Orchestrating a virtual conference amidst the COVID-19 pandemic

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Abstract
The current Coronavirus Disease 2019 (COVID-19) pandemic has impacted individuals and groups all across the globe as countries and cities face widespread lockdown to limit transmission of the virus. Many have adapted quickly, utilizing virtual platforms for interviews, employment, and academic/social events. Academic conferences, such as the annual Cochrane Skin Conference, faced similar challenges as large gatherings have been banned. The in-person conference was cancelled several days prior to its hosting at the University of Colorado, leading conference organizers to employ a virtual platform to continue the conference as scheduled. In this letter, logistics, troubleshooting, and conversion of an NIH-funded conference from an in-person to a successful virtual conference are discussed. We hope this letter may serve as a guide for future hosting of academic conferences, and to those dedicated to collaboration and the sharing of information during such unprecedented times.

Keywords: COVID-19, virtual conference

To the Editor:
On January 20, 2020, the United States received its first confirmed case of Coronavirus Disease 2019 (COVID-19), [1]. This highly infectious disease resulted in the cancellation of conferences and events, and the lockdown of cities across the country. Corporations, organizations, individuals, and society at large have been significantly impacted, resulting in millions of individuals working from home and a mass movement toward virtual work and communication platforms. The annual Cochrane Skin conference was no exception, as the in-person conference was canceled days before its hosting at the University of Colorado. Herein, we outline the logistical requirements, common issues, and the pros/cons of implementing a virtual conference. We describe the conversion of an NIH-funded conference in Aurora, Colorado, in March 2020, where leading US dermatologists met to discuss collaborative comparative effectiveness research from an in-person to a successful virtual conference.

There are a variety of details that go into planning both an academic conference and a virtual conference. Having a compelling topic, a plethora of planning time, appropriate finances, a balanced agenda, and transparent communication are vital to planning any type of conference. However, provided abrupt COVID-19-related cancellations, a rapid conversion to a virtual conference was necessary. Two guiding principles to keep in mind for conducting a successful virtual conference conversion include:

Develop a program of compelling topics and speakers.

Remain flexible. We added discussion sessions with leading dermatologists (Misha Rosenbach and Steve Feldman) who gave advice on how practicing dermatologists should deal with the COVID-19 crisis. These were among our best attended portions of the conference.
From a logistical standpoint, there are a number of steps necessary to quickly and efficiently convert to a virtual conference, detailed below:

Audiovisual media platform: Examples of such platforms include Zoom, Cisco Webex, GoToMeeting, and Google Hangout. Considerations in your choice include how many individuals are estimated to attend the virtual conference and how many presentations or symposiums are going to be hosted at a given time. Additionally, per the Federal Communications Commission guidelines, both presenters and attendees should utilize a broadband service that allows for a minimum download speed of 6 Megabits per second for adequate performance of video conferencing applications [2].

Pre-recorded presentations: Obtain pre-recorded presentations from speakers in advance of the meeting to show in case a speaker cannot attend or has technical difficulty. To simulate a live conference, however, speakers should have the option of presenting their talk live while simultaneously ‘screen-sharing’ PowerPoint (or similar presentation format) slides. During the COVID-19 pandemic, multiple speakers could not provide a live presentation owing to emergent administrative meetings. There are a variety of tools that can be used to record videos; however, we found formats that worked best during the presentation included those saved as “.mp4” and “.MOV”. Both Zoom and PowerPoint have options to record lectures in these formats. There are dozens of YouTube videos that outline how to complete this successfully. Sharing an instructional video with speakers may be helpful.

Sound: The transmission of sound was a common issue. Two common causes were network connectivity and poor microphones (either due to damage or out-dated devices). To address the first, speakers and attendees should be sure their work/home network is sufficient for broadcasting. If they are not, speakers should consider pre-recording their lectures and attempt to be available for a live Q&A session following the presentation of their recorded talk. Second, individuals most commonly used their built-in laptop/desktop microphone. Depending on the model, some stock microphones may be inadequate for a conference. An easy solution is to purchase a pair of earbuds or headphones that have an installed microphone. Importantly, speakers and attendees who used earbuds or headphones with a microphone were much easier to hear and understand than those without.

Troubleshooting: The most common issue encountered was lack of experience with the technology necessary to participate in a virtual conference. Downloading zoom, recording a PowerPoint presentation, and sharing screen were all minor, yet prevalent areas where users had difficulties. For those not familiar with these types of platforms, instructional videos may be a helpful tool. Additionally, it is helpful to have one individual that is dedicated to troubleshooting problems that arise during the conference.

Prior to the cancellation of the American Academy of Dermatology (AAD), (March 10, 2020) and university-related events there were 49 unique registrants for the meeting [3]. In the days leading up to the Cochrane Skin conference (March 18, 2020), there were an additional 31 registrants, for a total of 80 registrants (63% increase). On March 18, 2020, the annual Cochrane Skin meeting was hosted over Zoom and participants logged in and out of the meeting as their schedule allowed. With respect to the annual Cochrane Skin conference, the virtual nature afforded greater registration and attendance than otherwise would have occurred. Additionally, travel and cost barriers were minimized.

Historically, academic conferences have served as the cornucopia for new and innovative scientific and medical knowledge. However, in the modern electronic age, the role of academic conferences in the dissemination of novel findings and advancements is minimized. Given widespread internet access and the online presence of most academic journals, academic conferences no longer serve the same role they once did. Yet there is a strong, social component to conferences. Within seminars and scheduled networking events one has the opportunity to discuss with colleagues and other experts in the field. For young physicians, residents, and medical students, conference networking events can be the only time in which one-on-one time is spent with potential employers, residency programs, and fellowship directors.
When considering the potential for a virtual conference, there are many aspects such as decreased cost and accessibility that appeal to both the host and attendee. One barrier to attending an in-person conference is travel, as conferences are often located in large cities. For the international attendee, increased burden of expensive airline tickets, longer travel times, and inconvenient visa requirements may occur. The cost of setting up or attending a virtual conference should in theory be less than the cost of an in-person conference, if one considers the prices of registration fees, housing, and food.

However, the ease of setting up any conference, whether at a venue or virtual, depends largely on the attendance size of the conference. Given our modest attendance size, we were able to work within a short time frame to transition to a virtual platform. When considering substantially larger conferences such as the AAD’s annual meeting, which planned to host 15,000 attendees, meeting conditions become logistically more challenging, though still possible. The Society for Investigative Dermatitis (SID), at this point in time, has cancelled their in-person meeting and is hosting their plenary presentations, pre-recorded presentations, and mini symposiums over Zoom [4].

It is foreseeable that in the future, academic conferences could offer attendees the option to either attend in-person or via a virtual platform. This combination would preserve the historic nature of the academic conference while increasing accessibility. Conferences can consider creating multiple “rooms” in which individuals are able to attend talks or workshops of interest so that multiple forums can occur simultaneously. This model would emulate an in-person conference and work seamlessly with the hybrid model of providing virtual options for those who cannot attend the conference. This hybrid would also provide a semblance of networking that occurs at in-person academic conferences.

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**Potential conflicts of interest**


**References**