

Delegate Views on Face to Face and Online Conference Attendance

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Abstract

Research has confirmed that F2F conferences generate significant benefits for destinations, communities, industries and economies. In addition to the immediate economic effect of a contribution to the visitor economy of the destination, F2F conferences build knowledge economies and networks, driving industry innovation and trade and investment. There has also been significant criticism of F2F conferences, particularly in terms of their negative environmental impacts, inequity of accessibility, and the ineffectiveness of traditional event design. The travel barriers associated Covid19 pandemic disrupted F2F conferences and accelerated the global move to online conferencing. While F2F attendance is returning, there is a growing trend for conferences to offer both modes of attendance; the hybrid conference is becoming the norm. Drawing on recent literature and a survey of international delegates, this study explores the advantages and disadvantages of both F2F and online modes of conference attendance and discusses ways in which we might leverage better outcomes from hybrid conferences in order to maximise outcomes for all stakeholders.

Key words: Conferences, F2F, Online, Hybrid, Benefits, Covid-19

1. Introduction

It is well known that face to face (F2F) conferences lead to a range of benefits for delegates, industry sectors and destination communities (Edwards et al., 2017; Foley et al., 2021). For delegates, conferences are fundamentally learning/training experiences (Oester et al., 2017) that expand knowledge and collaborative networks and drive innovation in research and praxis (Foley et al., 2021). Industry sectors are invigorated when their members gather, debate issues, access cutting edge knowledge, techniques and technologies, and take these back to their workplaces, thus benefitting the communities they serve. Destination economies benefit from the immediate economic gains of the tourism contribution generated through visitation to a city, region and/or country to attend a conference (Foley et al., 2014; Foley et al., 2021; Mair, 2013). More significant benefits that conferences have generated for destination economies include increased trade and investment, global talent attraction, fundraising, and building future research capacity, amongst others (Foley et al., 2013; Foley et al., 2021).

Networking is a particularly attractive feature of F2F conferences because it enables attendees to improve career prospects by developing relationships with other attendees (delegates, sponsors, exhibitors, conference organisers) (Edwards et al., 2017; Foley et al., 2021; Jago and Deery, 2005; Oppermann and Chon, 1997; Severt et al., 2007). Research indicates that personal and professional relationship development are key motivations for attending conferences (Foley et al., 2013; Foley et al., 2021; Jago and Deery, 2010, Mair and Frew, 2018; Mair and Thompson, 2009). Furthermore, these positive outcomes are intrinsically connected to the process of decision-making in conference participation (Mair and Thompson, 2009; Severt et al., 2007). Networking and its many benefits are triggered by F2F communications during (and after) conferences. As Mair and Frew (2018, p. 2153) state, “meeting face to face allows people to get to know each other on a more personal level, and thus leads to better cooperation and collaboration”. The intense interactions that occur during F2F conferences enable processes of bonding and building trust amongst attendees, which is necessary for the exchange of knowledge (Edwards et al., 2017).

F2F communication is fundamental not only for networking and creating relationships but also for tacit knowledge exchange (i.e., know-how). While explicit (or codified) knowledge is easily transferred in a systematic formal language (e.g., keynotes and presentations), the subjective nature of tacit knowledge means it is more likely to be exchanged in informal environments like coffee break gatherings, hallway conversations, shared meals, and other activities held in the context of the conference.

These findings suggest that the continuation of F2F conferences is vital to the advancement of science, knowledge and human endeavour. However, the fast spread of the Covid-19 pandemic since early 2020 has disrupted F2F conferences. Almost every part of the world experienced some sort of isolation as governments and health authorities worked to halt the spread of infection, via, for example, community lockdown measures and the closure of international borders. Limited mobility within and across countries meant that conferences were cancelled or rescheduled. Many associations pivoted rapidly to the new circumstances and moved the delivery of their events to online formats. Falk and Hagsten, (2020) found that almost one-third of international academic conferences (out of a sample of 587, in diverse fields) planned for the first semester of 2020, changed to online formats. Moreover, this proportion grew as organisers had more time to plan and online conferencing technologies improved. Given this pivot to online conferences and the likelihood that online attendance

options will be more frequent in the future, it is important to question whether the impacts of conferences will change.

In this study we draw upon recent literature and a small survey of international conference delegates to understand the advantages and disadvantages of F2F and online conference attendance. In our view, delegates are the stakeholder group from which most of the benefits of conferences emanate. If we can find ways to maximise the opportunities and minimise or eliminate the risks associated with each attendance mode, we may be able to better leverage the many benefits of conferences previously identified.

