

Going to a library conference for talking about ecological sustainability – but what's about our own carbon footprint?

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Abstract:

Whenever people get together at face-to-face meetings – there will always be an extra consumption of resources for travelling to the conference and for staying at the venue. More and more of them feel confident that they need to strive to reduce their environmental impact to the most possible minimum. There are already several studies that have analyzed the ecological footprint of conferences. On the basis of their conclusions, the wide range of possible options for conference attendees (at conferences generally and in particular at library conferences) will be shown and discussed. Basically, there are two main kinds of complementary options: 1. Measures, steps, and actions for reducing the own carbon footprint and 2. Options for making an impact on the meeting organizers for the conference's footprint as a whole. The discussion will be carried out in relation to the UN Sustainable Development Goals (especially SDGs No. 7, 12, 13, 15) and to the degrowth movement.

Keywords: Library conferences; Carbon footprint; Environmental sustainability; UN Sustainable Development Goals; Degrowth

Introduction

According to the IPCC Special Report (Intergovernmental Panel on Climate Change, 2018), anthropogenic global warming is the key challenge of our time. Carbon footprint awareness is increasing and interacts with more and more spheres and aspects of human life. So the climate change topic is also omnipresent at conferences. There is a dilemma that on the one hand conferences generally have “grown strongly in number and size” (Wenner, Caset, & Wit, 2019, p.34), while on the other hand scientists have “the duty to understand and explain climate change, to inform policy discussions, and to work out alternatives” (Spinellis & Louridas, 2013, p.3). So they “should be at the forefront of reducing CO₂ emissions to set an

example for the global community, and also when this requires behavioural change that impacts their own lives” (Desiere, 2016, p.60).

To reduce the carbon footprint of a conference not only slightly but drastically – all potential aspects of preparation and implementation of a meeting should be not only considered but required. This paper argues these aspects referred to conferences generally as well as in particular to library conferences.

Carbon footprint of conferences

For already a couple of years, conference attendees are becoming aware of the environmental impact of travelling to their meetings (Guterman, 2009, p.1169; Nicolson, 2017, pp.37-39). Studies have analyzed several facets of environmental impact of scientific events like conferences, symposia or exhibitions.

According to the result of a case study, the following “three strategies to reduce the carbon footprint of academic conferences” are suggested:

1. No participants from outside the continent where the conference is located
2. A more central location, close to a larger train station
3. Promoting public transport. (Desiere, 2016, p.58)

Most studies, like the one mentioned above, are mainly focused on transportation aspects (see e.g. also Rosen, 2017; Stohl, 2008; Wake, 2015); for more details see below “Travelling to and from the conference venue”. Further considerations like the consumption of energy and water, ideas for minimizing waste, as well as the environmentally friendly procurement of products and services will be discussed in the following paragraphs.

Printed materials and conference bags

According to the UN Sustainable Development Goals (SDG) 12 “Ensure sustainable consumption and production patterns” (United Nations, 2018) there are several complementary possibilities for paper reduction at conferences:

- The amount of paper can be reduced by printing on both sides of the sheet (Dubrikow, Jaeckel, Schmidt-Räntsche, Eggers, & Huth, 2015, p.12).
- The printing needs (e.g. handouts and brochures) can be reduced by having most of the meeting information online (Guterman, 2009, p.1170).
- The print material which is still needed should be produced from nothing but recycled paper (Dubrikow et al., 2015, p.12).
- Separated recycling bins for paper (Dubrikow et al., 2015, p.12).

Conference bags and badges – a case example (Guterman, 2009, p.1170):

- “The organization [...] does not give new tote bags every year. (For attendees who want a new bag, [...] bags made of recycled plastic.)”
- “The badge-holders are made from corn and the lanyards from recycled bottles.”

Catering

According to SDG 15 (United Nations, 2018), complying with sustainability criteria for the selection of conference catering is of increasing importance. Therefore, “special attention should be given to seasonal, organically sourced and fairly traded products.” (Dubrikow et al., 2015, p.13) In the study “Experiences on carbon care conferences” the carbon emission of “food for attendees (knowledge of the different meals, the origin of food, etc.)” has been estimated (Allègre et al., 2014, p.2-4). For instance, the gala dinner of an international conference in France

“has been analyzed and each meal has been estimated to 4.65 kg of CO₂ equivalent. The number of meals [...] was 908 (attendees and also last minutes defection because their meals was prepared... and wasted!). The total CO₂ equivalent of the gala dinner is thus 4.65 x 908 = 4 230 kg.” (Allègre et al., 2014, p.3)

To reduce or even avoid the use of disposable dishes, drinking water should be provided in carafes (Dubrikow et al., 2015, p.13) so that the conference attendees can refill their bottles and cups. At the coffee dispensers, there should be given a discount “when an own cup is placed in the machine” (Burtonshaw, Löber, & Wang, 2014, p.15).

