

Written evidence submitted by the British Science Association

British Science Association Digital Culture, Media, and Sport Select Committee submission: Misinformation and trusted voices

About the BSA

1. The [British Science Association](#) is a charity that works to improve people's connection with science. We have organised live events between scientists and the public since 1831 and, in recent decades, have sought to collect and share expertise among the science engagement practitioner community.
2. The BSA has three core pillars of work: education, engagement and influencing (convening stakeholders from across different sectors). The BSA's new 10-year strategy focusses on three key objectives: for science to be more relevant to wider society, more representative of marginalised groups, and more connected; to address structural inequities in science engagement.
3. The BSA provides the secretariat for the APPG on Diversity and Inclusion in STEM, and runs the UK-wide educational initiative CREST Awards and the British Science Festival amongst other activities and programmes.
4. This submission outlines the BSA's evidence on societal attitudes to science, and how this impacts their interaction with misinformation.

Research on public attitudes to science

5. The BSA has conducted research which examines peoples' "science identity", or how connected they feel to science on a day-to-day basis. The research categorises the UK adult population into four groups – those who are professionally involved in science, and those who are engaged in science make up around 25% of the UK adult population. The remaining 75% of the population do not feel included in science, either saying they "are interested in science, but don't make a special effort to stay informed" or that "science is not for me".
6. The BSA believes that many people that actively post misinformation online are likely to be in the "engaged" category, as they see themselves as following and challenging scientific debate. However, the BSA believes that the people who may need support to recognise misinformation are likely to be in the "inactive" or "not interested" categories.
7. The most recent Public Attitudes to Science (PAS) survey (2019) found that women are twice as likely than men to feel unconnected to science (30% vs 14%)¹. Additionally, BSA research suggests that racially minoritised people, people from lower socioeconomic backgrounds, and people with lower levels of education are more likely to feel unconnected to science than White people, people from higher socioeconomic backgrounds, and people with higher levels of education².
8. The BSA believes therefore, that efforts to counter misinformation by engaging the public with authoritative information on science should be inclusive, and in many cases, targeted towards marginalised groups.
9. The BSA recommends that the Government and the National Academies and public bodies work to understand who it is that currently feels disengaged from science, and

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905466/public-attitudes-to-science-2019.pdf

² <https://www.britishtscienceassociation.org/Blog/the-brexit-chasm-our-research-into-science-and-the-referendum>

where they are most likely to receive misinformation on science from, and focus attention on understanding their specific needs and barriers to engagement.

Community engagement and trusted voices

10. The BSA believes that approaches that build relationships (rather than just transfer knowledge) between people, communities, and researchers are the most effective ways to increase trust.
11. The BSA recommends that the Committee looks into community-led approaches to countering misinformation.

Community Engagement

12. The BSA believes that all people and communities in the UK should be supported to engage with STEM, regardless of whether they work in or study science. The BSA believes that in many cases, it is best for historically marginalised and excluded groups to decide how to structure, develop, and execute their engagement with STEM for themselves, rather than have initiatives imposed on them.
13. These relationships take time to build, but the BSA's evaluation shows that they result in increased trust in science and scientists.
14. The BSA offers several UKRI-funded schemes enabling community organisations to engage with STEM. They include a grant scheme for communities to run STEM activities in their local area during British Science Week, a Community Leaders programme for supporting people to run more effective STEM engagement activities, a Community Buddies programme for introducing community leaders to STEM researchers, a Community Engagement Network for sharing news and best practice, and a Making Connections fund for community groups to collaborate with established science engagement activities such as science festivals.
15. The BSA Community Engagement programmes have shown that grassroots and community-led initiatives are an effective way to engage minoritised groups with STEM activities. An estimated 77,000 people took part in activities funded through the British Science Week Community Grant Scheme between 2016-2021: nearly one in six had a physical or mental health condition; two thirds were female; around a third were from Black, Asian, or minority ethnic backgrounds.³
16. One Community Engagement case study is Rochdale Science Initiative, founded by Mohammed Rahman after stumbling across the BSA grant schemes in 2017 when looking for an activity that would be suitable for his gifted, "science enthusiast" son. Mohammed created an annual event for his community because, when he visited local science attractions, he saw that "Most of the time it felt like we were the only Asian family inside that museum. They don't find it relevant to their culture, to their beliefs". Several years later, Mohammed says "I'm in constant dialogue with researchers. I'm using the word 'science' every single day in most of my sentences which isn't something that I used to do before. I'm not a specialist, but I'm an advocate for science."
17. Another grantee, Enitan Kane, chair of the Over 50 Black Men Forum (O5BM), created a report which looked at the impact of COVID-19 on his community members. This report included the impacts of COVID-19 on isolation, shielding, jobs, physical and mental health, and the disproportionate effects faced by their community. When asked if this had changed their relationship with science, Enitan replied "Definitely. We've all learned about using data science to drive messages about healthy living within our community

³ <https://www.britishtscienceassociation.org/Handlers/Download.ashx?IDMF=bf7b658c-dc0b-4a27-96e8-c9a61249d26c>

group. It's helped us realise that science isn't just test tubes, we can use science to drive and influence our everyday behaviour.⁴ ”

18. Building these long-term relationships, grounded in the communities they are targeted for, is more likely to promote trusted, authoritative information on science as it is shared peer-to-peer, rather than from an external body. In the long-term, this makes misinformation less likely to be spread online.

