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Digital conferencing in times of crisis

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Abstract: This essay stems from our growing concern about the carbon intensity of academia, and of conferencing as an epitome of this. Face-to-face conferencing is widely recognised as both unsustainable and inequitable. Against this backdrop, digital conferencing (online only, or in hybrid form) offers a viable alternative. However, shifting to digital forms of conferencing does not automatically bring about equity. Drawing on white papers, academic discussions and results from a PollEverywhere survey, this essay explores issues of sustainability and equity across modes of face-to-face and digital conferencing, with the aim of charting a path towards more sustainable and accessible digital practices for a diverse community of linguists.

Keywords: climate change; crisis; digital conferencing; equity; sustainability

1 “A time of great disagreement, confusion, or suffering” (Cambridge English Dictionary 2021)

The starting-point for the joint pilot project we “write to” (Gale and Wyatt 2009; Wyatt and Gale 2018) in this essay and the PollEverywhere survey and data we draw on to do so, is a shared alarm at climate disaster and a concomitant growing desire to no longer have to travel by air for academic scholarship. Across white papers, working documents, social and public media sites, and journal articles, there is a stated acknowledgement of the seriousness of climate change, accompanied by a call to recognise that “we are in a climate emergency” which warrants “urgent climate action – from schoolchildren to scientists, cities and countries” (Lenton et al. 2020).

Academia is carbon-intensive. Results from Arsenault et al. (2019)’s analysis of the carbon footprint of academic mobility among the research community (professors, research professionals and graduate students) at the Université de

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Montréal, for example, shows an average travel distance for work and research of 8,525 kilometres per person per year, with professors travelling more than 33,000 kilometres per person per year. The majority of these footprints derive from air travel, which is a significant cause of climate change; if the aviation sector were a nation, it would rank sixth in CO2 emissions globally (Graver et al. 2019: 1–2). As Arsenaught et al. (2019) underscore, “the substantial environmental impact of academic conferences, one of the components of academic mobility, has garnered increasing attention over the last two decades”. There is now a growing body of research which critically interrogates such established “academic practises” in relation to what is referred to as a “climate hypocrisy” (Higham and Font 2019; see also Hiltner 2016); and outlines more sustainable practises (for linguistics, see, e.g., Rodríguez Louro et al. 2019). Many academics have chosen to reduce or eliminate air travel in order to align their practises with the reality of climate change (see, for instance, Kalmus 2020).

Paralleling such critical discussion of academia’s carbon footprint is growing recognition that face-to-face conferences are inequitable as a result of income, race, gender (including gendered differences in levels of concerns about climate), family and personal responsibilities and their intersection with gender (Cohen et al. 2020), physical needs, and unequal access to conference location (e.g., as a result of varying visa requirements). As Urry (2003: 172) notes, the environmental unsustainability of conferencing also constitutes a form of inequity, with the current “hypermobile” conferencing generation depriving future generations of travel opportunities.

One of the main outcomes of these developments is discussion of alternate forms of conferencing. Digital conferencing features strongly here: either conferences held solely online or hybrid conferencing which merges in-person gatherings (often through “nodes” at smaller regional hubs) with digital offerings (including, for example, recorded presentations and Twitter feed). The seminal example of the former is “A nearly carbon-neutral conference model” (Hiltner 2016), a model which combines pre-recorded talks with interactive online Q&A sessions. Eight such nearly carbon-neutral conferences have been held so far at the University of California Santa Barbara.\(^1\) And Covid-19 has led many more conference organisers across academia to turn to digital conferencing. A striking example of the potential effects of this shift is documented in Burtscher et al. (2020).\(^2\) Comparative analysis shows that, as a result of this year’s annual meeting of the European Astronomical Society being held online only, “[t]he carbon footprint […] was roughly 3,000 times smaller than the face-to-face one”, an outcome

\(^1\) https://ejcj.orfaleacenter.ucsb.edu/conferences/.
\(^2\) Thank you to James Costa (personal communication) for drawing our attention to this example.
that “provid[es] encouragement for more ecologically minded conferencing” (Burtscher et al. 2020: 823).

From the perspective of sustainability, digital conferencing is the only way forward, and, as we show through critical engagement with face-to-face conferencing in relation to our survey data, it also offers a response to the inequities of face-to-face conferencing practises. However, digital and hybrid modes of conferencing do not guarantee equity. In other words, a simple move to digital or hybrid will not automatically bring about equity. While they might enhance particular types of access and participation, they may at the same time heighten existing inequities and enforce a digital divide (Norris 2001; Ragnedda 2020; Tate and Warschauer 2017). As we argue in the concluding section, these findings warrant a closer look at how digital conferencing might be made more equitable and enjoyable, so that we can aim, going forward, to reduce our carbon footprint without reinforcing existing inequities or introducing new ones.

