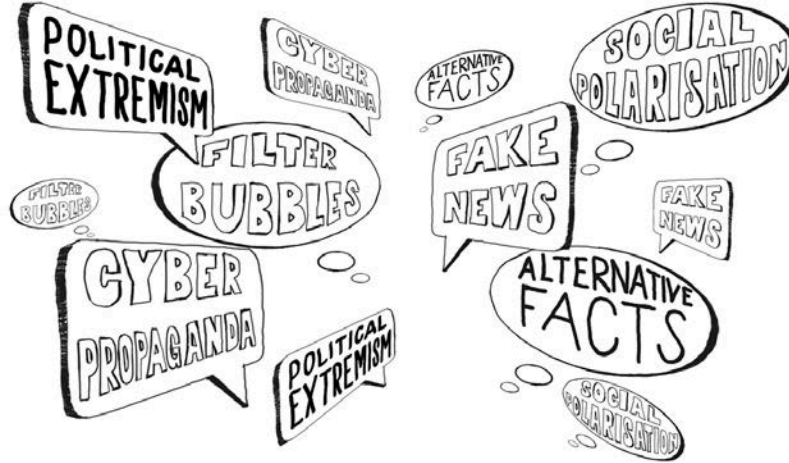# Post-Truth

Developing a Knowledge Organisation (KO) Community Response

DCMI 2017

Dublin Core Metadata Initiative Annual Conference

Washington DC, October 26th 2017

David Clarke, FRSA

Developing a KO Community Response to Post-Truth

PART ONE: EXPOSITION

1. Background Briefing about Post-Truth (15 mins)

2. Specific Examples of Post-Truth Problems (15 mins)

3. Current Responses and Initiatives (10 mins)

PART TWO: DISCUSSION

1. Questions & Answers about the Presentation (10 mins)

2. Round Table Discussions – Your Ideas for Solutions (20 mins)

3. Plenary Discussion – Group Review of Ideas (20 mins)

90 Minute Session

In 2016 we experienced a fake news epidemic

Definition

'**post-truth**, relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.'

In 2016 'post-truth' became:

https://en.oxforddictionaries.com/word-of-the-year/word-of-the-year-2016
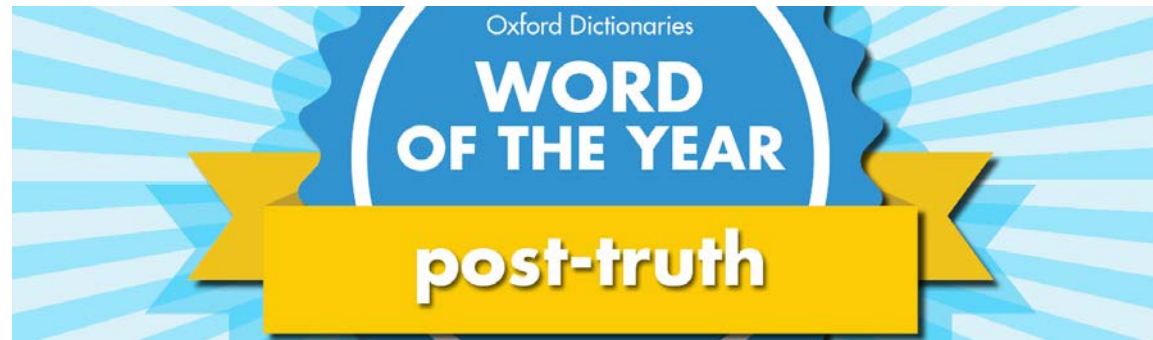
The Internet democratised information

The Internet democratised the world of information.

It levelled the playing field between citizens and institutions, and it gave a voice to many previously marginalized individuals and communities.
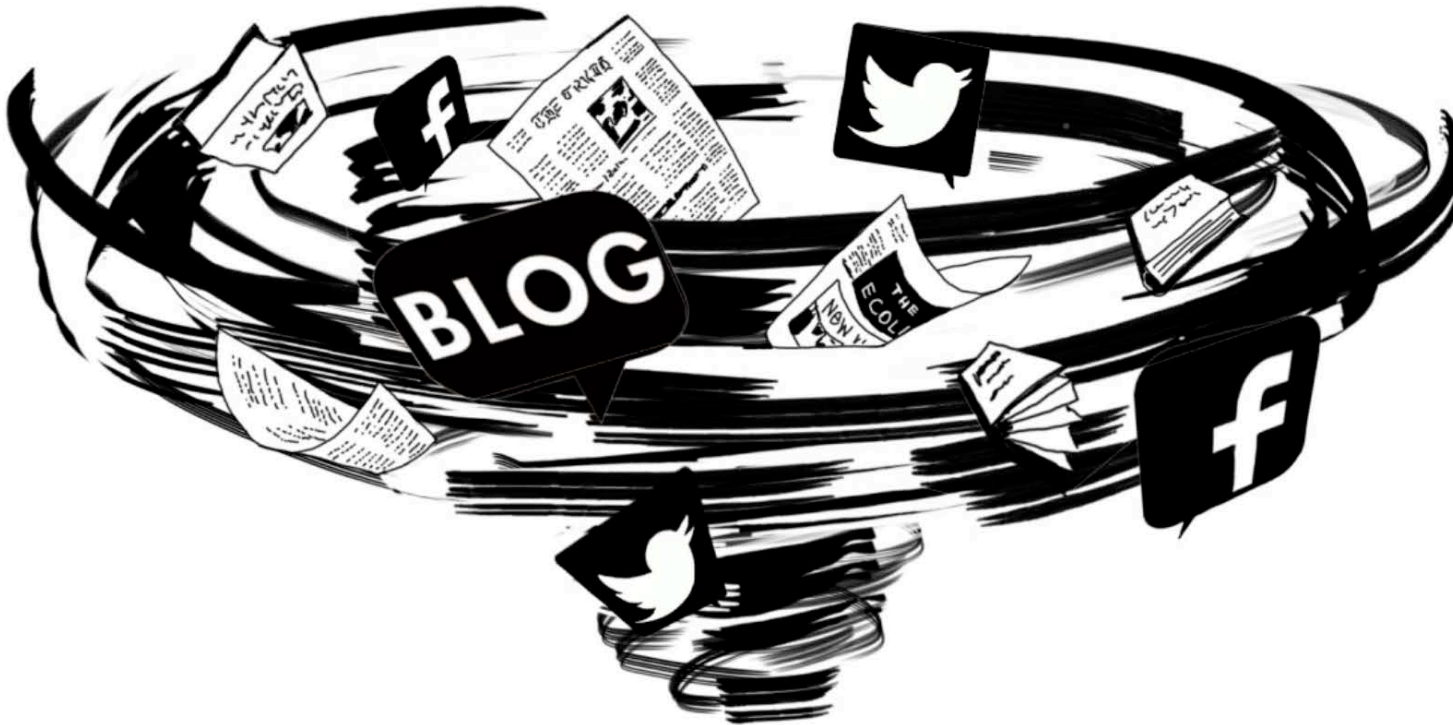
A migration from authoritative sources to social media

The Internet also changed where people go to find news and general information.

