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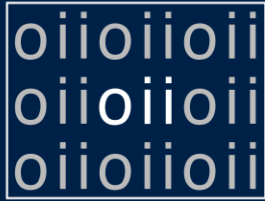


# Citizens, Governments and Information in a Changing Digital World

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March 26, 2015



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## Structure

1. A Changing Digital World
2. Understanding Digital Society with Large-scale Data
3. The Tools of Public Policy and the Race for Nodality
4. Designing Essentially Digital Governance

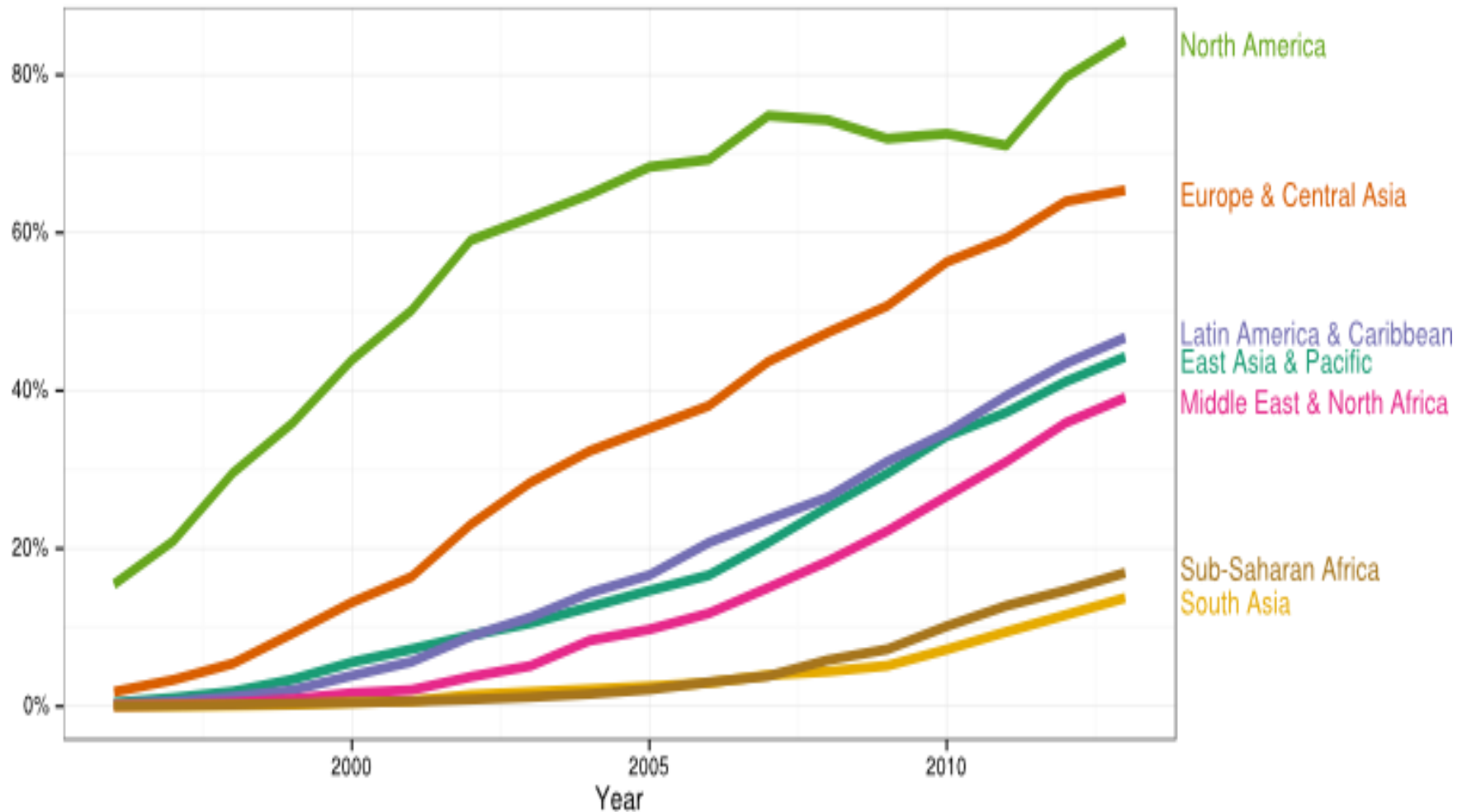
March 26, 2015

*Widespread use of the internet and social media is changing society, politics, the economy – people's lives are intertwined with digital technologies and connections*

# **A changing (digital) world**

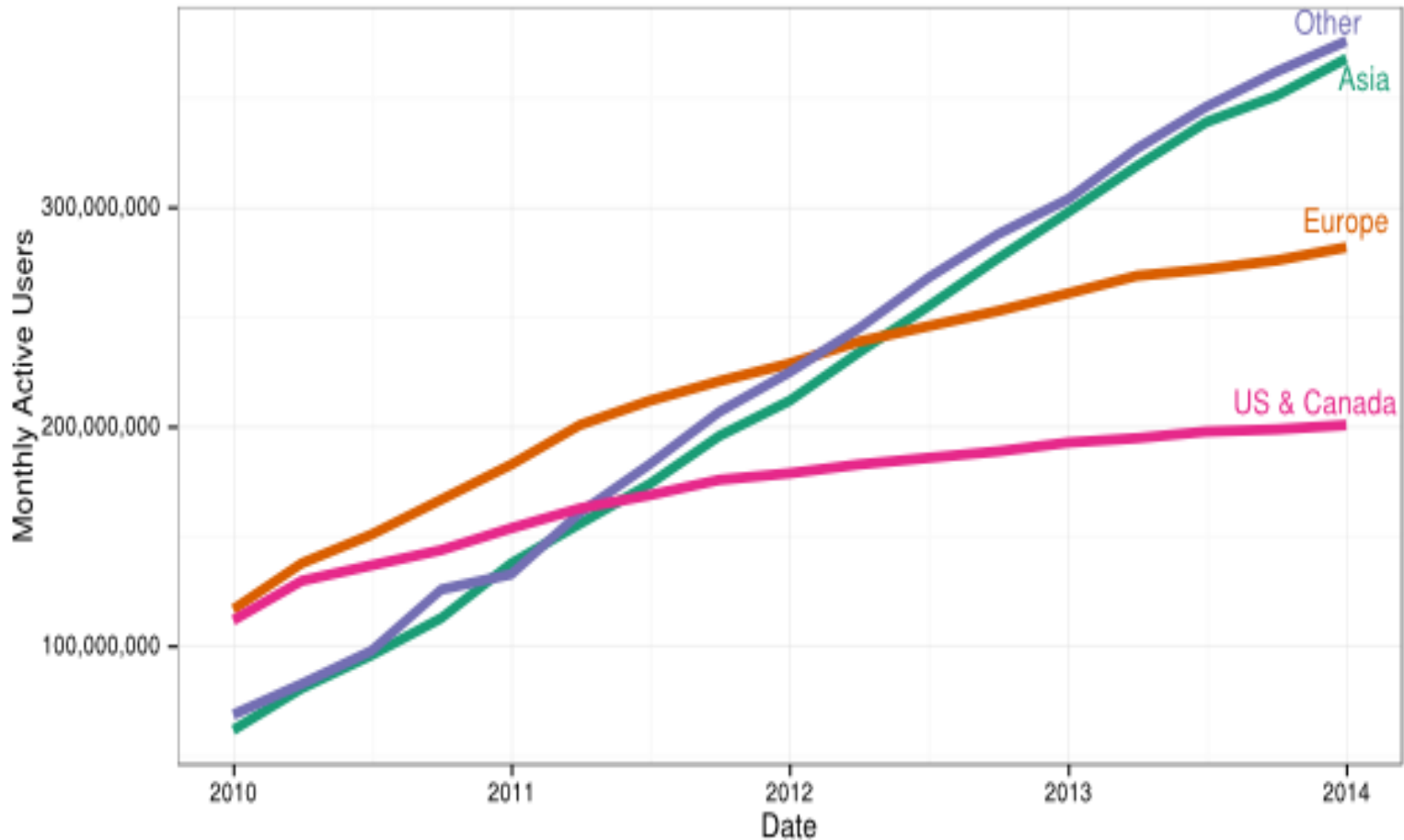
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# The growth of online populations



