



Citation for published version:

Tonkin, E & Pfeiffer, H 2011, 'Information sharing by a participating group presence: Evidence from the London riots', Paper presented at ASIS&T SIG-KM Workshop 2011, New Orleans, USA United States, 9/10/11 - 12/10/11.

Publication date:
2011

[Link to publication](#)

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Information Sharing by a Participating Group Presence

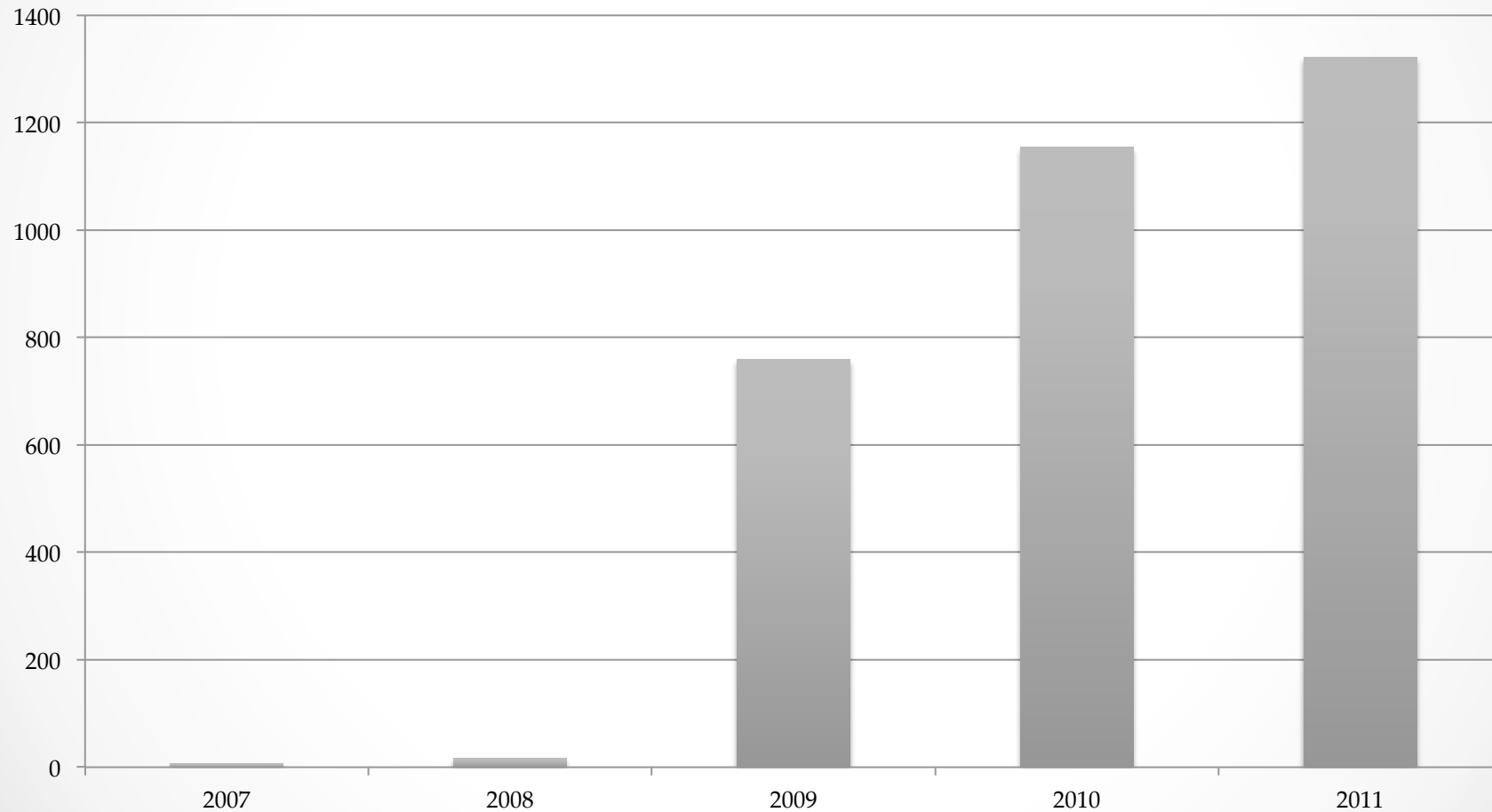
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&
Dr. Heather D. Pfeiffer



