization of information about occurrences is fundamental. This allows you to store this data in tables, making it easier to analyze and correlate information. Furthermore, proper structuring makes it possible to create systems similar to the one used by the FBI to store information about violent crimes in the USA, which can help identify patterns and trends in criminal actions.

Data analysis



With these analyses, it is possible to identify specific ways in which violence is committed, preferences for schedules or locations for transporting illicit goods and characteristics of subterfuge used by criminals.

The training of the institutions' agents, combined with agreements with universities, makes it possible to develop these analyzes in real time, providing valuable information for managers, increasing the efficiency of operations and, ultimately, saving lives.



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