Abstract

Among the paradigms changed by the COVID-19 pandemic is the traditional academic and educational conference. In the vein of turning lemons into lemonade, many organizations and individuals have discovered ways that this public health necessitated change can be transformed into a boon to both participants and organizations. However, the question of whether this shift becomes permanent, or a component of the future of academic and educational meetings remains to be seen, and likely will depend on the solution to some of the challenges that have not been sweetened by the shift. This editorial draws on experience with a limited scope of virtual meetings in two different disciplines to make the case that the Virtual Mega-Conference is likely to continue to be a part of life in the years ahead.

Keywords: Academic debate, COVID-19, networking, pathology conferences, vendor support, virtual learning

Introduction

The International Face-to-Face Mega-Meeting has died of COVID-19. The story of genetic virotype variants linked to the late February Biogen biotech conference in Boston that later showed up in hundreds and possibly thousands of infections from Alaska to Luxembourg to Senegal, including hundreds in homeless shelters and nursing homes in the Boston area itself, made headline news in the New York Times, USAToday and the Washington Post.[1]

Those stories may as well have been the obituary for future large social and commercial gatherings of size. The meeting organizers were aware of the concerns and took what seemed the prudent steps at the time, assuming as did the general public, that the virus outbreak was remote and small scale. However as a sentinel event, it sparked a host of meeting cancellations, postponements, and changes of venue. It spawned the birth of the Virtual Mega-Meeting.

As more organizations and institutions migrate to virtual platforms to mitigate the financial and health risks associated with in-person meetings, the travel and events industry, and the participants as well as organizers have embarked on a learning curve. Approaching now the fall-winter meeting season and the pandemic still spreading through the world’s population, with the Virtual Mega-Meeting still in its early childhood, version 1.0 if you will, what can we say about its prospects for long-term survival? Having attended or participated as faculty for five large virtual conferences (Total attendance at the meetings ranged from roughly 500 to almost 7000 participants) between us (in medical and social science domains) since the beginning of the pandemic, as well as various virtual speaker series or grand rounds, our experience with these formats, though limited, covers a broad spectrum of conference sizes, platforms, and formats.

The Positives

First off, there is a lot to like about in this new paradigm. The seating options are far superior [Figure 1]. Having squirmed back and forth on stackable hotel ballroom chairs for several decades, being able now to choose between the couch, the roll-about office chair (famous brand or not), or even a coffee-shop high chair is a quantum leap forward in terms of comfort for the derriere and can endure for the duration of even the longest plenary session. Moreover, one’s comfort is ever more increased with the new virtual meeting dress code,
or in other words, a comfortable shirt and shorts worn with confidence while participating with the video feed off. Even if sharing video, the formal shirt and jacket can still stylishly be paired with gym shorts and bunny slippers if desired [Figure 2]. The view of the speaker and the slides is uniformly good (or uniformly poor depending on the meeting platform), no matter which seat I have chosen, whether I have arrived 10 min early, or come in 20 min late. As an additional bonus, one’s personal or business expense account is not paying for airfare, overpriced hotel rooms (and a strange bed that does not have the smell and feel of home), and similarly overpriced hotel restaurant food. Comfort, cost, and quality of learning experience all speak in favor of a long life for the virtual meeting. See Table 1 for a detailed cost comparison of a representative 2019 versus 2020 meeting in Pathology and Political Science.

This new value proposition may be changing a number of other realities as well. Chief among these is the reach of the meeting, the size of the audience, and from whence they come. Scanning the participant listing at the recent American Society of Clinical Pathology (ASCP) meeting, one is easily impressed by the international character of the audience, and the numbers of people crowding the sessions. The College of American Pathologists (CAP) Foundation’s Global Pathology Fund sponsored several in-practice pathologists from low-resource countries who were able to attend virtually and drank in the content with gusto. (50 hours of sessions over 4 days was one recipient’s tally!).