Twitter as resource

- Human-readable information source
- Sentiment analysis
 - Opinion mining
 - Gathering opinions for business/politics
 - Establishing popularity of proposals etc (Pak & Paroubek, 2010).
- Natural language processing
 - Entity extraction (place names, peoples' names, and so forth)
 - Extracting information from twitter streams for purposes such as monitoring communications during times of mass emergency (Corvey et al, 2010)
- More general purposes:
 - Classifying user's twitter streams by subject (recommendation, profiling, dynamic 'lists') (Bush et al 2010)

Media profile of Twitter: mentions on the BBC



Challenges

- Enforced brevity of messages and the informal and specialised language reduces the efficacy of established approaches such as part-of-speech tagging and sentiment lexicons (Kouloumpis, Wilson & Moore, 2011).
- Message content may be subjective or objective, informational or opinionated; Barbosa & Feng (2010) find that the most prolific tweeters tend to be objective
- Many prolific tweeters are advertising a product or service (ibid)



Influence and volition

“Looking at tweets, do they influence individuals toward new concepts or do they represent confirmation of existing beliefs?”

- Retweet as performance
- Or sign of being convinced?
- Performing on the #hashtag stage
- Elective filtering



England Riots (2011)

- 6-10 August 2011
- Began in Tottenham following fatal shooting
- Spread through London
- Then to Birmingham, Nottingham, Leicester, Wolverhampton, Liverpool, Manchester, Bristol... and so forth...
- 3,443 crimes across London
- Over 1,000 people charged



Reactions

- Vigilante groups
 - The curious case of the Millwall supporters
- Volunteers offer to clean up the damage
 - Broom Army, Riot Wombles, etc.
- Volunteers bring food, drinks to the police
- The 'Stay out of trouble' message
 - Operation Cup of Tea...
- Campaigns set up to help individuals
 - Ashraf Haziq, Aaron Biber, Siva Kandiah



Twitter under suspicion

MailOnline

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Did rock-throwing teenage girl's 'beating' by police spark London riots? Pictures that show how Tottenham turned into a war zone

- Violence breaks out in Enfield with around 200 youths smashing windows and attacking cars
- Twenty-six police officers hurt in Tottenham clashes, with eight treated in hospital
- IPCC says 'non-police' firearm found at scene of Mark Duggan's death
- Number of arrests rises to 55, 51 last night and four today
- Tottenham MP David Lammy appeals for calm and warns that there may be fatalities
- Mob of 500 people protest about death of father-of-four Mark Duggan who was shot by officers
- Fears that violence was fanned by Twitter as picture of burning police car was re-tweeted more than 100 times

David Cameron attacks Twitter "twats"



[Gallery](#)

By Barry Collins

Posted on 29 Jul 2009 at 12:11

Conservative leader David Cameron has launched a lewd attack on micro-blogging service Twitter.

0

[Digg ↑](#)

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Appearing on Absolute Radio, the Tory leader was asked by presenter Christian O'Connell whether he used Twitter.

"Politicians do have to think about what we say," Cameron said, seemingly without irony. "The trouble with Twitter, the instantness of it - too many twits might make a twat."



@samlarsen1

Sam Larsen

**#tweetalooter - catch the looters:
<http://bit.ly/odu139> @metpoliceuk #riot
#londonriots**

9 Aug via TweetDeck ☆ Favorite ↻ Retweet ↩ Reply

Mentioned in this Tweet



metpoliceuk Metropolitan Police ✓ · Follow

Updates from London's Metropolitan Police Service. Find out how to contact us at <http://bit.ly/MPScontact>. In emergencies always call 999.

