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Visualization of NLP Extractions

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Introduction

• Securboration - development company working with security and collaboration
• Natural Language Processing (NLP)
• NLP - interaction and understanding between computers and human language
• Focus on displaying and visualizing entities in text
• Given an extraction program that scans numerous files and extracts this pertinent information.

Purpose

• Tasked with designing the visualization component, displaying the content provided by the extraction program
• Visualization outsourced to graphical data manipulating software
• CartoDB - subscription-based mapping program, loads in tables from Excel
• Sample data formatted into tables using scripts, synced with program
• Features provided using HTML and JavaScript.

Features

• Sample data given - history of terrorist attacks
• Features used: timeline (right), categorize (bottom-right), cluster, & kills per capita (bottom-left)
• Timeline plots each entity in order of date and has a scroll bar used to navigate
• Categorize color-codes all the entities depending on the target type associated
• Cluster groups together entity points that overlap based on the zoom of the map
• Kills per capita shows a heat-map of the affected areas, ranging from white for low numbers to red for high numbers