2. Literature Review

The academic community, prior to the pandemic, were already questioning traditional modes of F2F conferencing and were looking for alternatives to “address the problems related to geopolitics, continuing colonialism, the soft politics and power hierarchies in academic societies, and the alleged need for extensive and excessive physical mobility” (Goebel et al., 2020, p. 813). There were growing concerns from researchers about the shortcomings and negative elements of the traditional F2F conference model (Hischier, 2002; Kier-Byfield 2019; Levine et al. 2019; Reay, 2003). These concerns were largely centred on aspects related to accessibility, social inclusion, climate change, and event design.

2.1 Accessibility

F2F conferences are not accessible for all. Cost of registration fees, travel expenses, and the time required to plan, organise and undertake travel are some of the constraints that can prohibit F2F conference attendance (Achakulvisut et al., 2020; Borth et al., 2020; Carrigan and Elder-Vass 2020; Chan et al., 2021; Etzion et al., 2021; Gao et al., 2020; Goebel et al., 2020; Niner and Wassermann, 2021; Saliba, 2020; Schwarz et al., 2020). In particular, time away can be a significant source of stress on one’s family and often leads to increased workload on return (Kalia et al., 2020). Early career academics and professional staff can be underrepresented at F2F conferences due to limited access to funds (Achakulvisut et al., 2020). People with physical disabilities, long-term illness, or chronic pain may be constrained by long haul travel requirements and/or conference venues that are not equipped to support their needs (Donlon, 2021; Niner and Wassermann, 2021; Rich et al., 2020). Carer responsibilities (child-care, breastfeeding, caring for the elderly etc.) can make it difficult to attend F2F conferences, and carer constraints impact women disproportionately (Achakulvisut et al., 2020; Henderson and Burford 2019; Kalia et al., 2020; Woolston, 2020).

2.2 Social exclusion

Many conference delegates have positive experiences yet for some F2F conferences can be uncomfortable to negotiate. Delegates can face sexual harassment and assault, slights (Barr, 2017; Burford, 2017; American Historical Association, 2018; Jaschik, 2018) and microaggressions because of one’s lower career or professional status, (deliberate and accidental) (American Historical Association 2018; Etzion et al., 2021; Flores, 2020; Jaschik, 2018). F2F conferences can reinforce patriarchy, status markers, or boundary policing thereby enforcing unwanted conformity (Etzion et al., 2021; Flores, 2020). Etzion and colleagues (2021) noted gendered inequalities of participation and representation, and that some F2F conferences remain inertial and mimetic, replicating the past.

2.3 Climate change

The impact of conferences on climate change was of significant concern for a number of academic associations, some of which are measuring the impact of their reduced carbon emissions as a result of less travel by members (Chou and Camerlink, 2021; Dunn et al., 2021; Donlon, 2021; Fraser et al., 2017; Goebel et al., 2020; Milford, 2020; Mubin 2021; Niner and Wassermann, 2021; Rissman and Jacobs, 2020; Schwarz et al., 2020; Woolston, 2020).

2.4 Event design

Additionally, there were concerns that the design of the F2F model was not realising its promise as delegates were tired of speakers monotonously reading their papers and “questioners” delivering a mini-talk rather than an actual question (Elder-Vass, 2020; Kalia et al., 2020) as well as delegates not able to see/hear speakers in large rooms (Gao et al., 2020).

While these issues were circulating in the literature pre-pandemic, Covid-19 accelerated the critique of F2F conferences. Associations, academics and the scientific community are questioning “the role of conferences, including their intellectual, social and personal aspects – and their price for our planet” (Goebel et al., 2020, p. 813), arguing that a transition towards online conference models may help address some of the challenges. Thus, with a significant number of conferences moving online or to hybrid modes, the global health crisis presented an opportunity to push a rethink of the concept of conferences (Abbot, 2020; Niner and Wassermann, 2021; Pacchioni, 2020; Viglione, 2020).

Industry and academic interest in online conference attendance understandably peaked during the pandemic when we were constrained by border closures and other health restrictions, however, the model has been used on a smaller scale for many years (e.g., see Johnson, 2003; Reay, 2003). Online conferences have been described as “structured discussion that takes place via a computer-mediated form of communication [...] they are carefully planned, take place within a clear time frame around a specific topic or topics and are generally moderated” (Johnson, 2003, p.2). Online conferences use the World Wide Web as the infrastructure to hold meetings through videoconferencing, teleconferencing, virtual chat rooms and intranet discussions (Falk and Hagsten, 2020). Currently there is a wide variety of conferencing software available (e.g., WebEx, GoToMeeting, GoToWebinar, Zoom, Vimeo livestream, Youtube streaming, Google Hangouts, etc.).

