Monitoring Public Attention on Environment Issues with Twitter Vigilance

http://www.disit.org/tv

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Twitter Vigilance Objectives

- Access at public part on http://www.disit.org/tv
- Monitoring twitter channels with
  - high reliability & precision in following slow, fast and explosive events
  - Multiuser managing multiple public and private channels
  - low cost automated analysis
  - Access to data, advanced search, data analytics, sentiment analysis, ...
- A channel is a set of search on twitter.
  - Each search can have a complex syntax according to twitter API and service
  - Each user may manage a number of channels and searchers
- Active since April 2015, over 26 Million of tweets

TV: High level purposes

- Discover and evaluate time trends vs events, facts, etc.;
- Discover and compute: who influence the communication, the community and how;
- Discover and compute: new trends and new occurrences in real time;
- Monitor and analyse competitors;
- assessments of appreciation or less of: products, people, advertising;
- Discover and compute: predictors of attendance, levels of acceptance, audience, etc.;
- Discover and compute : indirect measurements based on the perception of the population.
- Perform complex searches on all DB with special care on: channel, search, user, mentions, hashtasgs, geographic, language, Tweet/ ReTweet, date and time, etc. etc.

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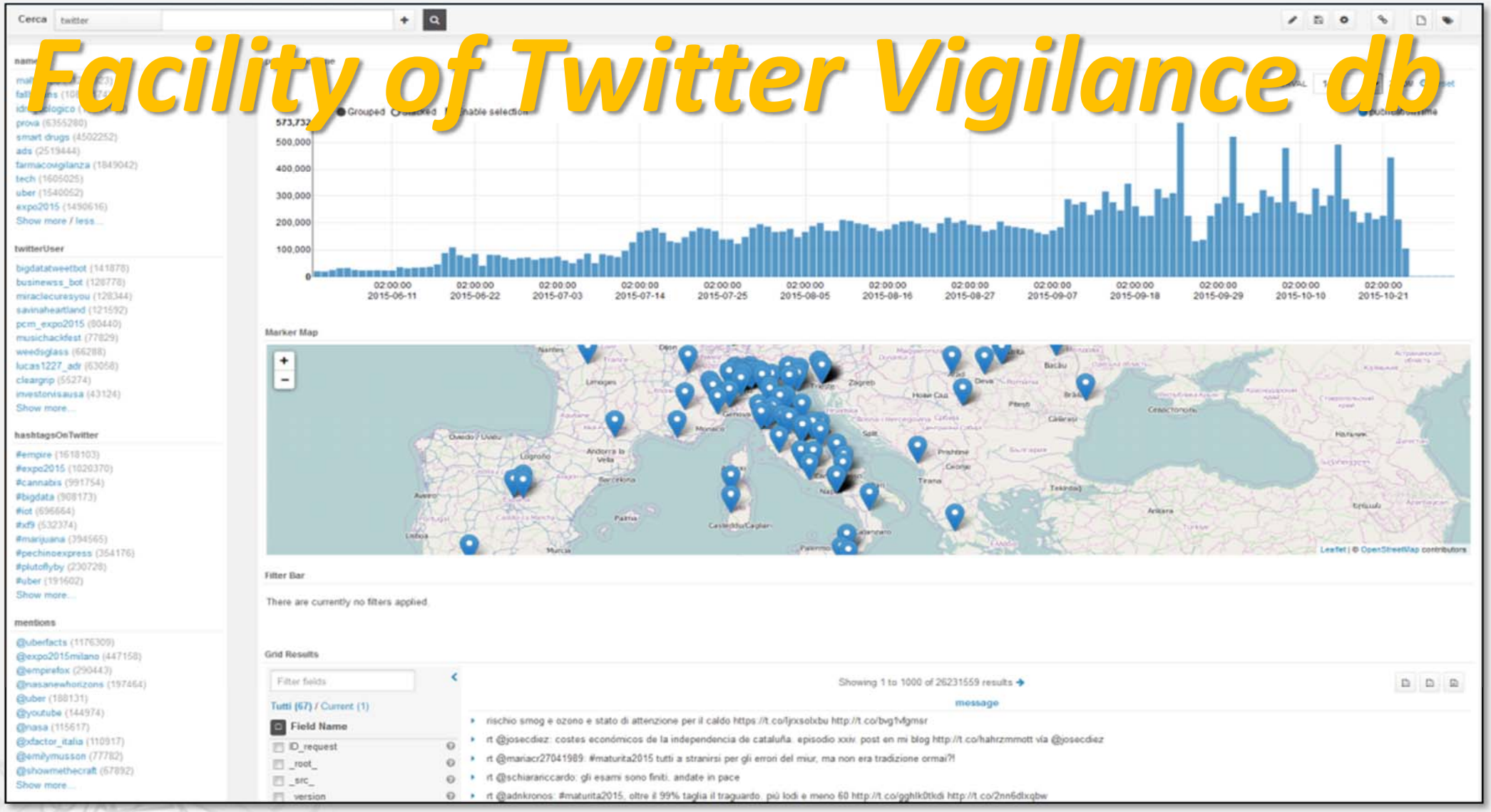
Full text and Faceted Search Facility of Twitter Vigilance db