LET'S DO SOMETHING NICE FOR ASHRAF HAZIQ (+OTHERS)

ASHRAF HAZIQ IS THE LAD WHO WAS ROBBED AS HE LAY BLEEDING IN THE STREET DURING THE LONDON RIOTS. IT WAS A SHAMEFUL WAY FOR A GUEST IN OUR COUNTRY TO BE TREATED AND THE INCIDENT PROJECTED A PRETTY CRAP IMAGE OF THE UK AROUND THE WORLD. THOUSANDS AND THOUSANDS OF PEOPLE FROM ACROSS THE UK AND AROUND THE WORLD USED THIS SITE TO DONATE MONEY SO THAT SOMETHING NICE COULD BE DONE FOR ASHRAF.

THE FINAL FIGURE RAISED WAS 23,221

WELL DONE EVERYBODY.

@JAMIECOWEN

@ESWILKIES

#SOMETHINGNICEFORASHRAF

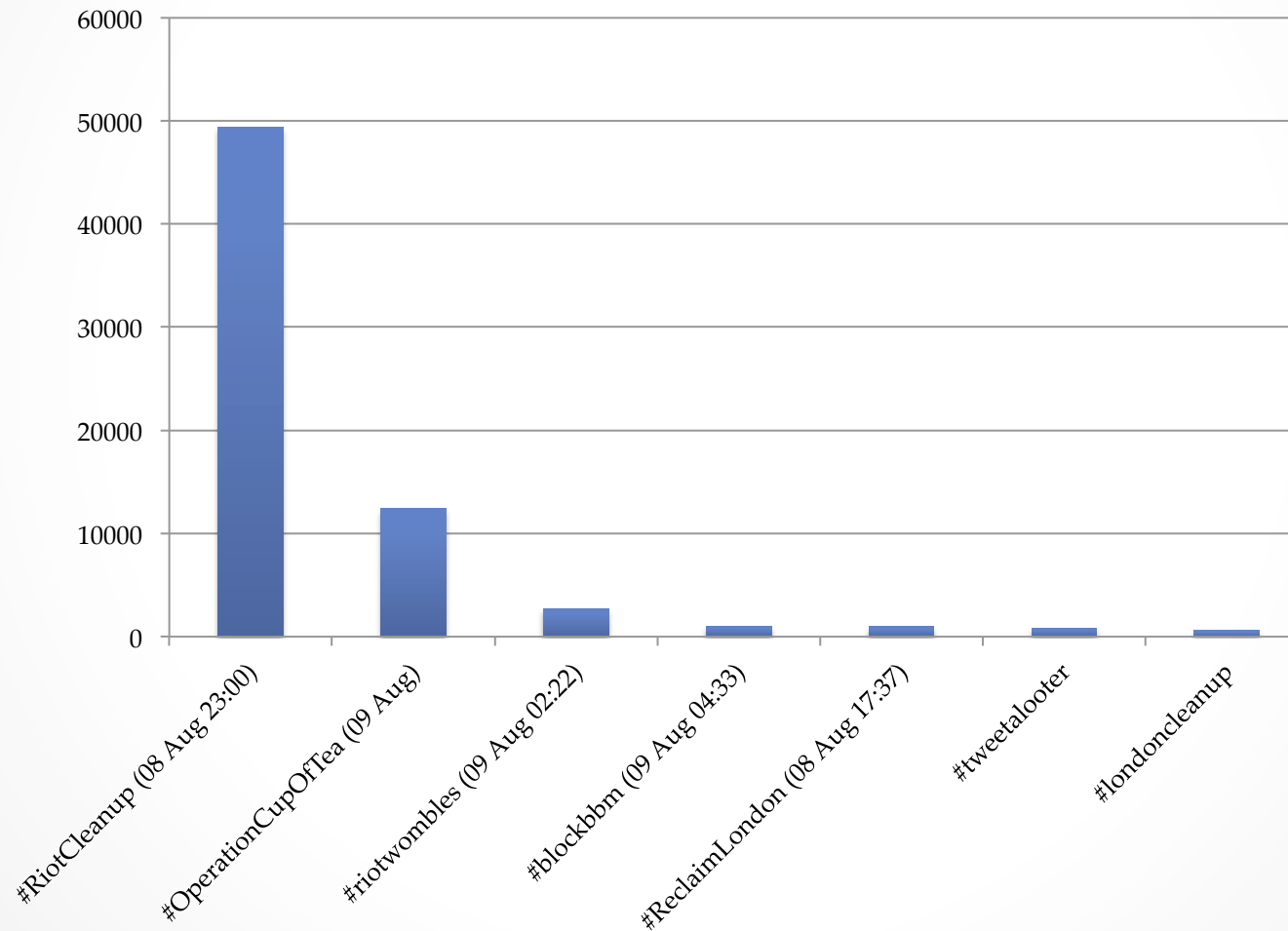
Methodology

- Dataset:
 - 450,000 tweets from #londonriots and #riotcleanup
- Data processed using:
 - POS tagger
 - Link analyser (processing short URLs to identify target)

But data shows...