2 The survey

Given the centrality of conferencing to ideologies of academic exchange and networking (see Introduction for references), our pilot survey focuses on conferencing (and not on other pursuits such as meetings, fieldwork, visiting appointments and invited talks). We recruited participants in July 2020 through linguistics mailing lists, societies and personal academic networks. The survey consisted of 21 optional questions, with a focus on conferencing experiences, barriers and desires as these relate to face-to-face, hybrid and digital forms. These included a mixture of open and closed questions, and of text-based, image-based and ranking-style questions. In disseminating the poll, we aimed for geographical spread, different career levels, and diversity in gender, income, stage of career and race/ethnicity.

We received between 105 and 270 responses (average of 147.6 responses per question) from 194 participants working in a variety of subfields within linguistics. The demographic questions provide us with insight into diversity, relating to gender (N=142, Figure 1), socioeconomic status (N=171, Figure 2), and career stage (N=191, Figure 3).

These figures demonstrate that respondents tend to be early to mid-career, upper-middle-class women. Given our survey dissemination strategy, we cannot

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3 In using the term ideology here, we recognise that a conference is not always or necessarily “an effective area […] for communicating and gathering knowledge” (Høyer and Naess 2001).

4 As stated above, questions were not obligatory. However, between 73% (gender), 88% (socio-economic status) and 98% (career stage) of participants answered these questions.
Figure 1: Gender.

Figure 2: Socioeconomic status.

Figure 3: Career stage.
conduct “record-linking” (Smith 2008) to compare the demographics of those who received the link with those who responded. However, the striking difference in numbers of “female” and “male” participants mirrors more general tendencies in survey research (see Smith 2008).

The open question asking participants to provide information on “race/ethnicity” suggests that almost 70% (N=146) identify as white or Caucasian. The other 30% identify with the labels mixed race, Indian, Asian, South Asian, Chinese, Arab, Filipino, Indo-Aryan, Iranian-American, Asian American, Noongar, Hispanic, Korean, Japanese, Black/African-American, African-American, Southeast Asian, Latina, Catalan and British Australian/Mauritian.\(^5\) This unequal distribution is likely to be reflective of limitations in our study’s methodology. Furthermore, many scholars likely did not encounter our survey due to lack of Internet access – perhaps the same scholars who would be excluded from digital conferencing. We recognize this as a shortcoming and suggest that phone or in-person surveying might be a useful addition to this project (see also Section 4).

3 Results and discussion

3.1 Stances towards face-to-face conferencing: enjoyment and obligation

One way to respond to the unsustainability of face-to-face conferencing would, of course, be to simply stop holding conferences at all. Indeed, one respondent commented, “I hate conferences. In a perfect world for me the whole conference model would die, it wouldn’t just move online”. However, most respondents expressed positive attitudes towards face-to-face conferencing. When asked about their motivations for attendance, they mentioned benefits such as learning about others’ work, increasing the visibility of their work, maintaining and creating professional connections, exchanging ideas, getting inspired, broadening their horizons, and gaining credit on CVs. Some also described conferencing as an “obligation” or “prerequisite” to pursue a successful career in linguistics/academia. “It seems to be a prerequisite to be successful as an academic, needed in order to be competitive for job applications, promotions, grant applications,” wrote one respondent. Another wrote simply, “…one has to”. Overall, there seemed to be a fairly strong consensus that conferencing is an expected and often useful and/or enjoyable part of a career in linguistics.

\(^5\) Four identified as mixed race and seven declined to state their race/ethnicity.
3.2 Inequitable barriers to in-person conferencing

Alongside these positive stances, many respondents reported considerable barriers to in-person attendance. The most common were cost, family responsibilities, home country, too many presentations being scheduled at conflicting times, and concern about the environmental impacts of travel. In open response comments, many mentioned more than one barrier. For instance, several said that lack of funding to attend conferences combined with geographical location made it impossible for them to attend many conferences (1, 2).

(1) “The lack of funds to travel from India to the big linguistics conferences in the West.”
(2) “yes – lack of funding; having funding but thinking a conference is too expens[iv]e to use the funding on; not being accepted to present; clash of timing; not wanting to fly more for environmental and personal reasons; not knowing who else is on the program at the time registration is due.”