Recent literature provides strong arguments for providing online attendance options at conferences, and the arguments for holding an online conference in place of the F2F model are well made. Inter alia, benefits reported included reduced costs, reduced waste, reduced travel time, flexible participation, increased inclusivity of knowledge exchange, increased access for a greater diversity of participants, and better work-life balance (Banerjee et al., 2021; Chan et al., 2021; Falk and Hagsten, 2020; Fleming, 2020; Foramitti et al., 2021; Gao 2020; Goebel et al., 2020; Johnson, 2003; Kalia et al., 2020; Labella et al., 2020; Lan et al., 2021; Niner and Wassermann, 2021; Pacchioni, 2020; Power et al., 2020; Raby and Madden, 2021; Rekawek 2020; Saliba, 2020; Schwarz et al., 2020; Thaler, 2017; Viglione, 2020b; Woolston, 2020; Wu et al., 2021). Researchers argued that online conferences flattened some of the hierarchies inherent in F2F conferences by democratising accessibility (in its broadest terms), and by improving inclusivity and diversity (Achakulvisut et al., 2020; Goebel et al., 2020; Sarabipour et al., 2020).

It was also argued that online conferences provide improvements in event design. These improvements include a wider pool of online volunteers, videos that can be re-watched,

screenshots of slides, and increased opportunities for more comments and discussion through the online chat function (Abbott, 2020; Banerjee et al., 2021; Case t et al., 2018; Fraser et al., 2017). Their ability to contribute to reduced greenhouse gas emissions from flights and ground transportation is seen as a highly beneficial feature (Achakulvisut et al., 2020; Klöwer et al.2020). Although some articles refer to F2F conferences as ‘legacy’ conferences, this term was not used when discussing online conferences. No papers reported on the broader impacts of conferences such as knowledge outcomes, innovation, economic development, or the lack thereof, as a result of going online.

It is clear though that online conferences are yet to meet one of the most important aspects of F2F conferences – the forming of social bonds between delegates that emerge from physical interaction at conferences (Edwards et al., 2016; Foley et al., 2021; Foley et al., 2014.). Some beneficial outcomes of physical interaction (e.g., networking, and tacit knowledge transfer) are difficult, although not impossible, to emulate in virtual settings. Though some articles mentioned that there are a growing number of technological tools for more interactive online conversations, the lack of opportunity for networking F2F is seen as a shortcoming of virtual gatherings (Chan et al., 2021; Epstein, 2020; Etzion et al., 2021; Fleming, 2020; Gao 2020; Kalia et al., 2020; Levitis et al., 2021; Niner and Wassermann, 2021; Pang et al., 2020; Power et al., 2020; Raby and Madden, 2021; Reshef et al., 2020; Stamelou et al., 2020; Viglione, 2020b; Weber and Ahn, 2020). As Pacchioni (2020, p. 163) argues, “after all, most of the fruitful discussions tend to happen outside the conference room, and it’s not unusual for new collaborations to be sealed over a walk or a meal”. F2F conference attendance allows two-way and multi-way exchanges through which people make “genuine impressions” that cannot be achieved in the same manner by virtuality (Oestes et al., 2017). Notable omissions from the literature include the impacts of online conferences on the broader (beyond tourism) social and economic legacies that F2F conferences bring to destinations (Edwards et al., 2016).

An option proposed for addressing some of these concerns is the hybrid conference format which combines online with F2F attendance (Dousay et al., 2021; Fleming, 2020; Schwarz et al., 2020; Kalia et al., 2021; Woolston, 2020). Hybrid conferences are believed to improve the capacity of conferences to meet climate imperatives while meeting many of the inequities in F2F conferences (Niner and Wassermann, 2021). They are considered to provide flexibility and options for delegates when weighing a variety of considerations (including ethical, financial, social, and academic) (Donlon, 2021), and offer the opportunity for diverse and more intimate, physical events complimented by virtual sessions (Newman et al., 2021).

Covid-19 has significantly challenged the business events industry. As the sector restarts business under a new normal it is important to understand delegates’ perspectives of how they have been impacted and what they may want from their future conference experience. With this in mind, in 2020, we undertook research to examine delegates’ experiences of conferences during the pandemic and what they missed most about not attending F2F conferences.

3. Research Design

Since 2009, the authors have been gathering data from delegates of international conferences, held in Sydney, Australia, on the impacts of conferences. In 2016, we began asking respondents if they would agree to participate in future studies. Over the period 2016-2020, 742 respondents opted in. This subset of respondents from previous studies formed the population for the current study.

The study was designed to gather data on delegates' initial conference plans and expected cancellations, their Covid-19 circumstances, the effect of Covid-19 on their conference attendance, how they were impacted by not attending F2F conferences and the level of this impact, their opinions on F2F and virtual modes of conferencing, future conference attendance, and demographics.

