

Hosting a virtual conference

A quick guide



University of
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Introduction

Travel is likely to account for the biggest share of the carbon footprint of any major academic conference, especially if it attracts international delegates.

Concerns over the climate impacts of air travel in particular have driven efforts to promote virtual forms of conferencing, enabling speakers and other participants to engage without being physically present.

Virtual conferencing can also bring a host of wider benefits to academia by promoting inclusion, widening reach and multiplying opportunities for collaboration, not to mention saving the time and other costs associated with long-haul travel.

The imperative on conference organisers is now stronger than ever to offer their fellow researchers the opportunity to participate in global academic culture without the costs of attending in person.

This note provides an initial overview of the main options for hosting a virtual conference, together with links to guidance and other resources published by institutions which have pioneered technological and other approaches to reducing the carbon footprint of academic conferences.

For more detailed technical advice on the most appropriate and viable options for hosting a virtual conference or other events at the University, please contact [Unified Comms](#).

Virtual conference formats

Multiple options exist to enable virtual conference participation, from traditional meetings with livestreaming to an online audience and/or a number of remote presentations, to fully virtual events involving no face-to-face interaction between participants based in various locations. The following is a selection of the options available, some of which may be used in combination.

(i) Traditional conference with live-stream to online audience

The simplest way to enable a wider audience to engage in any conference in real time without being physically present is to live-stream proceedings via the internet. With online platforms like YouTube, there is no limit to the number or geographic location of the audience, subject to internet access.

Interaction by remote participants is possible using messaging or comments on the livestream, but not by two-way voice or video.

(ii) Traditional conference with remote presentations

Any conventional conference can be adapted to include remote presentations. To guarantee the technical quality of remote talks, organizers may specify the facilities and/or technical support available to the presenter.

Subject to their local internet access, it is generally preferable to enable audience interaction by connecting

the remote speaker with the conference location through two-way communication software such as Zoom or Skype. YouTube provides an accessible one-way option if connections speeds won't support a more interactive platform.

As well as cutting travel emissions, offering speakers the chance to present remotely is likely to be attractive to those with time, financial or other constraints that would make travelling difficult.

(iii) Semi-virtual conference with interconnected regional/local hubs

This option involves splitting a conference into several interconnected regional or local hubs, enabling groups of participants to assemble physically in multiple locations without the need for long-distance travel.

In principle the number of hubs is unlimited. More, smaller hubs will generally increase accessibility and reduce travel emissions, but this has to be balanced with the added complexity of co-ordinating the programme and technology requirements in multiple locations.

The multi-location semi-virtual format has been used successfully for a number of international academic conferences, with hubs located on several continents combining to achieve a global reach that may not have been possible with a more conventional conference.

(iv) Fully virtual conferences with 100% remote participation

Various models exist for virtual conferencing that eliminates the need to travel completely. In this case the benefits of a wider reach, lower costs of participation and reduced travel emissions must be weighed against the absence of physical interaction between participants, except those who are based in the same location.

One relatively simple model of 'nearly carbon neutral' conference involves pre-recorded presentations being published in virtual panels on a conference website with online Q&A sessions enabling participants to interact with the speakers and each other by posting comments over a specified period of time. Organisers of two pilot conferences using this approach in the US claimed their total carbon emissions were less than 1% of a traditional 'fly-in' event.

The growth of real-time online solutions has brought a wider range of fully virtual options within reach of conference organisers. Innovative new formats such as the Twitter conference are helping to lower the technological barriers to entry which may otherwise dissuade many from experimenting with a digital approach.

Preparation

As for any conference, it's important to prepare and test the technology ahead of time and have a back-up in case of failure.

- If possible, make yourself familiar with the room and set-up.
- If you are using technology for the first time within the University and want help then please ask via service-desk@bristol.ac.uk.
- Please try to make arrangements with as much advance notice as possible as IT Services cannot always get to locations at very short notice.

- For some more complex virtual events, it might be necessary to pay a third party for additional support.

Briefing participants ahead of time about how to engage with any virtual sessions will also be important to remove any uncertainty for those unfamiliar with the format, and to ensure equity of participation between those 'in the room' and those taking part remotely.

Other ways to cut your conference carbon footprint

Aside from virtual conferencing, other ways to reduce the travel-related carbon footprint of an event involving participants from different countries include:

- Holding regular events less frequently
- Hosting separate regional events instead of a single international one
- Providing discounts for international delegates who travel overland
- Promoting sustainable travel options to delegates as part of their joining information

References and other resources

Technical guidance

- [Nearly Carbon Neutral Conference Model – White Paper / Practical Guide](#)
- [Semi Virtual Conference Guidelines \(University of Graz\)](#)
- [The semi-virtual academic conference \(a short documentary\)](#)
- [University of Alberta's Virtual Conferencing Toolkit](#)

Further reading

- [Seven steps to make travel to scientific conferences more sustainable. Nature \(2019\)](#)
- [How can academic and professional organizations reduce flying to conferences? Yale Climate Connections \(2019\)](#)
- [Environmental sustainability goals drive changes in conference practices. Physics Today \(2019\)](#)

Virtual conference examples

- [15th International Conference on Music Perception and Cognition and 10th triennial conference of the European Society for the Cognitive Sciences of Music](#)
- [Centre for Climate and Energy Transformation: Beyond Oil Conference 2017 and 2019 \(University of Bergen\)](#)
- [Displacements: The 2018 Biennial Meeting of the Society for Cultural Anthropology](#)
- [Ecology & Religion in Nineteenth-Century Studies Conference \(Baylor University, Texas\)](#)
- [British Society for the History of Science Twitter Conference \(Feb 2020\)](#)