These factors differentially disadvantage low-income scholars, students who do not have departmental funding to attend conferences, scholars with families, and those living outside the Global North.

In addition, some respondents expressed reluctance to attend face-to-face conferences due to the environmental impacts of travel. Concern about climate change was high among respondents, with a mean rating of 8.5/10 (0=not at all concerned, 10=extremely concerned). This result needs to be taken seriously as we look forward beyond the current Covid-19 crisis, particularly as we note that current communication around linguistics conferences suggests a wish to return to face-to-face conferencing. It also warrants discussion in light of the aforementioned point about our respondents being largely female. Research shows gendered differences in levels of concern about climate, indicating a tendency for women to “express greater concern about climate change, believe more strongly that climate change is happening, hold more objective knowledge about climate change (but also a tendency to underestimate their knowledge), and report greater perceptions of vulnerability to climate change” (Pearson et al. 2017). We can only speculate that this result may look different had the survey attracted more “male” respondents.

It should further be noted that although only a few respondents mentioned accessibility barriers, these were important for those who experienced them, highlighting the need for greater accessibility in face-to-face conferencing. For instance, one respondent noted the need to access signed language interpreters or Speech-to-Text-Relay services, along with the need to integrate access into the design of the conference:
“I need signed language interpreters or Speech-to-Text-Relay services. In Australia, this issue is related to lack of funding and interpreter availability/capacity. Other issues include not enough notice provided to organise access, i.e., access treated as an afterthought that is added on (rather than built in). That is more an issue for short-notice events such as workshops. Of course, if the conference is a signed language/deaf studies conference, then it is usually a wonderful experience with a good mass of deaf people and interpretation into several different signed languages.”

3.3 Stances towards digital conferencing: skepticism, lack of enthusiasm, resignation and hope

Overall respondents expressed less positive attitudes of moderate negativity, neutrality, or moderate positivity towards digital conferencing, as compared with face-to-face conferencing. When asked to describe digital conferencing in one word, respondents commonly expressed stances of skepticism or ambivalence (not sure, hesitant, ambivalent, undecided), apathy or lack of enthusiasm (meh, indifferent, uninterested, tolerable, unappealing, unenthusiastic, ugh), and resignation (if-we-have-to, unavoidable, resigned). However, some respondents expressed stances of hope and excitement (yes!, hopeful, positive, optimistic, great!).

Some mentioned discomfort with digital interaction as a reason for negative stances towards digital conferences, using descriptors such as awkward, disengaged, sterile, artificial, and distant. This relates to the notion that digital conferencing is less “real” and “fulfilling” than face-to-face conferences. There may be numerous reasons for these perspectives, ranging from early yet persistent ideologies of the digital as cues-impoverished compared with face-to-face environments (Walther 1992) to the fact that online conferencing has tended to be more uniplex in its focus on information exchange (as suggested by the upsurge under Covid-19 of discussion of how to make virtual events more socially engaging) and to the simple but important point that face-to-face has long been the norm and is, as suggested above, viewed largely positively. We say this because norms of conferencing have emerged from these face-to-face encounters, meaning that the digital is likely to be compared with this existing standard.

In this vein, participants positively underscored particular affordances of face-to-face interaction, such as the ability to engage in unstructured, non-task-focused conversation and build rapport through shared experiences of physical surroundings (4–6):
“Digital encounters in professional settings tend to be more task-focused than in-person encounters. What is missing are the interactions that are usually taking place around the main task: the coffee break chats, the interactions taking place as a consequence of, for instance, searching for the same lecture hall, etc. This can create some sort of complicity with previously unknown scholars that can help later professional interactions.”

“[Digital conferences are] less fulfilling because you do not have the materiality of the encounter: how the person moves, smells, dresses, etc.”

“Digital encounters do not allow for shared experiences within the same time & place. e.g., laughing together over a mishap with the foam in your coffee at a cafe is a shared experience that can’t be replicated in a mediated environment.”

Other respondents mention the affordances of face-to-face interaction for interpreting audience reactions, excusing oneself from conversations, interrupting, and having simultaneous conversations (7–10), as well as creating rapport.

“For me, face-to-face interactions are vital for authenticity. Also based on the type of work that I do (anti-racist) work…I love to ‘read the room’ as I’m presenting.”

“I think in-person is overall more fulfilling. For one, in a video chat, it’s hard to have simultaneous conversations. There can really only be one conversation at once. How do you get out of the conversation when there’s no stimulus to say ‘I am going to look over there?’ or ‘oh, I’m going to nip to xxx before the next session.’ In a chat or forum, you can have multiple conversations at once at your own pace. You can step away for some time without feeling guilty. In an online videochat, I haven’t figured out the right time to step away.”

