Interactions Article on SIGCHI Panel

There is no Plan(et) B: On sustainability in/and HCI

Summary of sustainability survey pre-panel: here
Medium post about sustainability survey pre-panel: here

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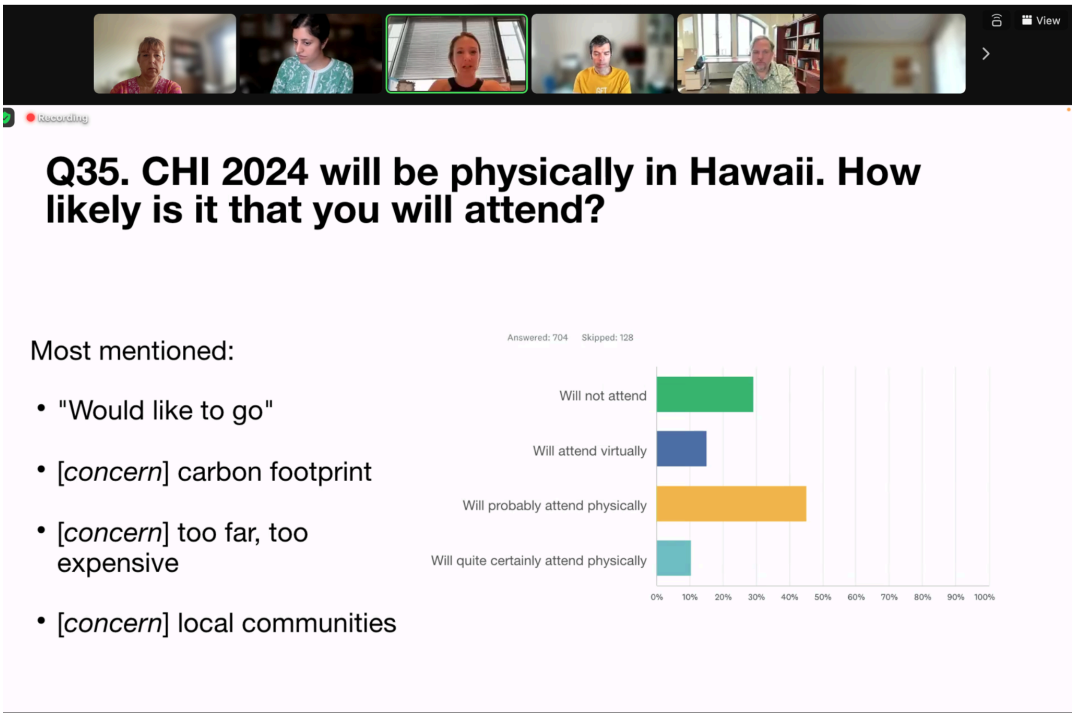
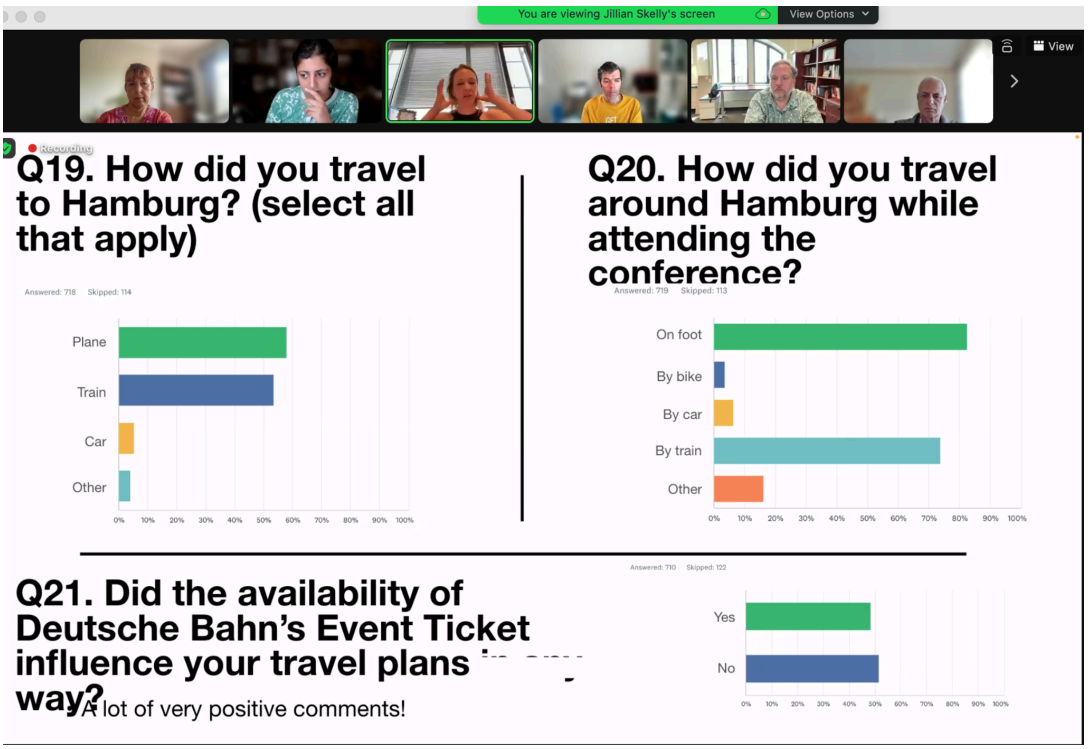
https://cacm.acm.org/magazines/2