There has been a steady migration away from traditional resources toward content delivered via web search engines and social media

The source of information becomes blurred

As web search engines and social media became the primary 'go-to' source for news and general information, the public has become less conscious of the origin of information, who creates it, and whether it is trustworthy.

Getting harder to distinguish fact from opinion

A paradox of the Information Age is that while we have access to many more and diverse information sources, it is getting harder to distinguish fact from opinion and truth from lies.

Personalised search loved by consumers

Search engines and social media act as information filters. Filters have become essential as we sort and sift through vast amounts of information. Search has also become personalised: filters now evaluate both what we look at and the person who is looking.

A search for 'movies' won't just retrieve cinema listings, it will filter by what's on at the closest cinema to where you are now. A search for products will remember and filter by all your past searches and purchases.

Unintended consequences for factual searches

same question_

DIFFERENT ANSWERS

Over the past decade personalised search has spread from the world of online shopping to become an inherent design feature in all major search engines and social media websites.

What worked well for shopping becomes problematic when applied to how we search for factual information.

Filter bubbles of confirmation bias

Personalised search can distort our view of reality, creating a personal *filter bubble* that reinforces our existing beliefs while limiting our exposure to new ideas and contrary viewpoints.

Filters exert subliminal influence

Personalised search operates imperceptibly and without our conscious consent. Its influence is effectively subliminal: we have little awareness of and even less control over the data that is collected about us and how it is used to filter our access to information.

Filters now for sale enabling micro-targeted messaging

Conversely, advertisers can pay to use this data to influence the information that we retrieve.

Political campaign managers in the USA and UK described micro-targeted messaging via social media as decisive in recent elections.
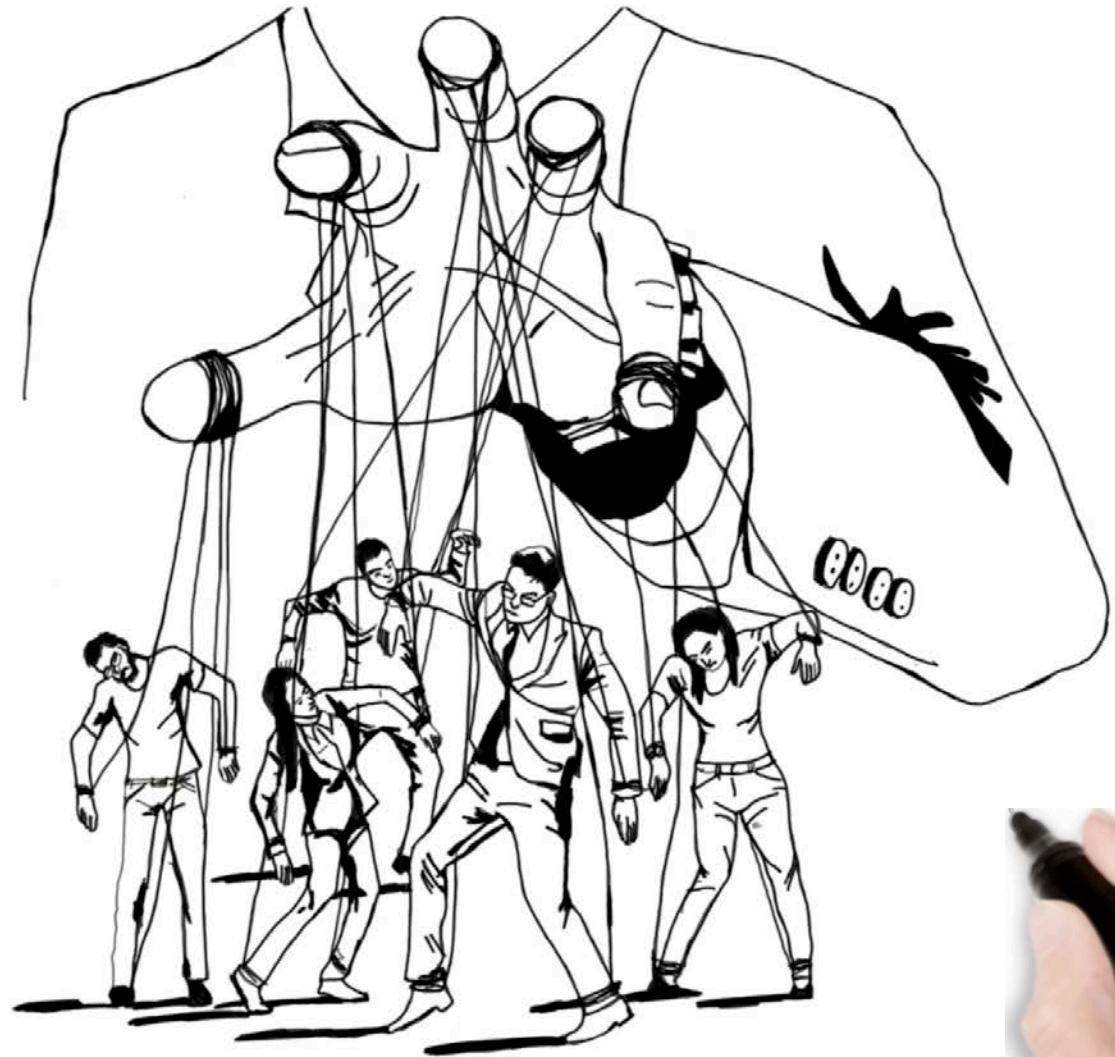
Propaganda is an inevitable part of democratic discourse
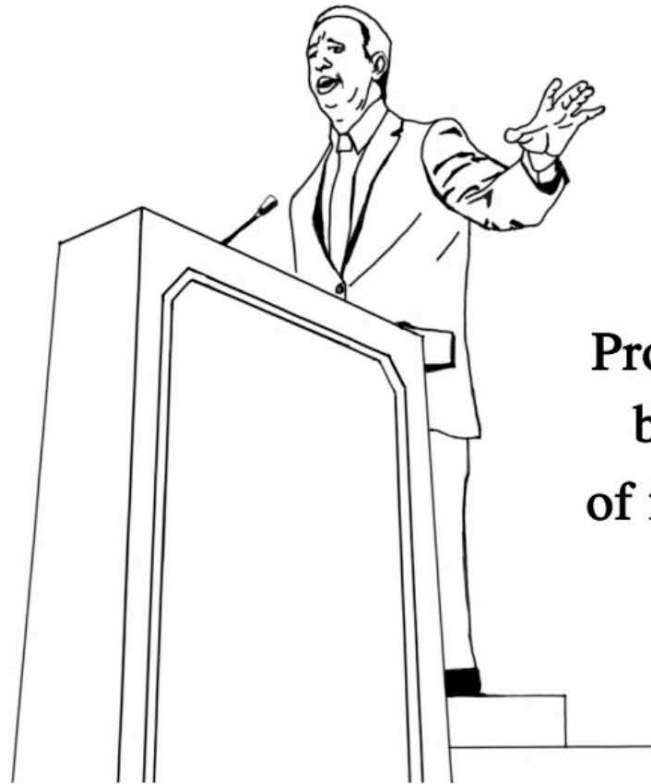
Propaganda is persuasively presented information, whether false or true, that is intended to influence people's beliefs and behaviour.