Of course, the registration fee (nil in the case of ASCP and the CAP Foundation Global Education Awards) may have had a very salutary impact on the attendance. Other conferences that retained their registration fees (even at a reduced rate) did not appear to us to see increased attendance, but it is important to acknowledge that a virtual meeting reduces the marginal costs of attending a single or limited number of sessions of individual high value. This virtual synchronous or asynchronous availability increases the impact of the meeting because it may allow multiple individuals from the same clinical practice to attend, without impacting their ability to provide on-going clinical care in their setting. The same can be said for faculty or staff members in other fields where the simultaneous absence of a critical mass would be crippling to class schedules or academic advising. Many of us have previously dreaded the week when all of our neuropathologists or others in our department would be away for “the meeting” while the rest of us shuddered in fear of the posterior fossa mass we would have to evaluate on the frozen section or the additional student advising sessions we would have to shoulder in the middle of class registration in their absence. Now at least one of them is in their office while “attending” the meeting, and thus potentially interruptible for consultation.

Of further value is the record of the proceedings from these virtual events. All the full sessions of the aforementioned ASCP, CAP, and American Political Science Association (APSA) meetings were recorded, making asynchronous viewing and reviewing possible for all registered attendees. While one might have previously been able to obtain a copy of a handout or perhaps even projection slides from a second session occurring synchronously with another of interest, now in virtual time one really can be in two places at one time. By thus expanding the learning content available through a meeting and prolonging the availability beyond the dates of the actual meeting, it seems likely the CME or SAM credits claimed per participant registered will increase. In addition, the recorded sessions become enduring educational materials that can have lasting impact after the term for continuing education credit has lapsed.

However, one casualty, at least in the short term, appears to be the “for-profit” segment of scientific meetings. Perhaps not unlike predatory journals, such meetings have offered a route onto the podium for many academics who paid their own way to the meeting and perhaps got a paid night in a hotel room in the bargain while they tried to build their reputation and gain academic advancement. The hefty registration fees together with significant vendor fees for such conferences held in both
Table 1: Actual costs incurred to attend American Society of Clinical Pathologist’s meetings and the American Political Science Association’s meetings in two successive years

| Expense category | 2019 (Phoenix, 9/11-13) | 2020 (Virtual 9/9-12) |
|------------------|------------------------|----------------------|
| Registration     | 549                    | 0                    |
| Hotel            | 516 (4 nights) Conv Ctr Hotel | 0          |
| Airfare, transit | 322                    | 0                    |
| Meals, per diem  | 255                    | 65 (not reimbursed)  |
| Total            | 1642                   | 65                   |

| Expense category | 2019 (Washington D.C., 8/29-9/1) | 2020 Virtual 9/10-13 |
|------------------|---------------------------------|----------------------|
| Registration and Membership | 448                                | 213                 |
| Hotel            | 881 (4 nights) Conv Ctr Hotel    | 0                   |
| Airfare, transit | 345                                | 0                   |
| Meals, per diem  | 180                                | 65 (not reimbursed)  |
| Total ($)        | 1856                               | 278                 |

ASCP: American Society of Clinical Pathologist’s, APSA: American Political Science Association’s

domestic and international sites, some of which might never see a large pathology conference, covered the cost of the venue and provided income for the organizers. The majority of these have been cancelled or postponed. Those that have moved to a virtual setting appear to be having difficulty gaining traction in the marketplace. This is in large part due to the shift in the vendor value proposition offered by a virtual meeting as we describe below.

**The Negatives**

So, what is still missing? While walking towards a session in the Grand Hyatt in San Diego many years ago, one of us (the pathologist) met a cheerful guy in a bow-tie who was eager to make my acquaintance (later discovered to be seeking an elected office in the organization.) Through casual conversation, we discovered a mutual interest and an opportunity that ultimately led to a great adventure with the CAP Foundation. Those kinds of chance encounters, flash friendships, and life-changing course deviations are difficult, if not impossible, to script into any sort of virtual meeting, but happened commonly in the live setting. Some organizers appear to recognize this shortfall and have tried different measures to supply the sort of networking events that will encourage them; chat rooms and “socially distanced” socializing. The ASCP meeting promoted yoga sessions, offered a shared meditation space, and encouraged participation in a virtual “mixology” event, the APSA meeting promoted a virtual 5K and encouraged “receptions,” and the CAP organized randomized social breakout rooms with a proposed topic for shared discussion, all in the hopes, perhaps, that sharing these activities would lower inhibitions in social interactions and spark meaningful connections. The comments scroll for some sessions read like a roll-call of the nations, and one might suspect that occasionally, some connection would occur, but these are not very “sticky” and much less likely to lead to meaningful networking than the chanced few steps together with a bow-tied colleague outside the ballrooms of a hotel. Still, in a random break-out room, one might make a connection that leads to friendship and possible collaboration. And to be honest, for the retiring, introverted types, the safety of a virtual space may actually be an easier one in which to bridge social interaction than when faced with a noisy room of people who all seem to already know whom they want to talk to after they fill their plate with hor’s d’oeuvres. This drawback is perhaps most significant for new or first-time participants in a large meeting, whose existing network is the least developed and most fragile. (Study of this cohort of meeting attendees long term may itself yield some interesting insights for future meeting planners and organization membership committees.).