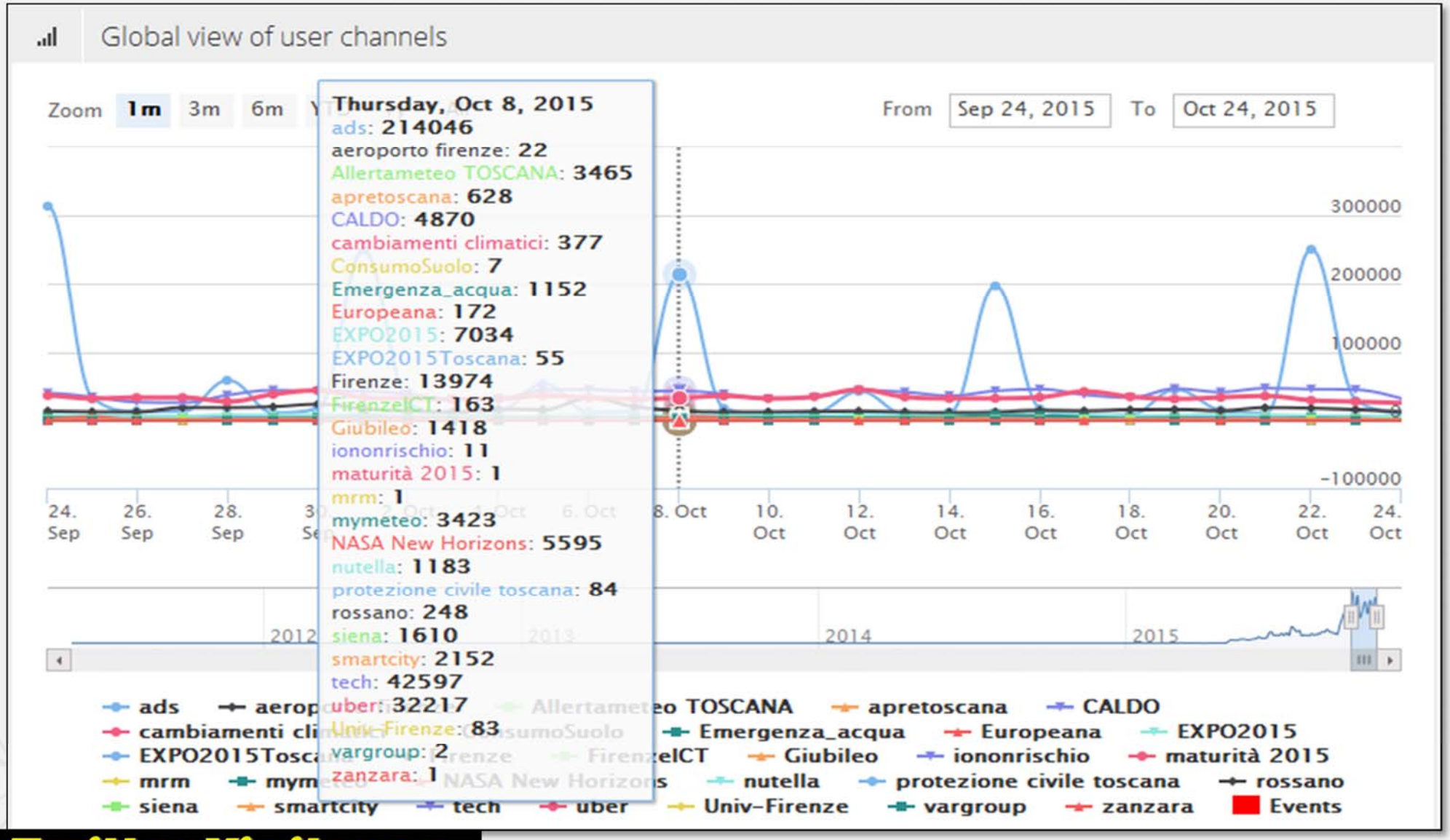


Twitter Vigilance

Example of TwitterVigilance channels

- **http://www.disit.org/tv public channel results**
- **Esempi di Canali:** EXPO 2015, CNR EXPO2015, Firenze, ApreToscana, ConsumoSuolo, meteo, farmaco vigilanza, laudatesi, la maturità, ECLAP ed Europeana, allerta meteo toscana, protezione civile, advertising, etc.
- **Aree tematiche:** politica, eventi, advertising, farmacovigilanza, meteo, smart city, ambiente, etc.

Some Public Channels



Twitter Vigilance

Twitter Vigilance simple analysis

- distinct for Tweet and Retweet (T / RT) to characterize the communication event;
- citations of other users to understand what are the influencers, the pusher, the emerging, etc.;
- hashtags to understand which are the most used or emerging, or the answer to those used;
- keywords, verbs, and adjectives to understand what are the most used, the emerging, or the answer to those used;
- positive/negative impact, sentiment analysis .