Propaganda has negative connotations, but it is nevertheless a manifestation of free speech and democratic discourse.

Cyber-propaganda distorts human democratic discourse

Cyber-propaganda presents new problems, such as 'socialbots', which automatically generate thousands of artificial messages in support of or opposition to candidates and causes.

They distort human democratic discourse and have influenced recent elections.
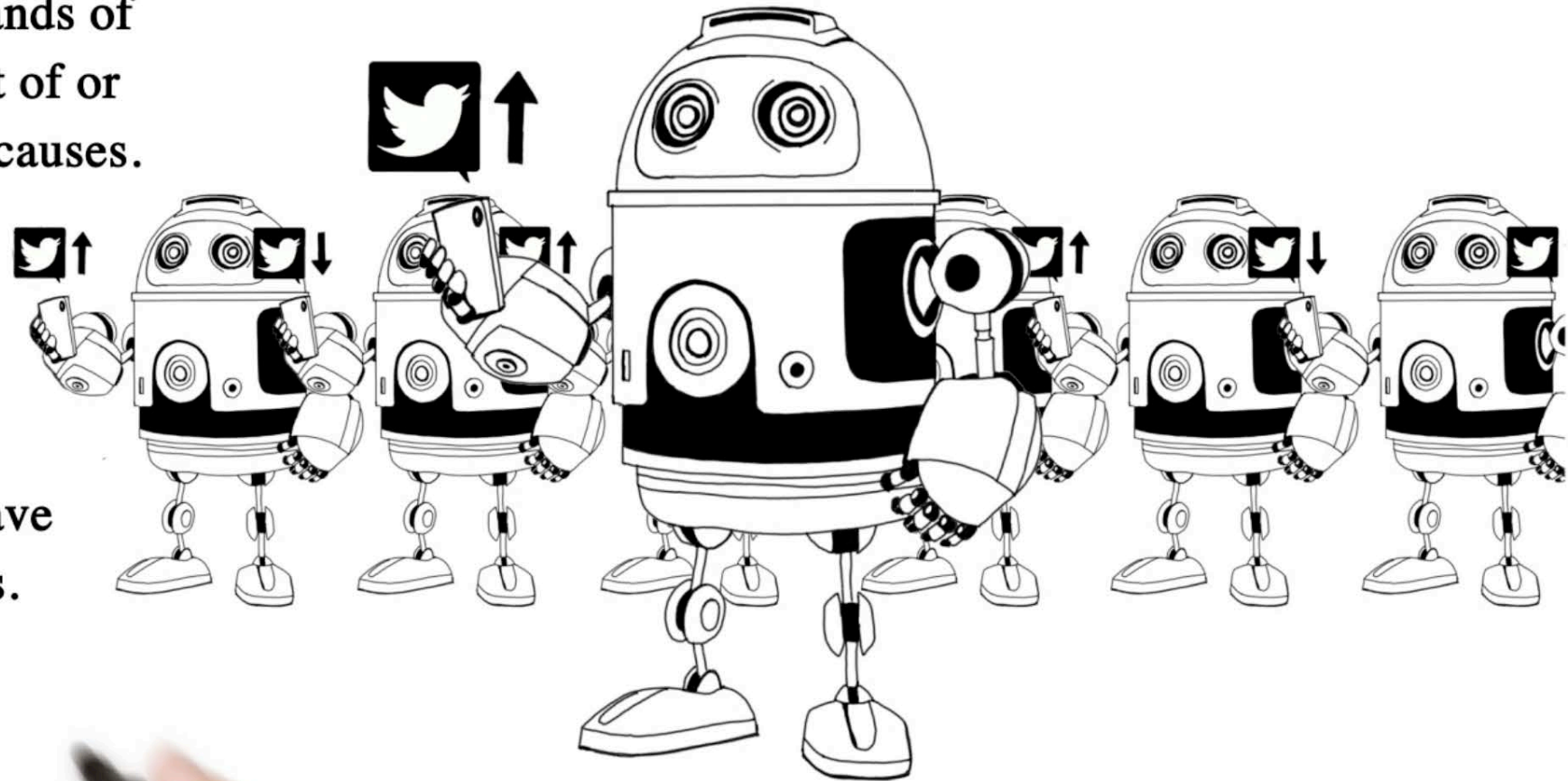
Democracy relies on a well informed public
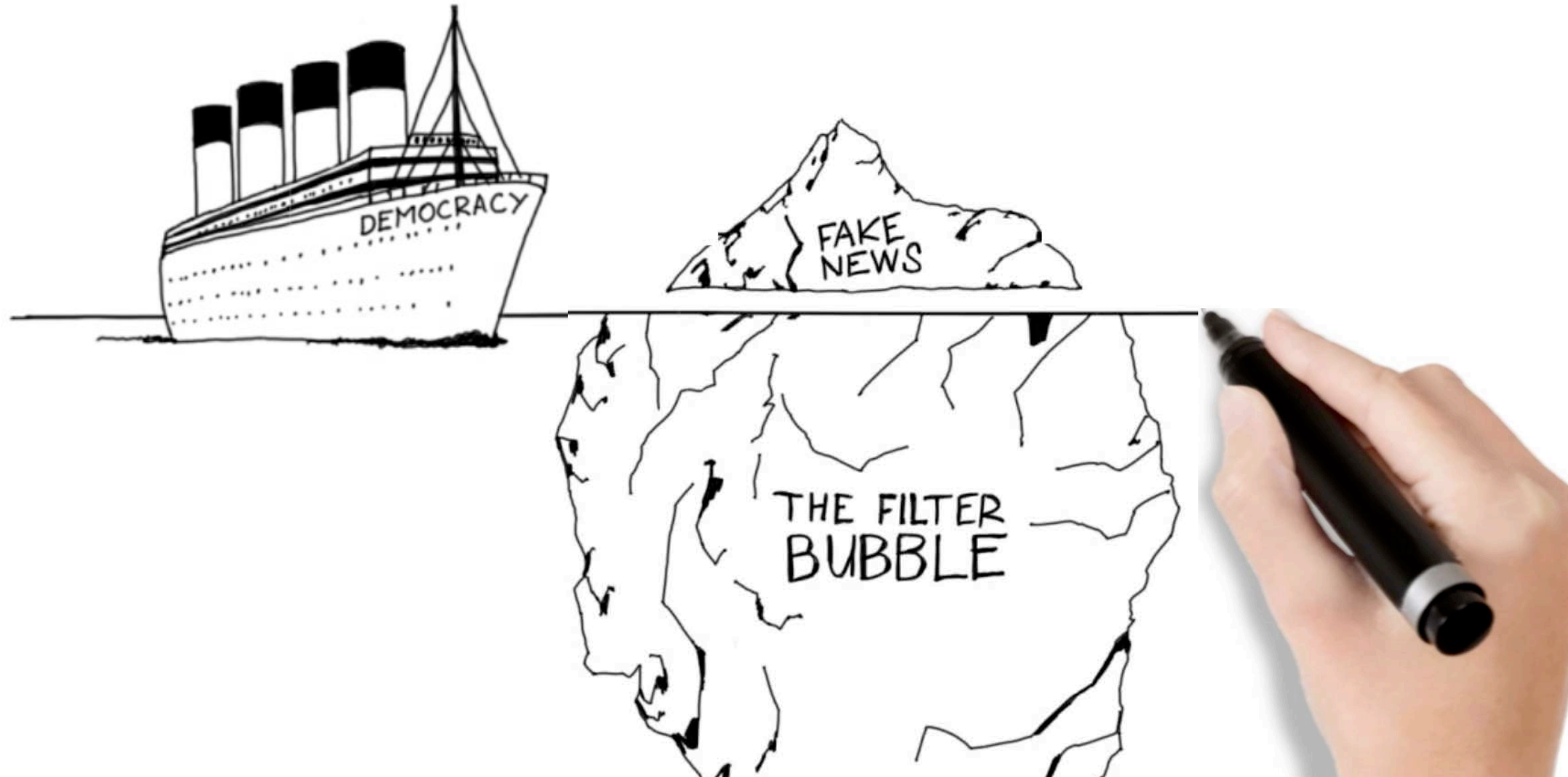
Unpacking Post-Truth