AccessLab

19. In 2018, the BSA ran a NERC-funded pilot programme, AccessLab, which aimed to introduce community members to researchers in order to share research skills and find trusted information about a topic of their choice. Evaluation of the programme showed that the workshops helped people access the information they need and show researchers first-hand just how many people want to be able to use their work. This is supported by comments from participants who said they learned that “scientific data is not locked away in an impenetrable box... we can access it as ordinary citizens and interrogate it.”⁵ The project was taken forward in-part by ThenTryThis in Cornwall.

Ideas Fund

20. The Wellcome Trust funded Ideas Fund is a grants programme that supports partnerships between communities and researchers around mental health and wellbeing.
21. Evaluation of the grants has shown that the partnerships have been “liberating and exciting” for researchers, and that “The non-hierarchical character of our collaboration is very refreshing”. One of the community groups have said that “We find ourselves ‘thinking’ more in research terms”.

Youth voice and young people

22. The BSA believes all young people have a right to have their voice heard in discussions over science’s role in their lives, communities, and society at large. Despite this, research undertaken by the BSA in 2017 found that young people do not feel able to have their say on the issues affecting their future.
23. Research carried out by the ASPIRES 2 project, which explores the concept of “science capital”, found that the factors that shape STEM aspirations and identities in young people are “heavily influenced by existing social inequalities such as class, gender, and ethnicity”. They found that dominant representations of science as being associated with “cleverness” and “masculinity” made many young people feel less connected to science, and that the way science is represented in everyday life was influential in shaping young people’s impressions of whether they were “suited” to science⁶.
24. The BSA conducts regular youth surveys and facilitated workshops as part of the Future Forum programme, which involves young people in suggesting innovations and policy ideas for societal challenges. Topics have included genetics research, medical data, ageing societies, AI, clean growth, and the future of mobility.
25. Polling by the BSA found 9 in 10 young people felt that politicians and scientists were not addressing them directly when discussing the COVID-19 pandemic and its impacts. The data indicated a fall in trust between May 2020 and November 2020, with young people

⁴ <https://www.britishtscienceassociation.org/Blog/black-voices-of-the-pandemic-qa-with-enitan-kane>

⁵ <https://www.britishtscienceassociation.org/Blog/update-on-accesslab>

⁶

https://discovery.ucl.ac.uk/id/eprint/10092041/15/Moote_9538%20UCL%20Aspires%202%20report%20full%20online%20version.pdf

less likely to trust scientists (35% down from 41%) teachers (21% down from 27%) and politicians (6% down from 9%) to tell them the truth about COVID-19.

26. The same polling found that, in May 2020, 37% of young people were more interested in a scientific career as a result of the pandemic. The BSA believes it is critical that this appetite is nurtured by industry and government, to build a diverse and sustainable STEM workforce for the future. The BSA suggests that listening to and involving young people on societal discussions about STEM are an important way to build long-term interest and trust.

Promoting discussion rather than “authoritative information”

27. BSA believes that rather than focusing on the provision of “authoritative information” it is important for people to feel engaged in discussion, dialogue, and debate about divisive or controversial topics, so that scientists and policymakers can be responsive to the values and views that drive public opinion.
28. The UKRI-funded Sciencewise programme enables policy makers to develop socially informed policy, with a particular emphasis on science and technology. Since 2004, Sciencewise has supported almost 70 public dialogue projects on often controversial technologies and cross-cutting issues of societal change, from AI, gene editing, and climate technology to low-carbon growth and the future of food production. The Sciencewise priority themes were updated in January 2022, drawing from key government and research council priorities, and the latest research and innovation trends: Climate and Environment: How can society live sustainably? Data, AI and Robotics: How should society shape our digital world? Health, Ageing and Wellbeing: How should society live healthy lives? Life Sciences and Biotechnology: How should society shape the future of life?
29. Sciencewise has built a strong reputation for innovation, inclusivity, and impact and successfully implemented several major online public dialogues during the Covid-19 pandemic.
30. The BSA recommends that future communications and misinformation strategies are developed in dialogue with the public, and especially with people and communities who are currently underrepresented in science.