Data were collected using an online survey. The research team were mindful that the questionnaire should not be too long. Therefore, a subset of previously used conference legacy questions were selected for use in the study. A link was sent to 742 people who had previously attended an international conference in Sydney, had completed a previous conference survey, and had indicated that they would be willing to participate in future studies. The survey link was distributed on June 5, 2021 and a reminder was sent June 11, 2021. Forty of the 742 emails bounced resulting in 702 valid emails.

Overall, 74 responses were received. Four of those responses were excluded, three of them originated from the same IP address but did not include any answers. So overall, there were 70 valid responses (10%). The data were analysed with SPSS. Open-ended questions were manually categorised into themes and cross-checked by the investigating team. Due to the nature of the survey, not all respondents answered every question. Where appropriate the number of respondents answering each question is noted.

4. Findings

Sixteen per cent of 70 respondents live in Australia, while 84% live outside of Australia. Of the respondents who live outside of Australia, 44% live in the Americas, 28% live in Europe, 7% live in Oceania (New Zealand), four percent live in Western Asia (Turkey, Bahrain, UAE), five percent live in South Asia (India, Sri Lanka, Nepal, Bangladesh), and five percent live in East Asia (HK, Philippines, Thailand, Japan). The largest group of respondents (47%) had last attended a conference as a practitioner delegate, followed by academic delegate (34%), and member of the organising committee (13%). There was one sponsor, one exhibitor, one delegate – patient/carer/advocate, and one respondent who identified as “other”.

Sixty-eight per cent of the respondents were male. Thirty per cent of the respondents were aged between 50 and 59, 28% were aged 60 years and older, 19% were aged between 30 and 39, 19% were aged between 40 and 49, and 4% of respondents were aged below 30. In line with this age distribution, 58% of respondents identified as being “late career” while 25% identified as “mid-career”, 12% as “early career”, and 6% as “other”. An almost even percentage of respondents live in a multiple person household without children under the age of 18 years (41%), or in a multiple person household including children under the age of 18 years (39%). Seventeen per cent of respondents live in a single person household, and 3% in “other” arrangements.

4.1 Covid-19 context and perceptions

Fifty-seven per cent of respondents worked primarily from home during the Covid-19 crisis while 37% did not. An additional 3 respondents explained that they split their working time between working from home and at work. Respondents' feelings regarding the Covid-19 situation were complex. While 41% of the respondents were happy to have time at home, others indicated feeling frustrated (40%), stressed (37%), and anxious (27%). Twenty per cent felt the COVID-19 disruption provided opportunities with one respondent saying, “worked as usual, but happily had more time at home with family too as no shops etc.”. Other

feelings voiced by respondents included feeling “frustrated at not being able to travel for leisure”, “frustrated at not being able to work efficiently with a young child at home”, “stressed as a doctor in the hospital system”, “optimistic”, “realistic”, “sad”, and feeling the pressures of a “double workload”.

4.2 Perceived Impacts of Non-Attendance

Respondents were asked if not attending F2F conferences had any impact on them. If respondents answered yes, they were then instructed to indicate the level of the impact and the timeframe in which they consider the impact to occur (Table 1). Reduced opportunities for networking, making business contacts, generating business leads, gaining recognition in my field, professional development, new knowledge acquisition, securing business deals, hearing about the latest research, showcasing their latest research, and closing business deals were considered short or medium term impacts from not being able to meet F2F. These variables were considered to have average impact except for networking and securing business deals which were considered to have a high impact.

Table 1

Table 2 provides an analysis of the no responses (i.e. respondents not impacted by the variable) and the level of this impact. Respondents did not agree that missing F2F conferences had given them more time for teaching and research or enabled them to focus on their publication output, and they rated these impacts as low and in the short term.

Table 2

Networking was, by far, the most frequently mentioned aspect respondents missed in not attending conferences and was expressed in diverse ways. They missed “meeting new people”, “maintaining existing relationships”, “discussing ideas with speakers and other delegates”, “feeling part of a community”, being “exposed to new ideas and equipment”, and “intellectual stimulation”. They missed the “global networking opportunities” in which they can make “business contacts” and grow their “new knowledge bases”.

Respondents stressed the importance of being physically in one space and having the opportunity to socialise to develop and maintain relationships between “human beings”. “I miss being able to talk F2F with people I only know via email, and our relationships are harder to maintain with no personal contact and without being able to showcase our technology”. Indeed, they see conferences as important environments in which people can build trust (Edwards, Foley and Malone, 2017), as one respondent explained: “F2F meetings provide a space for meeting attendees to bond with one another before, during, and after meetings. This bonding experience fosters feelings of trust and empathy, which are essential in any successful business relationship”.

