Once Upon a Time When HCI Prioritised Environmental Sustainability: Reflections on a Collection of Fictions

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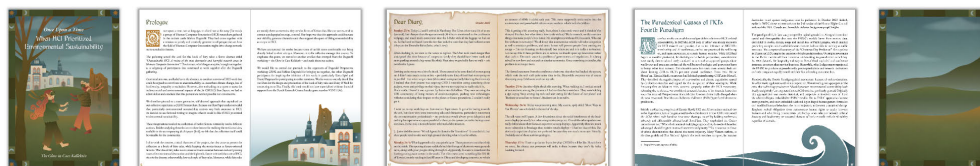Oldenburg, Germany
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Figure 1: Teaser pages from our book titled "Once Upon a Time When HCI Prioritised Environmental Sustainability".

Abstract

This paper reflects on the role of Human-Computer Interaction (HCI) research and practice both in addressing *and exacerbating* current environmental crises. Observing a discrepancy between

the urgency of these crises and the attention they receive in HCI, we generated and analysed twelve fictional narratives that speculate about what it could mean if HCI prioritized environmental sustainability. This exercise helped us identify possible strategies towards this aim through addressing HCI practices such as conferencing, teaching and research. These strategies include building on existing meso-level initiatives in the community, reorienting reviewing processes, practising prefiguration, being mindful of diverse perspectives, and adding a touch of humour. Publishing our set of narratives in the form of a book of fairy tales alongside this paper is one step in that direction. We hope the book and the paper contribute to raising and nuancing the topic of *(un)sustainability* in HCI.

CCS Concepts

• **Human-centered computing** → **Human computer interaction (HCI)**; • **Social and professional topics** → **Sustainability**.

Keywords

Fiction writing, Environmental sustainability, Research practices, Unsustainability

1 Introduction

The environmental demands of affluent consumption are neither sustainable nor attainable for all, and are causing harm to the planet [3, 25, 28, 55]. Resource extraction, waste production and injustices continue to increase, as does the inequality between rich and poor [56, 65]. Established as a sub-field in HCI around 2007, Sustainable Human-Computer Interaction (SHCI) [23], came fairly late for an issue that first gained prominence in public debate in the 1960s [17, 20, 43]. Moreover, while SHCI has grown and evolved, comprehensive reviews identify just 10–40 substantial SHCI publications per year [15, 23, 32], which is fairly niche, given that CHI2023 alone hosted about 900 full papers.

The lateness and nicheness of SHCI contrasts with more fundamental criticism of HCI and its role in fueling unsustainable levels of consumption [61]. Silberman et al. [62] for example identified *"a tension between the historical focus on technological novelty in HCI and sustainability goals"* and Fallman [27] argued that *"being a part of HCI is almost inexorably also about nurturing the strong link between consumerism and HCI work"* [27]. This paper, therefore, dives deeper into the relationship between HCI and (un)sustainability and asks if and how this relationship might become a more central concern to the whole HCI community.

Although dealing with a very serious topic, our pursuit began with a humorous provocation in the form of a fictive abstract that

one of the authors was inspired to write during a Dagstuhl workshop held in early 2023. The workshop, *"A Human-Computer Interaction Perspective to Drive Change towards Sustainable Future"* 3 [12], had involved a speculation activity, including worldbuilding, storytelling, roleplay etc., to present a positive future. However, the abstract was titled *"Unsustainable HCI: A review of the most destructive and harmful research areas in Human-Computer Interaction"*, and argued that in light of pressing sustainability issues, it is about time that instead of *"blaming policy makers, oil companies, our ancestors, or consumers"* we scrutinize how HCI research itself contributes to unsustainability. Their paper was imagined to conclude with some suggestions of how research contributing to unsustainable developments might be 'sunsetted' and new directions found to 'gainfully re-employ' researchers engaged in it.

Our current paper does not materialise that abstract to an imagined paper, but the abstract did bring together the paper's fourteen authors. Initially, we started with a very specific goal: to examine the possible *unsustainability* of the work presented at the CHI2023 conference. Our aim was not to criticize per se, but rather, look at how we could even assess and predict the potential environmental benefits and harms of the work. After piloting the approach on the 34 CHI2023 Best Papers–observing that only two of them had a noticeable focus on environmental sustainability–it became clear that we needed a way to avoid finger pointing while still being able to include critical judgments of the HCI community's collective works (authors included). Thus, we turned to ourselves.

All authors are members of the HCI research community, and many would label their work as (S)HCI. We all have some interest in sustainability and collectively bring together decades of experience exploring sustainability and environmental justice issues from an HCI perspective. We decided to use our experience to uncover possible ways forward, which resulted in the idea of employing fictional writing to offer constructive, critical perspectives on how environmental sustainability could become more centrally addressed in HCI. By reflecting on these writings, our paper suggests possible pathways to realizing futures that prioritise environmental sustainability.