	Dubitable Information	False Information	Filtered Information
Causes	Proliferation of opinion-based content Source ambiguity Fact apathy	Partisan fake news State-sponsored propaganda Socialbots	Personalised search Online political advertising Confirmation bias
Effects	Culturally induced ignorance and confusion Echo-chamber distortion	Political extremism Electoral interference Counter-scientific thinking	Divergent realities Confirmation bias Social polarisation
Trends	Migration away from professional publications and libraries to search engines and social media as '*primary*' sources of variable quality.	Devaluation of facts, evidence and rational argument in political discourse. Increasing technical sophistication of state-sponsored propaganda.	Massive increase in political advertising spent on search engines and social media, especially micro-targeted messaging.

The problem of state-sponsored propaganda

State-sponsored propaganda

January 2017 ODNI Report

Background to "Assessing Russian Activities and Intentions in Recent US Elections": The Analytic Process and Cyber Incident Attribution

https://www.dni.gov/files/documents/ICA_2017_01.pdf

- 'the Russian Government aspired to help President-elect Trump's election chances when possible by discrediting Secretary Clinton'; and that

- 'a Russian messaging strategy [was developed] that blends covert intelligence operations—such as cyber activity—with overt efforts by Russian Government agencies, state-funded media, third-party intermediaries, and paid social media users or "trolls."'

- 'We assess Moscow will apply lessons learned from its Putin-ordered campaign aimed at the US presidential election **to future influence efforts worldwide, including against US allies and their election processes**.'

The problem of personalised search

The filter bubble – example

https://blog.nus.edu.sg/is1103grp203/2013/03/31/personalized-search-and-its-discontents-ii/

The filter bubble – example

Googling for BP

Caitlin: Oil Spill News · Julia: Investment Information

The filter bubble – analysis and predictions in 2012
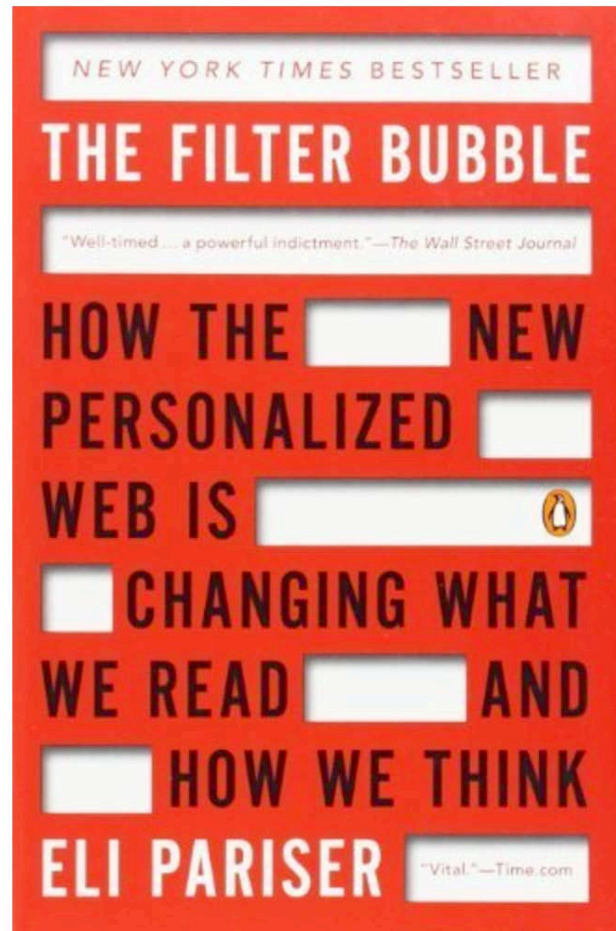
*'Left to their own devices, personalisation filters serve up a kind of **autopropaganda, indoctrinating us with our own ideas, amplifying our desire for things that are familiar**... In the filter bubble, there's less room for the chance encounters that bring insight and learning... the collision of ideas from different disciplines and cultures'.*

Eli Pariser, 2012

https://www.worldcat.org/title/filter-bubble-how-the-new-personalized-web-is-changing-what-we-read-and-how-we-think/oclc/819281442

The filter bubble – reflections on social polarisation in 2017

January 10th 2017, Chicago

'For too many of us, it's become safer to retreat into our own bubbles, whether in our neighborhoods or college campuses or places of worship or our social media feeds, surrounded by people who look like us and share the same political outlook and never challenge our assumptions. The rise of naked partisanship, increasing economic and regional stratification, the splintering of our media into a channel for every taste... **we become so secure in our bubbles that we accept only information, whether true or not, that fits our opinions, instead of basing our opinions on the evidence that's out there.'**

President Barack Obama, 2017

http://www.latimes.com/politics/la-pol-obama-farewell-speech-transcript-20170110-story.html

The problem of political search

Online political advertising on path to overtake broadcast media

How campaign ads went digital

Candidates are now targeting Facebook users on their phones, with US online political spending expected to pass $1bn this year. By 2020, digital could be within 30% of TV