The ability to interact and discuss issues F2F was missed by many respondents. They missed making new “meaningful contacts” or having the “opportunity to present their new research findings”. Respondents missed the “broader discussions with scholars and experts from different countries” the opportunity to “stay up to date” with the “latest developments”, opportunities to “spontaneously break away discreetly with a small group”, understanding the “specifics of a customer’s concerns” and “talking informally with colleagues in conversations and discussions that occur outside sessions”.

4.3 Covid-19 and the Future of Conferencing

Eighty-six per cent of respondents noted that the domestic and international F2F conferences they were planning to attend had been cancelled as a result of the Covid-19 lockdown. Of these respondents, 30% indicated that one domestic conference they planned to attend was cancelled while 60% indicated that two or more domestic conferences they had planned to attend were cancelled. Twenty-seven per cent of respondents indicated that one international conference they had planned to attend was cancelled, while 57% of respondents indicated that two or more international conferences they had planned to attend were cancelled.

Respondents were expecting a return to F2F domestic conferences with 71% not expecting to miss any domestic conferences in 2022. The mean number of domestic conferences respondents expected to miss in 2020 and 2021 were 3 and 2, respectively. Similarly, respondents expected a return to F2F international conferences over the following two years with 70% not expecting to miss any international conferences in 2022. The mean number of international conferences respondents expected to miss in 2020 and 2021 were 2 and 1.3, respectively.

4.3.1 Perceived benefits of online conferencing

The majority of respondents engaged in alternative online modes of conferencing during the pandemic including Webinars (84%), Zoom (77%) and online conference (56%). When it came to what respondents liked most about these alternative online modes of conferencing four themes emerged: travel and cost, time, convenience, and flexibility. These themes are interlinked in that they are all underpinned by time. Less travel gives respondents more time, allowing them to attend from home, which is more convenient, flexible, and efficient use of their time.

Travel and Cost

Many responses were linked to savings in time and costs with online conferences being free of charge or low-cost and not incurring travel costs. Respondents said online modes of conferencing meant they could save “time and money”, allowing them to “avoid the cost, stress, and hassle of travel”, which also meant “no jetlag” and they could be more “efficient with personal time”.

Time

Time was considered an important commodity by respondents and refers to saving time by not travelling and “receiving information from home in their own time” enabling the respondent to have “an increased focus on being results orientated”, improve their “efficiency with [their] personal time”, and not “wasting [their] time by completing other tasks”.

Convenience

Thus, online modes of conferencing were considered convenient for respondents. Respondents explained that as no travel time was required, that they could join from home, and stressed the convenience of this. Online modes accorded respondents convenience because they could attend when they “are unable to get time off work”, could multitask by doing “other things simultaneously” while listening to “sometimes irrelevant conference presentations”, and be able to wear more comfortable attire.

Flexibility

Moreover, they explained that online conferencing allowed them more flexibility regarding when they chose to view the recordings and which sessions they were attending. Online

conferencing offered respondents ease and flexibility in terms of “timing and ability to go back and revisit recordings”, being able to “view sessions on demand”, and do things in their “own time”.

For some respondents, small group webinars fostered a “one on one element of contact” allowing them “to be more involved in group discussions” and “to be heard”, which may not occur in “a big group setting”. Some even considered online modes to have “more engagement, higher audience participation”, and to be “more fun” with “interactive chat sessions” and an interesting way to share information with “more productive exchange of ideas”. They could hear from “experts all over the world” at low cost while staying at home. One respondent felt “it was possible for more clinicians to be involved” and another felt that they could be “organized much quicker and with more people”. Finally, for one respondent being online meant there was “no risk of infection”.

4.3.2 Perceived challenges of online conferencing

Respondents made several comments on what they liked least about alternative online modes of conferencing, and these were grouped under four themes: lack of sociability, lack of engagement and interaction, no networking, and technical issues. It is not surprising that sociability was missed in online conferences. Conferencing from home means limited or no social interactions, and respondents found online modes to be “impersonal”, particularly as there was a lack of “personal interactions, no spontaneous corridor chats, no opportunity to speak with colleagues and follow up at social settings or during meals” and it was difficult to have “side discussions”. One respondent summed it up by commenting that “when it was done, everyone went their separate ways”.

A lack of engagement and interaction meant that respondents found it difficult to interact with delegates and experts, to network and “engage” in the online event, which they felt limited the generation of new ideas. Online modes of conferencing were considered to not be as interactive and just like “another day at home”. They also stated that the “ease and opportunity” of asking questions was missing, and they would have to wait to “ask or answer questions”. They commented that online was “a boring environment”, it was “difficult to maintain concentration for long periods”, and they became tired from prolonged screen time. Some would restrict themselves to “the essentials, thereby missing happy accidents”. For others it was difficult to immerse themselves in the online event, and so their “learning was decreased”.