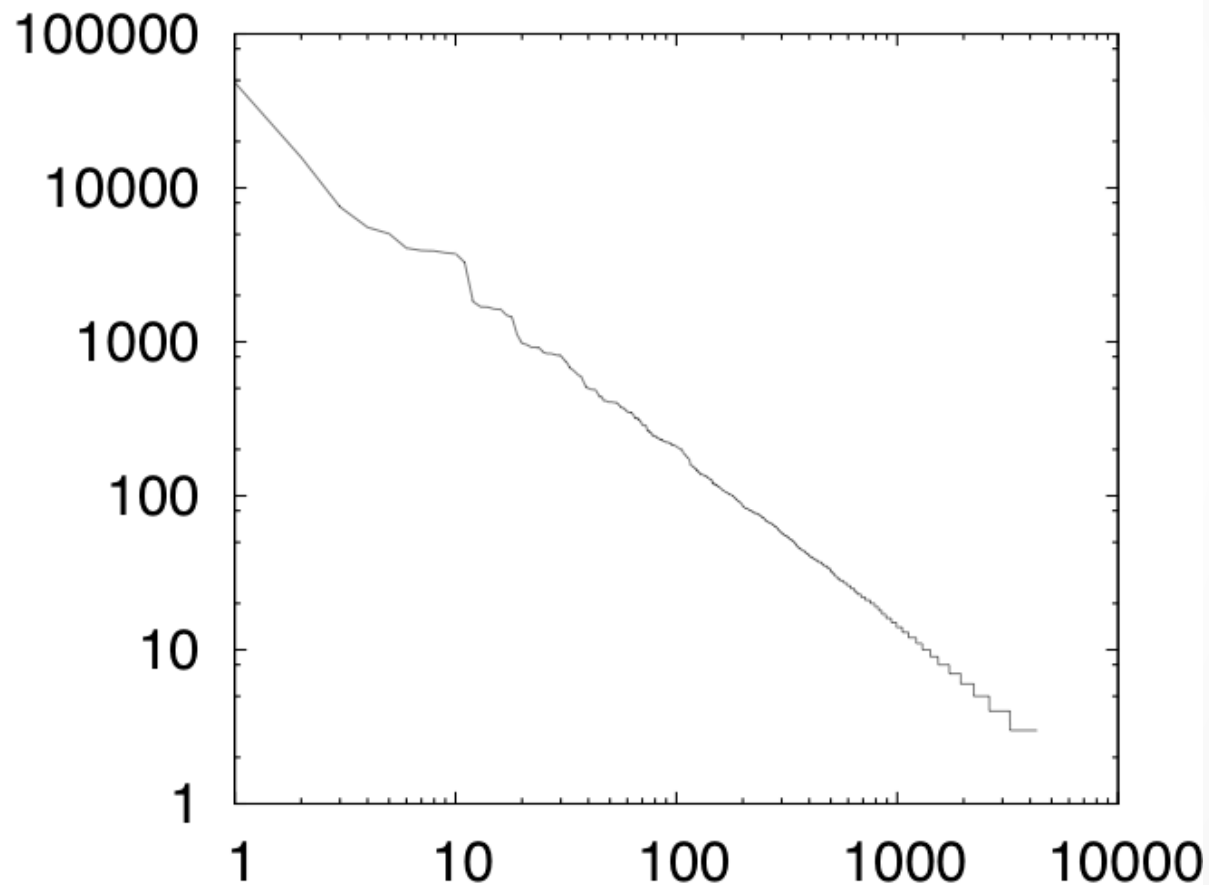
Graph Representation of Tweet Data



How is a hashtag born? Riot cleanup example

| | |
|-------|--------------------|
| 49400 | #RiotCleanup |
| 12400 | #OperationCupOfTea |
| 2700 | #riotwombles |
| 1040 | #blockbbm |
| 987 | #ReclaimLondon |
| 825 | #tweetalooter |
| 594 | #londoncleanup |
| | ... |
| 1 | #broomsnotbombs |

Hashtags associated with '#londonriots'



The hashtag popularity contest

- Profile of user?
- Evidence from retweets
- Exploring top individual unaltered retweets



| | | | |
|--|------------------|--|--------------------|
| RT @piersmorgan: Love this picture, these people are the REAL Great Britain: http://t.co/6E3VGje #riotcleanup @Lawcol888 | 1piersmorgan | CNN (replaced Larry King, previously journalism [Sun]) | Followers: 1325535 |
| RT @policeuk: Please RT to get @UK_blackberry to shut down #BBM till riots end #BlockBBM let's get it trending #LondonRiots | 2policeuk | Crime Journalist Musician (Hammersmith and Fulham) | 1322 |
| RT @example: If we don't kill ourselves we'll be the leaders of a messed up generation... #londonriots | 3example | | 457621 |
| RT @sampepper: Everyone tweet @BBCNews and tell them to 'check out #OperationCupOfTea our solution to the #londonriots http://t.co/1bf0 | 4sampepper | Big Brother 2010 contestant | 222645 |
| RT @simonpegg: Visit www.riotcleanup.co.uk for info on how and where to help if you can. #riotcleanup | 5simonpegg | actor, writer | 1534598 |
