Your response

Question 1: To assist us in categorising responses, please provide a description of your organisation, service or interest in protection of children online.
Is this a confidential response? (select as appropriate) No

The Science Media Centre[1] is an independent press office working to increase the accuracy and evidence-base of media reporting of science, to try to ensure the public has access to the best science and to accurate information, especially on controversial issues.

The Science Media Centre has its roots in the influential House of Lords Science and Technology Select Committee third report on Science and Society, which wanted to renew public trust in science. Established in 2002, the Centre believes that scientists can have a huge impact on the way the media cover scientific issues, by engaging more quickly and more effectively with the stories that are influencing public debate and attitudes to science.

Our mission is to provide, for the benefit of the public and policymakers, accurate and evidence-based information about science and engineering through the media, particularly on controversial and headline news stories when most confusion and misinformation occurs.

The Centre often submits evidence to select committee inquiries on science communication in emergencies and public understanding of risk, and in 2011-12 gave both written[2] and oral evidence to the Leveson Inquiry into the culture, ethics and practice of the press.

The independence of the Science Media Centre is critical to the work we carry out. We do not have any specific agenda other than to promote the reporting of evidence-based science, and are completely independent in both our governance[3] and funding[4].

The Science Media Centre has little expertise on much of the specific aspects of Ofcom's call for evidence on online safety regulation and the protection of children, but there are a few aspects relevant to our work and expertise – we shall focus on just those aspects in this evidence. These are certain aspects related to the 'priority' content, specifically in relation to 'harmful health content (including health and vaccine misinformation and disinformation)', as described in the call for evidence.

We will give some evidence in answers to questions 2, 6, 7, 18, 26, and 28 only.

1 https://www.sciencemediacentre.org/
2 https://www.sciencemediacentre.org/wp-content/uploads/2012/09/Science-Media-Centre-Written-Evidence-to-the-Leveson-Inquiry.pdf
3 https://www.sciencemediacentre.org/about-us/governance/
4 https://www.sciencemediacentre.org/about-us/funding/

Question 2: Can you identify factors which might indicate that a service is likely to attract child users?

Is this a confidential response? (select as appropriate)

No

We know from evidence that news media is still a major source of information for the public – even if it is now accessed in a different way, including online and via social media.

Our IPSOS poll[5] conducted in 2022 in people aged 16+ in Britain suggested that online news media outlets (such as BBC News, Sky News and other broadcast news websites) were a bigger source of information about science than social media was, with 34% of those surveyed reporting seeing science information on online news media outlets and 30% reporting seeing it on social media. 30% also reported seeing information about science in national newspapers (print, online or app).

So 'online' doesn't just mean social media, and the importance of online news media shouldn't be forgotten.

Evidence also suggests social media can be a platform for information that originates from elsewhere. Our IPSOS poll[5] showed that, among those aged 16+ who have encountered information about science on social media, 50% said the actual source of this information was 'Traditional news media outlets', and this was the source most commonly reported. This potentially means that the popular idea that young people are not accessing science via news is exaggerated. Information about science may be accessed *via* social media but some of it is *from* traditional news media outlets.

Being attracted to a certain source might not be the same as trusting it, but trust in sources is also important and shouldn't be overlooked. Evidence suggests the public can differentiate information from different sources and that they demonstrate sensible insight into how much trust to put in information accessed via different sources. Our IPSOS poll[5] found that more than 1 in 2 of those surveyed trust information about science from traditional news media in comparison to less than 1 in 5 who trust information about science from social media. This pattern of lower trust in social media than in traditional news media held true even in the youngest age-group in our poll (16-34 years old).

This suggests we cannot assume that simply coming across misinformation on social media is in itself harmful – people don't always trust or believe what they see.

5 On behalf of the SMC, Ipsos UK interviewed a representative quota sample of 2,137 adults aged 16-75 in Great Britain, and a boost of 200 adults aged 76+. Interviews took place on the online Omnibus between 14th and 18th December 2022. Data for all adults 16+ interviewed have been weighted to the known offline population proportions for adults aged 16+ in Great Britain. The referenced figure refers to the 1433 adults aged 16+ in Great Britain surveyed who had encountered information about science through social media via at least one source.

Question 3: What information do services have about the age of users on different platforms (including children)?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 4: How can services ensure that children cannot access a service, or a part of it?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 5: What age assurance and age verification or related technologies are currently available to platforms to protect children from harmful content, and what is the impact and cost of using them?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 6: Can you provide any evidence relating to the presence of content that is harmful to children on user-to-user and search services?