World Bank data

# Facebook users across the world



Source: Facebook annual reports

# Social media allow micro-donations of time and effort to social and political causes




Search published e-petitions

## All e-petitions

| Open    | Closed   | Rejected |
|---------|----------|----------|
| (5,718) | (18,273) | (20,955) |

Listed below are any e-petitions that can be signed.


Previous [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) ... [285](#) [286](#) Next

| e-petition name   | Signatures | Closing    |
|---|------------|------------|
| Stop mass immigration from Bulgarian and Romanians in 2014, when EU restrictions on immigration are relaxed. <a href="#">View</a>   | 152,729    | 12/11/2013 |
| Ban the sale of young puppies & kittens without their mothers being present. <a href="#">View</a>   | 63,867     | 02/05/2014 |
| We call for a Cumulative Impact Assessment of Welfare Reform, and a New Deal for sick & disabled people based on their needs, abilities and ambitions. <a href="#">View</a> | 75,369     | 12/12/2013 |
| Promote cycling by implementing the recommendations in the 'Get Britain Cycling' report. <a href="#">View</a>   | 72,048     | 23/04/2014 |
| Live Transport of Farmed Animals. <a href="#">View</a>  | 58,194     | 19/11/2013 |
| No MP Salary Increase. <a href="#">View</a>   | 49,703     | 14/01/2014 |

# Social media platforms are intertwined

 **[Name]** 1:28 PM  
Stop the badger cull PETITION please sign >>>  
[epetitions.direct.gov.uk/petitions/38257](http://epetitions.direct.gov.uk/petitions/38257) #stopthebadgercull  
Expand ↩ Reply ↻ Retweet ★ Favorite ⋮ More

 **[Name]** 1:28 PM  
Not much time left to sign the badger cull petition. Takes seconds but could mean everything #badgercull  
[submissions.epetitions.direct.gov.uk/petitions/38257](http://submissions.epetitions.direct.gov.uk/petitions/38257)  
Expand ↩ Reply ↻ Retweet ★ Favorite ⋮ More

 **[Name]** 1:28 PM  
With badger cull about to start, please help stop it. Write to your MP and sign the petition: [epetitions.direct.gov.uk/petitions/38257](http://epetitions.direct.gov.uk/petitions/38257)  
Expand ↩ Reply ↻ Retweet ★ Favorite ⋮ More



Tiny acts of participation can scale up to large mobilizations



CC-BY Jonathan Rashad,  
[https://commons.wikimedia.org/wiki/File:Tahrir\\_Square\\_-\\_February\\_9,\\_2011.png](https://commons.wikimedia.org/wiki/File:Tahrir_Square_-_February_9,_2011.png)

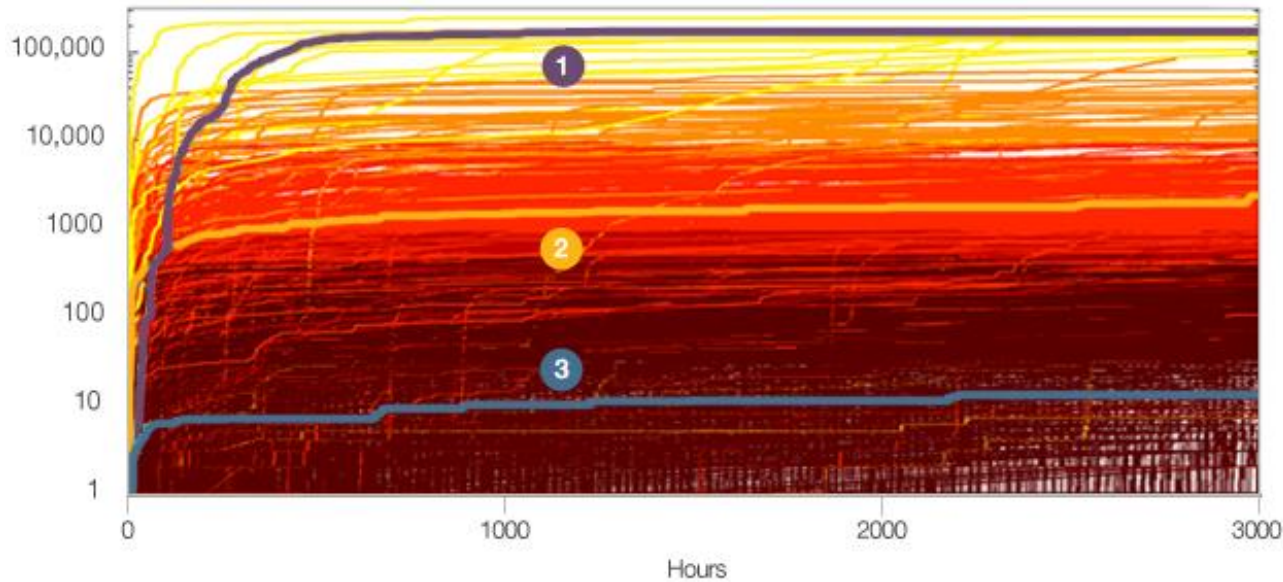


# Tiny acts of participation *can* scale up – but most mobilizations fail

## E-petitions: Swift uptake is key to success

Eventual number of signatures

500–1,000    500–1,000    1,000–10,000    10,000–100,000    More than 100,000



Example petitions, all entitled "Stop the badger cull":