Energy consumption at the venue and regional transportation

According to SDG 7 (United Nations, 2018), the access to sustainable and modern energy should be an important selection criterion for the venue.

“Consideration of questions relating to energy supply (e.g. renewable energies, green power, heat-power cogeneration) and energy consumption when selecting conference buildings and hotels.” (Dubrikow et al., 2015, p.11)

Another selection criterion is the quality of public transportation connection between the different conference event locations and the accommodations, since “public transportation has the potential to reduce or even partially eliminate the currently increasing trends in CO₂ emissions” (Ercan, Onat, & Tatari, 2016, p.1273). In addition, there should be offers like bicycle rental (Rosen, 2017, p.566).

Travelling to and from the conference venue

In the above mentioned study “Experiences on carbon care conferences” was found out that the transport of the conference attendees to and from the venue has obviously the largest percentage of all conference-related carbon emissions, depending on location, events, type of conference etc., between 75 and 94 percent! The small rest consists of conference center (energy consumption, water etc.), catering, accommodation, communication and local transport (Allègre et al., 2014, pp.3-5). This coincides, more or less, with the findings of Stohl’s case study (analyzed all kinds of business travel including conference visits): “More than 90% of the emissions were caused by air travel, 3% by ground travel and about 5% by hotel usage.” (Stohl, 2008, p.6503)

There is the “Paradox of flying to meetings to protect the environment” (Grémillet, 2008, p.1175). “Air travel to academic conferences is one of the main culprits in the large carbon footprint of researchers.” (Desiere, 2016, p.59) “Flying less [...] offers the biggest opportunity for reducing personal climate impacts.” (Rosen, 2017, p.566) In a study, scientists (frequent conference attendees)

“considered what would happen if organizations alternated large national or international meetings with regional ones every other year. They found that this could reduce conference-related carbon emissions by up to 73%, and that choosing central meeting locations could save further.” (Rosen, 2017, p.566)

There are more and more initiatives of scientists, as well as institutions that appeal for reducing or even foregoing flying. A working paper “Towards a culture of low-carbon research for the 21st Century” outlines “a plan to move towards a low-carbon research culture” with included “travel tracker, which allow users to calculate and monitor individual travel emissions” (Wake, 2015, p.512). The goal of the “Air Travel Project” at the Eidgenössische Technische Hochschule (ETH) Zürich, Switzerland, is to reduce – through several incentives – the greenhouse gas emission caused by business travel flights (ETH Zürich, 2019). The climate scientist Peter Kalmus has started the “No Fly Climate Sci” initiative (No Fly Climate Sci, 2018). To set an example, he personally didn’t get on a plane since 2012. For instance, he “coordinates conference attendance with an annual train trip from California to Illinois to visit family” (Langin, 2019, p.621). To combine travelling to a conference with taking a private trip helps immensely to reduce the own carbon footprint:

“In July 2015, Stephanie and Fraser Januchowski-Hartley left their home in Totnes, UK, and headed for the International Congress for Conservation Biology in Montpellier, France. Instead of catching a flight, they boarded a boat and then made their way across France by bicycle and train, pedalling more than 600 kilometres over 5 days. After the conference, they took a train home.” (Rosen, 2017, p.565)

Of course, it would be unrealistic to assume that all conference-related travel activities can be done by train, coach, ship, or bicycle. International face-to-face meetings are important for many reasons. But in order to contribute avoiding the predicted rapidly increasing number of flights (Warnecke, Schneider, Day, La Hoz Theuer, & Fearnehough, 2019, p.218), and according to SDG 13 “Take urgent action to combat climate change and its impacts” (United Nations, 2018), international conferences should be reduced in number and size. Partially, they could be replaced by conferences, organized at multiple sites, combined with advanced videoconferencing technology (Coroama, Hilty, & Birtel, 2012, pp.371-372). For attendees who still (have to) fly, “voluntary carbon offsets are a key way that customers help to neutralize their flight-related carbon emissions” (Choi, Ritchie, & Fielding, 2016, p.717).

