

Virtually unsocial

Although the COVID-19 pandemic brought the conference circuit to a standstill, virtual spaces were able to bring us together, albeit with less opportunity for social bonding. Taking clues from the technology and entertainment industries, virtual scientific conference organizers should offer a more meaningful social experience.

Many good reasons exist to attend scientific conferences, such as getting up to speed on the latest developments in the field and presenting your own work to peers. However, one of the most enjoyable aspects of such meetings is arguably the socializing: seeing old friends and making new ones, and having many conversations during poster breaks, at the coffee and snack tables, or over dinner. Many new projects and collaborations, career moves and even submissions to journals have been initiated as a result of a chat over a drink (or two) at a conference. Organizers of on-site conferences know how precious these networking opportunities are and often aim to create a relaxed environment, organize dedicated social events, and set aside sufficient time for informal activities and meetings.

Since on-site conferences ground to a halt in the spring of 2020, many international meetings have quickly been retooled into online events. Although we all have had to embrace this new virtual format, many of us, to some degree, still struggle with getting the most out of it.

One could argue that the pandemic was a blessing in disguise in that it catalysed the development of virtual meetings. Indeed, virtual conferences have removed the travel and financial barriers that prevented scientists worldwide from being exposed to new and fundamental developments in their fields. Because of the absence of in-person events, thus almost guaranteeing attendance, organizers of online conferences have had a unique opportunity to explore new formats and quickly iterate on what worked.

The technological developments of the twenty-first century have allowed us as a society to be more connected than ever, and these platforms have allowed for many fantastic virtual scientific events. However, almost 18 months into this new world of virtual conferences, static and sterile web pages remain the lecture halls of today. Online conference attendees rarely get a sense of who else is tuning into a conference stream at any given point in time, and this limits spontaneous conversations and



opportunities for interaction with other participants, rendering the virtual-conference experience a very lonely one.

It does not have to be this way. One wonders whether a look at other industries could help improve the online conference experience. After all, the creation of immersive virtual worlds that allow for meaningful social interaction is the core business of the multi-billion-dollar tech and gaming industries. Perhaps it is time for the gamification of the online conference experience.

Although they would certainly be entertaining, we do not need 3D versions of conference halls, which would bring the average work laptop to its knees when loaded. Beautiful 2D worlds can be accessed on low-end machines, sometimes even within web browsers, and could easily recapitulate the on-site layout of a scientific conference in great detail. Walking our virtual meeting avatars through pixelated conference halls, poster sessions and break rooms would immediately create a sense of community while allowing for spontaneous interaction via built-in video-chat functionalities. Customizable avatars and emoji—gestures of a character that signal a state of mind or are meant to entertain—could create spontaneous, fun moments to remember. Participation in conference activities and interactions

with attendees could even unlock new character-customization options that visually distinguish an online conference veteran (level 6) from a first-time-attendee. At the very least, a list of participants and live chats should always be available and open to all attendees during talks to increase interactivity and give a sense of community.

Because they offer a more sustainable, affordable, equitable and jet-lag-free option for scientific exchange, virtual conferences are here to stay. However, the need to engage attendees is higher than that at in-person conferences, given the constant temptation to handle ‘just a few e-mails’ between sessions. More interactive and social features could help address this problem. The bonds and connections forged at in-person conferences should not be a premium available only to the few. As digital-native generations take over research and society over time, a more developed virtual world and social conference experience, comparable to those in other online environments that we regularly use, will be increasingly expected. We are aware of some experimentation in this space, but we look forward to more innovation, which will be needed to bring more life to virtual livestreaming conferences.

With that in mind, the goal should not be to permanently replace or recreate in detail the experience of an in-person conference in an online format. Ultimately, virtual conferences should evolve into a new medium for scientific exchange that is different from, and in some ways better than, in-person conferences, truly congregating people from all over the world to see science presented and form meaningful connections.

At *Nature Metabolism*, we are keen to explore new formats for virtual meetings. Please reach out to us if you have any ideas, and feel free to share your own thoughts on the future of online conferences with us through e-mail or social media. □

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