

PHEME

Computing Veracity Across Media, Languages, and Social Networks

- **Memes** are thematic motifs that spread through social media in ways analogous to genetic traits
- We coined the term **phemes** to add truthfulness and deception to the mix

Social Media is Rife with Phemes



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How riot rumours spread on Tw... +

www.guardian.co.uk/uk/interactive/2011/dec/07/london-riots-twitter

See all rumours rumour is false London Eye set on fire

PLAY 1 2 3 4 5 << >>

400
0
Tweets/hour

9th August 01:07

How the rumour unfolded

Shortly after 1am on Tuesday, August 9, @zadi0 posts a link to an image of the London Eye apparently ablaze with the heartfelt message: 'Oh my God! This can't be happening!' The tweet is quickly picked up.

“

Oh my god! This can't be happening at London Eye! #Londonriots #Londonriot #Prayforlondon <http://twitpic.com/6372vo>

@zadi0, 18 followers

Tue 9 Aug 01:07

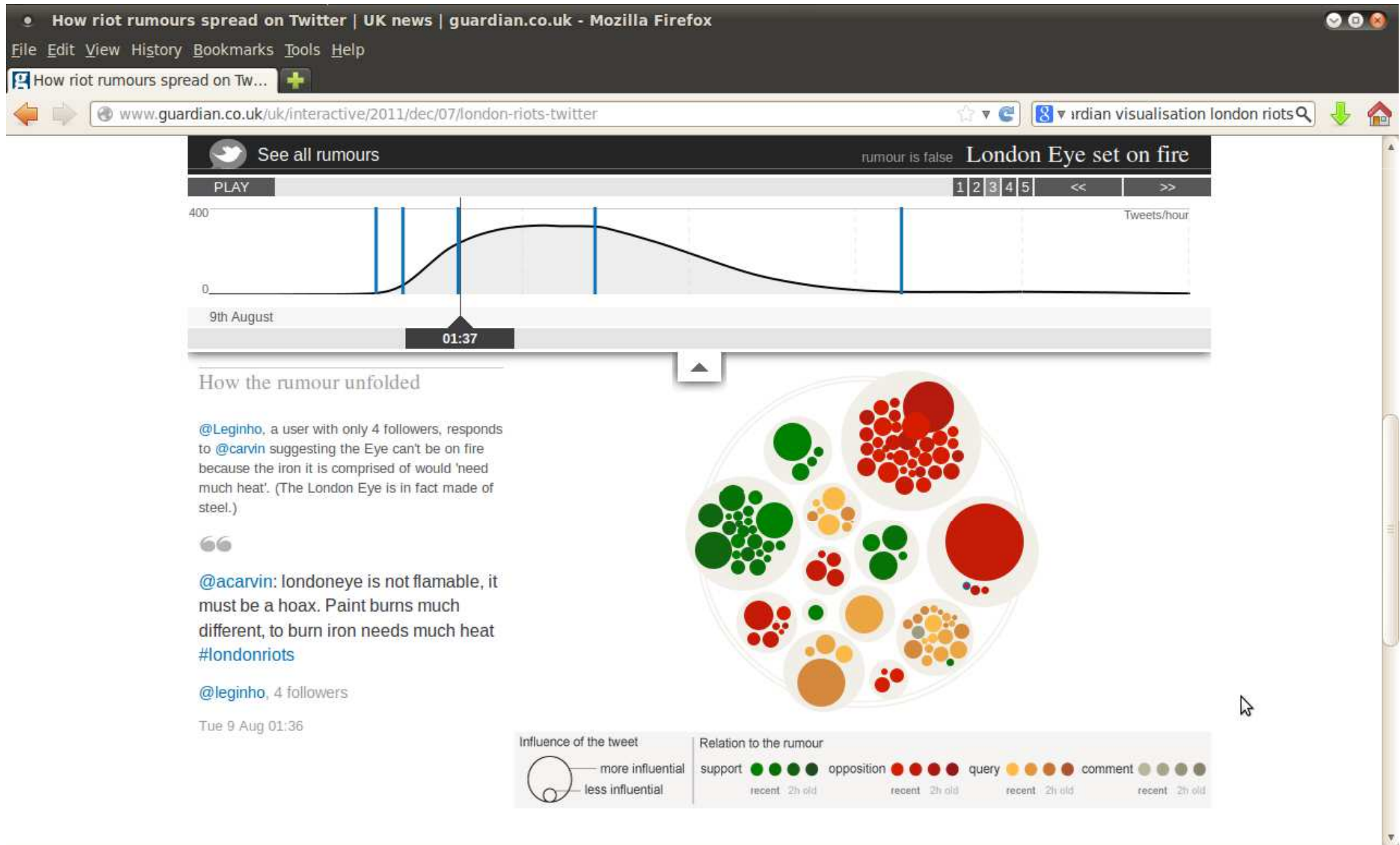
Influence of the tweet

more influential
less influential

Relation to the rumour