Slides presented by CHI survey of Hamburg



SIGCHI had some stickers. They learnt that there were groups car-sharing and some people who cycled to CHI, including one group from Copenhagen 350Km away.



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Edited by Vishal:

There is No Planet B Panel, CHI 2023, Hamburg, Germany.

There is no question that the impacts of climate change are being felt around the world: extreme weather events, biodiversity loss, record heatwaves, the thinnest level of winter ice in the Antarctic … Yet, despite legally binding commitments to cut emissions and the impossibility of meeting them with business-as-usual, change has been disappointingly slow. Reluctance to challenge potential voters and highly profitable businesses is outstripping existential concerns about what is lost to future generations. We write as the "1.5 degree" goal of keeping the average temperatures safe from radical tipping points has just been breached.

Sustainability continues to be just one of the many themes present at CHI, rather than an all-consuming focus, which is strange really. ICT, the development of which HCI is irrevocably intertwined with, was thought already in 2018 to account for global emissions as high as 2.1%–3.9% (equivalent to global air travel). We know that the direct and indirect effects of ICT go considerably beyond this in both expected and unexpected ways. AI is already talked of as the most water and energy hungry of any ICT technology ever, to the point where some commentators have concluded it will be the last tool humans are able to develop. More broadly then, what role do we

have as academics, practitioners, researchers, innovators, scholars, teachers, students, and even just as fellow humans, in addressing this unprecedented, and all-encompassing crisis?

Following a survey of SIGCHI members' perspectives about ecological sustainability—which already indicated how significant climate change was featuring for many in participating at CHI, especially with the siting of the 2024 conference on an island that requires almost everyone to fly—we were given the chance by SIGCHI chair Neha Kumar to have a public and open panel discussion on this matter at CHI 2023. We, in this context are Adrian Friday, Kathrin Gehrling, Jason Jacques, Ann Light, Matthew Louis Mauriello, Gözel Shakeri, and Robert Soden (with the support of the SIGCHI Sustainability Committee members, including Nic Bidwell and Vishal Sharma). Collectively, we've either worked on sustainability-related topics or been involved in organizing academic events with some remit for sustainability or remote participation. We do not and would never claim to have all the answers, but are 'on the journey'. Of course, being CHI, our slot clashed with many other commitments. Despite this, the panel attracted a good-sized audience with plenty to contribute. What follows summarises the key directions of the discussion.

What role does HCI have in addressing climate change anyway? Or, more implicitly, what agency does HCI actually have in affecting climate change?

The panel argued that third-wave HCI is all about contextualised research and methods embedded in real-world settings. As such, it's hard to find some aspect of life that doesn't or shouldn't be a topic of HCI and not have some broader implication for how people and planet interact through technology. A key point in the discussion was that we would like to see a broader adoption of sustainability as a research objective, or, indeed, reflection on the values and impacts implicated in HCI research: "shifting away from focusing just on metrics (e.g., h-index) to making sustainability the heart of the community; not taking sustainability as an afterthought but creating a culture of urgency."

Creating new interactive experiences, new engagements, lays down technological infrastructure that we then depend upon. This indirectly furthers more or less sustainable 'ways of doing'. Technology changes society, uses materials, draws energy, and changes the dynamics between people and the planet. This also raises a core concern about the positioning of HCI research and how it does or doesn't relate to sustainability. Digital systems are neither neutral nor values free [3]. Are we promulgating unsustainable technologies and as some claim, optimising or creating hedonistic yet unsustainable experiences by implication? As Eli Blevis argued back in 2007, what is sustainability 'in design'; and to what extent are we able to actually promote sustainability, or more sustainable ways of doing 'through design' [1].

Digital is also political, HCI professionals are also activists.

We might not have seen ourselves in this way, but as HCI professionals, we *are* activists; we create digital and digitally-mediated worlds. As a questioner cleverly observed: everything **is** political [4]! But what are the politics at work, and are we questioning this enough? What is our activist position? Does our activism challenge the capitalist infrastructures that are promoting unsustainability or otherwise? A close yet rarely questioned relationship exists between the IT industry and IT research. From sponsorship, routes to employment, funding, and so on, such relationships are also a gateway to significant platforms, users, and data we might need. As such, are we implicated in accelerating growth in digital technologies that are changing the landscape of how decisions are made, opinions formed, politics executed, and the world viewed [5]?

