

Public Attitudes to Science 2014: Social Listening

Quarter 2: April – July 2013 report

PUBLIC

Objectives

Ipsos MORI, on behalf of the Department for Business, Innovation and Skills, are conducting a year long research exercise into how people talk about science. Using our social media tracking programme we are able to see who is talking about science online, what they are talking about, and when. In essence –

what makes science 'sticky'?

<u>April – June (Q2) objectives:</u>

•To continue to examine the mechanics by which particular stories spread over social networks

•Search subjects – the **measles** outbreaks in the UK and **genetically modified foods**







Method

Using our in-house social media platform we are able to measure internet traffic volumes on different subjects across a range of online sources, including Twitter, forums, blogs, news sites, etc.

Over this period we searched for mentions relating to the outbreaks of measles witnessed across the country, and GM food

Our search terms:

•((GM OR "genetically modified") NEAR/10 (scien* OR expert* OR tests)) NOT ("GMC") •(measles) NEAR/10 (scien* OR vaccin* OR tests)



Headline findings

Government-led stories



lpsos

Similar traffic profiles - twitter volume heaviest



Internet traffic on GM crops came predominantly from Twitter, with news sources and announcements taking up a quarter of web traffic With measles, whilst Twitter posts remained the largest traffic type, **the volume of public health announcements increased the proportion of traffic coming from traditional sources**



Measles and GM foods – UK internet traffic





In context of the year...



Measles outbreaks in the UK

A public service message

Suspected measles cases in Wales



A hot topic on Twitter



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A hot topic on Twitter – government impetus pushed traffic even higher





Tracking the epidemic

Coverage of and conversation about the measles epidemic continued into the months that followed the announcement of the national programme, with further peaks following news stories.



There was a strong public service announcement elements to the measles story coverage...



The prevalence of words like "MMR" and "vaccine" points at the public service element to much of the internet traffic

Ipsos MORI Social Research Institute © Ipsos MORI PUBLIC Word clouds are a representation of the frequency with which particular terms are present in the data



#getthemmr – an example of a "crowdsourced" twitter public service campaign?



Despite his low level of influence and followers, this doctor appears to have coined the "#getthemmr" hashtag, which became the third most used during the observation period



#getthemmr: Public health tweets

Liverpool Council @lpoolcouncil 4 Jun
 Approx 8,500 Liverpool children aged 10-16 are not fully vaccinated against measles. Is your child one of
 them? #GetTheMMR

 Image: WHS Nene CCG @NHSNene
 30 Apr

 Protect your children from #measles with the #MMR vaccination. Call your GP to book an appointment #getthemmr bit.ly/11SG55p
 30 Apr

 Image: Wolves City Council @WolvesCouncil
 26 Apr

 Health bosses urge parents to ensure kids #gettheMMR vaccination against measles: wolverhampton.gov.uk/article/2138/P.... Visit: facebook.com/getvaccinatedE...
 26 Apr

Wiltshire Council @wiltscouncil MMR is the safest most effective way to protect children against measles. Speak to your GP today to arrange vaccination #GetTheMMR

✓ NHS Portsmouth CCG @portsmouthCCG Get all the facts you need on #measles. MMR vaccination is the only prevention. Protect your family #getthemmr bit.ly/12PKRSy

Iancashire.gov.uk @LancashireCC 7 Jul Not sure if you child has had their #MMR vaccine? Check with your doctor and reduce the risk of #measles ow.ly/mxXm8 #GetTheMMR A noticeable level of internet traffic came from local bodies with public health responsibilities:

Local authorities and Clinical Commissioning Groups were using Twitter to get the message across

2 Jul

30 Apr

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NHS



#getthemmr: From these central sources information spread to a broad range of Twitter users



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GM Foods

A partisan Twitter debate



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The first GM peak – "Studies show that..."

The first spike in internet traffic came on the 29th May with the release of a report on GM salmon interbreeding with wild and farmed salmon



The story was shared by members of the general public and the media rather than scientists. However this story did not take off. **It did not develop its own hashtag**, which impeded sharing of the story on Twitter

Owen Paterson's speech, 20th June 2013



The Environment Secretary's speech on 20th June, coupled with coverage on numerous media outlets, led to a large spike in UK internet traffic relating to GM food

At last a minister has the guts to challenge the Green's backwardness on GM. The considered view sciencemediacentre.org/expert-reactio... #GM .@GeorgeMonbiot

Was highly interesting to hear climate-sceptic Paterson extolling pro-GM science on @bbcr4today this morning

Whilst GM crops coverage reflected both the Government trigger and the concerns of some Twitter users



International examples in Europe and the US point to the extent of the worldwide GM debate

Ipsos MORI Social Research Institute Word clouds are a representation of the frequency with which particular terms are present in the data



All relevant top tweeters were partisan

The Soil Association was one of the most prolific anti-GM Tweeters



Soil Association @SoilAssociation
 "Why we must put a stop to this sinister science" - by @JoannaBlythman dailym.ai/11PLQis via
 @MailOnline #GM #GMO