support recent 2h old opposition recent 2h old query recent 2h old comment recent 2h old

Social Media is Rife with Phemes (2)



- Rumours are challenging
 - Some rumours could take days, weeks or even months to die out
 - Ill-meaning humans can currently outsmart computers (and humans) and appear genuine



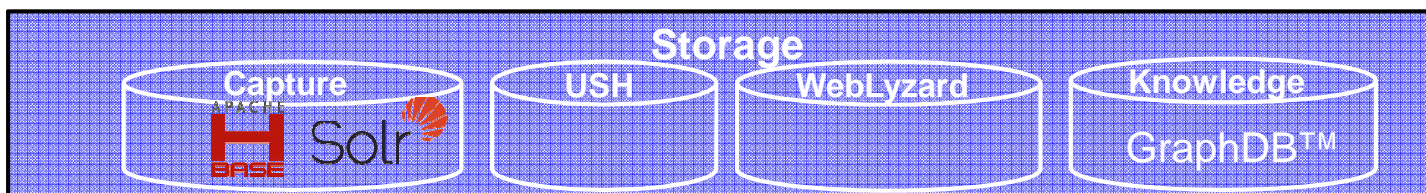
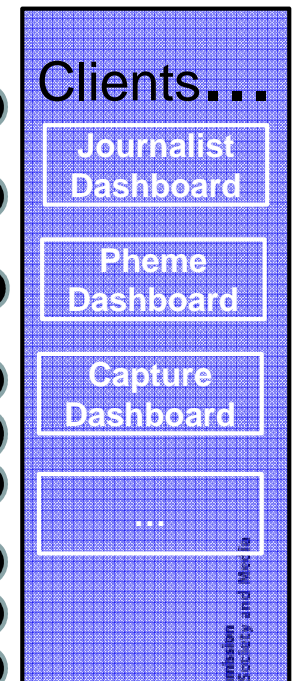
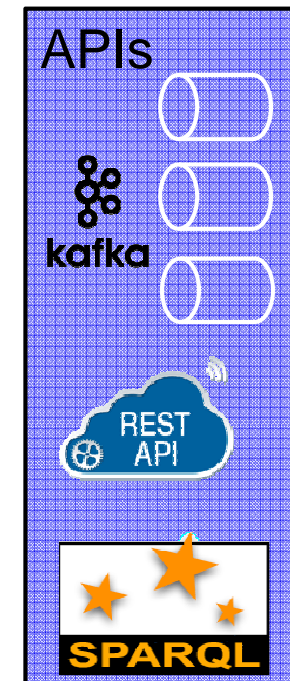
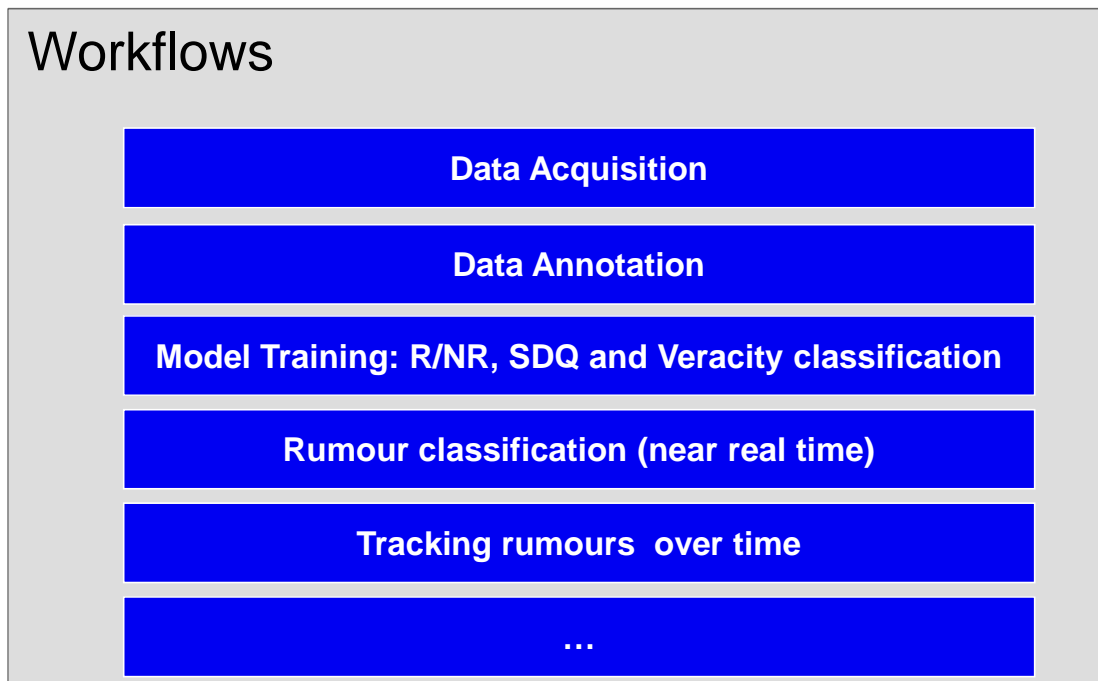
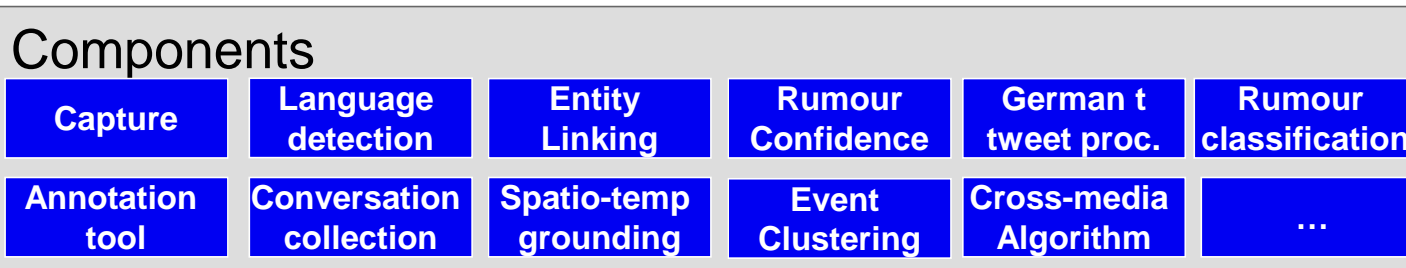
WE ARE INVESTIGATING...