2 Fiction writing in HCI

The idea of using fictional writing to engage with complex relations between HCI work and societal impact has been used before. Pargman et al. [49] refer to fictional abstracts as a subset of design fiction [9] that, in turn, can be viewed as a form of 'frictional' [52] or 'critical' [26] design—forms of design that resist production for mass consumption, instead directing critique at design and technology [52].

Over the past decade, HCI has assembled a considerable corpus of work that uses fictional research abstracts to create space for critical reflection on the role of technology in society, and on HCI research practices. Kirman et al. [37], for example, present a fictional retrospection written by 'robots from the future' that examines how HCI research was largely responsible for enabling robots to enslave mankind during the 21st century. The fictions use irony to criticise the technology push in HCI and the IT sector in general, while also noting the value of discussion within HCI. Blythe [10] presents fictional abstracts that reproduce the typical structure of a Research

through Design paper, summarising *"findings of papers that have not been written about prototypes that do not exist"* and arguing that this approach *"provides a space for research focused critique and development"*. Linehan et al. [39] extended the imaginary abstracts idea with a workshop focused on generating 'alternate endings' to contemporary HCI papers to envision and critically reflect on the long-term consequences of HCI projects. The technique of imaginary abstracts was pushed to its limits in [38], which explors whether they can be usefully expanded to fictional papers and concludes that a tactful and considerate use of fictional papers may serve design discourse as *"a means to move beyond solutionism to explore the potential societal value and consequences of new HCI concepts"*.

A specific sub-set of this work has developed entire fictional conferences. In 2014, Baumer et al. [4] presented a curated collection of fictional abstracts for CHI 2039 to enable reflections on the various visions guiding HCI work and the ways in which they relate to wider social, political and cultural changes. That same year, Penzenstadler et al. [50] explored possible futures of ICT for Sustainability by compiling fictional abstracts written for the conference in 2029. A few years later, Kirman et al. [36] took this idea further by publishing a call for papers for a fictional conference and then composing the results into a fictional conference programme that formed the basis for their paper.

Common across the work on fictional research abstracts about sustainable society is an almost entirely outward view about what HCI might do to contribute. When looking inward, critique is directed at the SHCI sub-community. A rarer form of critique looks at what HCI as a whole might best *refrain from* doing when aiming for a more sustainable society. As a notable exception, although not fictional, Jacques [35] explicitly addresses the friction between sustainability goals and HCI conferencing practices, in particular the plans to host CHI2020 in Hawaii (which was postponed until 2024 due to the COVID19 pandemic). While presenting a clear and critical message, Jacques emphasises that the purpose of the paper is not to 'guilt-trip' or 'moralise' colleagues with a message to *not travel*, illustrating the struggle with critiquing HCI practices from an environmental perspective.

Fictional writing has been acknowledged as an effective and unique tool for critical reflection on the role of HCI in society. Tanenbaum et al. [64] argue that narrative frameworks are important in communicating complex issues to wider audiences. They particularly refer to this as a fundamental component of the emerging Computing within Limits community, which focuses on relations between computing research and ecological limits. We build on this idea by using fictions to communicate complex relations between HCI and unsustainability to the HCI community.

To facilitate the use of (fictional) narratives in HCI, Blythe reflects on the kinds of plots used in HCI research papers [11], and as part of their NordiCHI workshop, Pargman et al. offer guidelines for fictional abstracts [47]. We have used these distinctions and guidelines to reflect on the narrative structures and styles in our set of abstracts. Moreover, a narrative element in design fiction that recurs in the related work is the role of humour and, specifically, irony. Kirman et al. [36] argue that humour increases the accessibility of design fiction and contrasts it to mainstream work, whilst irony is used to highlight and critique solutionism [45], i.e.,

the limits of technological interventions in addressing complex societal challenges. For Helms and Fernaeus [34], applying humour in design fiction is part of a strategy of *"provok[ing] discourse and reflection around sustainability"*. We reflect on this aspect in our analysis.

Inspired by this earlier work, we used fictional writing to explore ways to present fundamental critiques of unsustainability in research practices within the entire HCI community. Section 3 describes our methodology. Section 4 presents the analysis of the twelve fictions, and in Section 5 we reflect on our initial aims and speculate on steps forward.

3 Methodology

The author group jointly created and executed a fictive abstract assignment. The assignment was to *write a 600 word abstract, excerpt from a paper, or scenario taking place at CHI in which you experiment with 'what if ...' scenarios related to the objective of our project*. A total of 12 texts were submitted in October 2023. We then met online to discuss the writings and determine next steps. After the meeting, the first two authors analysed the texts for insights regarding our challenge of making environmental sustainability more central to mainstream HCI.