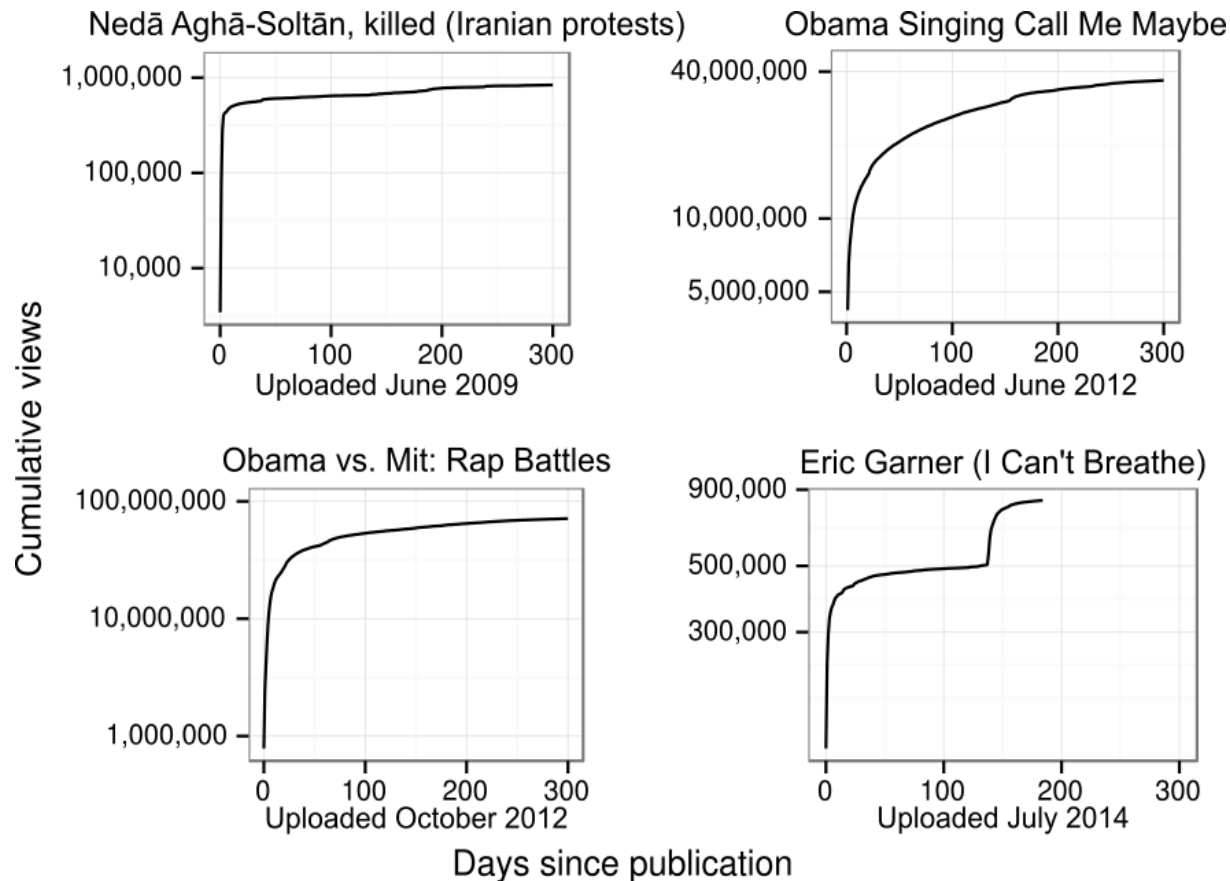
- 1 Total signatures: 294,264
- 2 Total signatures: 3,588
- 3 Total signatures: 15

Source: Oxford Internet Institute at the University of Oxford



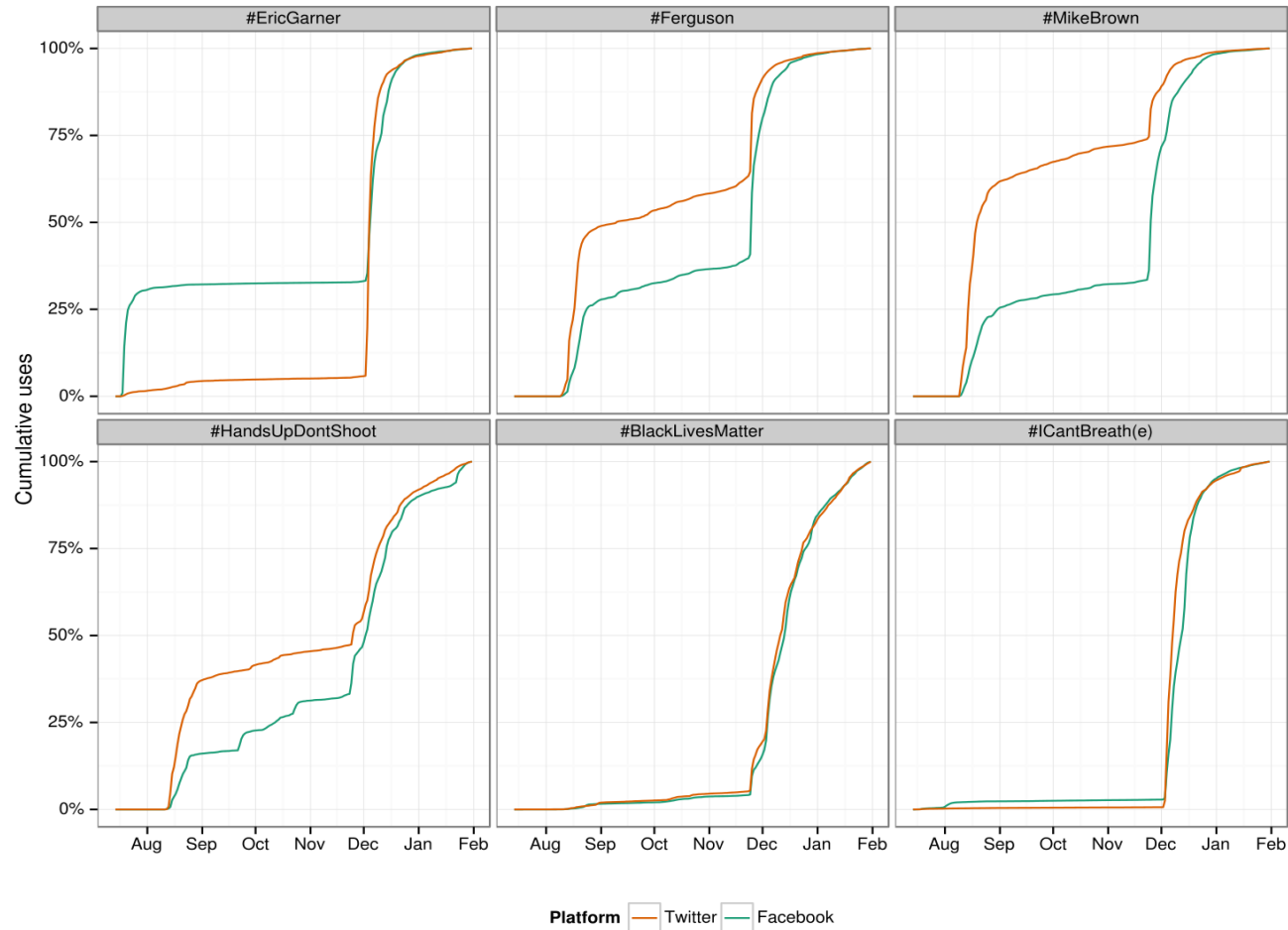
# Success (if it comes) comes quickly

## YouTube videos show similar pattern (no s-shape)



Source: Margetts et al (2015) *Political Turbulence: How Social Media Shape Collective Action*, Princeton University Press.