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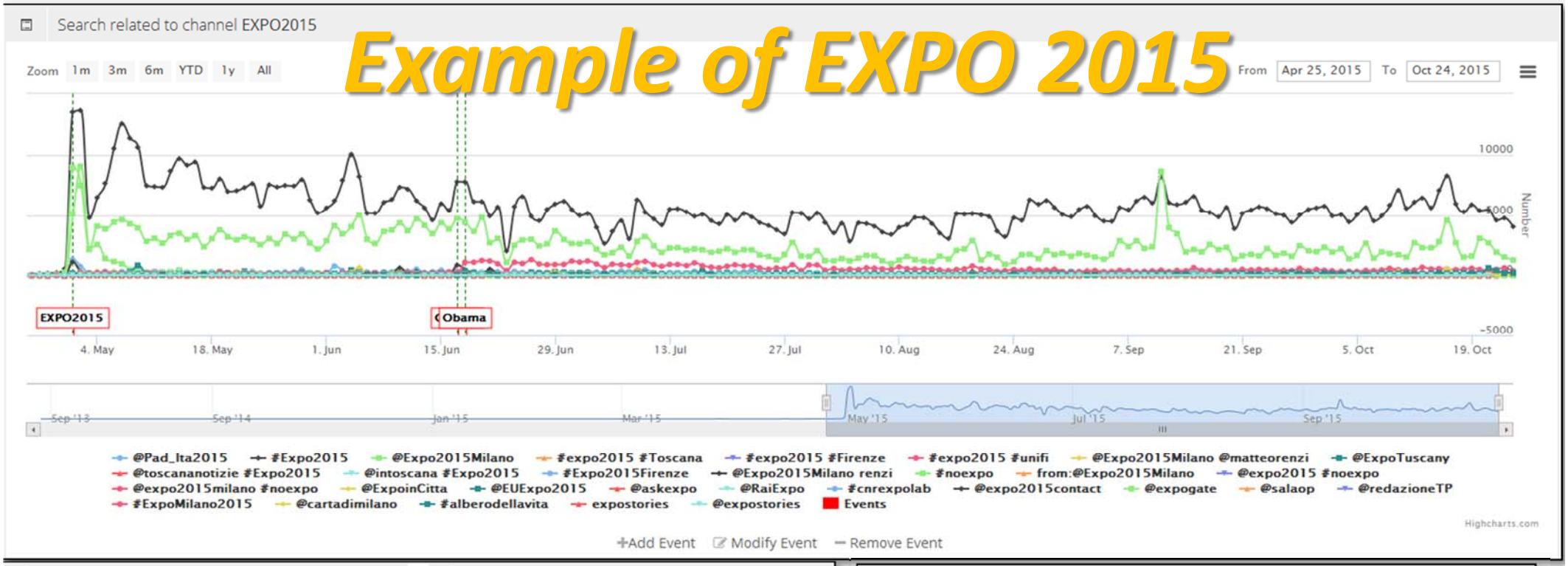