Online modes of conferencing “scarcely replicate the powerful connections that are often made during F2F conferences” and the ability to “network with colleagues or chat with colleagues that I don't see often, and that may spark new ideas and collaborations” is limited.

For some technical issues were a problem, including no connectivity, bandwidth limitations, difficult to hear speakers, technical glitches that were disruptive, slow internet connection and awful sound quality.

Other elements that respondents were critical of related to the nature of online conferences, including not hearing questions from other delegates, time zone issues and organising correct time schedules, and no opportunity to travel as “something about getting away from the incessant job is therapeutic”. In contrast to those who said that they liked not having to travel, others missed this element particularly “not being able to travel to fun places or see different opinions and cultures”.

4.3.3 Re-evaluating Conferences

Next to respondents' experiences, the questionnaire asked respondents if not attending F2F conferences made them re-evaluate the value/importance of such conferences. Sixty-two per cent of respondents stated that not attending F2F conferences made them re-evaluate the value/importance of F2F conferences while 38% did not. Explanations for re-evaluating the value/importance of conferences were grouped into the themes of resources, connecting with other delegates, and serendipity and innovation. Apart from resources, there was an overall feeling of a greater appreciation for the social benefits that can be realised from attending a F2F conference.

Resources

Many respondents became more aware of the ecological footprint they have by attending F2F conferences, with one respondent stating “an intercontinental flight emits more CO₂ than what I emit in the whole year”. A majority of respondents indicated that they are now aware that there is more to a conference than simply imparting knowledge, that they can achieve “70% of what I need without travelling” and it has “made me think about alternative ways of re-connecting or establishing new connections with people in my field”, particularly as virtual conferences are a “good alternative to imparting knowledge”.

Connecting with other delegates

Many missed the F2F interaction with other delegates, “I'm an extrovert and have always valued meeting people in person, I miss it desperately now”, and asserted that with no interaction or networking they find being online for more than an hour a day as “draining and tiring”, and “boring”. One respondent questioned “how can I trust people online”?

Serendipity and innovation

Other respondents had a new appreciation for the new ideas and opportunities afforded by serendipitous F2F meetings and social events. A key value of F2F conferences is all “the informal/serendipitous hallway conversations” and interactions with other attendees that spark new ideas, new collaborations, and generally make F2F conferences exciting and fulfilling events.

No need to re-evaluate - I know the value of conferences

Thirty-eight per cent of respondents stated that they had not re-evaluated the value of F2F conferences. Many explained that they were already aware of the value and so did not need to re-evaluate. For example, “I needed the difference of being out of my normal environment to be able to switch gears and focus on taking in the information, and if I stay home, I just keep working, and never relax”.

Others had not re-evaluated for different reasons. One respondent noted they had already been “telecommuting for 20 years so ... I haven't changed much of how I operate”. Another noted “I don't currently attend many meetings, so the loss hasn't impacted me as much as some other colleagues”. This raises an important point. Many have not had much experience prior to COVID-19 with online conference attendance and so may not be aware of the different skills and behaviours required to leverage benefits. Those with more experience may have developed ways to interact meaningfully with other participants. Some stated that they would take up more opportunities to attend F2F conferences in the future.

Others said they would take more advantage of opportunities at F2F conferences in the future to enhance their networking. Yet others stated that they would consider online options rather

than F2F for some of their future conference attendance to minimise their ecological impact and health risks associated with travelling.

Many of the respondents who had re-evaluated F2F conferences positively agreed that this re-evaluation would impact their future attendance at F2F conferences with the hope of attending *as soon as possible*.

4.3.4 Resumption of conference travel

Eighty-four per cent of respondents looked forward to a return of F2F conferences, and an additional 10% said they did not know. Only 6% negated looking forward to F2F conferences. Based on the current outlook, almost half of the respondents were positive in their outlook and expected to undertake short-haul international conference travel again in 2020 while only 11% thought it would take until 2022 or later before they would resume short-haul conference travel. Respondents from the Americas and Europe had a more favourable outlook than those from Australia and New Zealand.

In contrast to short-haul travel, only 17% of respondents expected to resume long-haul conference travel in 2020 and 54% of the respondents stated that they thought it likely to resume long-haul travel by mid-2021. However, a longer timeframe was considered likely for other respondents regardless of where they live, with 19% expecting to resume long-haul conference travel in 2022 or after. Fifty per cent of all respondents indicated that they are more likely to travel sooner to destinations that were less impacted by Covid-19 than those that were severely impacted. Another 34% did not know, and 16% negated that this would be the case.

