Background on the Case Studies

RETHINK has talked to different science communicators to find out which audiences they want to address and which challenges they face when doing so, in not only but also the context of the digital media environment. These descriptions have been summarised as short case studies. These mini case studies give an overview of potential barriers that science communication practitioners are experiencing in their everyday work.

Source: RETHINK Research Report: Investigating the links between science communication actors and between actors and their audiences.

URL: https://www.rethinkscicomm.eu/wp-content/uploads/2020/06/RETHINK_-D1.3-Report-on-links-between-the-different-actors-engaged-in-science-communication-and-how-the-actors-foster-connections-with-their-audiences-1.pdf

1. The Scientist

A scientist identified school classes among her audiences, stating that connections take the form of visits to her research centre by pupils. In terms of barriers, she said, 'The more "served" schools are more active, hard-to-reach schools/classes are less served.' The hard-to-reach schools are those in which teachers and/or the head teacher does not or cannot respond to offers of visits to the research centre. In some instances, it may be a teacher's lack of time to request or attend these visits due to other responsibilities, such as supporting pupils from disadvantaged backgrounds, that stands in their way. She also stated, 'Time is a huge constraint. One would need longer to build solid interactions.'

This participant also described collaborations with researchers to communicate their research to the public, including schools. In terms of barriers, this group of scientists described a, 'desire of researchers to be very specific versus comprehensibility.' They also stated, 'The researchers don't have enough time' and 'Principle investigators and research group leaders often consider science communication a loss of time and don't like their students/postdocs to do it.'

Citizens in the local community were identified as another audience. Here, the communication takes place through conferences, exhibitions and citizen science projects. In terms of barriers, this participant stated, 'Difficult to get in touch with many social groups. We miss the good channels to involve them. Probably we would need to involve more intermediaries.'

2. The Press Officer

A press officer listed 'potential future employees' as an audience. She broke this down further into sub-audiences of parents, young people, women and 'harder to reach audiences, e.g. lower earning areas'. The nature of communications with these audiences were described as 'own channels' and 'outside channels'. Own channels includes several digital platforms: Facebook, Instagram, Twitter, website/blog as well as face-to-face connections. Outside channels comprised contributions to blogs run by other organisations, contributions to the media and staff contributions to their own social media channels, such as LinkedIn.

Barriers to communication with these 'potential future employees' were linked to the digital platforms used and listed as 'Getting info back, generating a conversation. Difficult to know what they [the audience] want', and 'How to break out of existing audiences to a broader group.' Some of these potential future employees are those who are qualified to work for the organisation. Here, there is deemed to be a lack of knowledge of the style of content and language that appeals to this audience when jobs are being advertised. Other potential employees targeted are younger; employees of the future. Here, the aim is to encourage young people to study STEM subjects so they may work for the organisation in the future. With these individuals, the challenge is deemed to be around understanding how to segment what is perceived to be a broad audience and knowing what content appeals to which groups. The barriers linked to the outside channels were, 'Hard to make space relatable' and 'Competing with lots of other media'.

The other audience listed by this press officer was 'policymakers/funders' and communications with this audience takes place via Twitter and LinkedIn, as well as face-to-face at events run by her employer or events they take part in. The press officer described barriers to communication as the 'competing priorities faced by policymakers' as well as a perceived need for 'general public support and interest' to get policymakers to act on the science being communicated. Such public support is deemed to be particularly important in securing funding from the policymakers.

3. The Communicator

A science communication practitioner who works in a venue that hosts science activities and at science events stated that one audience is young people outside of school, and he connects with them through workshops and lectures. The barrier to the audience was 'lack of interest' on the part of the audience. He added, 'It is tremendously difficult to get children aged 11–16 interested in any kind of workshops or lectures.' Participants in our study stated that the primary school and high school systems do not encourage an interest in science and added, 'Therefore, a great deal of effort must be made to bring science closer to children.'