ICT has more than one footprint, and it's broader than you might realise. ICT is linked with extractivist practices, human rights issues, and toxifying the environment through growing mountains of e-waste, often in the Global South. So, assuming there is, where is *the right place* to apply technology to help address this issue? We are not neutral in this. Where do we get our funding, and what underwrites our conferences? What are we contributing through our designs to promulgating, and is that sustainable? How sustainable are we? Technology, whether we like it or not, is associated with neo-colonial, neo-liberal, capitalist, and exploitative practices. Can we recognise how much our discipline relies on these, and what are we prepared to do about it? This has, of course, been brought into sharp relief as we consider academic practice itself, including to what extent we can justify the continued role of large-scale academic in-person conferences [8]. How can we move away from the consumerist culture to a more planet-centric, posthumanist, (and giving people to care about more than "stuff") culture?

As an example of this shift, we have seen the relationship of our discipline with ethics has changed and evolved. What was once seen as a largely theoretical and mechanical science has given way to rich experiences as HCI has explored the boundary between machines, people and, increasingly, the environment in which they operate. Today, the idea of not carrying out an ethical review of a proposed study involving humans would, at the very least, raise eyebrows. As we move forward, HCI will necessarily increasingly reflect and contextualise itself as we explore the new challenges that change may have on our planet and its inhabitants. But sustainability has a much broader remit. Our professional code of ethics already requires us to ``avoid harm'' and specifically notes that this includes harm to ``the environment'' [https://www.acm.org/code-of-ethics]. Perhaps in future the lack of critical reflection - a sustainability review, if you will - contextualising our work more broadly, will also be conspicuous if absent.

Beyond HCI, a systemic change is needed while we critically reflect, play, experiment, and question where we are going in times of living with uncertainties. Uncertainties are uncomfortable, but we can make them into certainties, with a certain future for humanity and the planet, with collective participation. Can we do work that helps deal with uncertainty; communicates future risk and path dependency, or systemic or relativistic issues? To begin, we can ask if our technology design should be centred on optimisation or collective action and radical change toward a more humane, sustainable, and just future. We have been looking at changing individual behaviour, but changing an individual's unsustainable patterns alone is not going to address the climate change issue, which is broader on a spatial and temporal scale. While we are moving away from such an orthodox focus on sustainability, we can ask ourselves how we can be more radical or transformative in and through our life and work.

Where can I start?

There were no easy questions, and certainly, there are no simple solutions. Especially entirely and exclusively found within HCI's remit, if anywhere. But, as we were asked directly during the panel - is there a 'list of projects' and 'what can we do'? We can begin by reflecting on the sustainability of our work and how we conduct it by engaging with initiatives such as the SIGCHI 'special recognition for sustainable practices', https://chi2024.acm.org/2024/01/25/special-recognition-for-sustainable-practices/.

But in addressing systemic problems we need to look to the 'leverage points', as Meadows put it [7]. Sustainability in decision making for digital technology (probably all sustainability) is usually complex, requires holistic and systemic viewpoints, and its impact often only makes sense in comparison with non-digital alternatives. In 'doing the work' of sustainability, revealing this system in new ways and communicating with various stakeholders through data and software, there is certainly HCI. In our experience of working with decision makers, current decision making frameworks and policies have *not moved* to more sustainable and systemic design approaches. There needs to be more agency, accountability, and above all urgency in this kind of decision making and leadership. What of opinion forming, social movement, social and ecological solidarity? Sustainability is often grassroots, ad-hoc, and poorly supported, especially in digital terms. How might we use our *indirect* influence through technologies that are already changing the world and global discourse to affect this?

It's critical we recognise our full agency here.

As ideally and perhaps idealistically independent voices with a licence to be objective and scientific, can we afford to be critical of unsustainability and help call this out? Leveraging our academic

privilege, we should reflect this in our teaching and throughout our institutions *in all aspects* of what we teach and how we conduct our business. Turning the ship is taking time, and it's time we can't afford—so how can we support rapid, radical, and collective action? And yes, as much as academic practice and the processes we've established are not accustomed to being thought of in sustainability terms or being challenged—this is not just about the small yet still important issues of hybrid participation or whether or not to have merchandise at our conferences—it's an existential question too: *what does sustainable academia look like?*

Getting involved

It's worth considering that the impacts of a changing climate are neither distributed equally within society nor across the globe. Even the responsibilities or the benefits of current lifestyles and their impacts are not equally felt. Rather than just designing technologies for an affluent first world, we need to challenge this orthodoxy and address the more systemic issues [2]? CHI 2024 will feature an online panel to broaden the debate, focusing on building solidarities with HCI researchers across geopolitical borders, especially those in the Global South. It's hard to disentangle social from environmental justice, and we must not. We look forward to welcoming your voice to help co-create a more sustainable HCI, and indeed, more sustainable world.

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