4.3.5 What future conferences should do differently

Respondents were asked if there is anything that they would like to see conferences do differently. A typical comment was, “if we have learned anything ...it is that normal common-sense hygiene practices are not normally given enough attention”. Overwhelmingly the concern for respondents regarding future conferences were health and hygiene issues. They would like to see activities which ensure safe F2F conferencing including hygiene measures such as provision of hand gel, regular toilet cleaning, capacity control Remeasures, no buffet-style meals, emergency response plans, health care facilities in the conference venue, handwashing, facility hygiene, etc. The sentiment is summed up by one respondent who stated, “coronavirus has been very emotional as have been the political responses. Yet in fact there are milder pandemics every few years that remain invisible to many people even though they present real dangers. High touch surfaces should be cleaned often. Crowded areas should be kept ventilated and clean. Provisions should be made to keep hands sanitary”. Yet, for some, social distancing was perceived as “counterproductive to the efficacy of conferences”. Thus, conferences in the future will be challenged to create an atmosphere that is conducive to networking, socialising and engaging whilst ensuring the safety and wellbeing of delegates.

Other comments focused on improving functional elements of conferences such as re-focusing a conference to be “more on skill transfer and networking opportunities” and networking sessions made “fun and easy”. Technical upscaling (video ability, etc.) of F2F conferences to facilitate hybrid functionality, a hybrid functionality to ensure delegates from countries that might be experiencing a higher burden of Covid-19 can attend, and assurance that the host destinations are COVID-19 free, i.e. no new cases in last 60 days.

5. Discussion

The findings concur with previous studies that noted the importance of conferences as places to escape day to day routines (Foley et al., 2013; Foley, Edwards & Schlenker, 2014). There is no doubt that F2F conferences provide a social glue (Foley et al., 2021) that creates serendipitous, unplanned encounters which create new ideas and opportunities (Edwards, Foley & Malone 2017). Consequently, delegates were looking forward to attending F2F conferences again as they missed catching up with colleagues and friends (Foley et al., 2016) along with the ideas and opportunities that can arise through serendipitous F2F meetings and social events. “The formation of collaborative relationships (particularly in the early stages) is sensitive to physical distance” (Foley et al., 2021, p. 69) and trust and familiarity are important elements required to underpin collaborative legacies (Edwards, Foley & Malone 2017; Foley et al., 2021). As F2F connections were reported missing in online interactions, whether a person could be trusted online was questioned. Attendees can find it more challenging in online mediums to discern the more unique “aspects of one’s personality” (Foley et al., 2021, p.69). Hence, these aspects underpinned delegates’ reasons for attending conferences again.

Attending F2F conferences, however, was dependent on flights being resumed, the destination countries having favourable government travel advice and national protocols around safety and hygiene, and venues demonstrating they had appropriate hygiene practices in place. Future conferences may need to refocus their offering to facilitate the transfer of skills and be more inclusive by facilitating hybrid functionality to enable those with personal challenges and commitments to attend online. It will be important for conference organisers to ensure the smooth running of online sessions to ensure technical glitches are minimised. This may include test sessions with online presenters to ensure any potential problems with an attendee’s own technology set-up are identified and rectified.

6. Conclusion

It seems that the pandemic will herald a permanent change in the nature of meetings (Barral, 2020; Fleming, 2020). It may still be too early to ascertain what the post-pandemic scenario will look like for conferences, but the many benefits associated with online conference attendance support the case for online and hybrid conferencing (Dousay et al., 2021; Pacchioni, 2020).

This small study has provided insights into the impact of Covid-19 on delegates attending F2F conferences. Given the low number of responses, the results cannot be generalised. However, they are reflective of the wider literature. While socialising, networking, and opportunities for serendipitous moments were missing in online conferences, delegates valued the reduced travel, cost, and time savings, along with convenience, flexibility, and staying home with family from meeting online - the very aspects that the literature considered to be challenges to attending F2F conferences. Though virtual conferences might lack the intimacy of F2F meetings (Woolston, 2020), this limitation may be significantly improved in the future with ongoing technological innovations in virtual conferencing (Abbott, 2020; Achakulvisut et al., 2020). Finally, new activities created for online conferences could also present opportunities for F2F conferences. The knowledge and skills gained in delivering online modes can be used for future advantage in delivering interactive and engaging hybrid conferences (Weiniger & Matot, 2021).