Inspired by related work in HCI that made use of fictional abstracts, we identified two main lenses to apply in analysing the twelve texts. The first focused on the *content* of the fictions and the second on the *form*. Going deeper into the content of the fictions, we used the distinction between predictive, normative and explorative scenarios (see [18, 49]). We also classified the futures implied in the texts as desirable or undesirable. In analysing the form, we reflected on the different types of plots, or the ways that a chain of events are tied together [19]. For this, we used four main plot types as defined by Booker [13]: Overcoming the Monster, Rags to Riches, Quest, and Voyage and Return.

We performed the analysis in several iterations. The first two authors went through the fictions from the two perspectives, discussed their (intermediate) findings in regular online meetings, read through each other's notes and insights and wrote a first draft of the findings. The wider group of fiction authors and project members annotated the drafts and their underlying notes.

As an additional output, we decided to turn the anonymized collection of fictions into a fairy tale style book titled *"Once upon a time, when HCI prioritized environmental sustainability"*, using fairy tale inspired fonts and illustrations. The fairy tales concept sought to create an ironic contrast between real and pressing issues of environmental destruction and high-tech character of HCI, and the dreamy, otherworldly, low-tech style of fairy tales. Moreover, while fairy tales mainly aim to entertain, they tend to contain a pedagogical message, a moral, like our stories. Bundling the fictional narratives into a book could increase our visibility, generate discussion and, thus, support our aims of lifting the topic of unsustainability in HCI. A PDF of the fairy tale book is available as supplementary material.

4 Results: Our Reflections on the Twelve Fictions

In this section we present the results of our analysis of the twelve fictions (summarised in Table 1). We distinguish between the contents and the form of the fictions, but acknowledge there is overlap between them.

4.1 Contents of the Fictions

Here, we present the kinds of futures the fictions represent, what are the main changes they depict happening, and what are the causes, drivers and obstacles of changes. Figure 2 illustrates the events unfolding in the fictions by placing them on a common timeline loosely organised by the types of futures the fictions could take place in.

4.1.1 Types of Futures. Most of the fictions are primarily explorative and focus on the question "what can happen in the future?". Many also contain normative elements by implying the enablers of changes. Almost all are set in the future, ranging from 2027 to 2041 and beyond, with the exception of *Dear Diary*, which presents an alternative past. Most portray a largely desirable future, in which environmental sustainability has become a priority through changes in, for instance, conferencing, regulations, and community values. However, *Follies of Holism* and *Truth on My Side* explore undesirable futures, warning against dividing the HCI community by imposing excessive environmental sustainability requirements, and *Cautionary Tale* depicts the undesirability of a future where HCI suffers from its resistance to change.

4.1.2 Changes Within and Beyond HCI. The fictions depict various changes occuring (or being obstructed) on individual, community, institutional and governmental levels. An individual process of change is illustrated by a moment of realising one's own hypocrisy (*AoE time*) or criticism of one's past attitudes and behaviours (*Interview SR24*). These narratives highlight an individual HCI researcher's value conflict about the field's inherent push for more technology justified by *"the pretence of being socially beneficial"* (*AoE time*). In contrast, some fictions depict an individual resistance to change. For instance, the narrator of *Dear diary* subscribes to a techno-optimist belief that technology will solve climate change and is simultaneously unaware of the environmental impact of their research and unwilling to change. Personal obstacles are present in *Interview SR24* and *AoE Time*, which both describe how difficult it feels to challenge the current practices, for career reasons or simply because of the courage needed to violate prevailing social and academic norms. All three fictions point to activism as a significant bottom-up driver for change, from different perspectives: the *Dear Diary* narrator is annoyed about the protest at CHI2023 and perceives students who join the protesters as naive; the interviewee in *Interview SR24 "wasn't one of the activists who had the endurance to push for lasting changes"* but now sees the benefits of the activists' work; and the narrator of *AoE Time* is likely one of the pioneer activists who *"started actively working, as so many of us did through that decade, for the Earth and all its life"*. However, *Greetings* presents a long-time activist who smiles at the notion of gluing themselves to a wall as a protest: *"like in the old times"*. Activism is, thus, present both individually and collectively in the

fictions, as an individual joins (or resists) a collective action with a community to influence institutional practices or regulations.

An institutional practice that is the main subject of change in several fictions is the CHI review process and the conference itself. *Greetings* explores how the environmental harm of conferencing has been reduced: submissions are required to pass the 'ACM Standard Sustainability Approval' (ASSA) and in-person conference attendance is limited to 150 people. ASSA has succeeded in putting pressure on universities to implement sustainability measures. The fiction also suggests that social interaction and knowledge exchange in online conferencing has improved to vastly surpass the in-person experience. What remains is a generational conflict between the powerful figureheads of HCI, who still long for the old way, and the young academics, who need to carefully work around these nostalgic whims to secure a career. Educating the new generation is also portrayed in fictions as a subject and driver of change. The interviewee in *Interview SR24* points out *"integrating sustainability in education has been one of the changemakers"* and *Education* describes a future where environmental sustainability is embedded in all educational activities.