“The one-speaker-at-a-time is not made for academic discussion – especially not when there is a moderator who doesn’t recognize when people want to say something. And there is no chance to straighten things out in breaks directly after a presentation.”

“Possibility of not being properly understood - i.e., you can’t interrupt people as in f2f interaction.”
Some respondents, unlike those above, framed their preference for face-to-face conferences in terms of greater social interaction, rather than face-to-face social interaction specifically (11–13).

(11) “The talks themselves can be just as fulfilling. But the experience as a whole is marred by the lack of social contact between attendees and discussion around papers.”

(12) “No chance to talk to people in breaks and get proper connection”

(13) “Digital encounters work well with the content of talks, but sucks with professional networking and the social, but it is good for the environment (less flying), and it saves time/travel energy so it’s possible to go to more digital conferences than physical ones. I would probably be happy to go to a digital conference every other month, but the physical conference I’d only go once or twice a year.”

Other respondents did not view digital conferencing as less real or fulfilling than face-to-face conferencing. One respondent commented that they viewed content and stancetaking as more important than the medium of digital or face-to-face communication: “I don’t feel digital encounters are necessarily less fulfilling than in-person encounters. I think what makes an interaction ‘fulfilling’ depends more on the content of the interaction and the participants’ stance, rather than the medium itself.” Several commenters even mentioned that they experience face-to-face conferencing as overwhelming or awkward, preferring digital conferencing or viewing them as comparable as a result (14, 15), with digital conferencing also being seen as a means to keep communication more focused and allow for a better view of others’ faces (16, 17):

(14) “They are mostly equal for me. The networking at in-person conferences can be overwhelming.”

(15) “I guess it depends on what you define as real but I am convinced you can have a meaningful exchange with people online. On top of that, digital conferences can be a safe haven for introverts who find socialising events at conferences a little awkward.”

(16) “I find digital encounters more efficient as people often get straight to the point without much talking around the subject; whether encounters are fulfilling or not depends more on the people you talk to and the subject one talks about rather than the mode of communication, I feel.”
We observe that one of the most common themes is a sense that face-to-face conferencing offers more opportunities for socialization and networking. While some respondents attribute these opportunities to shared physical surroundings, others do not. Considering these perspectives and the established need for more sustainable conferencing practises, conference organizers might then consider ways to increase the potential for multiplex types of digital engagement and exchange, while keeping task-focused sessions brief. The most common suggestions provided by our respondents include:

1) Opportunities for informal and small group interaction, such as Zoom breakout rooms
2) Panels with discussion
3) Text chats
4) Short presentations (to present problems associated with extended screen/computer use)
5) Workshop-style events with data sets
6) Prerecorded plenaries and posters

Among the activities we suggested for digital conferencing, respondents expressed the following preferences (Table 1).

Table 1: Interest in proposed digital conference activities.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videorecorded presentations</td>
<td>1</td>
</tr>
<tr>
<td>Interest group coffee hours</td>
<td>2</td>
</tr>
<tr>
<td>Mentorship programs</td>
<td>3</td>
</tr>
<tr>
<td>Interactive “Ask Me Anything” (AMA) sessions with spotlighted individuals</td>
<td>4</td>
</tr>
<tr>
<td>Lightning talks</td>
<td>5</td>
</tr>
<tr>
<td>Professional development workshops (e.g., CV writing workshop, grant writing workshop)</td>
<td>6</td>
</tr>
<tr>
<td>Videorecorded roundtables</td>
<td>7</td>
</tr>
<tr>
<td>Speed friending interest group events (chatting with others working in your interest area for ~2 minutes each)</td>
<td>8</td>
</tr>
<tr>
<td>Twitter events, e.g., sharing 1-sentences paper or presentation summaries</td>
<td>9</td>
</tr>
</tbody>
</table>

3.4 Inequitable barriers to digital conferencing

The most commonly reported barriers to digital conferencing were time zone issues and Internet connectivity problems, followed by discomfort with online
professional activities and physical issues with screen use. Time zone issues likely privilege those in Western Europe and the United States, where many major linguistics conferences are held. Internet connectivity privileges those with the financial resources to purchase high-speed Internet. In addition, in open response questions, participants mentioned that many digital conferences charge prohibitively high fees for attending. These factors exacerbate wealth inequalities in linguistics and risk excluding scholars living in areas far away from where the digital conferences they wish to attend are organized.

