Social Media Analytics and Reporting Toolkit (SMART)

SMART social media analysis software provides scalable visualization and keyword-based analysis of social media posts to improve situational awareness and decision-making for time-critical applications like disaster response and traffic monitoring.

When a disaster strikes, it is of paramount importance for those in charge of disaster relief to be informed as soon as possible so they can respond appropriately. During these times of distress, social media sites such as Twitter and Facebook effectively become huge databases of information which can be used to shape the way agencies respond. But oftentimes, the sheer volume of posts can create an overwhelming amount of information for analysts to sift through, thus creating inefficiency in what could be a promising medium for acquiring critical information

Researchers at Purdue University have developed the Social Media Analytics and Reporting Toolkit (SMART), a social media analysis software that provides analysts with scalable analysis and visualization of social media posts. This software uses topic extraction, combinations of key word filters and word cluster examination to provide increased situational awareness and improved decision making skills for time-critical tasks. SMART improves search and analysis capabilities by enabling the detection and exploration of anomalies. It enhances analysis of social media posts during a disaster by comparing them to the historical information and trends of previous events, allowing the analysts to adapt to the environment of constant change that develops in extreme conditions. This technology can perhaps best be utilized in disaster relief, but could also be adapted to other fields such as traffic and weather updates.

Advantages:

-Enables detection of anamolies

-Adaptable

Technology ID

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Category

Artificial Intelligence & Machine Learning/Natural Language Processing & Generative AI

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Potential Applications:

-Disaster Response

-Traffic tracking

-Weather updates

TRL: 5

Intellectual Property:

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Keywords: Social Media Analytics, Reporting Toolkit, SMART software, disaster relief, situational awareness, decision making, topic extraction, keyword filters, word cluster examination, anomaly detection, traffic tracking, weather updates, Computer Technology, Disaster Response, Disasters, Social Networking

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