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# Away and (Dis)connection: Reconsidering the Use of Digital Technologies in Light of Long-Term Outdoor Activities

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We present a study of long-term outdoor activities, based on altogether 34 interviews with 19 participants. Our goal was not only to explore these enjoyable experiences, but more broadly to examine how technology use was recontextualized ‘away’ from the everyday. Outdoor activities are commonly presented as an escape from our technology-infused world. In contrast, our interviews reveal experiences that are heavily dependent on technology, both digital and not. However, digital technology — and in particular the mobile phone — is reconfigured when taken out of its ordinary, often urban and indoor, context. We first present a diversity of ‘aways’ during outdoor activities by depicting cherished freedoms and interpersonal preferences. We then describe how participants managed connection and disconnection while away and upon coming back. To conclude, we discuss how constructions of *away* can support more purposeful engagements with digital technology, and how pointed (dis)connection can be useful for technology design also in non-outdoor settings.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**.

Additional Key Words and Phrases: Outdoors, nature, away, disconnection, non-use, mobile phone

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## 1 INTRODUCTION

"Many people nowadays live in a series of interiors - home, car, gym, office, shops - disconnected from each other. On foot everything stays connected, for while walking one occupies the spaces between those interiors in the same way one occupies those interiors. One lives in the whole world rather than in interiors built up against it."

This is how Solnit describes being connected with the world in her book *Wanderlust: A History of Walking* [45]. Contemporary technologies — most centrally mobile phones, once famously characterized as ‘*portable, personal, and pedestrian*’ [27] — can be used from almost anywhere. Yet,

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despite this ubiquity of computers and the broad availability of network connectivity, HCI and CSCW research has largely remained focused on indoor (and often sedentary) uses of technology. It seems that our visions of technology use risk getting stuck in a series of interiors.

However, as we will discuss in more detail in the following, there is an increasing body of HCI literature that explores designs to better support outdoor activities [13, 31, 35, 41, 46, 50] and draws inspiration from the outdoors for design [25, 47, 49]. More fundamentally, the outdoors as an idea has played a role in efforts to rethink the use and non-use of digital technology. Further, in considering connection and disconnection as a social affair, we also complement classic CSCW research on how work groups grapple with being coupled in different ways [40], along with more technical work that deals with disconnection and reconnection in collaborative systems [18]. Indeed, CSCW has long been concerned with the connections between place, activity, and technology [7]. We deem it worthwhile to revisit these concepts in new domains (such as the outdoors) and in the changed technological landscape. So far, there has been scarce empirical research within HCI and CSCW on how those engaging in long-term outdoor activities, such as long-distance cycling or hiking, craft their experiences of being away from everyday life, including its routines and habitual uses of digital technology.

We present a study of the role of technology in long-term outdoor activities. We conducted interviews with 19 participants, interviewing most both before and after their multiple-day activities in the outdoors. These included hiking, cycling, mountain biking, and horseback riding. We were interested in long-term activities as we suspected that these types of trips would entail a more radical reworking of both technology use and, more broadly, participants' approaches to their everyday life. Our analysis speaks to two broad themes: First, we consider experiences of *being away*, depicting the cherished freedoms that motivate long-term outdoor activities, the purposeful effort to craft experiences that fit participants' differing situations, and the interpersonal implications of going away. Second, we discuss how participants managed (dis)connection while away and how digital technologies, in particular the mobile phone, were reconfigured when taken out of their ordinary context. For our participants, these experiences were not a matter of abstaining completely from technology use, but rather a case of *pointed use* and *pointed (dis)connection*. We write (dis)connection to emphasize how disconnection was balanced with limited technology use.

We contribute to HCI and CSCW literature on the outdoors with in-depth understanding of how (dis)connection features in long-term outdoor activities, rich empirical accounts of how these activities are experienced, and reflections on how we might re-imagine technology use and non-use in light of the outdoors. We conclude by returning to how our participants managed their technology use and (dis)connection before, during, and after their outdoor activities to draw inspiration for how to design for more deliberate and focused technology use, with sensitivity to the social and collaborative arrangements that people take into account when they arrange and enjoy time away.