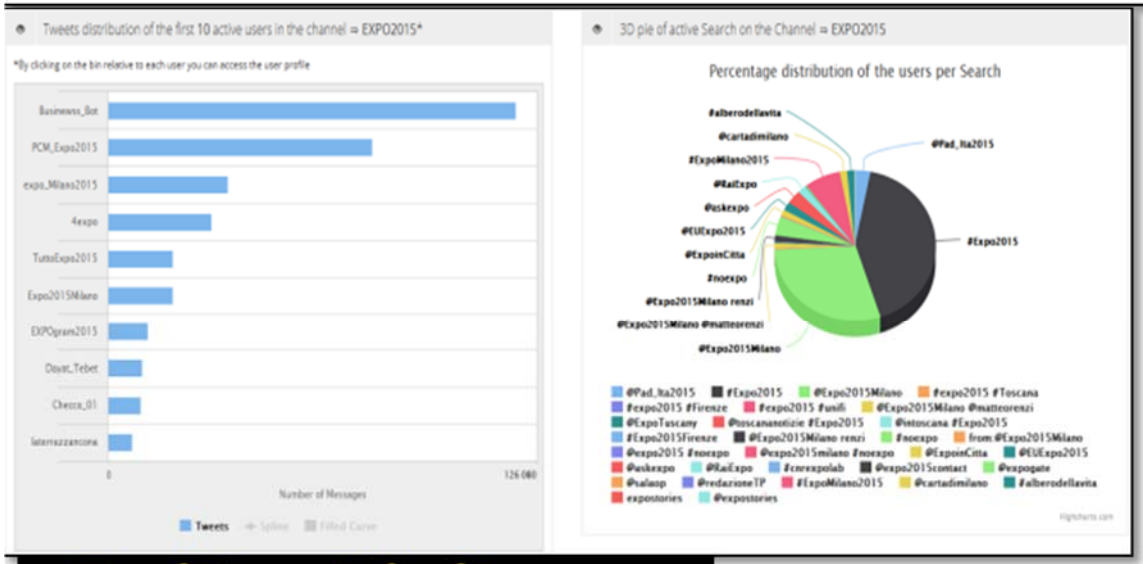
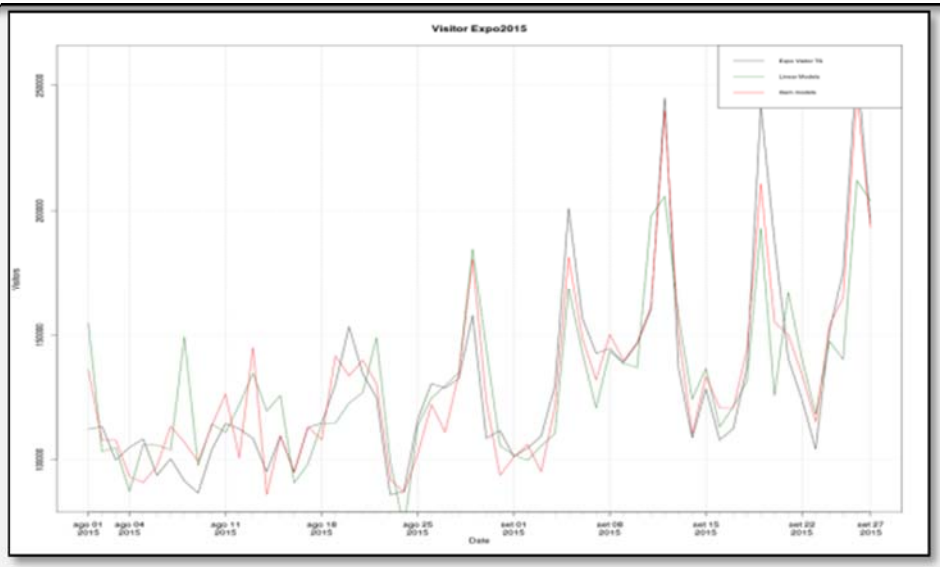
Example of EXPO 2015