Furthermore, seven respondents reported hearing and vision access barriers with respect to digital conferencing. This number is lower than the 11 who reported hearing and vision access barriers to face-to-face conferencing, yet it indicates a need for substantial improvement in the design of accessible digital conferences. One way to improve this would be to consider issues of hearing and vision access from the ground up when planning digital conferences, in collaboration with scholars who experience hearing and vision barriers.

Physical health issues with extended screen use constitute another important and inequitable barrier that privileges scholars without health issues. In the open-response replies, many participants mentioned the physical and mental fatigue of online interaction, using terms such as “web-lag” and “Zoom fatigue” and citing health problems such as migraines and eye strain. Several participants mentioned that shorter session lengths helped to lessen these problems. We note that digital fatigue may be linked not only to physical health issues, but also to other overall mental and emotional stressors. As a recent article in the BBC argues, “[i]f video chats come with extra stressors, our Zoom fatigue can’t be attributed solely to that. Our current circumstances – whether lockdown, quarantine, working from home or otherwise – are also feeding in” (Jiang 2020). In the time of Covid-19, militant racism, and climate crises, those who bear the brunt of these crises likely face greater baseline levels of stress going into digital events, and may therefore experience them as more draining.

The open-response replies also suggest that gendered inequalities may persist in digital as well as face-to-face conferencing. Prior research has established that, in general, women in academia perform more caregiving and domestic work than men, and that a “male breadwinner/female homemaker” model persists in assumptions of how academics will work and travel (Nikunen 2012; Toffoletti and Starr 2016). Many respondents mention home and caregiving commitments as a barrier to attending digital conferences (18–20).

(18) “home responsibilities that don’t give me the freedom to spend hours in front of the screen”
Family interruptions. Inability to disconnect from present professional responsibilities.

Time zone differences. Other commitments at home/work preventing full attention (one reason why getting away to a conference is essential to do it justice).

These results suggest that digital conferencing might be less accessible to caregivers than non-caregivers of any gender. Because of the links between normative femininity and caregiving in many Western-dominated societies, this in turn suggests gender inequality in access to digital conferencing.

The above barriers often intersect. For instance, one respondent wrote, “low Internet bandwidth, inability to afford high speed Internet, living in an area of conflict/remote village with no Internet access, care responsibilities at home, the time zone mismatch”. Another wrote, “attention span/motivation, resisting the temptation to multitask (or agree to other meetings in the middle of the conference), quality/consistency of my signal, migraines from staring at a screen for too long”. Each barrier alone might be enough to deter already marginalised scholars from participating in digital conferencing. Together, they represent a serious digital divide (Norris 2001; Ragnedda 2020; Warschauer and Tate 2012) that could result in ever-greater inequity in linguistics as the climate crisis worsens. Therefore, if conferencing is not to be forsaken altogether, it is imperative to work against these inequities in the design of digital conferences.

4 Where now?

In thinking through these results, we note two points in particular. (1) Face-to-face conferencing is more positively regarded than other forms despite acknowledgement amongst our respondents of a high concern with climate and a recognition of its inequity; and (2) Digital conferencing is entangled with issues of the digital divide and digital literacy in complex ways. These factors suggest the need to develop models for equitable and enjoyable digital conferencing as an alternative to carbon-intensive and inequitable face-to-face conferences – models that are not only adequate stop-gaps for the time being, but vibrant, exciting, socially engaging events.

To achieve this, we will need collaborative engagement encompassing a diverse set of voices to work towards a change in perspective of digital conferencing while striving for equity-enhancing digital practices. We thus see it as a high priority to include more individuals who are minoritised along the lines of
race/ethnicity, income, location, ability, health, family role and career stage in the design of digital conferences. To this end, we encourage conference organizers to include such scholars in designing digital conferences. And we plan ourselves to extend our project along these lines, by inviting linguists who self-identify as belonging to minoritised groups to participate in a digital conference design task. We wonder in doing so about how we might sensibly integrate discussion of the possibilities for more multilingual digital conferencing. This seems even more pertinent as we note numerous providers of online workplace services enhancing their marketisation of multilingual interpreting and translation under Covid-19. As linguists, this might be another core area to critically interrogate in relation to both the digital divide and digital literacy.

As we turn to reflect again on these results and further steps, we welcome feedback from the readers of this IJSL essay, and the chance to disseminate and discuss additional findings with you. We would also be happy to speak to organisers who are currently shifting conferencing to online and hybrid modes to share our participants’ worries and hopes for such events, so please do feel free to email us.

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References