Library conferences

The considerations above – referred to conferences generally – will be discussed again now, specifically for the field of library conferences. Among librarians and library scientists, the awareness of the importance and urgency to protect the environment has been increasing continuously over the last decades. Thoughts and actions to reduce the carbon footprint has become part of the daily work. Although library conferences are activities apart from the

daily work, more and more library conference attendees are becoming aware of the environmental impact of face-to-face-meetings.

For instance, already in 2005, at the ALA Annual Conference in Chicago, “ALA conference attendees enjoyed discounted rates on bicycle rentals to help them get around Chicago without having to burn petroleum fuel.” (Jankowska, 2011, p.10) During the ALA midwinter conference in Philadelphia in 2008, a campaign “Cup by Cup for a Greener ALA” was started. Conference attendees were asked “to bring their favorite traveling mugs and water bottles in support of efforts encouraging the American Library Association (ALA) to reduce its carbon footprint.” (American Library Association, 2008)

At the 14th National Conference of the US Association of College and Research Libraries (ACRL) in 2009, features of sustainability were incorporated, e.g. “the sturdy, pragmatic, green conference bags made of recycled materials and the tangible lack of handouts at program sessions” as well as “ubiquitous recycling bins and abundant water coolers”. (Eberhart, 2009, p.29)

In the blog of a clinical librarian at the Royal Melbourne Hospital, Australia, there is a post concerning the question: “Carbon neutral library conferences?” – posted immediately after the Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC) was signed in 2015:

“As countries talk about climate change and ways of addressing accelerating climate instability in Paris this fortnight, it is appropriate and not only that, necessary as well, to discuss the environmental impact and sustainability of local and international library conferences. While it is very nice to travel to events [...], it is too costly environmentally. I’ve been thinking about my travel and – well, I have to step up. [...] Is it really necessary to attend the event, especially if it involves a long-haul flight? If it is [...], wouldn’t it be great if your registration included a carbon offset (compulsory!) donation [...]? One conference I attended in Bilbao in Spain was held in a carbon-neutral conference centre. I was very impressed – recycling boxes everywhere, energy efficient lighting and air conditioning.” (Voutier, 2015)

The International Federation of Library Associations and Institutions (IFLA), in cooperation with the K.I.T. Group, had a new challenge at the World Congress (WLIC) in 2018 in Kuala Lumpur, Malaysia: how to create the conference more sustainable? 95,033 librarians from across the planet followed the WLIC online. Congress participants donated books to local schools. For paper-saving most attendees downloaded the WLIC app and the majority of the signs inside the venue were digital. Certified eco-friendly paper was used for the materials which still had to be printed. For making the next conferences even more sustainable, the K.I.T. Group offers support and assistance. (K.I.T. Group Association & Conference Management, 2018)

At the 107th German Librarians’ Day in 2018, a hands-on lab about sustainability was well attended. At one of the World Café round tables within this hands-on lab, there was a discussion about how to make library conferences greener.

The World Café panelists’ suggestions, wishes, and criticisms:

- More green topics into the conference and library visiting programs,
- Less paper use through the exhibitors and associations,

- If paper is still necessary, then just usage of recycled paper.
- Severe criticism of PVC plastic conference bag material; suggestion: an ecofriendly material or even no bag at all.
- Catering: disposable tableware/cutlery/portion packaging should be banned!
- More transparency concerning food offers (e.g. information if local and/or organic), and more vegan and vegetarian dishes,
- Possibility of waste separation in all venue areas,
- Air conditioning only if really necessary.
- In addition to conference hotels there should be private bed exchange offers.
- It's a shame that for conference attendees who come from shorter distances the flight tickets very often are cheaper than train tickets! (Hauke et al., 2018, pp.281-282)

The World Café panelists liked that

- the local public transportation ticket was already included in the attendance fee,
- the conference pen was made from recycled cardboard,
- the badge covers and lanyards will be reused at the next conference,
- there was this hands-on lab about sustainability. (Hauke et al., 2018, p.282)

For the 2019 ALA Annual Conference in Washington, DC, the ALA Sustainability Round Table (SustainRT) has initiated an information session on “Carbon Offsets for Sustainable Travel: Why, Where, How”. The main motivation:

“One round-trip flight to the ALA conference [...] can undo a year’s worth of emission reductions from all of these actions combined: taking the bus to work, adding insulation to your home, recycling, composting, adjusting the thermostat at night, unplugging appliances to avoid phantom load, using LED lighting, and making dietary changes.” (Rockwell & Selden, 2019)

Conclusion

The increasing awareness of carbon footprint interacts with more areas and aspects of human life than ever before. Climate change topics are omnipresent at conferences generally and in particular also at library conferences. More and more conference attendees are becoming aware of the environmental impact of face-to-face-meetings. There is a wide range of options for reducing conference-related carbon dioxide emissions:

- The access to sustainable and modern energy (renewable energies, green power, heat-power cogeneration, energy efficient lighting and air conditioning etc.) should be an important selection criterion for the venue.
- Another selection criterion is the quality of public transportation connection between the different conference event locations and the accommodations.
- The local public transportation ticket should be already included in the attendance fee.
- Discounted rates on bicycle rentals,
- No tote bags, and less paper use by having most of the meeting information online.
- If paper is still necessary it should be produced from nothing but recycled paper.
- Transparency concerning food offers (e.g. information if local and/or organic),
- Disposable tableware/cutlery/portion packaging should be banned,

- Separated recycling bins in all venue areas.

The strongest impact on conference-related carbon footprint has the attendees' travelling to and from the conference venue:

- More incentives for alternatives to travelling by air,
- Two trips in one: combine travelling to a conference with taking a private trip.
- Carbon offset donations should become an essential part of a conference visit for attendees who come by airplane.
- Multiple-site conferences, combined with videoconferencing technology.
- Conferences generally should be reduced in number and size.

Basically, the time for change in thinking and acting is limited! “Degrowth is a sobering vision with which we start the transformation to stay below 1.5°C global warming.” (Domazet, 2018, p.24)

References

- American Library Association. (2008). Cup by Cup: Librarians raise their cups for planet Earth. Retrieved May 31, 2019, from https://wikis.ala.org/midwinter2008/index.php?title=Cup_by_Cup&oldid=2088
- Allègre, A. L., Astier, S., Bouscayrol, A., Chevallier, L., Cimetiere, X., Clenet, S., . . . Sergent, J.-F. (2014). Experiences on carbon care conferences. In *2014 IEEE Vehicle Power and Propulsion Conference (VPPC)* (pp. 1–6). Piscataway, NJ: IEEE. <https://doi.org/10.1109/VPPC.2014.7007068>
- Burtonshaw, B., Löber, S., & Wang, S. (2014). Say no to plastic cups: For a sustainable Wageningen University (Report). Wageningen University, Wageningen. Retrieved May 31, 2019, from <http://www.greenofficewageningen.nl/wp-content/uploads/2016/06/ECS31806-Group-5-No-Plastic-Cups-FINAL-REPORT.pdf>
- Choi, A. S., Ritchie, B. W., & Fielding, K. S. (2016). A mediation model of air travelers' voluntary climate action. *Journal of Travel Research*, 55(6), 709–723. <https://doi.org/10.1177/0047287515581377>
- Coroama, V. C., Hilty, L. M., & Birtel, M. (2012). Effects of Internet-based multiple-site conferences on greenhouse gas emissions. *Telematics and Informatics*, 29(4), 362–374. <https://doi.org/10.1016/j.tele.2011.11.006>
- Desiere, S. (2016). The Carbon Footprint of Academic Conferences: Evidence from the 14 th EAAE Congress in Slovenia. *EuroChoices*, 15(2), 56–61. <https://doi.org/10.1111/1746-692X.12106>
- Domazet, M. (2018). *Degrowth - a sober vision of limiting warming to 1.5°C. Publication series ecology: volume 44.4*. Berlin: Heinrich Böll Stiftung.
- Dubrikow, K.-M., Jaeckel, U., Schmidt-Räntsche, A., Eggers, H.-H., & Huth, D. (2015). *Guidelines for the sustainable organisation of events*. Berlin, Dessau-Roßlau. Umweltbundesamt; Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit.
- Eberhart, G. M. (2009). The Greening of ACRL. *American Libraries*, 40(5), 29.
- ETH Zürich. (2019). Air Travel Project. Retrieved May 31, 2019, from <https://www.ethz.ch/services/en/organisation/executive-board/vice-president-human-resources-and-infrastructure/mobilitaetsplattform/air-travel.html>