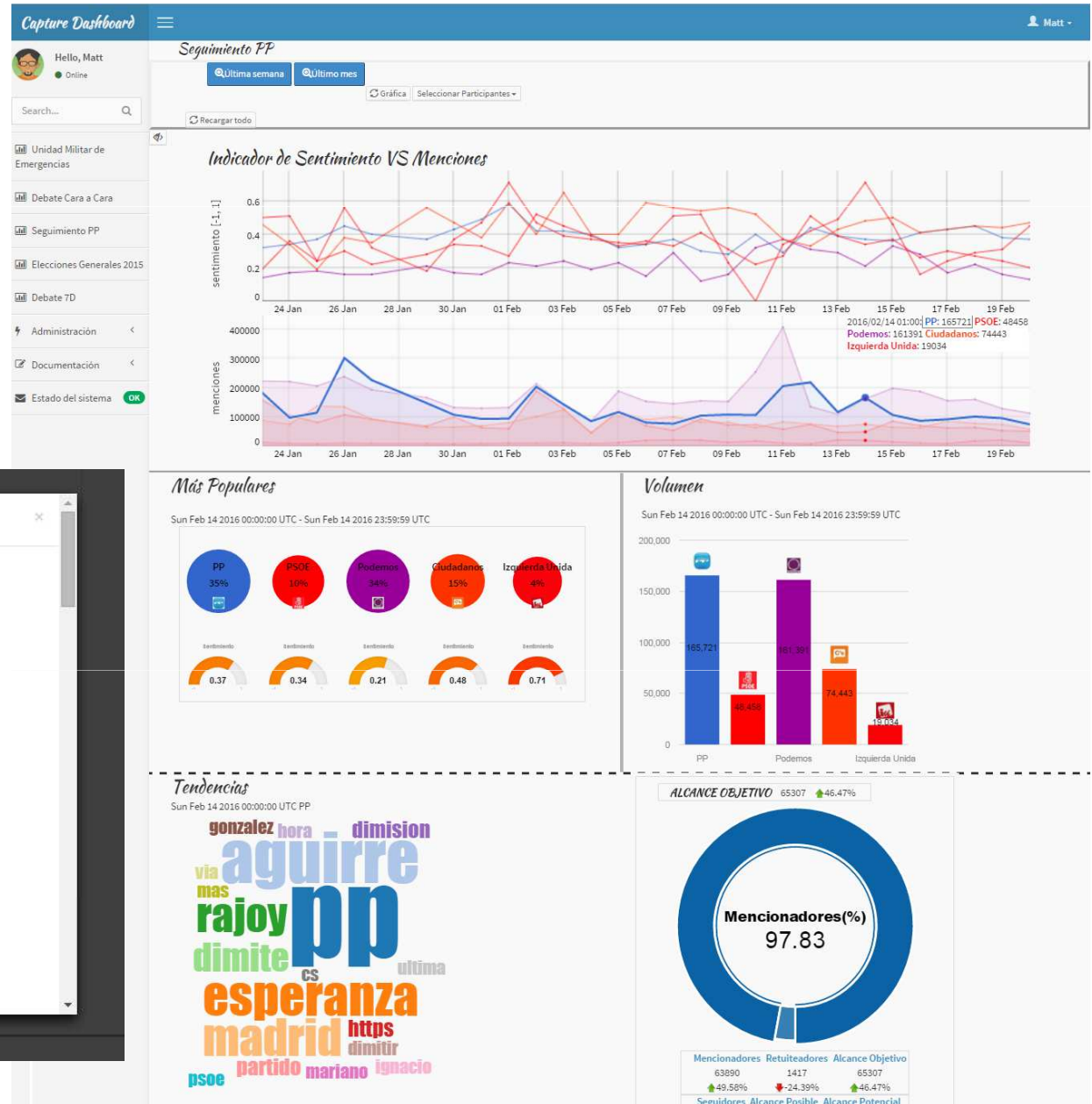
- Ontologies for modelling phemes
- Use a priori knowledge (LOD) and reasoning to detect contradictions
- Model pheme spread across media, social networks, and time
- Pheme visualisation: media maps, impact maps, geographical maps



Overview of components and processes



ATOS - Capture



Conversaciones

@PPopular
Esperamos que el PSOE lleve esta tarde a la reunión una propuesta para condenar el régimen totalitario de Maduro @pablocasado_

@ju1_
En Venezuela se puede elegir al jefe del Estado. En España NO. Lavaos vuestra boca corrupta al hablar de Venezuela @PPopular @pablocasado_

@ju1_
TOTALITARIOS son los sanguinarios y financiadores de terroristas con los que tenéis alianza @PPopular @pablocasado_ https://t.co/ik2zQNGqI8

@HANKVEGA
@_ju1_ @PPopular @pablocasado_ Zas en toda la boca ...

@Beit88
@_ju1_ @PPopular @pablocasado_ vergüenza me daría reprob a los demás perteneciendo al partido más corrupto de España.....

@ju1_
¿Régimen totalitario? No tenéis vergüenza, apoyando la amnistía venezolana que indulta a gente que fabricó BOMBAS @PPopular @pablocasado_

@ju1_
En un régimen totalitario no estaría gobernando la oposición en la Asamblea Nacional. Sería como

Alcance Potencial: Suma de los seguidores y el alcance posible.

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