# Mobilizations against policing in the US



Source: Margetts et al (2015) *Political Turbulence: How Social Media Shape Collective Action*, Princeton University Press.

# Citizens and Social Media

- Citizens come across political issues in daily lives on social media
- Can make 'micro-donations' of political resources – time, effort, money
- Which scale up to mobilizations, without organizations or leaders - which form quickly, fail quickly, are unpredictable and chaotic – and often unsustainable



# Where are the leaders?



CC-BY-SA Isaac Ribeiro,  
<http://www.flickr.com/photos/isaacribeiro/9098683146>

**Digital interactions generate  
'big data' – new ways to  
understand the social world**

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# 'Big data' for public policy

- Large-scale real-time transactional data
- Bring new kinds of knowledge – 'science of society'
- Allow probabilistic policy making
- And government 'self-improvement'
- And even prediction

But

- Technologically challenging
- Raise new ethical dilemmas
- Require new multi-disciplinary working

# Overview

Right now

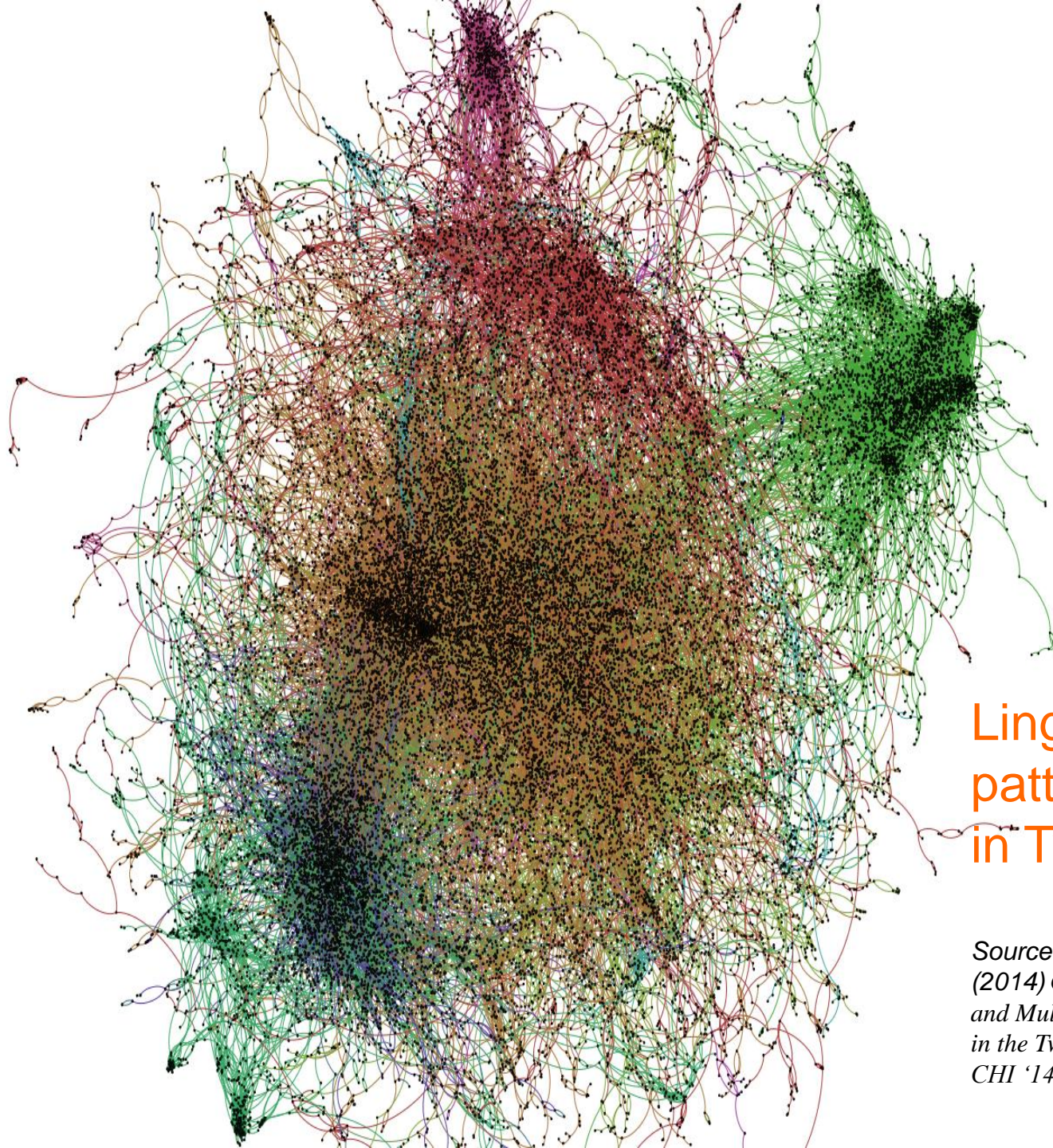
737

active visitors on site

■ NEW





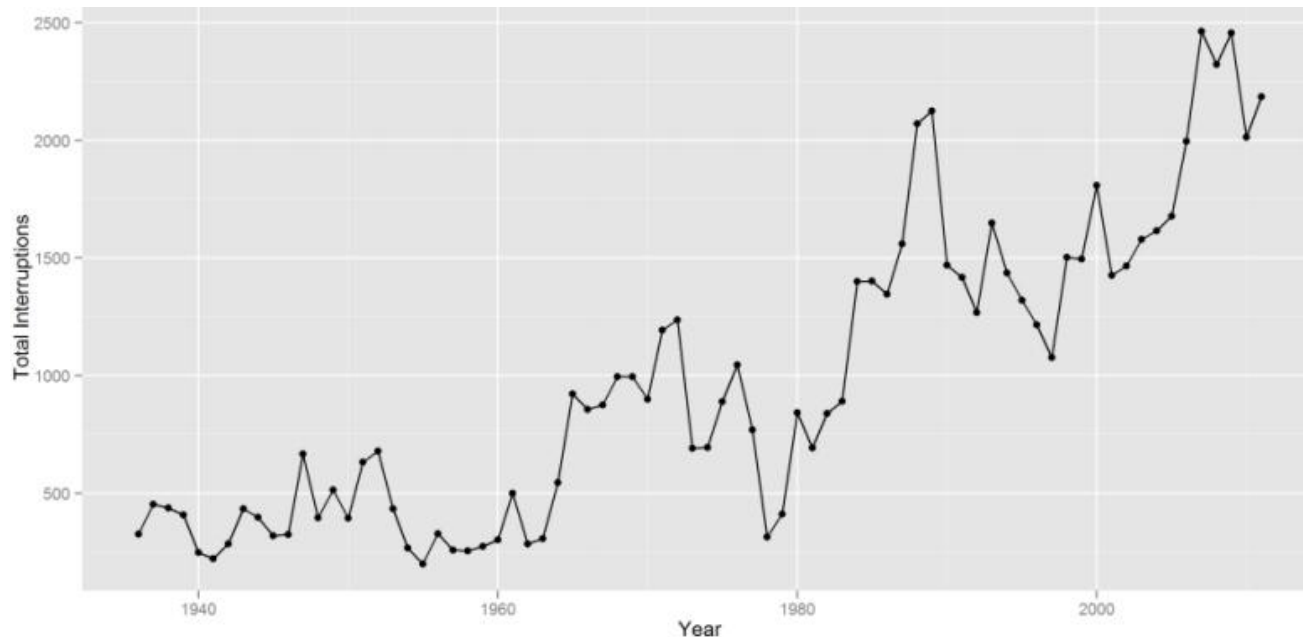


## Linguistic patterns in Twitter

*Source: Scott Hale  
(2014) Global Connectivity  
and Multilinguals  
in the Twitter Network,  
CHI '14, ACM*

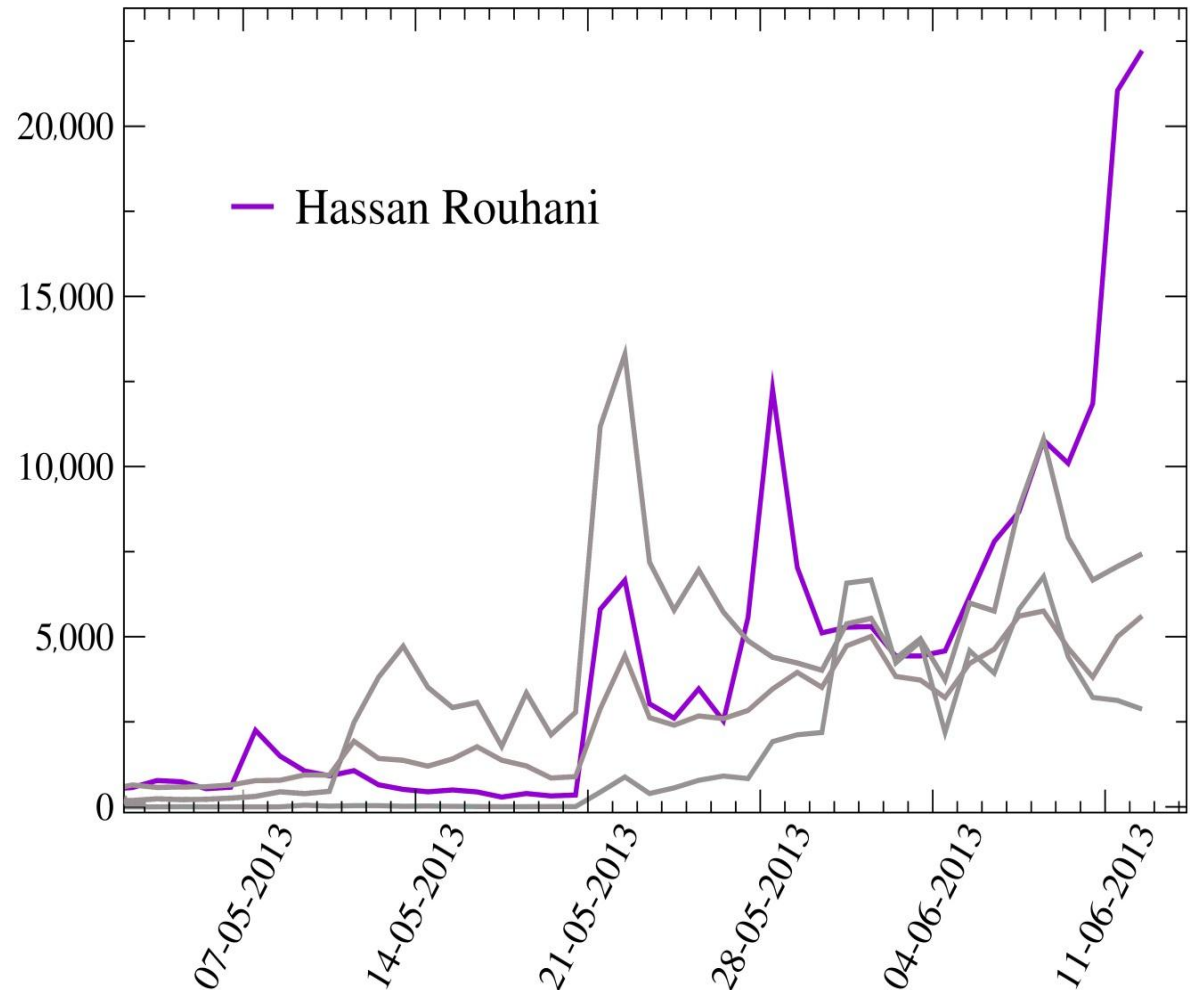
# Understanding institutional change eg. nature of parliamentary debate

- OII Research Fellow Jonathan Bright analysed 75 years (12 GB, 740 million words) of parliamentary debates
- Rate that speakers are interrupted by other MPs has risen over time, suggesting a more contentious political climate



Bright, Jonathan (2012), 'The Dynamics of Parliamentary Discourse in the UK: 1936 – 2011', paper presented at *Internet, Politics and Policy: Big Data, Big Challenges?*, September 2012, Oxford Internet Institute