Attracting delegates to be physically present may require marketing strategies that offer benefits negating those which can be gained from online conferences. One size will not fit all, and programming will need careful consideration. As well as ensuring immaculate technical

delivery, optimal programming may require understanding of personality types to address the differences in delegates' perceptions of what they like least and most about online and F2F modes of conferencing. Hybrid conferences can have flow on implications for conferences globally in terms of managing a change in their physical and virtual size, conference delivery, and a potential reduction in bed nights, food consumption, and tourism.

The broader social legacies that can be realised from online and hybrid conferences are still unknown. Further research is imperative, not only to help delegates, associations and conference organisers maximise benefits from online conferences for a range of conference stakeholders (communities, industries, destination economies) but to support the conference industry itself, which for many decades, has etched out its worth on the basis of the tourism contribution generated by conferences.

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7. References

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Table 1: Impact of not attending F2F conferences (yes responses)

Statement	N/A	Yes	Unsure	Low Impact	Average Impact	High Impact	Short Term	Medium Term	Long Term
Reduced networking opportunities	0	87%	4%	15%	26%	59%	58%	48%	21%
Lessened opportunities to make business contacts	12	84%	5%	26%	38%	36%	52%	50%	21%
Reduced opportunities to generate business leads	24	75%	5%	41%	24%	34%	52%	45%	17%
Reduced my opportunity to gain recognition in my field	11	68%	11%	24%	47%	29%	47%	58%	14%
Reduced opportunities for professional development of early career researchers/ professionals	22	66%	11%	14%	41%	45%	56%	56%	30%
Lessened my new knowledge acquisition	1	60%	12%	27%	54%	20%	60%	45%	13%
Reduced my opportunities to secure	29	60%	10%	30%	15%	55%	50%	50%	20%

business deals									
Reduced my opportunity to hear about the latest research	4	58%	8%	13%	55%	32%	45%	63%	8%
Reduced my opportunity to showcase my latest research	16	57%	7%	21%	41%	38%	71%	36%	18%
Reduced my opportunities to close business deals	31	55%	11%	41%	24%	35%	47%	35%	29%
Reduced my research collaborations	21	48%	17%	13%	57%	30%	41%	59%	18%
Reduced opportunities to obtain research funding partners	30	41%	23%	44%	44%	13%	56%	56%	19%
Enabled me to focus on my publication output	20	39%	8%	29%	53%	18%	56%	44%	6%
Limited my opportunities for investment	36	39%	12%	50%	8%	42%	50%	42%	25%
Given me more time	16	34%	11%	35%	47%	18%	77%	23%	8%

for research									
Limited my ability to obtain grant funding	28	34%	27%	21%	36%	43%	50%	50%	29%
Given me more time for teaching	30	33%	8%	33%	33%	33%	75%	17%	8%

Notes: Automatic rounding applied. Multiple impact duration responses allowed.

Table 2: Impact of not attending F2F conferences (no answers)

Statement	N/A	No	Unsure	Low Impact	Average Impact	High Impact	Short Term	Medium Term	Long Term
Given me more time for teaching	30	59%	8%	83%	11%	6%	79%	14%	7%
Given me more time for research	16	55%	11%	60%	30%	10%	56%	39%	11%
Enabled me to focus on my publication output	20	53%	8%	74%	22%	4%	75%	20%	10%
Limited my opportunities for investment	36	49%	12%	50%	8%	42%	78%	-	22%
Limited my ability to obtain grant funding	28	39%	27%	100%	-	-	83%	17%	33%
Reduced my opportunity to showcase my latest research	16	36%	7%	79%	21%	-	69%	23%	15%
Reduced opportunities to obtain research funding partners	30	36%	23%	100%	-	-	89%	11%	-
Reduced my research	21	35%	17%	100%	-	-	75%	-	25%

collaborations									
Reduced my opportunity to hear about the latest research	4	34%	8%	88%	12%	-	73%	33%	7%
Reduced my opportunities to close business deals	31	34%	11%	100%	-	-	75%	25%	-
Reduced my opportunities to secure business deals	29	30%	10%	100%	-	-	100%	-	-
Lessened my new knowledge acquisition	1	28%	12%	83%	17%	-	100%	27%	18%
Reduced opportunities for professional development of early career researchers/ professionals	22	23%	11%	100%	-	-	50%	38%	13%
Reduced my opportunity to gain recognition in my field	11	21%	11%	92%	8%	-	86%	-	14%
Reduced opportunities to	24	20%	5%	41%	24%	34%	100%	-	-

generate business leads									
Lessened opportunities to make business contacts	12	11%	5%	78%	22%	-	100%	-	-
Reduced networking opportunities	0	9%	4%	75%	13%	13%	25%	75%	-

Notes: Automatic rounding applied. Multiple impact duration responses allowed.