

Reflections on an EDI Survey of UK-Government-Funded Research Networks in the UK

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Reflections on an EDI Survey of UK-Government-Funded Research Networks in the UK

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ABSTRACT

We discuss the results of a Community EDI Survey run in 2021 by the Network of Networks, a union of largely physical sciences and engineering UK-based research networks. We discuss implications of the results for how we organise and support attendance at events across our networks and on feedback as to what does and doesn't work for events blending in-person and online attendance. To put this work in context we survey relevant literature on the value or otherwise of blended and online events for supporting the diverse membership of a network. The survey results also provide interesting feedback on the diversity of our networks and how inclusive our networks are perceived to be as a function of the identity of the respondents.

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1. INTRODUCTION

In this paper we discuss the results of a Community Equality Diversity and Inclusion (EDI) Survey run by the Network of Networks, a union of research networks, largely funded by the UK Engineering and Physical Sciences Research Council (EPSRC). The Network of Networks (NoN) is coordinated by the Connected Everything Network led from the University of Nottingham.

The anonymous survey, sent out to members of our networks from July 2021 with a closing date in September 2021, asked:

- How inclusive are our networks and their activities?
- For the diversity characteristics of the respondents
- About barriers/enablers for event attendance, and what does/doesn't work with blended events
- About travelling and Covid, and for any other comments

In total we received 267 responses from 19 networks. Relevant to the subject area of this conference, 70% (187) of the responses were from members of the UK Acoustics Network (UKAN, acoustics.ac.uk). The response rate was rather modest, but these responses, in particular the free-form responses, have provided us with a wealth of data which we discuss below.

1.1. Motivation for the Survey

From March 2020 onwards, two factors intersected to provide the motivation for the survey. The first was the now widely accepted fact that fostering inclusion is essential for a high-performing research and innovation (R&I) system. Over recent decades, there has been a wealth of global and UK-based research to examine the widespread disadvantages faced by under-represented groups in academia, and setting out the significant benefits of EDI to universities and research outcomes [1].

In the UK, UK Research and Innovation (UKRI), has made EDI a priority since it was formed in 2018. UKRI states that they have a responsibility to ensure the health of the R&I system, now and in the future, and that this requires a diversity of people and ideas. The organisation has initiated work streams to support this aim, building on work undertaken by its individual component research councils, including EPSRC. For example, EPSRC recently set out their 'Expectations for EDI' [2], co-authored by Debra Fearnshaw, one of the authors of this paper. 'Expectation Three' notes that activities undertaken as part of EPSRC grants should be explicitly inclusive, accessible and diverse for speakers and attendees, recommending that Networks should publish a code of conduct for organised activities. Within this context of a drive to improve diversity and inclusivity across all UKRI-funded grants, NoN has recognised the importance of EDI and held focused sessions in February and May 2021 to examine how networks could be more inclusive. This led to a small working group being formed to develop a survey to establish a benchmark.

The second motivating factor was the widely made observance that remote working during the COVID pandemic had enabled a more diverse attendance and participation at academic conferences and events [3, 4], especially regarding post-doctoral scholars (up 344%) and women (up 254%) [4]. Given the importance of fostering a more inclusive and diverse staff in UK HE, and the suggested impact of remote working on this, it was therefore important to NoN that the impact of online events was explored and analysed. The aim of this was to ensure that any benefits in relation to increasing inclusion and diversity were not lost as we moved back to in-person meetings and events.

1.2. The Survey Development

The survey design and implementation working group was led by Dr Samantha Kanza (AI 4 Scientific Discovery Network), with Debra Fearnshaw (Connected Everything Network) and Eleri Jones (PETRAS), all authors of this paper, plus Beth McEvoy (E Futures Network), Dr Andrea Johnston (CMAC), and Dr Pamila Sharma (Digitalised Surface Manufacturing Network). The draft went back to the wider NoN for approval.

After looking at different examples of questions to probe the diversity of our members, the working group recommended using the Advance HE - Guidance on the collection of diversity monitoring data, as of March 2021. It also proposed to add questions on caring responsibilities and socioeconomic background. We received full ethics approval from the University of Southampton Ethics and Research Governance Team to run this survey under ERGO no 66119.