Is this a confidential response? (select as appropriate)

No

There is evidence that even if people see information about science on social media, the source of that information will often be the traditional news media. Our IPSOS poll[5] showed that, among those aged 16+ who have encountered information about science on social media, 50% said the actual source of this information was 'Traditional news media outlets', and this was the source most commonly reported. This potentially means that the popular idea that young people are not accessing science via news is exaggerated. Information about science may be accessed *via* social media but some of it is *from* traditional news media outlets.

Given that news media stories about health – particularly those written by science and health specialist journalists – are often accurate and measured, it could be seen as reassuring that some of what is seen on social media is from traditional news media. During the COVID-19 pandemic in particular, the UK's science and health journalists worked hard to provide the public with accurate information including on vaccines. The Science Media Centre believes these specialist science and health journalists should be championed and supported in newsrooms.

One way to deal with the presence of misinformation online is to flood it with accurate information – it could be helpful to encourage news media outlets to get their content on social media platforms so that even when the public does encounter content that is inaccurate they also encounter other content that is accurate, reliable and trustworthy.

One of the groups of people most trusted[6] by the UK public are scientists and medical professionals. We know that scientists can have a positive impact on the accuracy of media coverage of science and health topics but answering journalists' questions and giving comments. Given we know that content on social media often includes content from traditional news media, scientists should be encouraged to engage with the media when their area of expertise is in the headlines to ensure the public has access to the best science and to reliable and accurate information.

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6 https://www.ipsos.com/en-uk/ipsos-veracity-index-2022

Question 7: Can you provide any evidence relating to the impact on children from accessing content that is harmful to them?

Is this a confidential response? (select as appropriate)

No

Evidence suggests the public can differentiate information from different sources and that they demonstrate sensible insight into how much trust to put in information accessed via different sources. Our IPSOS poll[5] found that more than 1 in 2 of those surveyed trust information about science from traditional news media in comparison to less than 1 in 5 who trust information about science from social media. This pattern of lower trust in social media than in traditional news media held true even in the youngest age-group in our poll (16-34 years old).

This suggests we cannot assume that simply coming across misinformation on social media is in itself harmful – people don't always trust or believe what they see.

Other recent evidence suggests that despite sometimes coming across misinformation online, the public can differentiate between what is reliable information and what isn't.

The latest UK Health Security Agency (UKHSA) online survey[7] looking at parental attitudes to vaccination found that although 15% of parents had read, heard or seen something that made them concerned or worried about their baby or child having their vaccines, parents nevertheless had a high level of confidence in the vaccine programme, with 95% agreeing that vaccines work, 91% saying they think vaccines are safe, and 90% agreeing that they trust vaccines.

The same survey found that parents have a high level of trust in vaccination information received from healthcare professionals and the NHS – 93% ranked the NHS in first to third place and 91% ranked health professionals in first to third place; whereas less than 1% ranked social media in first to third place. This re-emphasises that the public use common sense and seek out reliable sources when making important decisions about their health and we can't assume they will act on misinformation they come across online.

This is good news and potentially means that the idea that harm is caused by the existence of misinformation online may be exaggerated.

The Royal Society, the UK's national academy of science, produced a report[8] on the online information environment in 2022. According to the report, the vast majority of people in the UK believe COVID-19 vaccines are safe, believe that 5G is not harmful, and believe that human activity is responsible for climate change. This is notably different to the common narrative seen in many reports on these issues.

It could be useful and informative for Ofcom to commission research into the actual impact of misinformation on people's views, decisions and behaviour.

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Question 7: Can you provide any evidence relating to the impact on children from accessing content that is harmful to them?

7 https://www.gov.uk/government/publications/childhood-vaccines-parental-attitudes-survey-2022/childhood-vaccines-parental-attitudes-survey-2022-findings
8 https://royalsociety.org/topics-policy/projects/online-information-environment/
https://royalsociety.org/news/2022/01/scientific-misinformation-report/

Question 8: How do services currently assess the risk of harm to children in the UK from content that is harmful to them?

Is this a confidential response? (select as appropriate)

[Please select]

Question 9: What are the exacerbating risk factors services do or should consider which may have an impact on the risk of harm to children in the UK?

Is this a confidential response? (select as appropriate)

[Please select]

Question 10: What are the governance, accountability and decision-making structures for child user and platform safety?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 11: What can providers of online services do to enhance the clarity and accessibility of terms of service and public policy statements for children (including children of different ages)?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 12: How do terms of service or public policy statements treat 'primary priority' and 'priority' harmful content?[1]
Is this a confidential response? (select as appropriate) *[Please select]*

[1] See A1.2 to A1.3 of the call for evidence for more information on the indicative list of harms to children.