Another audience was researchers, who are reached via social networks. The stated barriers were 'lack of support' and 'hard-to-reach target group'. A final audience is 'teachers/professors'. As with the researchers, the goal in reaching this group is to encourage them to communicate their science and encourage others to do that as well. No connections were described, and 'lack of support' and 'lack of time' were the barriers provided. This lack of support was said to be from the target institutions, such as universities. This participant added, 'Even laboratories at universities are hard to reach, and they play a major role in the effort of researchers who want to advance by presenting their research to a bigger audience.'

Communicators stated that they aimed to create a community of science communication practitioners who will work together to overcome their respective barriers to reaching their audiences.

4. The Journalist

A freelance journalist indicated that she mainly reaches those already interested in science, but she aims to reach those of lower socio-economic status and less well-educated people as well. She communicates through articles in newspapers and magazines as well as via Twitter. In terms of the less well-educated audience, the barrier mentioned here was, 'They might not read the kind of media I produce, and they are discouraged by the language I use.'

In terms of the more educated readers, this journalist divided them into two broad groups: those who are extremely critical of the mainstream media she writes for, such as newspapers, and those who are not critical of what they read because they identify with the publication. When speaking of the typically more educated readers, she said, 'I wouldn't be able to get to them because they hate mainstream media and are very critical of it'. She said that someone in this group may say something like, 'Well, newspapers; you can't trust them all.'

This freelance journalist also writes for a popular science publication. She said of this, 'The articles included in there are of a different calibre. Some people mainly respond, "Gosh, nice to know," but it ends there. It doesn't make you a very critical citizen. People can browse through the magazine and find nice things in it, but that is not my goal.'

In terms of her goal, she indicated that it is important to her that she enables people to shape their own opinion based on well-balanced and fair information.

5. The Blogger

A scientist blogger stated they want to reach the 'average Joe' through blogs, Facebook posts and lectures. The barriers stated by this participant were 'inherent fear of science' and 'hard topics', adding that sometimes, just seeing a chemical formula or simple equation induces a panic reaction in the audience.

Another stated barrier is the politicization of topics, like climate or energy, as is 'people wanting clear and fast answers to complicated issues, and you must have time to be able to do that'. In relation to this barrier, this blogger added that they believe these complicated issues are not beyond the capacity of the audience to understand, but it requires time to explain them.

Several persons mentioned not having enough time and money to do science communication properly, especially when aiming to reach out to new or hard-to-reach audiences.

6. The Podcaster

One participant runs a science podcast and stated that the intended audience is 'listeners'. The barriers to this audience were 'Lack of time to engage with listeners' and '[There are] thousands of podcasts. How to break through and reach out?'

Participants also stated that another barrier is 'Reach[ing] those not used to podcast listening'. This participant also runs live science events and stated that the audience is mostly aged 20–40. The barriers included 'little knowledge of what happens after the shows. Does the knowledge get spread?' Also cited were 'short time to talk about complicated stuff' and 'some academics tend not to want to speak about stuff outside their field.'

7. The PR Professional

One person who works as a public relations employee stated their intended audience to be policymakers (reached through their support staff), advisors who work with political parties in commissions and committees. Participants in our study stated that some support staff are specialised in specific subjects, and these can be particularly helpful in reaching policymakers. These support staff are usually reached through direct contact (with the ones known to the Rethinkerspace member), by email or social media.

This employee considered policymakers to be a hard audience to reach, due to a 'lack of interest' and a 'lack of forums to meet or discuss'. Participants stated that they have a 'stable connection' with them through teams that support science-based policy and that discussion forums with policymakers would facilitate this interaction. They also suggested science cafes at Parliament and regular debates involving scientists and policymakers.

This participant also aims to reach journalists. The connection here was direct contact, such as through phone calls and email, press releases and social media platforms, such as Twitter. Barriers mentioned here were a lack of time on both sides, little space for science in the media, and the lack of availability of scientists. University students were the third audience that this participant indicated they aimed to reach. Again, social media, such as Twitter, Instagram and Facebook, were indicated to be a connection with this audience. However, this participant indicated that universities themselves formed a barrier to connecting with university students, adding that organising presentations for students and inviting students to participate at events can be a challenge.