| RT @BrianMcHarg: Honest, I bought 40 iPhone 4s for friends and family and they just don't want them http://t.co/zhqSrJd #londonriots | 6BrianMcHarg | technical director @ Chunk Digital/ Games | 233 |
| RT @buttonsmagoolio: LOL SPREAD IT AND GET HER CAUGHT #londonriots http://t.co/VOnZzXY | 7buttonsmagoolio | Youth | 89 |
| RT @ProfBrianCox: My faith in humanity is not misplaced ! RT @Lawcol888: We're ready http://yfrog.com/kj5oewjâ€ #riotcleanup | 8ProfBrianCox | Professor, tv presenter, former pop star | 418430 |
| RT @GregStarz: Millwall fans protecting Eltham Highstreet, you might hate them but tonight you'll love them. (see picture) #londonriots | 9GregStarz | website designer | 851 |
| RT @arthurascii: Last night we needed batman. This morning we need The Wombles. #londonriots #riotcleanup | 10arthurascii | senseWorldwide director (Soho) | 497 |

Conclusions

- The profile of Twitter as a source for the 'traditional' media has grown significantly since 2008
- People support, retweet, tweets that support their beliefs
- Tweets that are off topic die on their own
- Tweets, hashtag definitions that are made/ supported by popular or news worthy people are more broadly promoted, in general, than non-"notable" people
- Yet there is little evidence for the use of Twitter to organise *large-scale* malicious activity (compare: trolls, rioters)

