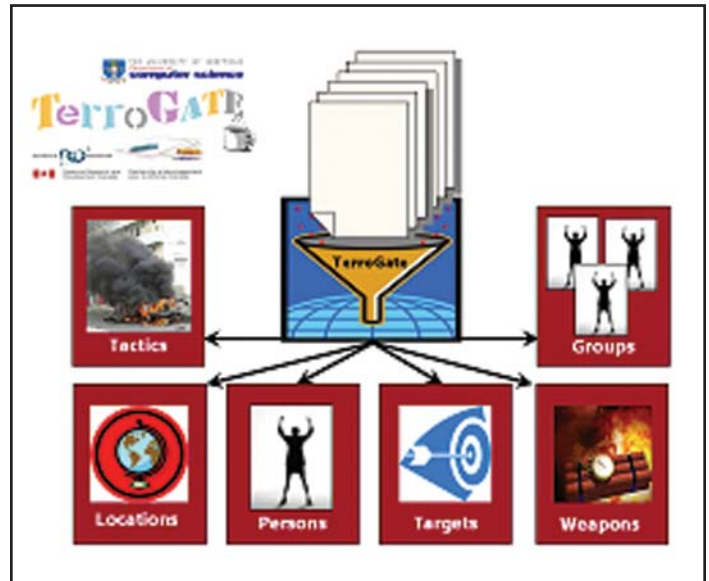# TERROGATE - Information retrieval technology for the terrorism domain
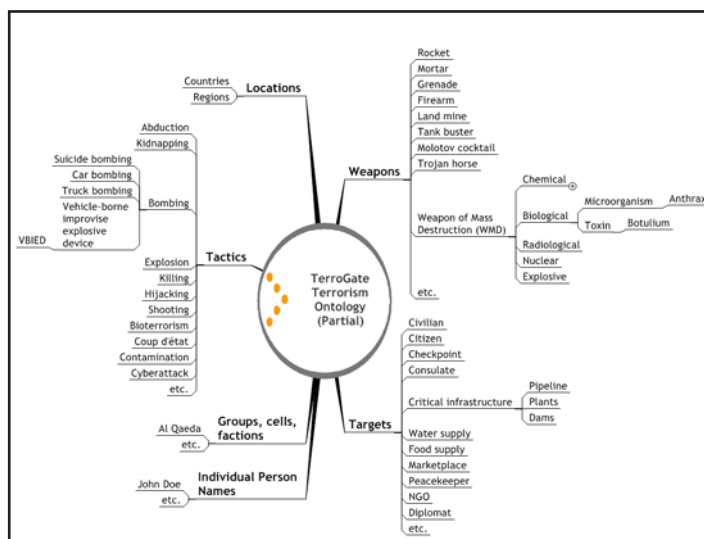
- Natural language processing-based pattern matching grammars
- Integrates a priori knowledge of the target domain (Terrorism)
- Entities can easily be updated by information or intelligence analysts
- Java-based code; Operating System independent
- Performance achieved: 93% precision and 85% recall.

What is TerroGate ?

TerroGate is a new information retrieval system dedicated to the terrorism domain. It retrieves information about terrorist **tactics**, **weapons**, **targets**, **persons**, **groups**, and **locations** from unstructured text.

Overview of TerroGate
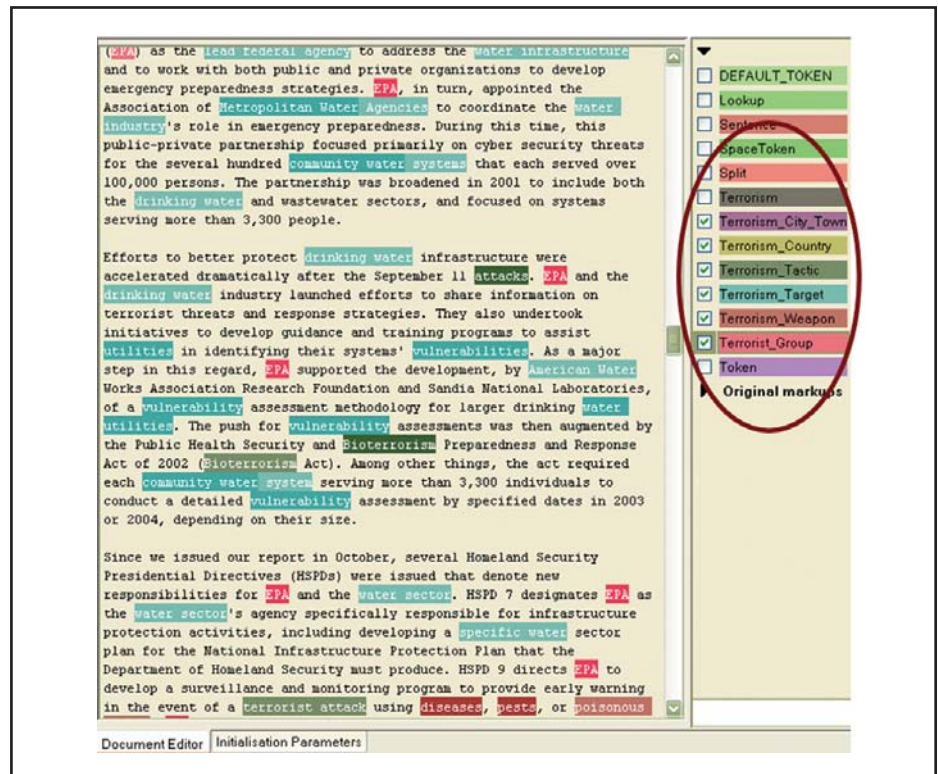

TerroGate's Terrorism Ontology (Excerpt)

Domain-based Information Retrieval

TerroGate uses a priori knowledge of the terrorism domain to retrieve specific types of information. It can support homeland security and intelligence operations by providing accurate information awareness through the exploitation of knowledge representation such as taxonomies, ontologies and domain specific named entity transducers. TerroGate turns information overload into information superiority for the Intelligence community.

Defence Research and Development Canada

Recherche et développement pour la défense Canada

Canada

TERROGATE - Information retrieval technology for the terrorism domain

Domain-based Conceptual Search

TerroGate uses algorithms and ontologies developed by computational linguists at Defence R&D Canada to search for specific vocabulary and lexical structures of the terrorism domain. TerroGate melds emerging search trends. A domain-based named entity extraction component annotates documents with relevant words for easy retrieval. The system performs "conceptual" searches that do not hunt for keywords only, but also notions more vaguely associated with keywords. Conceptual searches provide means to discover new hidden knowledge in unstructured documents. Since TerroGate searches for terror-related concepts and terminology, users can find information not sought after at the onset.

Sample document annotated using TerroGate

For more information

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