Yet, the informal discussions after panels or education sessions that lead to new collaborations are gone. Gone are the opportunities to sit beside a random stranger in a panel that becomes a collaborator as you get to know them. Gone are the chance encounters with those whom you have not seen for years who you see in the hotel lobby on your way to breakfast. Gone are the forced interactions between individuals at different institutions and at different ranks in the profession. Professional silos have become bunkers for those who want them or who do not feel comfortable reaching out randomly to others in the discipline. Many who attend these meetings do not do so for the opportunity to get feedback on their work or to learn of new techniques and trends which they could get elsewhere, but to build and broaden a network of relationships within the profession. In a virtual setting, those opportunities are more difficult to create.

Indeed, the movement to a virtual meeting while retaining a portion of the registration fees in political science prompted a cohort of junior scholars to withdraw from the conference and to instead organize their own set virtual meetings. While feedback on one’s own scholarship has been an important aspect of academic meetings in political science, even a reduced registration fee was not sufficient to retain their
attendance without informal social opportunities. These individuals obviously felt the critical feedback from peers obtained at the conference was not sufficient in and of itself to motivate their participation.

Perhaps recognizing this concern, the CAP20 Virtual meeting included the tagline “Knowledge Relationships Expertise” so as to include in the program events attempting to accomplish those touted aims. In fact, each day’s schedule included an hour at the end of the day titled “Networking” with some subtext prompt to perhaps inspire ideas for interaction. As “ice-breakers”, these prompts filled their purpose, but in some groups quickly led to rather awkward silences. What was healthy, however, was the randomization of the groupings which enabled one to meet people that one would probably not have interacted with or sought out otherwise. This does hold promise to fill a bit of the void for the losses noted in the prior paragraph. The roundtable format used at the ASCP meeting centered around a topic or question of substance similarly held promise in this regard, but in practice, the groups were too large to foster meaningful dialogue.

Likewise, walking the exhibit floor of a national or international meeting cannot compare with browsing along the logos of the various conference sponsors in whatever virtual live chat space is offered now. Aside from the chance encounters with friends, mentors, peers and the freebies arrayed at each booth, the visual opportunities to catch the scope of innovation going on in the field and to touch and feel the instrumentation involved cannot be replicated in the virtual environment. And without the draw of food and beverage, likely the vendors will also feel left off the agenda for most meeting attendees. The chance to chat about an offering, hear the elevator speech on this or that new course tool, or to handle and flip the pages of a new text, are all elements that seem lost in the new virtual world. Undoubtedly, vendors with a product to sell and customers or clients with a problem to solve will still find ways to find each other, but it may not be quite as predictably seasonal nor perhaps as efficient, as the new infusion of ideas that would come into the lab after each major meeting in the past.

In speaking with both vendors who have participated in virtual conferences and with the organizers of the “for profit” (as opposed to membership organization-driven) meetings, it seems this is still a puzzle without an ideal solution. Providing time for nonaccredited educational presentations (variably termed satellite symposia or perhaps infomercials) has been one approach. Moving vendors onto platform sessions, termed satellite symposia or perhaps infomercials) has been an approach. Moving vendors onto platform sessions, and generating incentive contests for participants to visit with vendors each have their limitations. Sadly, although there are always things to be learned from engagement in an exhibition hall, the drive to browse through seems to be diminished in the virtual environment. Live engagement via chat has not met the need. Because of this, one vendor I spoke with expressed the sense that the value for support dollars expended was not measuring up to previous experiences and they would likely seek other avenues to connect with potential customers (Matthew Kirk, personal communication). A meeting organizer for GlobalEngage, likewise expressed that their vendors had pushed back significantly on the value proposition offered in virtual settings (Jack Beard, personal communication).