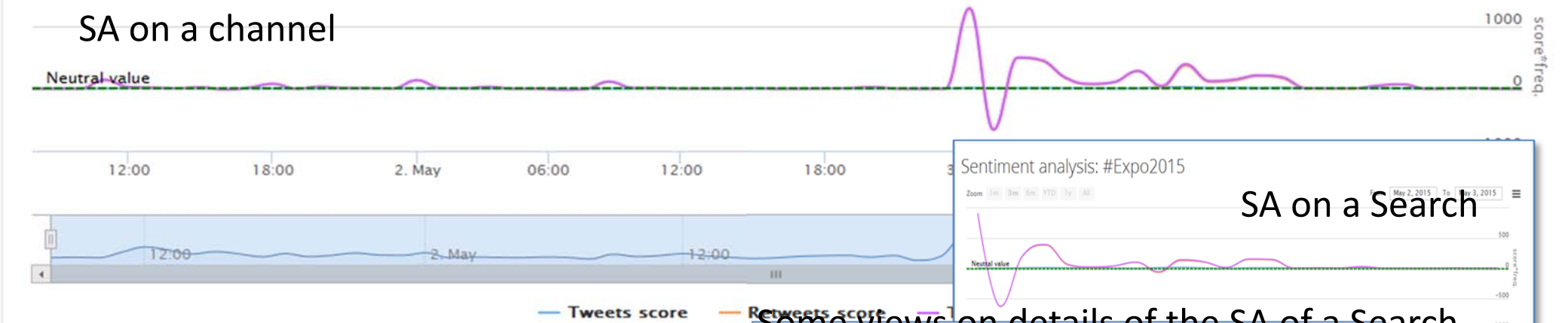




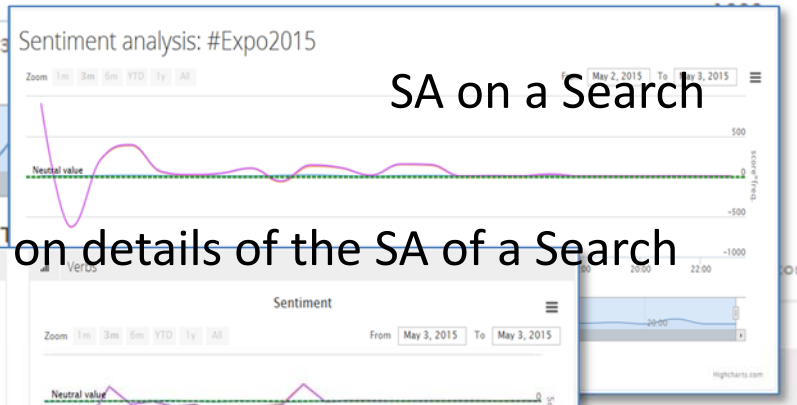
Twitter Vigilance

NLP Sentiment Analysis (early results)