2. BACKGROUND AND LITERATURE REVIEW

Academic events provide valuable opportunities for researchers to disseminate their research, exchange ideas and form collaborations. However, such events pose challenges such as exclusivity, value for money, and environmental impact [5]. The exclusivity of events further exacerbates the inequality within the academic community as certain academic groups miss career opportunities from being unable to engage with all aspects of these events. While research aimed at advancing equality and inclusion within academia is increasing, a gap exists between the research and practices to achieve change [6]. To drive change Gagnon et al. [6] emphasise the importance of measuring diversity and links to measured outcomes to benchmark future studies on how interventions affect diversity. Further, collecting EDI data can also drive aspirations, provide a target for actions, and allow institutions to consider common issues. Previous studies have focused on measuring age, gender, and ethnicity while other forms of diversity have been given less attention [7]. When striving to make events inclusive for all it is important to consider the requirements of all diverse groups.

Pre-pandemic, academic conferences were held almost exclusively in-person and organisers often adopted a standardised structure that led to practices that excluded researchers relating to a wide range of factors including, but not limited to, gender, ethnic, racial, socioeconomic, health, and geographical backgrounds [5,8]. Olsen et. al [8] reflect on the event barriers they experienced as disabled academics (e.g., only short breaks between talks, focus on evening activities, and inaccessible networking space) that led to social exclusion, physical injuries and a desire never to attend future conferences. Guidance is available on the general considerations to make in-person events accessible to all regarding venue selection, venue layout, transport, staff training and more (e.g., [9]).

A lack of diversity within the event programme not only reduces the inclusivity of the event but also can inhibit professional development within the discipline, send misleading signals to the next generation of researchers, and limit access to networking and career-building opportunities [10]. Gender equality among conference panels has been a long-standing issue, spawning the term ‘manel’ (i.e., all-male panel) [10]; however, examples exist of an even larger disparity between white and ethnic minority speakers [11]. Suggestions to improve representation within an event include promoting awareness of representation needs when assembling programme speakers and panels [10].

During the pandemic, academic events moved online, which presented opportunities to mitigate delegates’ concerns regarding travel, caring responsibilities, cost, and carbon emissions [3, 12]. However, inclusivity barriers unique to online events emerged including scheduling of sessions, availability of internet connection, screen fatigue, reduced engagement, ineffective networking between peers, missed opportunities for ECRs to build networks and accessibility of digital platform [3, 12]. Raby and Madden [12] found that the limitations of online events are primarily due to the inability to replicate networking and social opportunities but suggest that this is compensated for due to online events attracting larger and more diverse audiences.

3. THE SURVEY RESULTS AND DISCUSSION

3.1. The Diversity of our Networks and Perceptions of Inclusivity

To understand the diversity of our NoN memberships, and to enable analysis of the results by diversity characteristics, the survey asked about the diversity of our members, specifically for details of: **Academia/Industry affiliation, Gender, Age, Ethnicity, Disability, Sexual Orientation,**

Religion or Belief, Caring Responsibilities, Socioeconomic disadvantage. As noted in the introduction, only 267 people of the thousands approached via our collective mailing lists, responded to this survey. The responses to the diversity questions may not be representative of our collective memberships as a whole, since the response rate was very variable across our networks. It may also be that there are differential response rates between people with different characteristics.

Nevertheless, we expect that this data will be useful for benchmarking against future surveys. It also gives us a sense of our current diversity, which we can compare with other available data to steer action to further diversify our networks. As examples of this data, Figure 1 shows the breakdown, across all our networks, of the survey responses to the Gender and Disability questions. Only 4.1% of respondents identify as disabled, which is low compared to publicly available data for the UK higher education sector; 5.5% of HE staff [13] and 11.0% of HE Research Students [14] identify as disabled. Figure 1 also shows the responses to the gender question, with 26.6% of respondents identifying as female. This is low compared to the average for SET (science, engineering, and technology, (including medical sciences and psychology)) in HE, which is 43.2% female (academic staff) [9], 45.6% female (Postgraduate Research Students), but comparable (Table 1) to figures for engineering and mathematical/physical sciences, subject areas more representative of our main funder EPSRC.

