Advanced Analytics

Advanced monitoring of entities in online media sources

MARKET NEED

In the always-connected 24-7 online marketplace, up-to-date knowledge is paramount for good decision making. In many timezones across the globe, content is emerging which can have an effect on the reputation of a firm, individual or product.

Depending on the trust level attached to the source, a single social media message can cause significant damage to the reputation of an entity, as experienced when a tweet was sent from the hacked Associated Press Twitter account, causing the Dow Jones Index on Wall Street to drop sharply.

Online monitoring of the reputation of an entity enables quick reactions to current events or market fluctuations.

TECHNOLOGY SOLUTION

Our technology solution consists of two key components. The first component is an advanced analytics engine which filters and ranks content related to specified entities ensuring that only relevant content is delivered to the end-user.

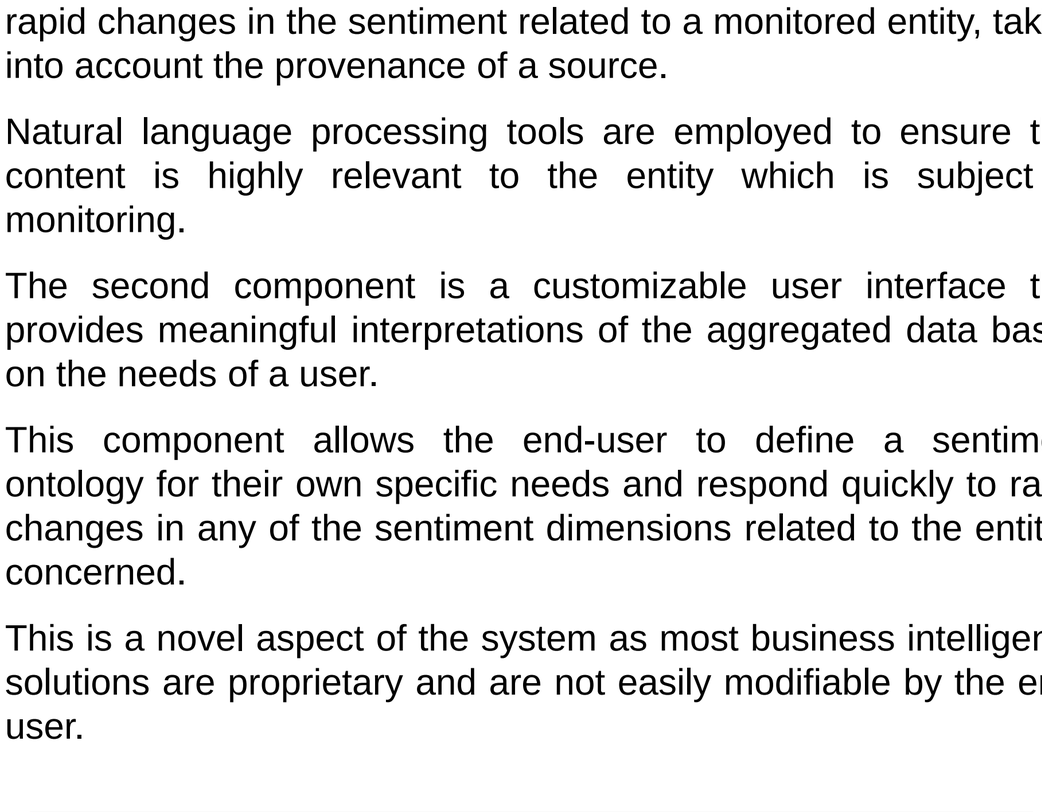
We adapt algorithms from the literature on trend detection and anomaly detection in order to deliver alerts which correspond to rapid changes in the sentiment related to a monitored entity, taking into account the provenance of a source.

Natural language processing tools are employed to ensure that content is highly relevant to the entity which is subject to monitoring.

The second component is a customizable user interface that provides meaningful interpretations of the aggregated data based on the needs of a user.