- Ercan, T., Onat, N. C., & Tatari, O. (2016). Investigating carbon footprint reduction potential of public transportation in United States: A system dynamics approach. *Journal of Cleaner Production*, 133, 1260–1276. <https://doi.org/10.1016/j.jclepro.2016.06.051>
- Grémillet, D. (2008). Paradox of flying to meetings to protect the environment. *Nature*, 455, 1175. <https://doi.org/10.1038/4551175a>
- Guterman, L. (2009). Seeing green in conference season. *Cell*, 137(7), 1169–1171. <https://doi.org/10.1016/j.cell.2009.06.003>
- Hauke, P., Hörning, B., Kaufmann, A., Koch, U., Landes, C., & Schumann, T. (2018). Bericht zum „Hands-on-Lab analog: Bibliotheken auf dem Weg zur ökologischen und sozialen Nachhaltigkeit“ auf dem Deutschen Bibliothekartag in Berlin am 15. Juni 2018. *o-bib. Das offene Bibliotheksjournal*, 5(4), 276–283. <https://doi.org/10.5282/O-BIB/2018H4S276-283>
- Intergovernmental Panel on Climate Change. (2018). Global Warming of 1.5 °C: IPCC Special Report. Retrieved May 31, 2019, from <https://www.ipcc.ch/sr15/>
- Jankowska, M. A. (2011). Going beyond environmental programs and green practices at the American Library Association. *Electronic Green Journal*, 1(32). Retrieved May 31, 2019, from <https://escholarship.org/uc/item/1zs6k7m2>
- K.I.T. Group Association & Conference Management. (2018). *Writing a better future: How the World Library and Information Congress embraced sustainability*. Retrieved May 31, 2019, from https://www.kit-group.org/wp-content/uploads/2018/12/02_KIT-Group_case-study_IFLA-WLIC.pdf
- Langin, K. (2019). Climate scientists say no to flying: Limiting air travel to reduce carbon footprint works for some, but not all are on board. *Science*, 364(6441), 621. <https://doi.org/10.1126/science.364.6441.621>
- Nicolson, D. J. (2017). *Academic conferences as neoliberal commodities*. palgrave pivot. Cham: Palgrave Macmillan.
- No Fly Climate Sci. (2018). Welcome - Earth scientists flying less. Retrieved May 31, 2019, from <https://noflyclimatesci.org/>
- Rockwell, J., & Selden, D. (2019). Carbon offsets for sustainable travel, a SustainRT ALA 2019 program. Retrieved May 31, 2019, from <https://olos.ala.org/sustainrt/2019/05/23/carbon-offsets/>
- Rosen, J. (2017). Sustainability: A greener culture. *Nature*, 546(7659), 565–567. <https://doi.org/10.1038/nj7659-565a>
- Spinellis, D., & Louridas, P. (2013). The carbon footprint of conference papers. *PloS One*, 8(6), e66508. <https://doi.org/10.1371/journal.pone.0066508>
- Stohl, A. (2008). The travel-related carbon dioxide emissions of atmospheric researchers. *Atmospheric Chemistry and Physics (ACP)*, 8, 6499–6504.
- United Nations. (2018). Sustainable Development Goals. Retrieved May 31, 2019, from <https://sustainabledevelopment.un.org/sdgs>
- Voutier, C. (2015). Carbon neutral library conferences? Retrieved May 31, 2019, from <https://clinicallylibrarian.wordpress.com/2015/12/08/carbon-neutral-library-conferences/>
- Wake, B. (2015). Travel responsibly. *Nature Climate Change*, 5(6), 512. <https://doi.org/10.1038/nclimate2667>
- Warnecke, C., Schneider, L., Day, T., La Hoz Theuer, S., & Fearnehough, H. (2019). Robust eligibility criteria essential for new global scheme to offset aviation emissions. *Nature Climate Change*, 9(3), 218–221. <https://doi.org/10.1038/s41558-019-0415-y>
- Wenner, F., Caset, F., & Wit, B. de. (2019). Conference Locations and Sustainability Aspirations. *disP - The Planning Review*, 55(1), 34–51. <https://doi.org/10.1080/02513625.2019.1598106>