Regional economies and certainly commercial carriers, accustomed to the infusion of dollars from the influx and efflux of thousands of vendors, attendees, and organizers each week will also no doubt feel a sense of pain with any long term transition from live to virtual or even hybrid meetings. Cities which have optimistically invested in convention space and related infrastructure may be disappointed to find their bond issues harder to repay from lodging fees, sales taxes, and direct revenues. However, it is hard to imagine the disparities in individual costs as detailed in Table 1 not driving individual decisions toward more virtual attendance overall.

In addition, while our families, colleagues, and students may appreciate us not disappearing for extended periods, the virtual format makes it so that conference activities for many are piled on top of already busy lives. Rather than postponing classes and household obligations for a week while off in another city, conference activities are merely added to the growing list of demands on time. While conferences might have previously been breaks for some, an opportunity to refresh and refocus and generate new ideas and opportunities, virtual conferences allow fewer opportunities to engage with conference material, let alone to fully digest the information, before being forced to jump back into the routines of daily life.

Finally, the technology has become quite robust for these meetings, but because it also seems to depend on a myriad of peripheral, less-controllable variables and devices at the faculty end, failures may be inevitable. Settings get changed, proprietary software fails (the APSA meetings switched from proprietary software to Zoom halfway through the 4 day event), internet speeds fluctuate, or other factors rear their heads to prove that we have not perfected the simplicity of the process. So one enters a session only to find the “endless circle of doom” telling us it is “loading” or the calming music playing while waiting for the faculty to log-in, or that the audio has disappeared while the keynote conversation is underway. At least this will give people something to Tweet about.

**Potential for Improvement**

With the good and the bad of virtual conferences, we also see potential amidst many of the hiccups and adjustments that still need to be made. Key among this is adjusting and adapting to the norms and process of audience engagement. Just because the audience is now virtual does not mean that those sitting out in their comfortable chairs do not have questions or comments (sometimes posed as questions). However, processing and facilitating audience feedback and cues is not natural. The visual clues that emanate from a live audience and
often inspire a speaker are missing or minimized. Even in a
darkened room with audience members gazing at projection
slides, a speaker picks up feedback as people leave or enter,
postures relax or stiffen, notebooks, keyboards or cameras
spring into action. While there are possibilities for polling,
in-coming questions, or hand-raising during a presentation,
speakers are limited in the number of monitors or windows
they can actively pay attention to. While feedback is possible
in some virtual media, these tend to be muted like participant
audio or stifled during the presentation.

This is especially true with larger forums, but even posed an
issue in settings designated “Round-table discussions” at the
ASCP and APSA meetings. The transition to a virtual format
should make available more opportunities for discussion about
the presentations with the availability of a chat window. Rather
than being limited to the normal question and answer period
at the end of the session, questions and comments abounded
throughout some sessions. Although at times such a bounty
might have caused a distraction, the presence of a moderator
or host, or a co-presenter knowledgeable in the topic, can
stimulate and animate the participants. Depending on the
format for comments, pulling comments from a nonseen
group of 40–200, even if one recognizes the sign-on of some
participants and can call them out by name, is a challenge for
the solo discussion leader, and discourages the one who fears
making an ignorance-revealing comment in a large group far
more than in a more intimate setting. If the discussion is the
goal, then the numbers should be limited to promote such, or
break-out groups with participant video employed to enable
more intimate interaction and the potential of real networking
to occur.

In summary, we believe the Virtual Large or “Mega”-Meeting
is here to stay, but still has some significant maturing and
growing pains to endure. Further solutions and adaptations will
address the pain points in future editions of these meetings, and
the value of virtual versus physical presence will be weighed
by prospective attendees and most likely fall further towards
the former, pandemic or not.

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