This component allows the end-user to define a sentiment ontology for their own specific needs and respond quickly to rapid changes in any of the sentiment dimensions related to the entities concerned.

This is a novel aspect of the system as most business intelligence solutions are proprietary and are not easily modifiable by the end-user.

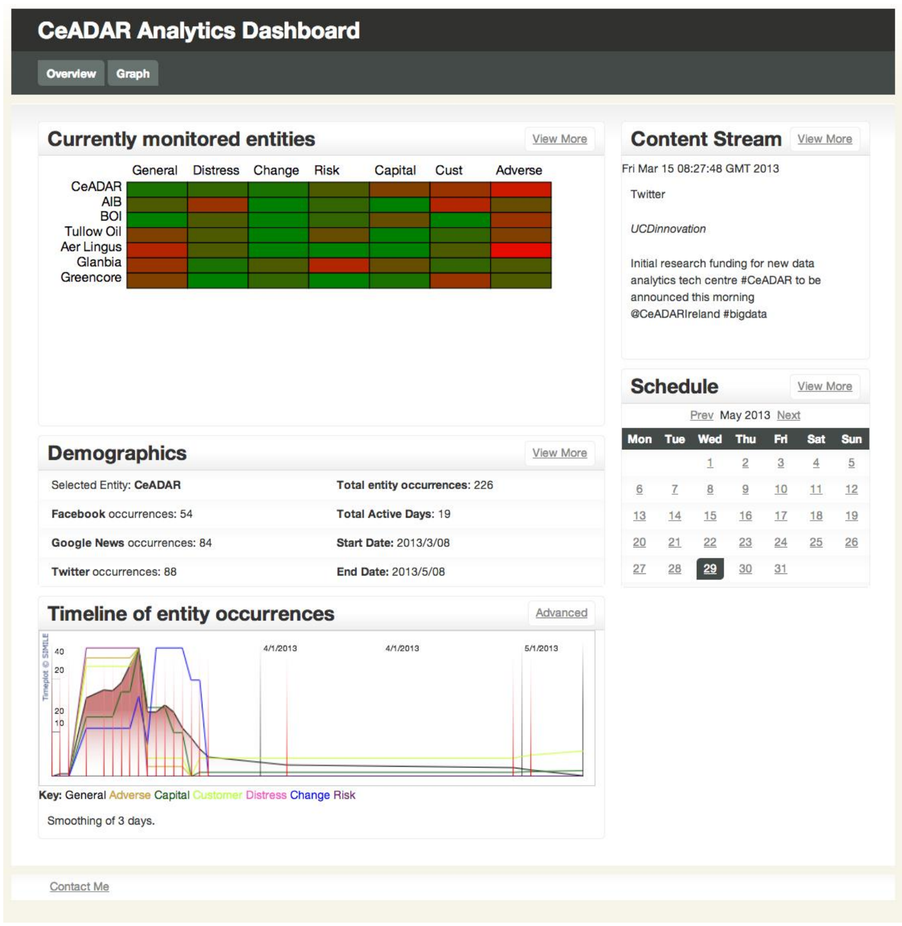


APPLICABILITY

Tailored analysis solutions can cater to the needs of a wide range of industries. In the consumer-facing business domain, it may be of interest to measure the consumer reaction to a new product or product feature.

Business intelligence end users may be interested in measuring the reputation of their competitors based on the attitudes pervading from social and traditional media.

Governmental agencies may be interested in monitoring the public reaction to certain policies which have newly been introduced or laws which are due to come into force.



The figure above shows a sample user interface layout.

The main heatmap represents the values of different sentiment dimensions, heatmaps for previous days can be viewed using the calendar panel on the right hand side. The colour scale from red to green defines the level of activity for a particular entity, with red representing entities which are being discussed to a greater extent.

The timeline graph presents a temporal view of postings related to an entity with the coloured lines representing the fluctuation in values for each of the ontology dimensions.

RESEARCH TEAM

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