A concrete example of how a conference can prioritise environmental sustainability is *CHI2028 Guidelines*, presented as an excerpt from the CHI 2028 website that offers normative guidelines for authors on how to prepare the 'Sustainability Implications' section in their papers. The changed HCI culture is evident (although its origins are not explicated): the conference is decentralised, prioritises quality of submissions over an arbitrary acceptance rate, and values collaboration over competitiveness. This reflects an underlying shift to a value-driven research culture (cf. *Cautionary Tale* and 4th *Paradigm*). A somewhat contrasting view is present in *Hybrid Conferencing* in which the primary driver for banning hybrid conferences seems to be financial unsustainability—a decline in conference attendance because of poor participation experience—although concerns over fragmentation of research communities also play a role.

The fictions *Follies of Holism* and *Meta-analysis* explore the impact that stricter environmental sustainability requirements on conference paper submissions could have on the community and its research practices. Both fictions point to a specific article as a catalyst for change. In *Follies of Holism*, this article raised heated debate and citizen activism that eventually led to the 'SIGCHI declaration of sustainable IT', whereas the article cited in *Meta-analysis* proposed a requirement for environmental sustainability measures in paper submissions that was swiftly adopted. In *Meta-analysis*, after an initial drop in submission and acceptance rates the adoption of measures becomes widespread. This implies that the requirements have been reasonable. In *Follies of Holism*, on the contrary, overly strict holistic quality criteria are deemed as unattainable and detrimental to community. As such, the fiction explored the boundaries of what the goal of our initiative is, i.e. how far sustainability considerations can and should be taken as requirements in HCI research.

Three fictions explore the relationship of HCI research and industry as a driver or obstacle for changes. In 4th *Paradigm*, the 'First Nations Relations Collective' (FNRC) develops models that predict climate events with unprecedented accuracy, drawing from

Table 1: Short summaries of the twelve fictions.

Identifier	Summary
4th Paradigm	Reflection piece on how the paradigm shift in HCI's ethical accountability was rooted in the First Nations Relations Collective approaches becoming more pervasive.
AoE Time	First-person reflection piece about a personal transformative moment as a HCI researcher.
Cautionary Tale	Reflection piece on how societal realisation of the 'toxic effects of technology' lead to a radical transition; HCI resisted the change but was ultimately reborn as value-driven practice.
CHI2028 Guidelines	CHI2028 author guidelines that contain detailed instructions on how to prepare *Sustainability implications* section in the research paper submissions.
Dear Diary	Diary of events at CHI2023 where an Extinction Rebellion protest targets the CHI community because it is driving overconsumption.
Education	Scenario describing how environmental sustainability is the foundation of all teaching activities globally, including HCI.
Follies of Holism	Abstract of a review of CHI 2025–2032 papers and an introspection of HCI community discussions, addressing the strict publishing norms and the use of holistic quality criteria.
Greetings	First-person narration of three conversations highlighting environmental sustainability measures such as conference submission requirements and personal carbon budgets.
Hybrid Conferencing	Reflection piece describing how hybrid conferencing was banned in 2025 and then reintroduced as socially and environmentally sustainable in 2030.
Interview SR24	Transcript of an interview focused on how the radical change in HCI took place in the 2020s.
Meta-analysis	Abstract of a meta-analysis of CHI 2025–2028 papers, examining the influence of environmental sustainability measures required to be reported in papers.
Truth on My Side	Reflection piece on how the world and research community became divided and polarized after a 'New Era of Fossils' began in the US after 2024.

"ancient data" embedded in indigenous cultures. The shift towards environmental sustainability is catalysed by Western tech giants that at first adopt FNRC approaches motivated by financial interests, but eventually are affected by them to truly change their moral code. In *Cautionary Tale*, HCI is reborn as value-driven, modest and slow academic practice only after it loses industry funding. The industry has to react swiftly to global outrage and new legislation, and does not want to be associated with ignorant academics who continue to deny their technology's harmful impacts. HCI is forced to reflect on its practices and go back to the *"real HCI"*, i.e., addressing real problems that matter. A more pessimistic outlook is present in *Truth on My Side* when the research community has become divided between Europe and the US due to increased funding into the fossil fuel industry in the latter after Trump's imagined re-election (which we know today became a reality). The fiction implies that the rift and polarisation of the research community might, perhaps, have been prevented by listening more to research colleagues' needs and wants. All in all, these fictions stress that the possibilities to change within HCI are significantly impacted by whether environmental sustainability is a priority for the actors funding the research.

4.2 Narrative Techniques and Types of Plots

This section reflects on the form of the fictions. Three (*Follies of Holism*, *Meta-analysis*, *4th Paradigm*) of the twelve submissions used a paper abstract/excerpt form. Other submissions included scenario sketches, essays, diary entries, an interview transcript, and a webpage. The length of the texts varied from just under 300 to 2000 words.