Spending on political advertising   ■ Digital   ■ Broadcast TV

$6bn

5

4

3

2

1

0

2008   2012   2016   2020
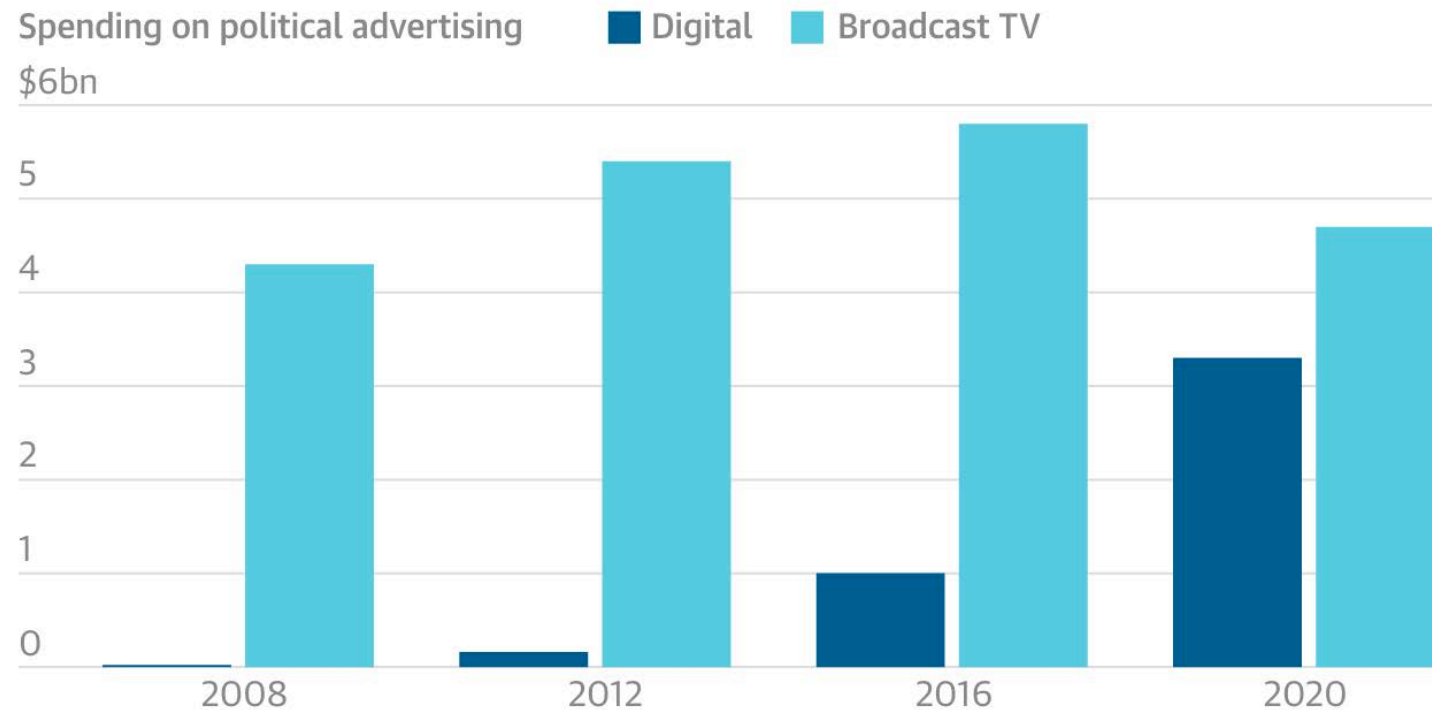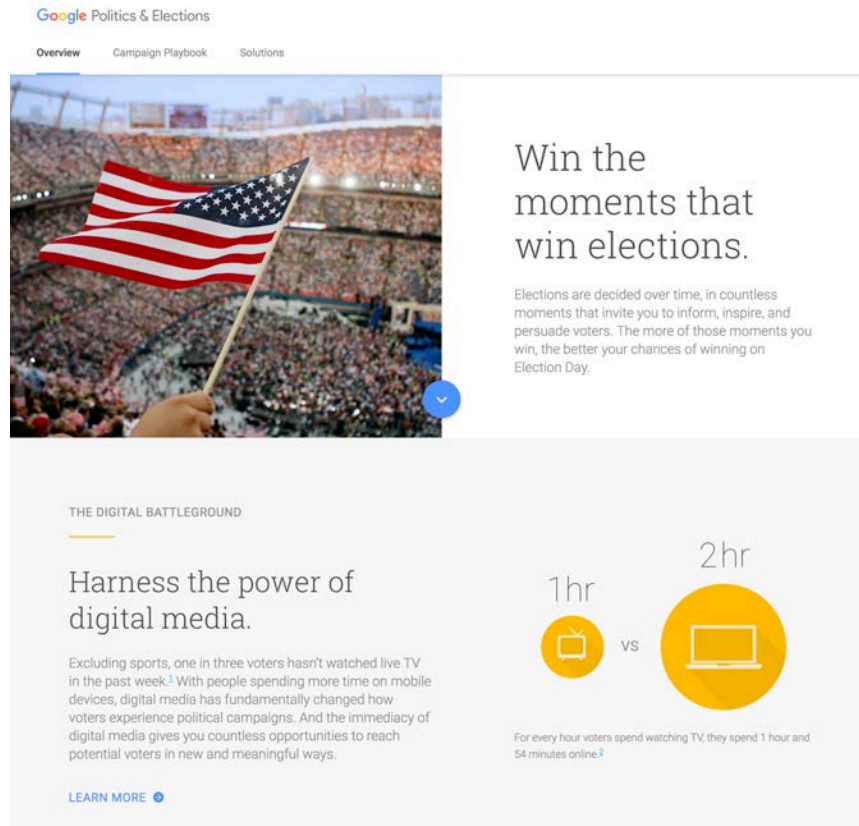
Guardian graphic   Source: Borrell Associates

https://www.theguardian.com/us-news/2016/jan/28/facebook-voters-us-election-ted-cruz-targeted-ads-trump

Politicians wooed by search and social media companies

Google's political services

Facebook's political services

https://www.google.com/ads/elections/

https://politics.fb.com/ad-campaigns/

Micro-targeted messaging a 'game-changer' in recent elections

Interviewed for BBC Panorama Gary Coby of the Republican National Committee described how Facebook's **micro-targeted campaign messaging was 'decisive'** in the 2016 election.

Speaking about micro-targeted messaging on the same programme Gerry Gunster, Campaign Strategist for Leave EU, said 'I think **Facebook was a game-changer for the campaign**… I can send a specific message through Facebook to them that no one else is seeing'.