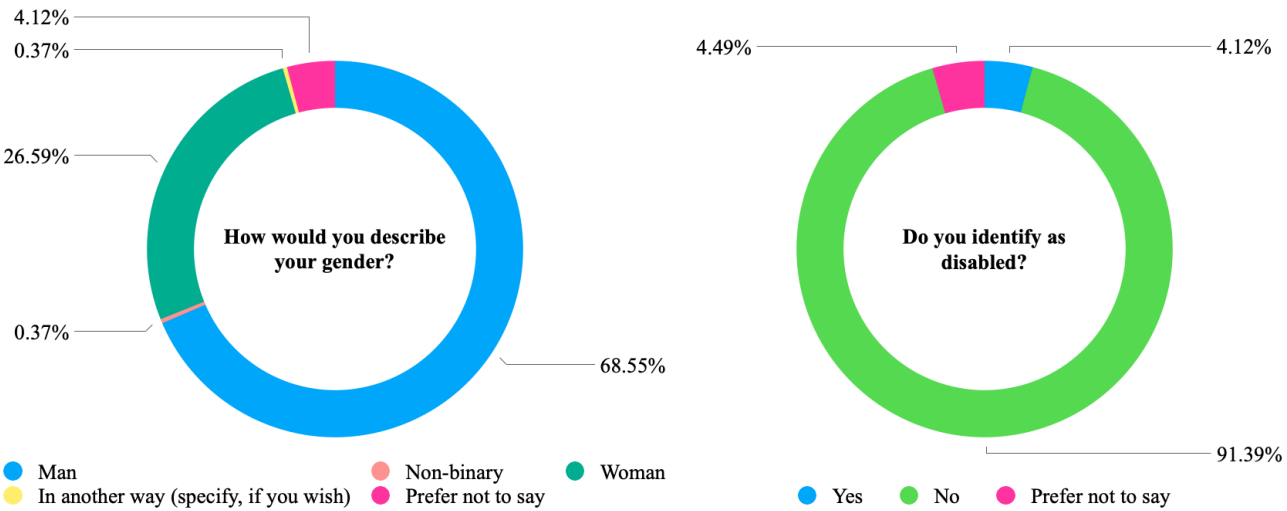


Figure 1: Responses to Gender and Disability questions.

Table 1: Percentage of respondents identifying as female compared to academic staff data [13] and Postgraduate Research Student (PGR) [14] data for SET subjects.

Survey	Physics Acad	Maths Acad	Eng Acad	Phy Sci PGR	Math Sci PGR	Eng PGR
26.6%	20.3%	23.7%	23.9%	36.3%	28.7%	25.9%

We also asked questions (see Figure 2) to get a sense of how inclusive our networks are perceived to be; for example, responding to the last question, 72.3% of respondents perceive their network to be inclusive or very inclusive. But these figures reduce significantly if we focus on particular groups. For example, the inclusive/very inclusive total reduces by between 8.5% and 12.6% over the four questions, with a reduction of 10.4% to 61.9% of those respondents perceiving their network as inclusive/very inclusive, if we look only at responses from those not identifying as male (with similar reductions when focusing on other minority groups, e.g. those with disabilities, or respondents categorised as black, Asian, and minority ethnic (BAME)).