4.2.1 Letting out Emotions. We observe that the 'slight strangeness' [26] of everyday HCI research practice present in the fictions provides the reader with 'a relatable sense of everydayness', which according to Garduño García and Gaziulusoy [29] can elicit an emotional response. This use of relatable fiction, and narrative techniques such as a first-person perspective, humour and irony enabled the forms of critique and insight that we were after.

All narratives introduce one or more 'intentional omissions' [48] meant to trigger the imagination. For example, *Follies of Holism* is a submission to CPHI (presumably Computer Post-Human Interactions), which takes place as an apparently fully online event 'Anywhere/Everywhere/All at Once' (referencing a popular movie). Yet, the text is recognizable as an HCI conference paper. Similarly, *AoE Time* uses 02023 as the regular time notation without explaining why, triggering reflections on perceptions of time scale.

Six of the twelve texts (*AoE Time*, *Cautionary Tale*, *Dear Diary*, *Greetings*, *Interview SR24*, *Truth on My Side*) were written from a first-person perspective, in all cases being that of an established, Western HCI researcher. In a first-person perspective, the author gains the freedom to describe emotions and inner thoughts that are normally left out of the debate. *Greetings*, for example, paints a reality in which long distance travel is 'crazy', and in-person presentations are awkward—at least for the younger generation of academics.

In addition to strangeness and intentional omissions, many of the fictions contain humour and irony. For example, the fictional CHI2024 Best Paper *"about extended reality devices that can enable people to detect the difference between high-resolution and super-high-resolution displays that they wouldn't notice with a plain eye"*
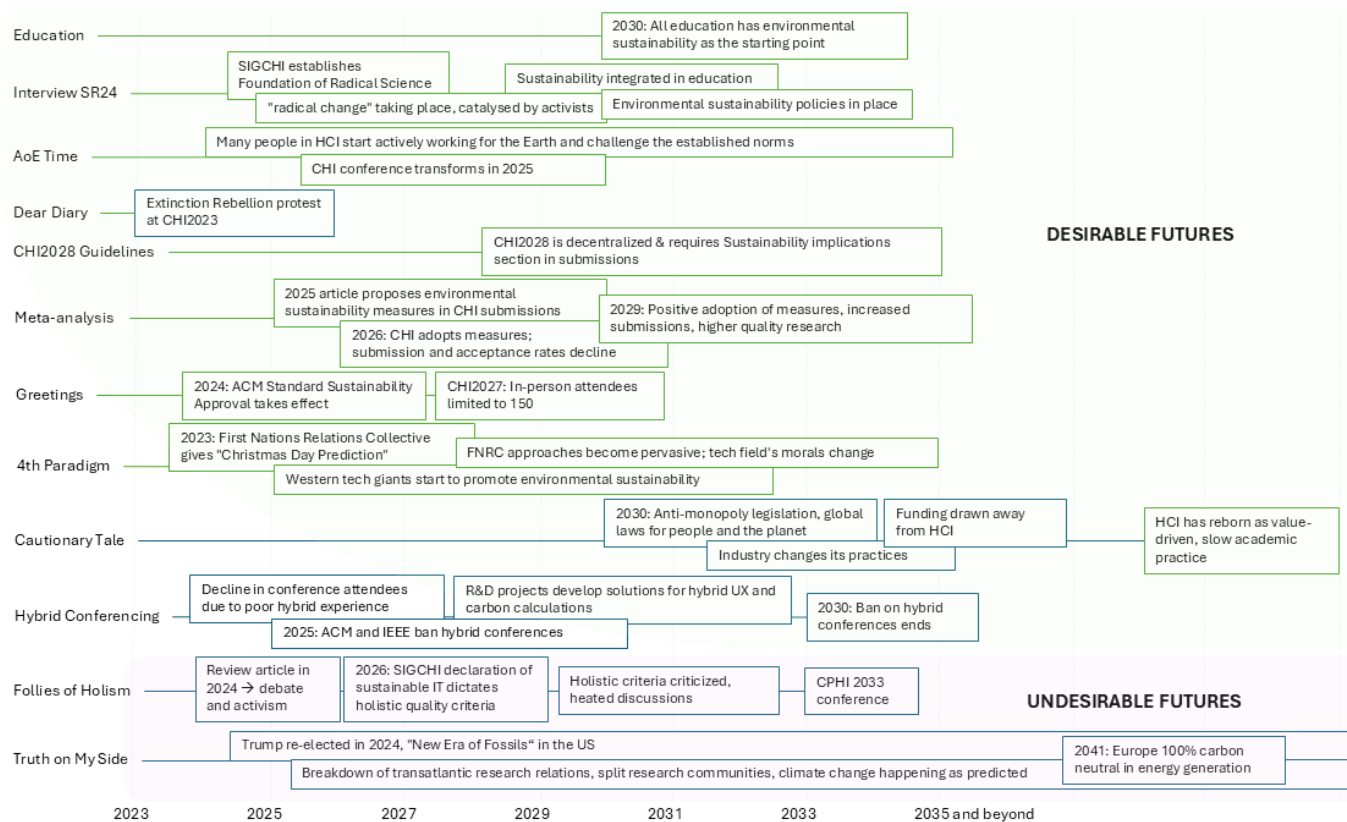
Figure 2: Timeline of events in the twelve fictions. The fictions are loosely organised based on the types of futures they represent.

referred to in *Interview SR24* is deeply ironic, particularly because it was inspired by our analysis of the CHI2023 Best Paper awards.