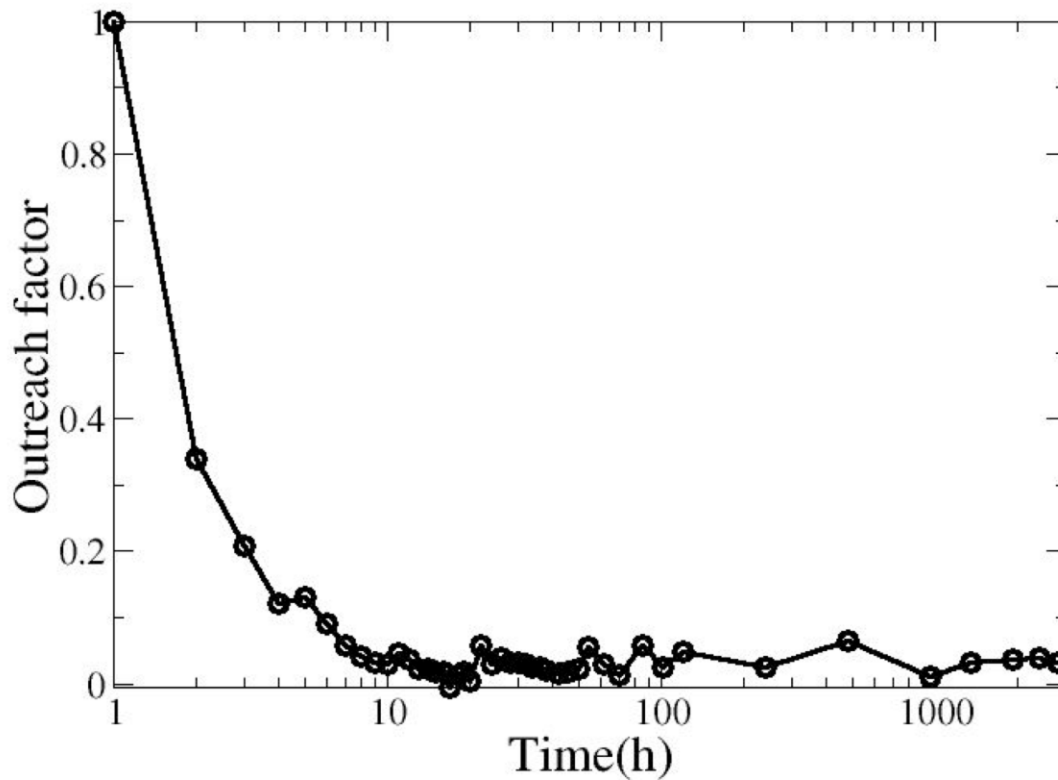
# Predicting the Iranian election with Wikipedia



Source: Yasseri & Bright, 2013  
Preprint arXiv: 312.2818



# Modeling the rise and fall of mobilization

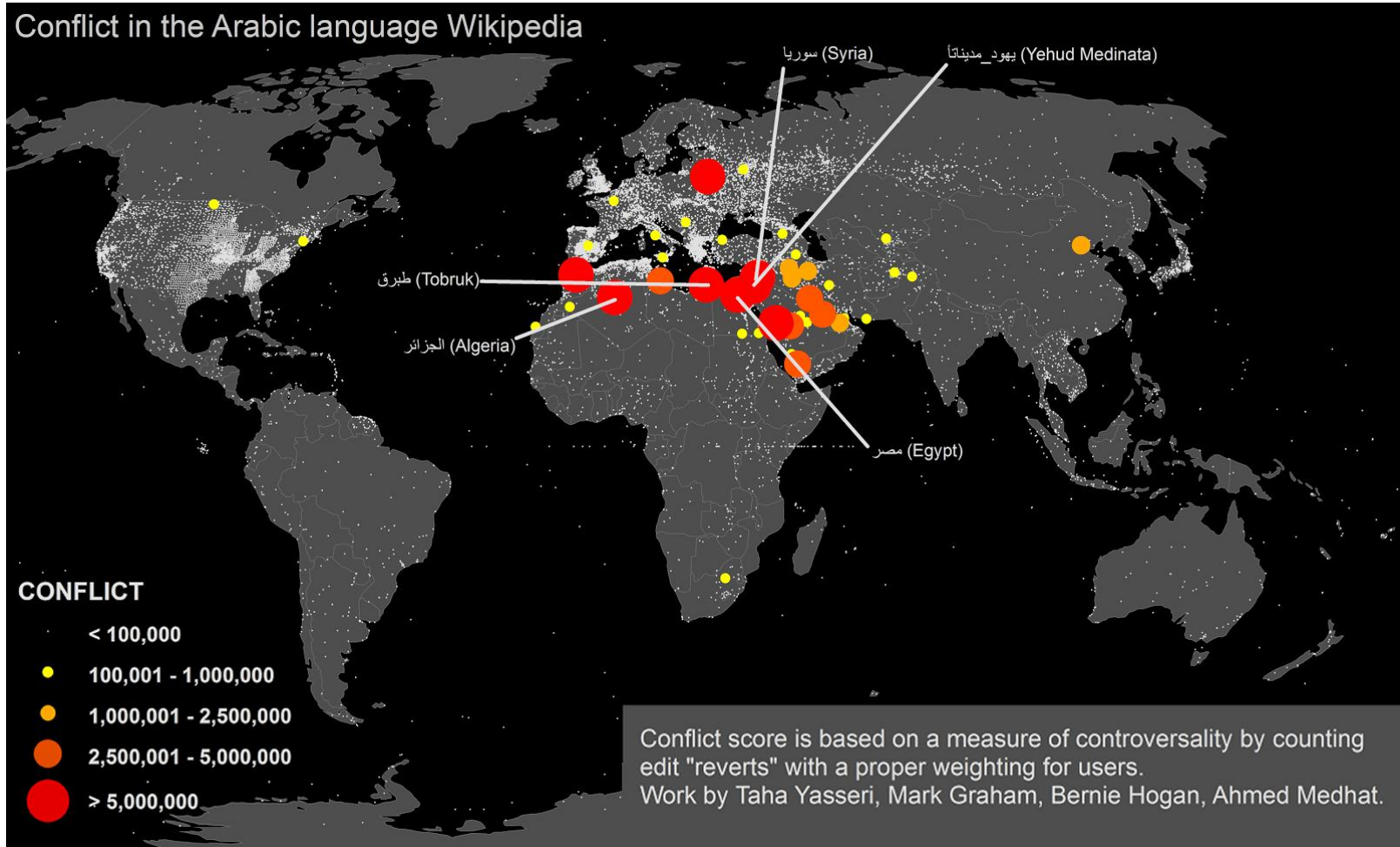


Modeling the Rise in  
Internet-based Petitions  
T Yasserli, SA Hale, H Margets  
preprint arXiv:1308.0239

$$r(t) = \frac{E[\log(N(t))] - E[\log(N(t-1))]}{E[\log(N(t))]}$$



# Controversial Wikipedia articles up to 2010



# The tools of government: making policy in a digital world

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# The tools of government policy

Any policy is a mixture of:

- **Nodality** – centrality in social and information networks
- **Authority** – power to demand, forbid, guarantee, adjudicate
- **Treasure** – money or other fungible goods
- **Organization** – people, land, buildings, equipment, computers

*Nodality is the cheapest tool, causing less 'trouble, vexation and oppression' of citizens*