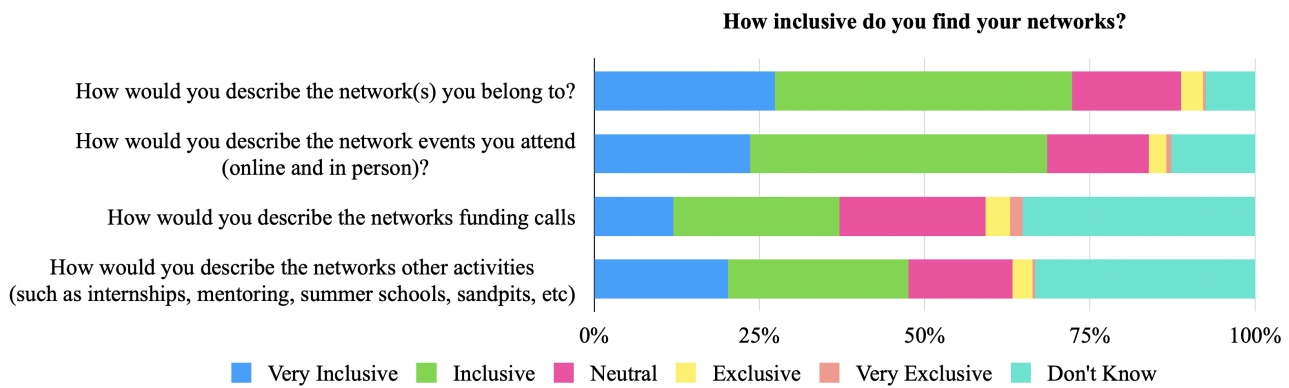


Figure 2: Perceptions of inclusivity of our networks (overall data).

3.2. Feedback on Improving our Events

The survey focused strongly, in its more open-ended questions, on the design and running of events, providing a wealth of feedback on barriers and enablers for attendance at events, on what works and what doesn't work in running blended events, and on enthusiasm or not (as at September 2021) for travelling and/or staying overnight, and for online, face-to-face, and blended events.

Attitudes to event attendance. The survey took place during severe Covid restrictions including significant travel limitations. To help us understand desirable provisions for event design and organisation, the survey asked several questions about event attendance once travel restrictions were lifted. The questions and results are shown in Table 2. Messages from this data include: 12% uncomfortable with travelling to an event, 72% comfortable/very comfortable; only 7% uncomfortable with blended events, with 84% comfortable/very comfortable; a significant majority (60%) comfortable or very comfortable with online events being mainly used, but a significant minority (19%) not comfortable, or very uncomfortable.

Table 2: Attitudes to Event Attendance.

When travel restrictions are lifted how do you feel about:	Very Comfortable	Comfortable	Neither	Not Comfortable	Very Uncomfortable
Taking time to travel for an event (daytime only)	27%	45%	16%	9%	3%
Staying overnight for a multi-day event	22%	42%	16%	14%	6%
Having blended event where you can attend online and /or in person	45%	39%	9%	5%	2%
Online events being mainly used	26%	34%	21%	17%	2%
How would you feel about paying for in person events?	7%	39%	31%	17%	7%

Barriers and Enablers for Events. The survey asked free-form questions regarding barriers and enablers to attending events in person. Table 3 lists the major barriers and enablers identified in order (see [15] for detailed UKAN responses). There are clear messages regarding barriers, though we note

that the four most important barriers listed are those used as exemplars in the survey question.

Table 3: Barriers and enablers, in order of importance.

Barriers	% of respondents	Enablers	% of respondents
Location/Travel/transport	44.6%	Subsidise costs	42.3%
Date clashes/time commitments	40.4%	Convenient timings/avoiding clashes	9.0%
Finances	33.7%	Viable location/travel/transport	7.5%
Caring responsibilities	23.2%	Help with caring responsibilities	5.2%
COVID/Health concerns	11.2%	COVID mitigations	4.5%
Nature of event	2.2%	Interesting/relevant events	2.3%

Participants were also asked for free-form responses about what factors are important with respect to running blended events and encouraged to provide examples of their own experiences of attending such events. The responses were mixed with respect to whether participants felt that online/blended events worked well, but many insightful comments and suggestions about how to make improvements were made, which fall into four main categories:

Good Technology. Respondents stated that this is vital to run a blended event well. The organisers need to locate a space with good acoustics, good lighting, and room to set up all the equipment needed. Cameras should be used to live stream the presenter and their slides through to the online participants. It is imperative to have excellent sound quality. High quality microphones must be used for speakers, session chairs and any members of the physical audience asking questions. Speakers should be placed so that physical participants can hear questions and comments from online participants. Platforms (such as Zoom) enable both physical and virtual attendees to interact as part of the same chat.

