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## **Web Data Mining To detect online spread of terrorism**

Terrorism has grown its roots quite deep in certain parts of the world. With increasing terrorist activities it has become important to curb terrorism and stop its spread before a certain time. So as identified internet is a major source of spreading terrorism through speeches and videos. Terrorist organizations use internet to brain wash individuals and also promote terrorist activities through provocative web pages that inspire helpless people to join terrorist organizations. So here we propose an efficient web data mining system to detect such web properties and flag them automatically for human review. Data mining is a technique used to mine out patterns of useful data from large data sets and make the most use of obtained results. Data mining as well as web mining are used together at times for efficient system development. Web mining also consists of text mining methodologies that allow us to scan and extract useful content from unstructured data. Text mining allows us to detect patterns, keywords and relevant information in unstructured texts. Both Web mining and data mining systems are widely used for mining from text. Data mining algorithms are efficient at manipulating organized data sets, while web mining algorithms are widely used to scan and mine from unorganized and unstructured web pages and text data available on the internet. Websites created in various platforms have different data structures and are difficult to read for a single algorithm. Since it is not feasible to build a different algorithm to suit various web technology we need to use efficient web mining algorithms to mine this huge amount of web data. Web pages are made up of HTML (Hyper text markup language) In various arrangements and have images, videos etc intermixed on a single web page. So we here propose to use smartly designed web mining algorithms to mine textual information on web pages and detect their relevancy to terrorism. In this way we may judge web pages and check if they may be promoting terrorism. This system proves useful in anti terrorism sectors and even search engines to classify web pages into the category. Their relevancy to the field help classify and sort them appropriately and flag them for human review.

**Advantage:**

* This system will help to reduce terrorism spread around the world.
* This system proves helpful for anti terrorism departments/agencies.
* This system helps agencies to detect suspicious web pages and track them from their sources.
* This system alerts authorities to block those web pages on time.

**Disadvantage:**

* If terrorists communicate in codewords not fed in the system, the system will not be so efficient.

## **Emotion Monitoring Based on face Recognition**

Humans have always had the innate ability to recognize and distinguish between faces. Now computers are able to do the same. This opens up tons of applications. Face detection and Recognition can be used to improve access and security like the latest Apple Iphone does (see gif below), allow payments to be processed without physical cards — iphone does this too!, enable criminal identification and allow personalized healthcare and other services.

**Emotion Recognition work:**

Emotive analytics is an interesting blend of psychology and technology. Though arguably reductive, many facial expression detection tools lump human emotion into 7 main categories: Joy, Sadness, Anger, Fear, Surprise, Contempt, and Disgust. With facial emotion detection, algorithms detect faces within a photo or video, and sense micro expressions by analyzing the relationship between points on the face, based on curated databases compiled in academic environments.

To detect emotion in the written word, sentiment analysis processing software can analyze text to conclude if a statement is generally positive or negative based on keywords and their valence index. Lastly, sonic algorithms have been produced that analyze recorded speech for both tone and word content.

**Efficacy:**

* Ability to detect the location of face in any input image or frame. The output is the bounding box coordinates of the detected faces.
* Compare multiple faces together to identify which faces belong to the same person. This is done by comparing face embedding vectors.
* Classifying the emotion on the face as happy, angry, sad, neutral, surprise, disgust or fear.

**Advantages:**

* Event feedback research
* Social media exposure through facebook auto tagging
* Increased event security

**Disadvantages:**

* Poor Image Quality Limits Facial Recognition's Effectiveness.
* Small Image Sizes Make Facial Recognition More Difficult.
* Different Face Angles Can Throw Off Facial Recognition's Reliability.
* Data Processing and Storage Can Limit Facial Recognition Tech.