BBC Panorama programme *What Facebook Knows About You,* first broadcast May 8th, 2017

http://www.bbc.co.uk/iplayer/episode/b08qgbc3/panorama-what-facebook-knows-about-you

The problem of computational propaganda

ACM Report on *Bot* detection and response

'With every new technology comes abuse, and social media is no exception. A second category of social bots includes malicious entities designed specifically with the purpose to harm. These bots mislead, exploit, and manipulate social media discourse with rumors, spam, malware, misinformation, slander, or even just noise. This may result in several levels of damage to society. **For example, bots may artificially inflate support for a political candidate; such activity could endanger democracy by influencing the outcome of elections.**'

https://cacm.acm.org/magazines/2016/7/204021-the-rise-of-social-bots/fulltext

Computational Propaganda Project – Oxford Internet Institute
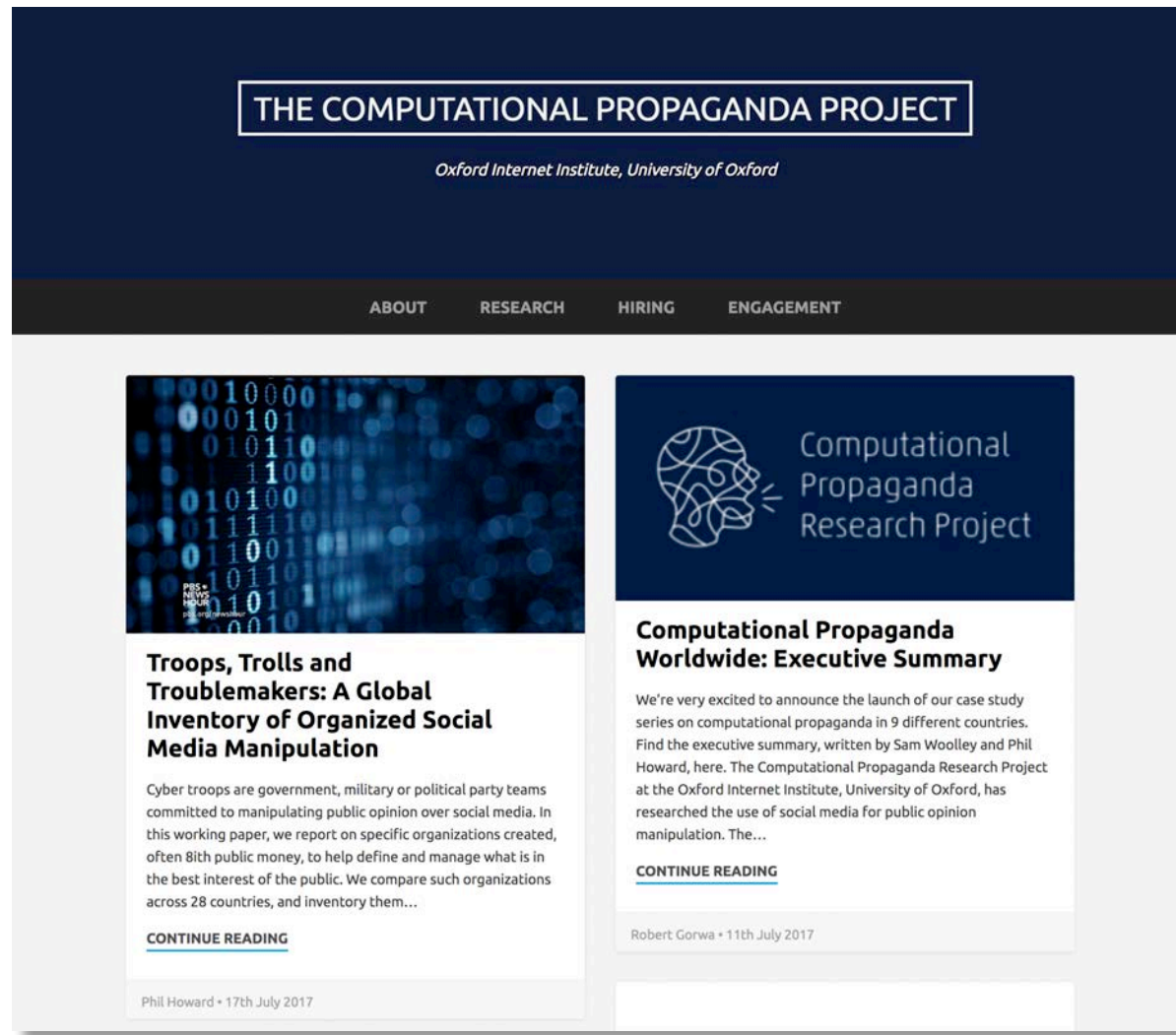
'The Computational Propaganda Research Project (COMPROP) investigates the interaction of algorithms, automation and politics. This work includes analysis of how tools like social media bots are used to **manipulate public opinion by amplifying or repressing political content, disinformation, hate speech, and junk news.**'

http://comprop.oii.ox.ac.uk/

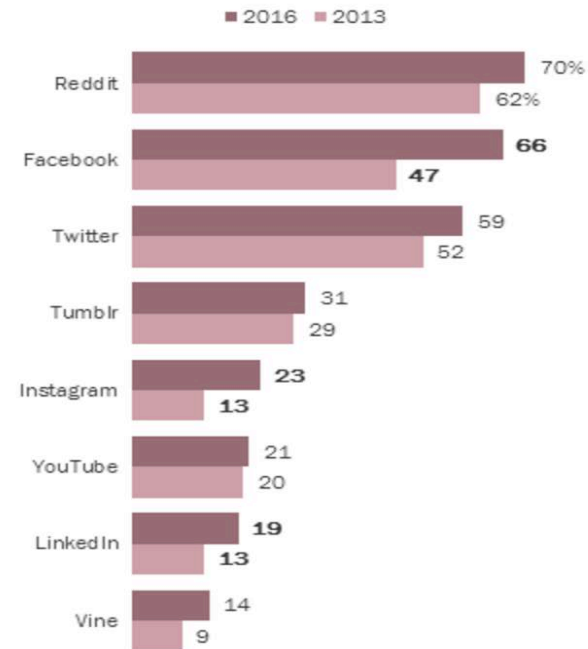# The problem of information literacy

Dubitable information – trends
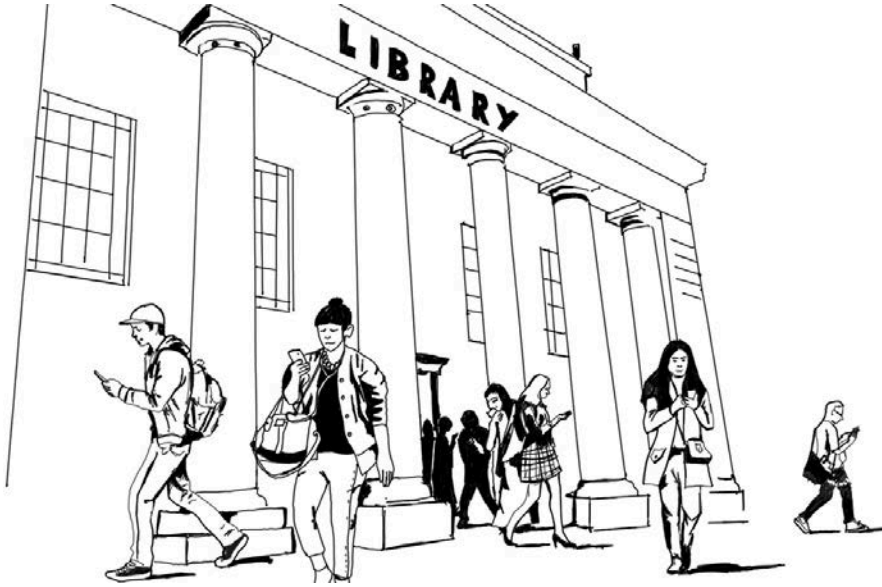
Migration away from professional publications and libraries to online and social media sources of variable quality.

