

Virtual Conferences in Times of COVID-19: Embracing the Potential

By Jörn Vogel and Arash Ajoudani

The COVID-19 pandemic delayed—or brought to a halt—many activities around the world. The IEEE International Conference on Robotics and Automation (ICRA), one of the most popular and well-attended scientific events sponsored by the IEEE Robotics and Automation Society, was not exempt from the challenges faced and this year had to be held virtually. In this new format, not only the scientific but also the social events and recreation activities, where sound ideas are very likely to be developed, were replaced by virtual and web-based experiences. Similarly, simple, casual over-the-coffee-break conversations swapped places with participation polls and the occasional video chats. The format of the students' and young professionals' luncheons changed to virtual group discussions, while meeting former colleagues and new people with similar research interests was barely possible in cyberspaces.

On the bright side, however, virtual conferences have offered—and will continue to offer—several advantages. They can keep our community informed about the latest progress, and one can easily view the continuously updated list of virtual and online events from the comfort of home, with minimum costs and preparation times. In particular, students and young professionals with

limited travel budgets can attend such conferences for only 10–20% the cost of a conventional registration rate and follow events at any time, even after the conferences have concluded. The overlapping of the scientific talks and workshops (for example, at ICRA 2020) was reduced, providing unique opportunities for participants to get the most out of the scientific content of the conference. As a result, the number of attendees at the workshops and virtual talks increased (again, using ICRA 2020 statistics as an example), and recordings of some scientific or workshop talks were viewed by hundreds of people.

In fact, this forced culture-change moment for our scientific societies has made us realize the impact of digital tools in increasing the efficiency of science communication (for example, by cutting the waste associated with conventional thinking), while at the same time reminding us of the importance of in-person communications in advancing interdisciplinary research.

Future Implications and the Advantages

We all hope the pandemic will soon end and are looking forward to once again meeting, exchanging ideas, and conducting in-person discussions at conferences or project meetings. However, maybe we should also take a step back and see how the two worlds of online and in-person conferences can be joined to create even better experiences in the future.

Such hybrid events are currently being explored in various domains (for example, trade fairs) to make international meetings possible again under the current circumstances. Video-streaming, chat, and social media allow for online participation in events that also take place physically. So, while people on site can experience the full dose of robotics at the conference, digital channels could be used at the same time and even after the conference to allow participation for those who cannot be there in person.

Especially as a young professional, visiting multiple conferences per year may be unfeasible for various

reasons. From our perspective, having hybrid conferences may actually bring the robotics community closer together, and international exchange could move from being event driven to more continuous interaction.

Ultimately, telepresence is a robotic discipline. So who, if not us, should be able to provide the means of remotely visiting a conference through our alter egos?

Maybe we should also take a step back and see how the two worlds of online and in-person conferences can be joined to create even better experiences in the future.