Environment Secretary spoke on Radio 4's Today programme about GM		Most Mentioned Tweeters @whattheffacts	TWEETS	RETWEETS 41	AL TWEETS -	IMPRESS # ONS 		Worldwide account tweeting on
The Daily Mail	<	©soilassociation	12	30	42	85439	GM more generally Science M Centre Lor on GM	GM more generally
carried Joanna Blythman's anti-GM article, whilst the Guardian carried		@bbcr4today	17	25	42	112915		
	\rightarrow	@joannablythman	4	28	32	142635		Science Media Centre London on GM
other GM-sceptic material	\rightarrow	@guardian	18	12	30	183766		
material		@smc_london	10	15	25	55539		
US-based alternative medicine practitioner,		@mailonline	14	11	25	72193		
	\rightarrow	@mercola	10	12	22	101735		
anti-GM	<	@eu_sciencechief	8	14	22	3306857		
Anne Glover @EU V disappointed at li selective use of evi try.	enceChief of comment on GM food. Sm ce won't feed 9bn by 2050. G	But Scier tho	But the reach of the pro-GM EU Chief Scientific Advisor is far greater – even though she tweeted less frequently					

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*Impressions =sum total of a person's followers and their followers' followers (the potential audience of a tweet)

Retweets from @SoilAssociation and @EUScienceChief

The EU Science Chief has greater reach because her followers are from a more influential stratum - former MPs and Professors retweeted, alongside general members of the public...



y Jon Butterworth @jonmbutterworth

RT @EU ScienceChief. V disappointed at level of comment on GM food. Smart remarks and selective use of evidence won't feed 9bn by 2050. G ...

🔰 Lynne Jones @lynnejones_exMP



RT @EU ScienceChief: V disappointed at level of comment on GM food. Smart remarks and selective use



Anne Glover @EU ScienceChief 20 Jun V disappointed at level of comment on GM food. Smart remarks and selective use of evidence won't feed 9bn by 2050. GM is one tool to try.

of evidence won't feed 9bn by 2050. G...



Soil Association @SoilAssociation

"Why we must put a stop to this sinister science" - by @JoannaBlythman dailym.ai/11PLQis via @MailOnline #GM #GMO

WWOOF UK @WWOOFUK

RT @SoilAssociation: "Why we must put a stop to this sinister science" - by @JoannaBlythman dailym.ai/11PLQis via @MailOnline #GM #GMO



RT @SoilAssociation: "Why we must put a stop to this **sinister** science" - by @JoannaBlythman dailym.ai/11PLQis via @MailOnline #GM #GMO



🎔 Fundamentally Fungus @fungusgirls

RT @SoilAssociation: "Why we must put a stop to this sinister science" - by @JoannaBlythman dailym.ai/11PLQis via @MailOnline #GM #GMO

...Whilst retweets of the Soil Association tweet generally came from less influential people (the anti-GM general public and small companies), and so the reach of the tweet was less.



Scientific news and links were shared in the arguments between the public and partisan organisations



22

SCIENCE

Some of the conversations focussed quite strongly on the authority of science itself, with many suggesting that any opposition to GM was anti-science...

> Sometimes science is black and white. GM is like vaccines for example, proven safe and effective

Being anti-GM is like being antiscience: illogical

At last some proscience government!

While some anti-GM posters challenged this view of science based on perceived past failings

Oh good, scientists say GM is fine, not the same ones who said it's fine for cows to eat meat #bse

SOCIETY

Those against GM criticised the media and the pro-GM camp for focussing on the science for it or emotive arguments against it rather than the wider socio-political debate.

> GM is not a science issue – it is a social issue in which science is only one facet

@bbcR4today patronising to divide response to
#GM into science or
emotion. Lets talk abut
politics and corporate
control of food...

Not worried about GM science – it's the ethics



Measles and GM food – stories initiated from the top





Both stories were shared widely as an information 'pyramid'





But both also experienced peaks from news as well as government campaigns

- Genetic modification is a controversial subject and other stories about GM led to later upticks in online conversation. Smaller peaks were caused by:
 - GM salmon interbreeding
 - A dog that was bred to glow in the dark in South Korea
 - David Cameron's support for GM
- The subject is one where there is a lot of latent opposition which is easily activated by government announcements, but does not draw in the wider public
- Measles vaccinations can be similarly controversial, although opposition to MMR was rare in the online conversation Much like the horsemeat story earlier in the year, infection numbers and outbreaks created 'chapters' to the story, with each announcement drawing greater comment and clamour for vaccinations.
- Internet traffic volume followed the progress of the epidemic and was centred on the government announcement

Both stories are examples of how a topical scientific subject can make an impact online through government announcements



Conclusions

Both stories are examples of instances where a government announcement has led the agenda. In the measles case this was to announce an immunisation drive, whilst in the GM case this was to lend support to one side of a pre-existing debate

On Twitter, both stories were spread through a 'pyramid' pattern. But whilst the measles story spread as a public health message, where the government message was generally accepted, the fact that GM is one of the most divisive issues in the UK meant that it was actively debated on Twitter

Both subjects entailed a discussion about science, and led to people sharing scientific stories:

•Most frequently the measles story appeared as a public health announcement

•People talking online about **GM** often cited scientific sources, but usually only to support their pre-determined opinions. Debate over the reliability of studies or content was limited.

•A large strand of the **GM** online conversation on the 20th of June revolved not around science per se, but around trust and scientific authority. Particularly on Twitter, where character counts inhibit detailed arguments, the debate focussed on who had the scientific authority to recommend GM.



Please contact us with any questions:

Nick.Pettigrew@ipsos.com 020 7347 3265 Sarah.Pope@ipsos.com 020 7347 3981 Michael.Clemence@ipsos.com 020 7347 3484

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