'34% of adults had used a public library service in the 12 months before being interviewed [in 2015]. This is a statistically significant decrease [14%] since data collection began in 2005/06…' *Changing patterns of library use*, Libraries Taskforce, UK Dept. For Culture, Media & Sport, May 10, 2016: https://librariestaskforce.blog.gov.uk/2016/05/10/changing-patterns-of-library-use/

Growth in use of social media for news

% of users of each social networking site who get news there

■ 2016   ■ 2013

Site	2016	2013
Reddit	70%	62%
Facebook	**66**	**47**
Twitter	59	52
Tumblr	31	29
Instagram	**23**	**13**
YouTube	21	20
LinkedIn	**19**	**13**
Vine	14	9

Note: Statistically significant differences in **bold**.
Source: Survey conducted Jan. 12-Feb. 8, 2016.
"News Use Across Social Media Platforms 2016"

PEW RESEARCH CENTER

http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/

Counter evidence challenges the idea that library use is in decline.

Pew Research Center

MENU   RESEARCH AREAS

FACTANK
NEWS IN THE NUMBERS

AUGUST 30, 2017

Most Americans – especially Millennials – say libraries can help them find reliable, trustworthy information

BY **ABIGAIL GEIGER** | LEAVE A COMMENT

http://www.pewresearch.org/fact-tank/2017/08/30/most-americans-especially-millennials-say-libraries-can-help-them-find-reliable-trustworthy-information/

Need for impartial information during elections

https://www.electoral-reform.org.uk/doing-referendums-differently/

September 2016 ERS Article on the EU Referendum:

- 'glaring democratic deficiencies'
- 'people felt they were ill-informed about the issues'
- 'misleading [campaign] claims could be made with impunity'
- Need for 'a minimum data set or impartial information guide'
- Need for tools 'for members of public to host own debates'
- Need to make media coverage 'more deliberative than combative/binary.'

Counter Scientific Thinking
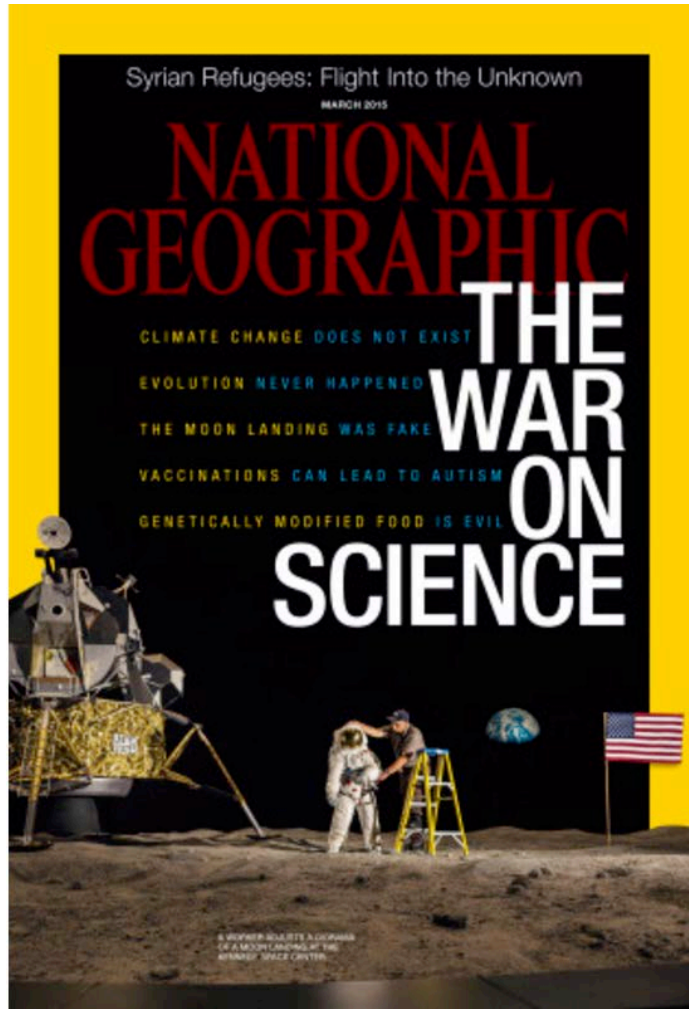
Friends of Science takes a position that humans are largely not responsible for the currently observed global warming, contrary to the established scientific position on the subject. They are considered by many to promote climate change denial. They are largely funded by the fossil fuel industry.

Agnotology
the study of culturally induced ignorance or doubt, particularly the publication of inaccurate or misleading scientific data.

Initiatives
(some among many)

March for Science rallies held worldwide in 2017

MARCH FOR SCIENCE

In 2017 more than **1.3 million people in more than 600 cities** around the world **marched to defend the role of science in policy and society**.

https://www.marchforscience.com/

Washington DC, April 22

London, April 22

Deli, August 9

Facts matter

Wiki Tribune – Evidence Based Volunteer Journalism

WikiTRIBUNE

BECOME A SUPPORTER

WHAT   HOW   WHO

Why?
The news is broken and we can fix it.

The news is broken and we can fix it. We're bringing genuine community control to our news with unrestricted access for all. We're developing a living, breathing tool that'll present accurate information with real evidence, so that you can confidently make up your own mind.

https://www.wikitribune.com

Evidence-based journalism

Jimmy Wales
Founder of Wikipedia in 2001
Founder of WikiTRIBUNE in 2017

Google and Facebook supporting fake news initiatives
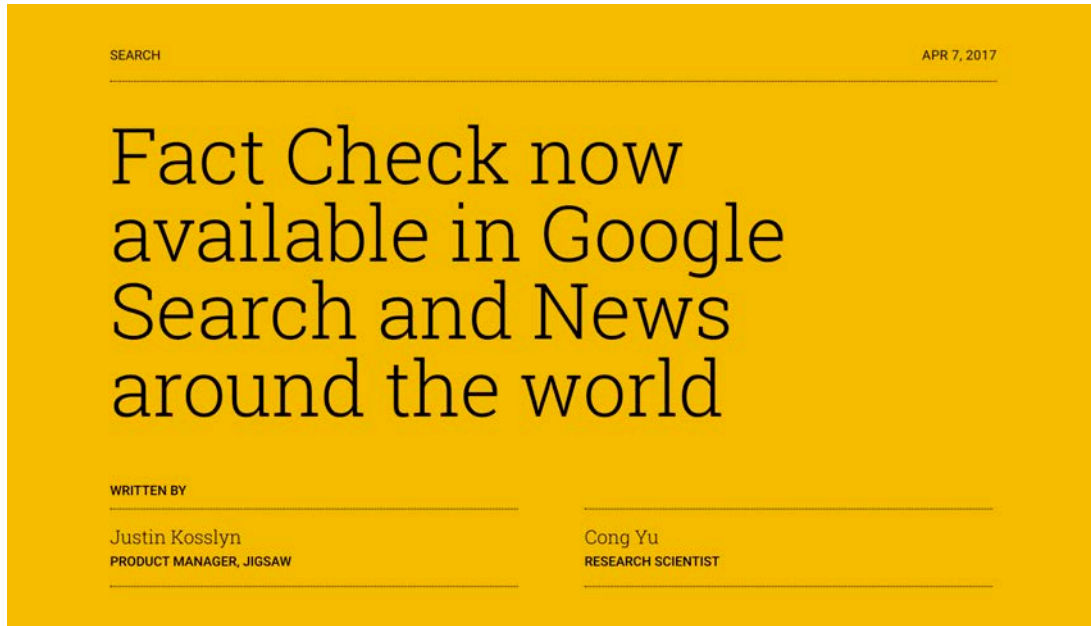
https://www.blog.google/products/search/fact-check-now-available-google-search-and-news-around-world/