This creation of a different reality and taking a first person perspective allows for fairly explicit naming and shaming, but from the safety of a fictional setting. *Cautionary Tale* for example lets the imagined author ponder: "*how [...] could academics so complacently have ignored the impacts of digital technology on society and the planet it was co-developing?*". Narratives of *Interview SR24* and *AoE Time* display something similar by letting their main characters refer to their previous self (i.e., a current mainstream HCI researcher) as "*an ignorant, selfish ass*" and as someone "*captured by a system that worked against the interests of not just (almost) everyone in it, but [...] against the interests of our whole planet*".

4.2.2 Quest and Voyages. Although the fictions take different forms, they all contain at least an element of the Quest plot style by exploring a specific 'What if...' question. As elaborated above, *Follies of Holism* and *Truth on My Side* (and *Meta-analysis*) derive warnings against pushing for our aim of centralising environmental sustainability in HCI from this quest. *Follies of Holism* highlights how such a push could lead to a counter-movement. *Truth on My Side* warns against risks of letting the gap between 'progressive' and 'conservative' camps become too large. Other fictions draw lessons from specific examples of transformed HCI conferencing, teaching and research practices.

Most texts also contain elements of a 'Voyage and Return' plot style, in which a topic is explored in an open manner by entering an unfamiliar world together with the reader. The aim is for the reader, assumed to be an HCI researcher, to return from the journey with new insights; a changed mind. The unfamiliar world in *Greetings*, for example, is a place in which desirable changes have occurred, luring the reader to consider how such an alternative reality might work and make sense. The reality in *Dear Diary* is something to the contrary, indicating the irony of sticking to the status quo by confronting it with counterarguments. *CHI2028 Guidelines* similarly takes the reader to a detailed part of the future world. Thus, the fictions help the authors to explore some of the possible counter-arguments that exist in the community against the change and potential ways to deal with them. To the mainstream HCI reader, they provide arguments for change, or against maintaining the status quo.

4.2.3 Overcoming the Monster. Viewing the narratives from the perspective of an 'Overcoming the Monster' plot highlights how change towards centralising environmental sustainability could come about. In *4th Paradigm*, *Cautionary Tale*, *Education* and *Hybrid Conferencing* this question is central. While *Hybrid Conferencing* takes a typical HCI style approach of a monster (unsustainable conferencing) being overcome by a technological innovation (seamless hybrid conferencing), the authors of *4th Paradigm*, *Cautionary Tale*

and *Education* developed variations. In *Education*, a lack of attention for environmental sustainability in HCI is overcome by a centralisation of environmental sustainability in all levels of education. In *4th Paradigm*, unsustainable HCI (i.e., the Monster) is overcome with technology, but in an unexpected, paradoxical manner, in which the imagined First Nations Relations Collective combines ancient indigenous knowledge with modern computer science, leading to a 'infiltration' of underlying ethics and values into the heart of HCI, resulting in a transformation from within. *Cautionary Tale* also follows an 'Overcoming the Monster' plot, but it is not technology that overcomes the monster: technology *is* the monster. This monster is not necessarily overcome, but destroys itself by destroying the planet and people it feeds on, finally leading to action. The desired change in HCI is then imaged, ironically, to be forced by demands from industry. The piece is thus holding a mirror to the HCI community, asking to what extent it is ahead of industry, or dependent on it.

5 Discussion

This project emerged from a certain frustration, as SHCI researchers, with HCI work that arguably makes unsustainability worse (a feeling well captured in the Dutch expression of 'mopping with the tap running'). Through writing and analysing fictions, we set out to imagine what it could be like if the HCI community would meaningfully prioritise environmental sustainability. In this section we reflect on this exercise in light of our initial aims. Besides concluding that we see opportunities, or responsibilities for change in a diversity of HCI practices including conferencing, teaching and research practices, we discuss four themes that emerged from our joint reflections: (1) intervening at the meso-level; (2) reorienting reviewing, (3) activism through prefiguration; (4) mind who's talking; and (5) a touch of humour.