*Source: Hood and Margetts (2007) The Tools of Government in the Digital Age*

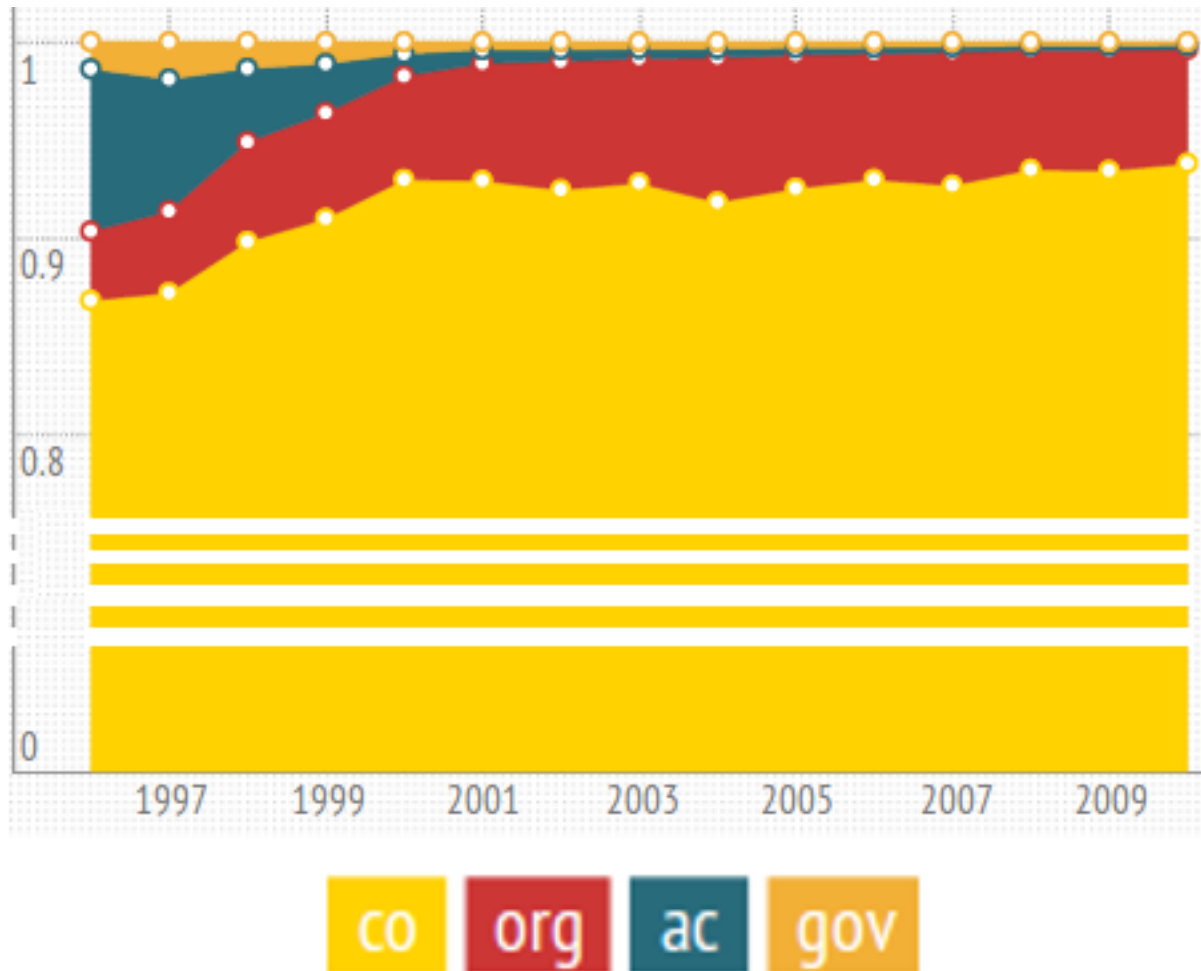
# The race for nodality

*Government used to possess nodality by virtue of being government, but now:*

- New information asymmetries (when citizens know as much as the state)
- Governments lag behind society in digital presence
- Citizens exist in a 'heterogeneous, content-searchable, real-time messaging stream' (where government isn't)
- Competing policy narratives
- Net loss of visibility?



# Government's declining share



Source: *OII Analysis of British Library archive dataset of .uk domain 1996-2010*

# What is UK defence policy on Iraq?

Firefox File Edit View History Bookmarks Tools Window Help

https://www.google.com/search?q=what+is+UK+defence+policy+on+iraq&ie=utf-8&oe=utf-8

what is UK defence policy on Iraq

About 16,600,000 results (0.54 seconds)

**UK should do more in Iraq, says Committee - Parliament UK**  
[www.parliament.uk/.../defence.../report...](#) - Parliament of the United Kingdom  
Feb 5, 2015 - Defence Committee publish report on Iraq and Syria and response to Islamic ... There was a lack of clarity over who owns a policy—and indeed ...

**Defence Committee - UK Parliament**  
[www.parliament.uk/.../defence-comm...](#) - Parliament of the United Kingdom  
... to be published - UK should be doing more in Iraq according to new report ... Watch the Secretary of State give evidence on Decision-making in defence policy ...

**Defence policy | Politics | The Guardian**  
[www.theguardian.com/politics/defence](#) - The Guardian  
Failure to increase defence budget 'would breach undertaking by PM', Gen Sir Peter Wall says armed forces will be 'hollowed out' if UK does not meet Nato ...

**Britain must play a greater role in fighting Islamic State in ...**  
[www.theguardian.com > World > Islamic State](#) - The Guardian  
Feb 5, 2015 - Commons defence committee's scathing report says government should give ... Britain needs to play a greater role in the fight in Iraq against Islamic State, ... There was a lack of clarity over who owns a policy—and indeed ...

**Defence News and UK Military News - Telegraph**  
[www.telegraph.co.uk > News > UK News](#) - The Daily Telegraph  
4 hours ago - Defence, breaking international and UK military news. ... There is no alternative to bombing Iraq. By Rob Crilly. 08 Aug 2014. In Defence.

**UK Debates Iraq War, WMD and Defence Policy - Acronym ...**  
[www.acronym.org.uk/.../...](#) - Acronym Institute for Disarmament Diplomacy  
UK Debates Iraq War, WMD and Defence Policy. The failure to discover any weapons of mass destruction in Iraq continues to rumble on as an embarrassment to ...

**Ministry of Defence - Announcements - GOV.UK**  
[https://www.gov.uk/.../announcements?...of-defence](#) - United Kingdom  
UK Defence Secretary reaffirms support to NATO with Secretary-General, 13 March 2015 ... Update: air strikes in Iraq, 11 March 2015 ... Departments and policy.

**UK and Iraq - UK and the world - GOV.UK**  
[https://www.gov.uk/government/world/iraq](#) - United Kingdom  
Foreign Secretary Philip Hammond, Haider Al-Abadi, Prime Minister of Iraq and US, 22 January 2015 — Press ... Defence Secretary Michael Fallon has announced that the UK plans to offer Iraqi forces more training. FCO ... See all our policies ...