https://www.theguardian.com/technology/2017/mar/22/facebook-fact-checking-tool-fake-news
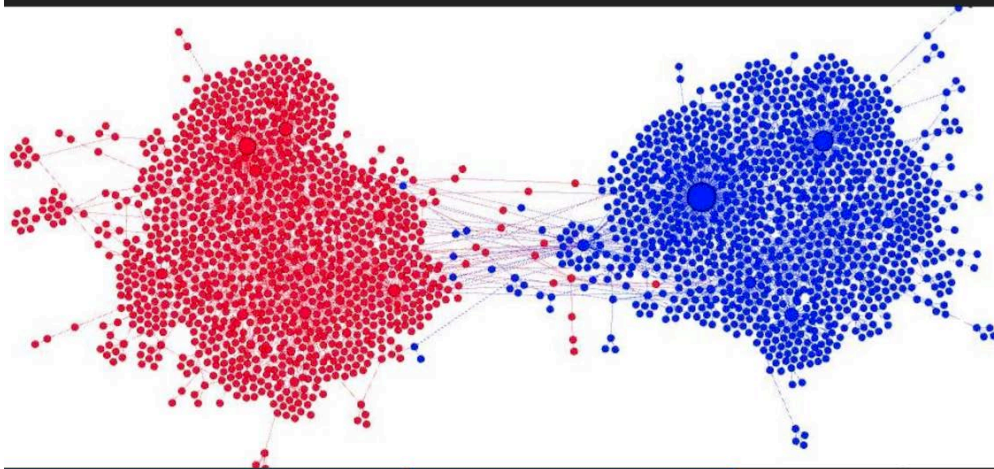
Big data analytics

How can big data analytics and graphs help us to understand the problem

Quantifying and Bursting the Online Filter Bubble
February 2017

Kiran Garimella
PhD Student
Kings College London

https://www.slideshare.net/KiranGarimella1/quantifying-and-bursting-the-online-filter-bubble

How can the KO community help

Starter Ideas

big data analytics

automated provenance detection

information literacy programmes

personalised search opt-out for facts & news

adoption of journalistic standards

trusted source certification

regulation of online political advertising

analysis & awareness projects

automated fake news detection

fact checking projects

socialbot blockers

relevancy search standards

public debate forums

The biggest problem isn't being addressed

How search methodologies have changed

Relevancy

content is ranked
by its relevance to the
question

Based on library science.

*Aims for the objective
retrieval of content based
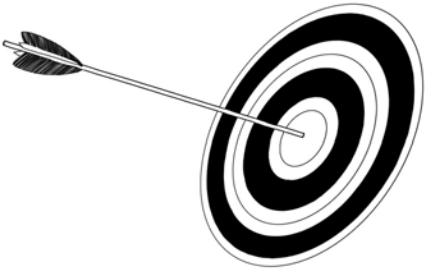on the best match to the
meaning of the question.*
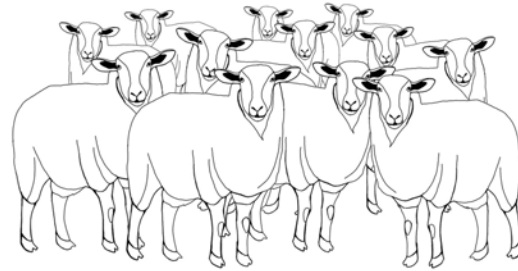
Popularity

content is ranked
by its popularity and
connections

*Underpins most search
engines and social media.*

*While not biased by
subject, it limits exposure
to new or outlier content.*

Personality

content is ranked
by personal profiles
about the searcher

*A successful model for
shopping preferences.*

*Its self-referential design
reinforces biases and limits
access to new ideas.*

Publicity

content is ranked
by the interests of
paying advertisers

*Accepted within the
market of products and
services,*

*Problematic when applied
to news and factual
content.*

Should facts be for sale?

When a user requests factual information, **should search providers filter the results based on the interests of a paying third-party**?

Is this a technical, regulatory or standards issue, or all of the above? **Should the KO community champion best practice guidelines**?

Should facts be personalised?

When a user requests factual information, **should search providers automatically filter the results based on personal profile data**?

Some people may prefer not to see balanced information... **what should be the default behaviour? Should opt-in /out filters be supported**?

Developing a Post-Truth Knowledge Organization System
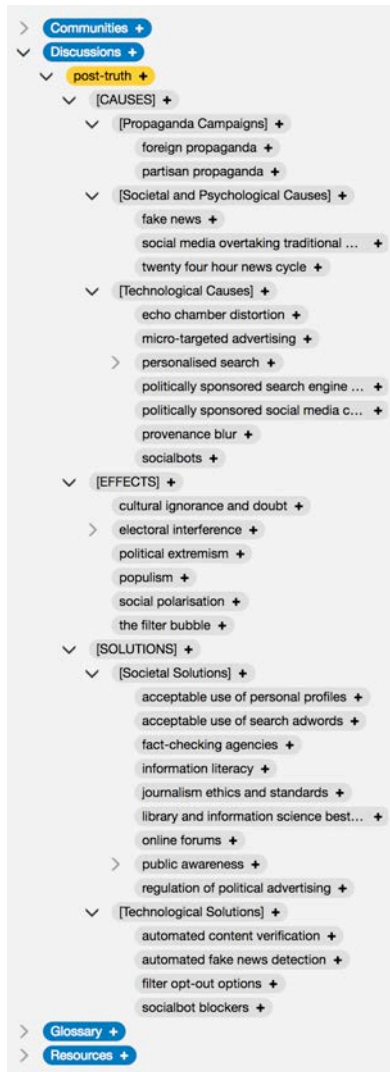
- Glossary of post-truth terms
- Faceted classification of
  - Causes
  - Effects
  - Solutions
- Resource References
  - Books
  - Blogs
  - Websites
  - Videos

KOS to be published at

www.posttruthforum.org

Visit my blog for updates or follow me on Twitter

@DavidClarkeBlog

Call to action

Let us work together to build a society that is open-minded, fact-loving and search savvy.

Let us hold our leaders, businesses and institutions accountable to promote and protect **truthfulness** as a core value.

The Beginning!