Question 13: What can providers of online services do to enhance children's accessibility and awareness of reporting and complaints mechanisms?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 14: Can you provide any evidence or information about the best practices for accurate reporting and/or complaints mechanisms in place for legal content that is harmful to children, or users who post this content, and how these processes are designed and maintained?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 15: What actions do or should services take in response to reports or complaints about online content harmful to children (including complaints from children)?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 15: What actions do or should services take in response to reports or complaints about online content harmful to children (including complaints from children)?

Question 16: What functionalities or features currently exist that are designed to prevent or mitigate the risk or impact of content that is harmful to children? A1.21 in the call for evidence provides some examples of functionalities.
Is this a confidential response? (select as appropriate) *[Please select]*

Question 17: To what extent does or can a service adopt functionalities or features, designed to mitigate the risk or impact of content that is harmful to children on that service?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 18: How can services support the safety and wellbeing of UK child users as regards to content that is harmful to them?

Is this a confidential response? (select as appropriate)

No

One way of dealing with misinformation online is to ensure that it is drowned out by good, accurate, evidence-based information. When it comes to health and vaccine information this means we need experts on these topic – scientists – to get involved and to engage with the media and public.

Many scientific or public health institutions express concerns about the existence of misinformation yet have a cautious and risk averse approach to engaging with that misinformation, especially when it comes to contentious, controversial or polarised topics. But this is often when experts and accurate information are needed most. Universities should recognise the public interest in countering misinformation – they should be encouraged to play their part by being bolder and proactively encouraging and supporting their scientists in engaging in media and public debates on contested issues.

The Science Media Centre works with and supports scientists to proactively engage with the media when their area of expertise hits the headlines – running press briefings on new science, sending out rapid responses to breaking news, and finding well-qualified scientists to answer journalists' questions and take part in broadcast interviews. This accurate and reliable information from these trusted scientists makes its way onto other online platforms including social media, via the news media outlets which write up the stories.

The Science Media Centre advises scientists to 'ignore the mass media at your peril' because the reach of mainstream news media outlets is huge.

News media outlets do have accounts on social media platforms on which they post links to their news content; individual science and health journalists also often have their own social media accounts and also post links to their journalism, which is often accurate and measured. The existence of this content could itself help to counteract and dilute some of the misinformation that is put online by other sources.

Question 19: With reference to content that is harmful to children, how can a service mitigate any risks to children posed by the design of algorithms that support the function of the service (e.g. search engines, or social and content recommender systems)?

Is this a confidential response? (select as appropriate)

[Please select]

Question 19: With reference to content that is harmful to children, how can a service mitigate any risks to children posed by the design of algorithms that support the function of the service (e.g. search engines, or social and content recommender systems)?

Question 20: Could improvements be made to content moderation to deliver greater protection for children, without unduly restricting user activity? If so, what?

Is this a confidential response? (select as appropriate)

[Please select]

Question 21: What automated, or partially automated, moderation systems are currently available (or in development) for content that is harmful to children?

Is this a confidential response? (select as appropriate)

[Please select]

Question 22: How are human moderators used to identify and assess content that is harmful to children?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 23: What training and support is or should be provided to moderators?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 24: How do human moderators and automated systems work together, and what is their relative scale? How should services guard against automation bias?
Is this a confidential response? (select as appropriate) *[Please select]*

Question 25: In what instances is content that is harmful to children, that is in contravention of terms and conditions, removed from a service or the part of a service that children can access?

Is this a confidential response? (select as appropriate)

[Please select]

Question 26: What other mitigations do services currently have to protect children from harmful content?

Is this a confidential response? (select as appropriate)

No

One way of dealing with misinformation online is to ensure that it is drowned out by good, accurate, evidence-based information. When it comes to health and vaccine information this means we need experts on these topic – scientists – to get involved and to engage with the media and public.

It is also important that this accurate information needs to be communicated at speed to avoid leaving a void that could be filled with misinformation.

The Royal Society, the UK's national academy of science, produced a report[8] on the online information environment in 2022 which cautioned against censorship of scientific misinformation online. They reported that there was little evidence that calling for platforms to remove misinformation would limit harm, and warned that doing so could increase mistrust and could drive misinformation into spaces more difficult to access. Instead they suggest measures to build resilience to misinformation, such as supporting media plurality and independent fact-checking.