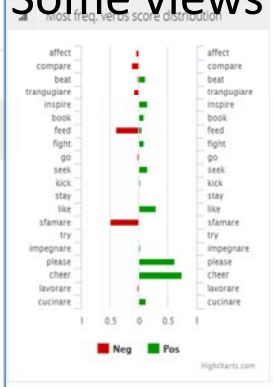
SA on a channel

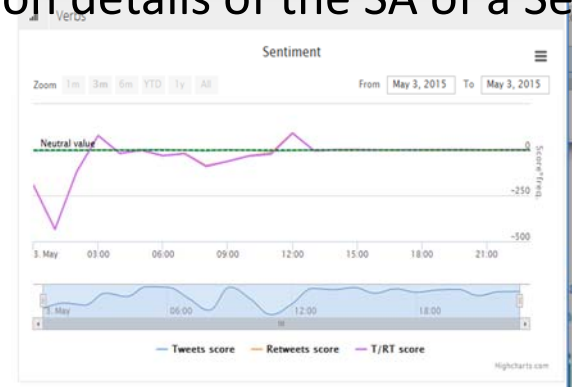


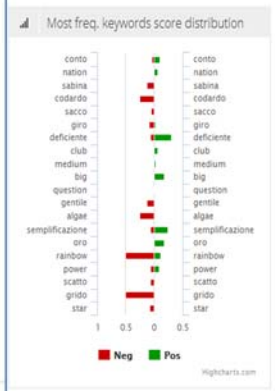
SA on a Search



Some Views on details of the SA of a Search







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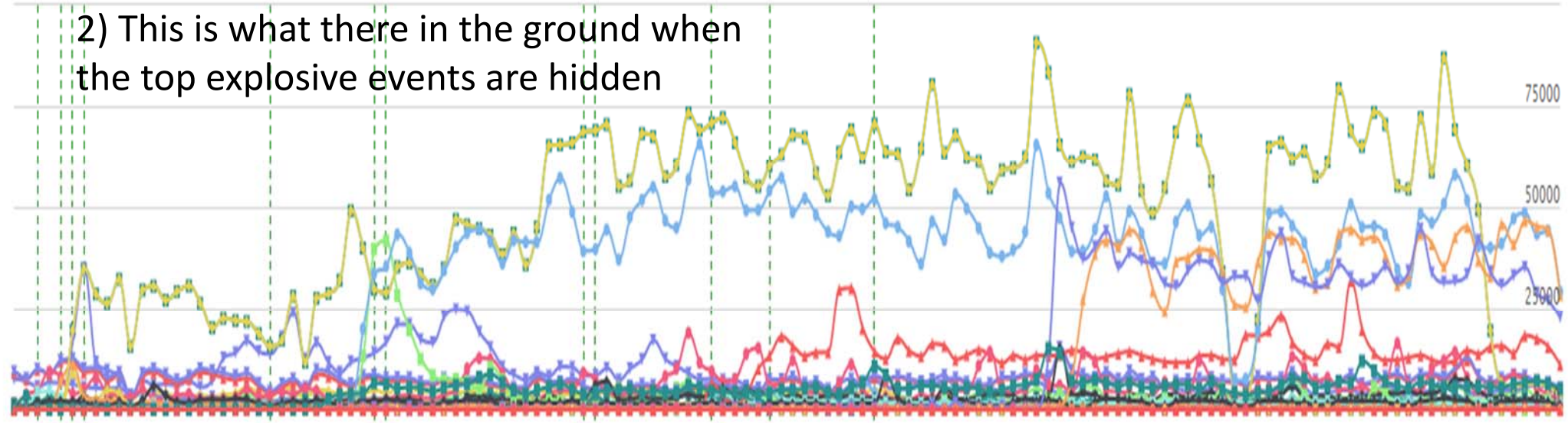
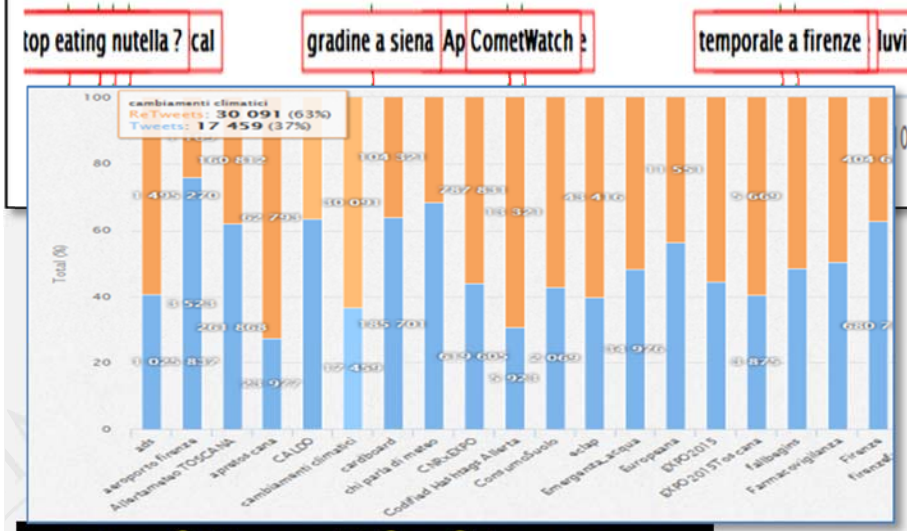
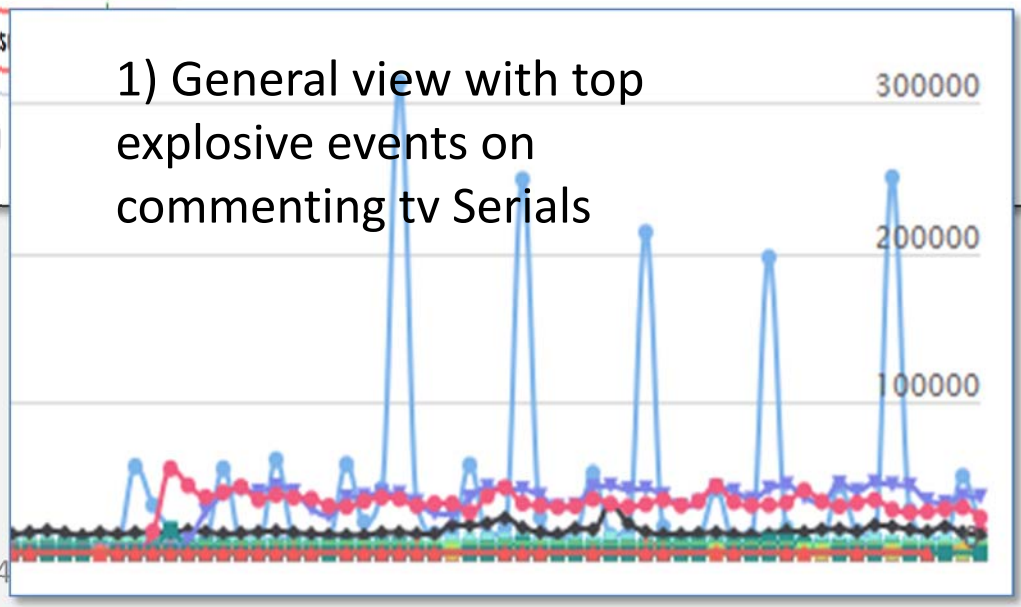
All Channels (private information)

2) This is what there in the ground when the top explosive events are hidden





1) General view with top explosive events on commenting tv Serials



Twitter Vigilance

Support for the Advance users

- Programming channels and searches
- Adding annotations to channel timeline
- Printing graphics in different formats
- REST API for accessing to data with queries
- Possibility of loading processes to be executed in the back office as ETL, R, Jav a, etc.
  - They can access to data via rest API and Solr API
  - Parallel architecture and Hadoop with NLP (Gate-DISIT) support for massive and large processing
- …..

http://www.disit.org/smartcitybigdata2015

13 Novembre 2015, Scuola di Ingegneria, Via S. Marta 3, Firenze

- **Progetti e strumenti/risultati**: km4city, matchmaking, RESOLUTE, REPLICATE, LOG.DISIT.ORG, Twitter Vigilance, Collabora, ApreToscana, Sii-Mobility, …
- **Presentazioni, Dimostrazioni** e info-desk
- **Master** Big Data Analytics for Business, MABIDA