Equality of Experience for Online Participants. Many participant responses noted that it is easy for online attendees to get sidelined as second-class citizens in favour of physical attendees. Several suggestions were provided to mitigate this. Multiple session chairs should be in place (one to manage the physical, one the virtual) so that all attendees are given equal attention. The online participants should be included in all Q+A sessions, with a dedicated chair to ensure that their questions are answered by either asking them themselves, or enabling the participants to speak using the conference platform. Talks should be made available afterwards for anyone who missed parts of them. Online attendees should pay a reduced rate to account for not requiring food/coffee/space.

Event Type and Intended Outcomes. Many participants noted that online events are great for learning and tuning into talks but are substantially less useful for networking. Equally, physical events are very useful for networking and should provide a useful element above just enabling participants to listen to talks which could easily be done online. There needs to be a tangible benefit to anyone attending an event physically.

Benefits of Online Events. Some participants noted that running online or blended events makes the event more inclusive to those who cannot or do not wish to attend physical events, and that they are also more environmentally sustainable.

3.3. Discussion

This survey has provided useful information both on the diversity and inclusivity of our networks, but also on how we can work on improving our events in the future and what areas we need to be most mindful of. As noted by Gagnon et al [6] it is vital to measure diversity to benchmark

for future studies. At present our networks do not demonstrate a high level of diversity, and we look to improve this across our networks. There could be several reasons why our networks are not particularly diverse. The fact that minority groups perceive our networks to be less inclusive than the overall cohort could suggest that some of our current practices need to improve with respect to inclusivity, and that in itself might increase our diversity if more diverse groups perceive us to be more inclusive.

Further, there are a number of barriers in place with respect to attending network events that need to be addressed. It is interesting that, even though this survey was taken during the peak of the second wave of the COVID-19 pandemic, COVID concerns and mitigations, whilst obviously noted, were not listed as one of the top four barriers or enablers to attending events. This suggests that the main barriers exist irrespective of COVID, and will continue to exist as we progress into the “new normal”.

Time taken to travel to and attend events is a big barrier. This can be partly mitigated by using blended events to remove the travel issue for those who do not attend in person. This does not necessarily mitigate against people having the time to attend events, however there are other measures that can be taken. For example, running events during core hours compatible with school run times and school holidays, making content available offline if parts of meetings are missed, and avoiding religious holidays. These measures would also help mitigate against the barrier of caring responsibilities. If Networks collaborate (like NoN), a shared calendar could reduce the chance of event clashes.

Sarabipour et al [5] noted money as a key challenge in running academic conferences, and this is certainly reflected in the survey results, with a third of the respondents noting finances as a barrier to attending events, and 42% noting that subsidized costs would reduce the barriers to event attendance. There are ways to achieve this, such as running a mix of online and blended events, so that more funds can be made available for the events that require physical locations, or by bringing in event sponsorship for particular events that are attractive to industry collaborators.

Additionally, the responses in Section 3.2 regarding blended events suggest significant potential for lack of inclusivity for online participants if these are not run well. There are many advantages to offering blended events, not least they can increase inclusivity by allowing people who would otherwise be unable to attend to take part, but this only works if they are run in an inclusive fashion where online participants are given the same weight of importance as physical attendees.

4. CONCLUSIONS

Our survey suggests that at present our networks are not overly diverse, and whilst on the face of it they seem inclusive, it is important to note that they are perceived as less inclusive by minority groups (including non males, those with disabilities, and BAME respondents). This suggests that there is much more work to be done. We plan to tackle this by running more blended events using the suggestions provided by this survey (e.g. good technology, inclusion of online participants, sensible timings) and where physical events take place we will be taking on board the suggestions around subsidisation where possible. We will ensure the use of gender-neutral language and will be looking to diversity our speakers and event attendees, hopefully increasing both the diversity and inclusiveness of our networks which should in turn further increase diversity by making minority groups feel more welcome. We will re-run a version of this survey in 2022 and compare results to this initial benchmark to see where improvements have been made.

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