## 2 BACKGROUND

We, first, review HCI research that specifically targets the outdoors as a domain, with aims of, on the one hand, designing for the outdoors and, on the other hand, drawing design inspiration from the outdoors. Second, we discuss how, more fundamentally, the outdoors as an idea has played a role in efforts to rethink technologies and reconceptualize design, often by providing a point of contrast in critiques of existing technologies and their social implications. Here, we will touch upon literature on technology use and non-use, in particular in relation to social computing.

### 2.1 HCI in the Outdoors

As technology has moved out into most spheres of life, the outdoors has emerged as one new domain that attracts sustained attention also within HCI. A number of recent workshops, including

the Technology on the Trail workshops at GROUP, have focused on how technology can be integrated into outdoor activities in novel ways, particularly to support positive and mutually beneficial connections among people (see. e.g. [9, 24, 28, 34]). Clearly, the outdoors present a range of interesting challenges, both in terms of socio-technical understandings and interaction design.

Topics covered in HCI research on the outdoors range from sports to recreational activities with technologies, focusing on community building and fostering safety [13], motivation [31], exploring embodiment [35], optimizing performance [46, 50], or removing disruptions [41]. Some studies, such as Muller and Muirhead's '*jogging with a quadcopter*' project [35], emphasize how technology might enhance certain experiences, while others, such as Pielot *et al.*'s exploratory bicycle navigation system [39], aim to minimize the use of technology relative to the experience. This '*experience first*' approach is seen also in Posti *et al.*'s asocial hiking app [41] that enables solitary hiking, with the goal of supporting unobtrusive experiences in nature. Beyond the focus of the HCI and CSCW communities, outdoors experiences are, of course, not a novel topic of study. Previous work has highlighted the perceived mental health benefits of spending time in nature [22, 30] or the outdoors as play and learning environments for children [5, 52]. While the types of experiences studied and designed for in prior work vary in their form and motivation, relatively little research has explored how outdoors experiences and activities are crafted in terms of managing disconnection. Notable exceptions include Dickinson *et al.*'s. [10] findings that the desire to disconnect is common among camping tourists in the UK as well as Taczanowska *et al.*'s. [48] report that silence and disconnecting from urban life and technology use are major drivers for hiking in the Tatra National Park in Poland.

Another body of relevant work looks to the outdoors for design inspiration. Based on empirical explorations of material encounters in nature, Ståhl *et al.* [47] contribute three strategies for how the outdoors can inspire sketching: being, bringing, and bridging. Their work highlights how the temporality of seasons and non-digital artifacts found in nature, such as leaves or snow, are relevant to technology design. Höök's autoethnographic account of horseback riding [26] similarly investigates bodily ways of knowing that seek to expand the types of experiences that might be designed. She emphasizes that the aim is not to support or replace bodily experiences, but rather to explore how one might transfer the qualities experienced to technological interactions. These works, along with other related efforts [29, 49], draw inspiration from experiences of being in the outdoors to inform design processes and new ways of interacting.

## 2.2 Technology use and non-use in light of the outdoors

The outdoors as an idea has also served efforts to rethink the design of technology [19, 51]. These attempts have often drawn on the idea of nature posited as an escape from modern life. As such, they echo older and broader, philosophical and sociological critiques regarding the role of technologies in everyday life [11, 23, 33]. Whether one agrees with these arguments or not, as technology infuses everyday life more and more, '*getting away from technology*' is becoming increasingly present as a design theme. For example, Newport's [36] book on digital minimalism describes an attempt to "take back control of our technological lives". Related developments include new phone features, such as Apple's ScreenTime that allows individuals to track and regulate their phone use, as well as earlier tools for regulating one's time online, such as Freedom and AntiSocial [1, 15]. Yet, as Rooksby *et al.* [42] show, while simply presenting data about phone usage might shock (in terms of how much time is spent on phones), this does not lead to changed usage in a straightforward way.