5.1 Intervening at the meso-level

In the fictions and our reflections upon them, we identified a recurring tension between our sphere of influence and the scale of change required for preventing anticipated planetary and societal collapse [56]. Various fictions imagined systemic change to happen through individual, intrinsically motivated change, growing into collective action. This approach assumes that our sphere of influence extends at least to our own actions. However, translating this idea to our daily academic reality reveals that even at this scale we run into challenges, such as bias towards a certain type of research (emphasizing technological innovation) and academic practice (that can often require international travel to 'prestigious venues'). Moreover, we know from earlier critical research that incremental change can be counterproductive by confirming an unsustainable status quo [53], or have rebound effects that can backfire [14, 31]. When thinking about more radical, systemic changes, the fictions tend to imagine these to emerge outside of the (S)HCI community (e.g., bans on flying, electricity quotas)—suggesting some sense of futility with best effort and bottom up calls for action, and externalising responsibility to governing bodies from whom these types of radical decisions seem unlikely to emerge.

Interventions at the meso-level of HCI governing structures (in which many of us are in some way already involved) provides a middle ground and is already showing some promising developments. The 2024 call for papers for the Designing Interactive Systems (DIS) conference for example stated that design might *"by turns be the cause, or complicit, in advancing [problems of geopolitical instability, anthropogenic climate change, and crises in shrinking biodiversity]"* and contained a Special Note on Broader Impact stating that *"all submissions will be assessed based on their broader impact to society and/or the environment"*, encouraging authors to *"engage with substantive and reflective discussions of the impact of their research beyond a narrow intellectual contribution to the field"* [1]. While analysing the results of the DIS2024 Call for Papers lies beyond the possibilities and scope of this paper, our personal experiences with the DIS2024 reviewing process suggest that the Special Note did not fundamentally change it, and the Special Note has not returned in the DIS2025 call [2]. Nonetheless, we can celebrate the fact that it was there and remain optimistic that these kinds of changes will bear fruit over time. It can be argued that our fictions exercise and discussions even helped us to identify them as important opportunities.

5.2 Reorienting reviewing

Our results reiterated that it is important to nuance the normativity of interventions and decisions. Steering towards a greater emphasis on environmental sustainability in HCI means taking a normative stance, but resisting or ignoring this move is also normative. As has been pointed out by Dourish [24], HCI is inherently political, whether working within the status quo or trying to change it. Moreover, judgment is arguably already part of the HCI community through existing reviewing processes. Possibly, this sweet spot of scale-meets-influence, combined with already existing practices of judgment, is a reason why a change in review processes and criteria was a recurring theme in the fictions.

Existing examples of naming and shaming provide inspiration as well as warning about such a change. For example, the Unethical Designs website [22] singles out examples in the realm of ethics. And Sharma et al. [61], drawing on Selwyn [60] identify non-fungible tokens, cryptocurrency, large language models, immersive virtual environments, and on-demand streaming platforms as technologies that are *"destructive no matter who owns them"*. While featuring in an inspiring paper, this example immediately highlights a difficulty of strategies that universalise critique. While it indeed begs for critical reflection whether they might indeed sort the desired effect, immersive virtual environments feature in one of our fictions as the pivot of less environmentally impactful conferencing practices; raising more critical questions about the dual (positive and negative) roles of many technologies, and the relativistic and systematic nuance of judging when a technology or research pursuit is being beneficial or detrimental.

5.3 Activism through prefiguration

Turning back to the personal sphere of influence, we see a link to research on prefiguration [33, 44]. Prefiguration is the effect of making a desired future happen by living it in the present. Our fictions inspired us of the possibility to live and work as if our

fictions have already come to pass. As one of us reflected: *"We can be activists in our own lives through acting in the ways we want to come to pass more widely, and sharing ourselves as models for how it is possible for academics to be (not in a pious way, but quite practically)"*. Being activist implies questioning and challenging the status quo. This is not easy, both emotionally and practically. Critical mass and not being alone can be very helpful in this process. This joint writing project has contributed to developing a shared set of norms and practices that can form an inspiration within and beyond the group to practice HCI (radically) differently. While gluing ourselves to the floor has been a returning half-joke, this stereotypical image of activism is limiting and potentially restrictive. Prefiguration can also be seen as a form of activism, not the least because it might inspire the next generations of HCI researchers and practitioners that are educated by us, a reach that is often underexercised [51, 54].

5.4 Mind who's talking

We have established that judging others' works on subjective criteria is a challenging but already common practice within HCI. However, we have not yet reflected on the potential problems related to who is doing the judging. Taking a step back, we observe that our group of authors are predominantly Western, Caucasian, established HCI researchers, one based in Africa, one in Australia and the remainder in Europe. All fictions, except for 4th *paradigm*, are implicitly based on the intuition, knowledge, and values of people in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) countries [40]. The preliminary analysis did not notice ethnic or geographic inclusivity as part of any story and grouped 4th *paradigm*, in which it was a focus, into the same set of themes as the other stories. This highlights how hard it is to escape one's own positional lenses, and the perceived entitlement and universalising standpoint of HCI [40].