On some occasions, the Science Media Centre has seen a tendency to overclaim for the impact of misinformation on social media without reference to any evidence. Studies show that misinformation proliferates on social media[9], and also show that many people see misinformation there[10]. But there's a dearth of strong evidence on how that actually impacts either public understanding of science or public behaviour. For example, according to the Royal Society's report[8], the vast majority of people in the UK believe COVID-19 vaccines are safe, believe that 5G is not harmful, and believe that human activity is responsible for climate change. This is notably different to the common narrative seen in many reports on these issues.

It could be useful and informative for Ofcom to commission research into the actual impact of misinformation on people's views, decisions and behaviour.

Question 26: What other mitigations do services currently have to protect children from harmful content?

8 https://royalsociety.org/topics-policy/projects/online-information-environment/
https://royalsociety.org/news/2022/01/scientific-misinformation-report/
9 https://www.pnas.org/doi/10.1073/pnas.2216614120
10 https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2022-06/Digital_News-Report_2022.pdf

Question 27: Where children attempt to circumvent mitigations in place on a service, what further systems and processes can a service put in place to protect children?

Is this a confidential response? (select as appropriate)

[Please select]

Question 28: Other than those covered above in this document (the call for evidence), are you aware of other measures available for mitigating the risk, and impact of, harm from content that is harmful to children?

Is this a confidential response? (select as appropriate)

No

Given we know from evidence that news media is still a major source of information for much of the public, and that science and health specialist journalists often produce accurate and informed articles on health topics including vaccines, it remains important for these journalists to be supported to write about these topics, even when they are controversial or politicised. Ofcom or other organisations with an interest in online misinformation could therefore investigate ways to support specialist science, health and environment journalists; and to encourage media outlets to safeguard these positions.

It remains crucial for media and public debates to be informed by the best evidence and accurate information – when it comes to health topics that means we need scientists to step up and engage when their area of research hits the headlines. Where topics are prone to being subject to misinformation, it is even more important that this happens so that misinformation is drowned out by good and accurate information. Ofcom or other organisations with an interest in online

Question 28: Other than those covered above in this document (the call for evidence), are you aware of other measures available for mitigating the risk, and impact of, harm from content that is harmful to children?

misinformation could therefore encourage scientific organisations to encourage and support these scientists, who enjoy huge public trust, to speak out more.

The Science Media Centre produced a set of recommendations[11] on science and the media, based on our experience during the COVID-19 pandemic. One recommendation is that scientists should be encouraged to engage with the media during a crisis when their area of expertise hits the headlines, no matter how controversial the topic. Universities, research institutes and funders should support their academics to speak to journalists, including offering media training to those who want it. Another relevant recommendation is that scientists should stay in their lane and be 'sciencey' – this means scientists should speak from evidence and with reference to research and data, not opinion or ideology; and scientists should be open and honest about where there are uncertainties and limitations in what the evidence shows. A third relevant recommendation is that multiple voices and open scientific disagreement is part and parcel of good science. Government communications experts often favour clear, single public health messages but science is often messy and unsettled. Glossing over uncertainty and conflicting views to create a simple 'message' is unscientific and risks undermining public trust in science. Multiple voices show the public where there is consensus and where there are different views within the scientific community, helping them assess where the weight of evidence lies. Multiple voices also demonstrates independence and prevents leaving a void in the media that could be filled with misinformation. Public interest is best served by allowing lots of good, qualified scientists to have a voice and thrash out uncertainties and disagreements in the public arena.

The Science Media Centre believes that the public sees scientists as trustworthy when they: are impartial; are open and honest about the limitations of research and any remaining uncertainties; are research active in a specific field of expertise and have been for some years; keep to the facts and evidence when speaking to the public and don't share their opinions and political views; try to restrict their comments to their own area of research and expertise; change their view when the evidence changes; avoid being advocates for particular policies, but instead ensure that policy makers and the public are well-informed about where the weight of evidence lies. Our recent IPSOS poll[1] showed that the main reason those surveyed trust scientists is 'because they are experts in their field' (68%).

11 https://www.sciencemediacentre.org/wp-content/uploads/2022/04/The-Science-Media-Centres-recommendations-on-science-and-the-media-based-on-our-experience-during-the-COVID-19-pandemic-4.pdf
5 On behalf of the SMC, Ipsos UK interviewed a representative quota sample of 2,137 adults aged 16-75 in Great Britain, and a boost of 200 adults aged 76+. Interviews took place on the online Omnibus between 14th and 18th December 2022. Data for all adults 16+ interviewed have been weighted to the known offline population proportions for adults aged 16+ in Great Britain. The referenced figure refers to the 1433 adults aged 16+ in Great Britain surveyed who had encountered information about science through social media via at least one source.