**RUSI - Iraq**  
[https://www.rusi.org/middleeast/iraq2/](#) - Royal United Services Institute  
UK Defence ... What are the factors affecting policy-makers, and should the UK be doing ... The plight of Yazidi women in Iraq speaks to the need for a better ...

**The Development of British Defence Policy: Blair, Brown ...**  
[https://books.google.com/books?isbn=140949991X](#)  
David Brown - 2013 - History  
The UK's response to a more prominent terrorist threat, institutionally with the 2002 New Chapter to the SDR and operationally in both Afghanistan and Iraq, ...

**How Is UK Helping Syria?**  
[www.ukhelps.com/](#)

Source:www.google.co.uk

# What is UK defence policy on Afghanistan?

The screenshot shows a Firefox browser window displaying the GOV.UK website. The address bar shows the URL: <https://www.gov.uk/government/policies/establishing-stability-in-afghanistan>. The page title is "Policy: Establishing stability in Afghanistan".

**GOV.UK**  
Search [input] [magnifying glass]

Departments Worldwide How government works Get involved  
Policies Publications Consultations Statistics Announcements

## Policy

### Establishing stability in Afghanistan

**From:** Cabinet Office, Foreign & Commonwealth Office, Ministry of Defence, Department for International Development, The Rt Hon Philip Hammond MP and + others

**First published:** 12 December 2012

**Last updated:** 21 January 2014, see all updates

**Part of:** Foreign affairs, Defence and armed forces, National security, Establishing a viable Afghan state and Afghanistan

**Policy** | Latest

**Contents**

- Issue
- Actions
- Military support
- Economic and social support
- Background
- Political settlement

**Issue**

We are in Afghanistan for one overriding reason – to protect our national security by helping the Afghans take control of their own. We are helping the Afghan government to develop its ability to maintain security, so that it can prevent the return of international terrorists, such as Al-Qaeda, to Afghanistan.

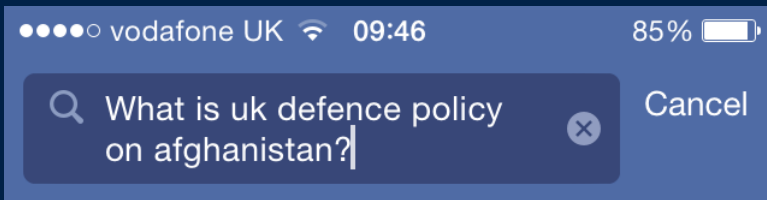
Preventing the return of international terrorists has been the most important part of our work in Afghanistan and the terrorist threat to the UK from this region has been substantially reduced. The UK has played an important role in developing and training Afghan security forces. UK support has also helped Afghanistan to become a more viable state; one that can provide basic services, improve the lives of its ordinary citizens and reduce instability.

A range of international partners are also working in Afghanistan to develop security, governance, infrastructure, economy and the Afghan government's ability to provide essential services.

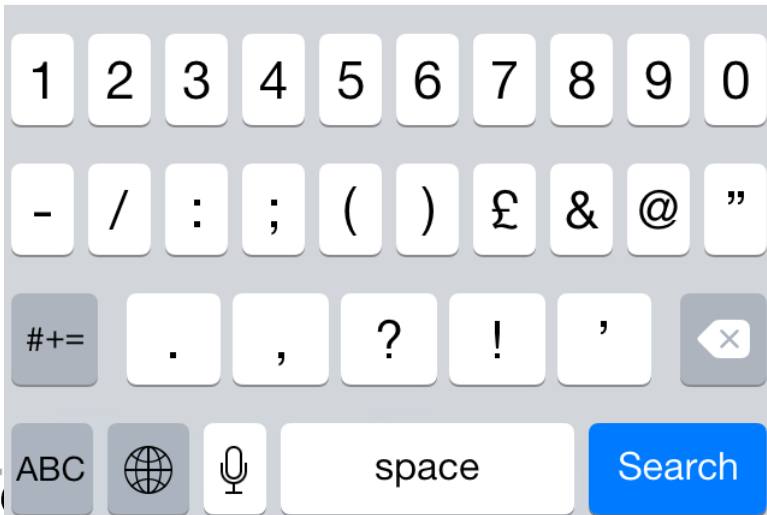
**Actions**

Our work in Afghanistan is carried out in 3 main areas – military, political/diplomatic and development. We work alongside numerous other countries and partners to help develop the Afghan government so that it can determine the country's future, eventually without significant help from the international community. [The British Embassy in the capital Kabul](#)

The bottom of the image shows a Mac OS X dock with various application icons including Finder, Safari, Mail, iMessage, Photos, Music, iPhoto, iMovie, iLife, iWork, and others.



Sorry, no results found for "What is uk defence policy on afghanistan?"



4 March 2015

# What is UK defence policy on Afghanistan?

Source: Facebook on iPhone 5

# Designing Essentially Digital Governance



# Essentially Digital Governance (EDGE)

- The internet and social media - the first information technologies to become domesticated by citizens, innovating faster than governments
- Real possibility for transformation of state-societal relationship
- Governments ARE their digital presence
- Calls for redesign of state placing 'digital' at the core
- Overcoming cultural barriers to digital government
- With design principles
- And normative principles

# Cultural Barriers to EDGe

- Bureaucracy and hierarchy are government's core competency (Made in the Military)
- "Government doesn't do cool" – "it only works if it is boring"
- Young people are not real people
- No part-authenticated information
- We stand alone - the state does not integrate into society's networks
- Users (people!) have no presence, no role, no feedback, no voice

# Do it once - use large-scale data

- States lag behind other sectors in use of big data (and use haystacks to find needles)
- Yet large-scale digital data can yield new insight into societies – and their experience of states
- Data from both internal operations and social media
- Intelligent centre – devolved delivery
- Developing data science capacity
- Seeing like a citizen – not seeing like a state

# Value equality of outcome

- Technology is more 'messy' than bureaucracy
- Organizations are no longer efficient machines
- Weberian equality of process is challenged by the digital world
- Heterogeneity of social groups (eg. social media platforms)
- Strive for equality of outcome (eg. Policy information) – not equality of process

# Keep the state nodal!

- Remember 9/11 United Airlines flight 93
- Government must be continually present in the timestream
- Lose assumption of people and chains of command being central to emergencies
- In a contemporary crisis, digital connections may be the only links with the non-crisis world



# C2 Challenges

- This is the world the MoD are now operating within. How much does the MoD want to or need to take cognisance of it?
- How will the MoD respond to the challenge of these leaderless spontaneous non-organisations?
- How does MoD cope with competing internet-based narratives both inside and the area of operations?
- Are MoD developing and acquiring the appropriate capabilities for this new (geographically disbursed) information battlespace?
- Do we need different information strategies for home, global and operational battlefronts? How should they relate to each other?