

## The Surprising Advantages of Virtual Conferences

*Among other things, they're easier on the environment and more inclusive than in-person meetings*

It's easy to see why people don't love the idea of virtual conferences. Sitting for hours behind a computer screen, listening to a floating head, isn't exactly a thrilling prospect. You don't get to bask in the exotic setting of a tropical island or other international location. And virtual conferences don't allow researchers to retreat from their everyday routines and fully immerse themselves in sharing knowledge. The lack of in-person interaction is also a problem. It's no exaggeration that many a fruitful collaboration and career move can be traced back to a long conference lunch queue. Even being invited to present at a virtual conference can ring somewhat hollow. Alone in the office, speakers must struggle not only with technological demands but also with connecting with their remote audience.

There is no doubt that virtual conferences in the current time of COVID-19 raise challenges for organizers, attendees and speakers. However, a number of surprising positives show how virtual conferences are not only overcoming these hurdles but also triggering a paradigm shift in how conferences of the future could look.

Indisputably one of the greatest beneficiaries of the online migration of conferences has been the environment. A recent review estimated that the amount of carbon dioxide generated by each researcher through conference travel ranges from 0.5 to 2 metric tons. Staggeringly, the total carbon footprint of the world's estimated 7.8 million researchers each traveling to one conference a year is equivalent to that of some small nations. In contrast, organizers of two fully virtual conferences in the U.S. estimated that their total carbon emissions were less than 1 percent of a traditional "fly-in" event.

### LEVELING THE FIELD

Relocating conferences online has also made them accessible to a larger and more diverse audience. Traveling and prolonged home absence have long raised problems for people with children or disabilities. Similarly, financial and visa restrictions prevent many from economically disadvantaged backgrounds and specific countries from attending international meetings. Removing these barriers associated with travel has instantly rendered many conferences more inclusive. While the 2019 European Geosciences Union (EGU) General Assembly in Vienna attracted just over 16,200 participants, the online 2020 General Assembly registered over 26,000 individual users. Since virtual conferences scale much better than in-person counterparts, it has been relatively easy to accommodate all these extra attendees.

To kindle social interactions amongst participants scattered across continents and time zones, conferences are bringing new apps into play. "Braindate" and "Brella" match profiles uploaded by attendees and suggest private video conferences to discuss shared interests. Such matchmaking apps not only reintroduce the networking opportunities sought by conferencegoers but may even lower the barrier for more introverted or junior members to reach out to the superstars in their field. Other conference organizers have been using the ability of online platforms to randomly split participants into groups to foster more mixing, rather than watching attendees automatically gravitate towards renowned names.

## **BEHIND THE SCENES**

Conference moderators are also finding other silver linings to the virtual format, which have opened up new possibilities in panel discussion and Q&A sessions. At the American Association for Cancer Research (AACR) Annual Meeting, held online this year in April, attendees were asked to vote in real time on questions submitted through a chat channel. This “resulted in a better quality of question,” noted Emily Costa, a Ph.D. student from Memorial Sloan Kettering Cancer Center in New York. Aside from improving the wording and airing of more insightful questions, this also drew a larger audience into actively participating throughout the discussion sessions.

Panel discussions can also be better controlled in online conferences. Professor Russ Altman, one of the chairs of the Stanford University–organized COVID-19 and AI Virtual Conference in April, revealed that messaging between moderators on a separate channel helped finesse discussions in real time. “For example, we had one panelist who we thought was contributing a little bit too much,” he said. Through a “backchannel conversation” moderators jointly decided to ask questions that would engage the other, less vocal panelists.

## **BEST OF BOTH WORLDS**

Ultimately, in-person and virtual conferences are not interchangeable. However, the two formats need not be mutually exclusive, and conferences of the future should aim to capture the main strengths of both. An informal survey by Nature showed that 80 percent of 486 respondents believe that some meetings should continue to be held virtually, even after the COVID-19 pandemic.

As a recent participant of a virtual conference thoughtfully observed, “the snacks at the break were nothing new, while the restroom lines were shorter, and the receptions were BYOB.”