While environmental sustainability can be argued to be a problem that is mainly caused by the affluent, the less affluent suffer most from its consequences [56]. Shouldn't those affected most by our core problem at least be involved in which problems are addressed and how? While the focus on the affluent as our direct target audience is understandable, drawing on traditions of user-centred and participatory design could enrich our efforts with the perspective of the indirect problem owners in this challenge. In addition to a necessary engagement for understanding the problem at hand, economically lean countries also form important sources of inspiration for finding promising alternatives for destructive Western ways of living. As the 4th *paradigm* fiction highlights, less-affluent societies and indigenous cultures can form valuable examples of how environmental sustainability might be achieved for societies struggling with the fundamental unsustainability of how they are organised. From our starting point we hope this can be seen as an invitation to bring other, more diversely rooted perspectives forward.

Work with indigenous and Global Souths communities around sustainability in HCI has been ongoing for over fifteen years, e.g. [6–8], and new books in sustainable HCI are starting to integrate lessons from southern knowledges in their analyses e.g. [63]. To amplify voices that are too often excluded, the SIGCHI Sustainability committee supported a panel at CHI24, "Sustainabilities and HCIs from the Souths", and undertakes research to understand what sustainability means in Africa and Latin America [5]. Meanwhile, African researchers at the Microsoft Research labs in Nairobi are making sustainability a focus, organisations like Climate in Colour [41] provide in-depth courses and practical tips on environmental racism, and initiatives like the Asian CHI symposium provide a platform to bring the colonial history of climate and its relation to sovereignty in conversation with technology design [30, 58]. Perhaps such initiatives prompted CHI'24 to feature a First Nations Hawai'ian keynote after all.

Finally, as authors of this paper and members of the HCI community, we have to realise and acknowledge we live and work in a bubble, and that some of the ways forward we propose might exclude precisely those we claim to 'help'. For example, criteria for environmental sustainability could increase the threshold to publish in HCI. Development in economically lean countries often falls into the category of 'unsustainable' when they aspire to WEIRD standards of healthcare, housing, and economics. While at the same time, as exemplified in our introduction, these countries tend to have an overall *much lower* environmental impact.

5.5 A touch of humour

Humour played an important role in the fiction writing exercise. It allowed for expressing critical thoughts "undercover", i.e., offence becomes more acceptable when packaged as a joke. This prompted us to reflect on the effect of humour in dealing with pressing issues of climate change. First, there are risks: joking about climate change can disrespect and harm those already suffering from its consequences in their daily lives. Moreover, using humour can be perceived as a form of hiding that keeps an escape route open—*"I was only joking"*—in case real action is invited. Also, if over-used, humour may set a too light perspective and reduce the felt need for counter-action.

Despite the risks, humour also offers opportunities. There is a growing body of research that shows that positive emotions are vital for climate-change engagement. Climate change is a daunting prospect that creates uncertain futures, and presents chaos and misery, and is impossible to stop or tackle from an individual perspective. Even among people not directly suffering from climate change, the prospect fuels, what has been coined, climate anxiety [21, 57], which can have paralyzing and polarising effects. To tackle emotions of anxiety and helplessness, researchers argue for and proposing more positive approaches to this challenge [46, 59], including Pleasure Activism [16] and Active Hope [42], to which we'd like to add a thoughtful use of humour.

6 Conclusions

In this paper we set out to make sense of our different levels of concern as Sustainable HCI researchers that we might be 'mopping with the tap running'. We reverted to writing fictions to bring fundamental critiques to the HCI community, while remaining respectful and constructive, and not singling people out. Fiction, and in particular humour, played an important role in packaging this critique in a digestible manner. But we are not joking. Our efforts and collaboration stem from a genuine concern with HCI's role in perpetuating an unsustainable status quo.

Through our fiction and analysis exercise, we came a step closer to our aims by gaining a deeper understanding of the problem of perpetuating environmentally unsustainable conferencing, teaching and research practices within HCI, our different views on this problem, and the possible consequences of diverse solutions. Our reflections are an example of a systematic and collective form of sensemaking which moved from fictional 'What if …' scenarios to possible actions. These possible actions may lead us towards a more desirable situation and include meso-level interventions, activism through prefiguration, reinterpreting reviewing, minding who's talking and adding a touch of humour. We do not suggest our exercise constitutes a solution. If only it was that easy. Part of our insights point to the complexity, embeddedness and vested interests involved in the problem, yet others present convincing risks of naively applying what may, at first glance, seem to be solutions.

To close on a positive note: we hope that this paper and its accompanying book of fairy tales has an effect on our community in raising the question a bit more often: to what extent might my work, and how I do it, contribute to environmental (un)sustainability, and what could I be doing to address this? As part of the radical changes needed in the world, we wish to jointly make sustainable HCI more than just a fairy tale.

Acknowledgments

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