Baumer *et al.* discuss the role of '*non-use*' and questions of when non-use of technology is a conscious choice of users [3]. As they point out, it is surprisingly rare that HCI has considered the effects of technology on times when we are not directly using it. Related, Aranda and Baig [2] explored behavioral cycles of smartphone dependencies and proposed design opportunities for

non-use through facilitating disconnection, reducing connection temptations, and allowing for partial non-use. Another piece by Baumer *et al.* [4] studies individuals returning to social media following intentional disconnection, further highlighting how non-use is rarely a result of a distinct or well-defined opposition to use. These discussions about use and non-use point to some of the contradictions that individuals face in relating to digital technologies — an issue that Harmon and Mazmanian [20] have referred to as calls for technological integration and dis-integration. These pose "unreasonable expectations of agency and action on both the part of technologies and people". In response, Harmon and Mazmanian [20] call for more complicated stories of technologies and their relationships with values in conversations, publications, and future designs [20].

Finally, Harmon's PhD thesis [21], similarly as our study, concerns technology non-use specifically in the outdoors. Harmon conducted an in-depth autoethnography of hiking the Pacific Crest Trail. One important question Harmon raises is whether the overuse of technology is really a problem of technology, or rather a problem with balancing work and life (cf. [8]). Harmon points out that we lack a serious questioning of the political economy of technology and work. In brief, the problem might not be overuse of technology per se, but how work (and the broader economic situation) puts demands on us — demands that come to be communicated through technology. As one of her participants articulated it, technology is a tool used to 'manufacture stress' [21, p. 169]. As with Simmel's [44] famous discussion of the clock in metropolitan life, it was not that the physical clock itself restructured the modern world but that clock time came to be used to routinize and intensify the ordinary lives of city inhabitants. Rather than addressing non-use with the starting point of self-regulation, then, or trying to nudge people to constrain their engagement with digital technology, we turn to experiences of being in the outdoors which are commonly also experiences of being away from everyday life, including its routines, pressures, and habitual uses of technology. Our primary focus in this paper is on this aspect of outdoors experiences and how the notion of being away can serve us conceptually and as an inspiration for design.

### 3 MATERIALS AND METHODS

Our qualitative study includes altogether 34 in-depth, semi-structured, individual interviews with 19 participants. Given the variety of modalities included in the study (e.g. solo vs. group or hiking vs. cycling), as well as infrastructural conditions (e.g. network quality or availability of electricity), we chose a qualitative approach to provide empirical grounding for exploring the analytic commonalities in these diverse outdoors activities. We focused on long-term activities as we suspected that these would entail a more radical reworking of both technology use and, more broadly, participants' approaches to their everyday life.

#### 3.1 Participants

The prerequisites for participation included engaging in a long-term outdoor activity involving physical exertion. We left the definition of 'long-term' purposefully vague in our calls for participation to accommodate differing notions of what constitutes long-term outdoor activity. This led to initial negotiations on what activities would qualify for our study, a point on which we chose to remain rather inclusive. Ultimately, this resulted in a definition of long-term as involving at least one night away. Most participants well exceeded the minimal baseline, but it allowed us to include participants across varied skill and experience levels, grounding the notion of long-term in participants' understandings, rather than any *a priori* notion of our own. Our 19 participants engaged in different activities, including cycling, hiking, mountain biking, mountaineering, and horseback riding. We recruited participants through Reddit cycling forums and outdoors-oriented Facebook groups centered around hiking, with the exception of four participants who were reached

Table 1. Overview of participants and their activities

Pseudonym	Demographics	Activity	Description
Matt	49, male, British	Cycling	< 1-month tour Europe with 1-3 friends/family
Yann	29, male, Polish	Cycling	4-month tour in Africa, 1-month tour in Europe, solo
Teija	53, female, Finnish	Hiking	6-day hike in Norway with 20+ people and 2 guides
Tuulikki	51, female, Finnish	Hiking	3-day hike in Finland and Sweden with husband
Mattias	38, male, Swedish	Hiking	6-day hike in Sweden with brother
Reetta	43, female, Finnish	Hiking	6-day hike in Finland with a group and 2 guides
Gary	60+, male, American	Cycling	1-month tour in Balkans, solo
Adrian	30, male, Dutch	Cycling	1-month tour in Europe with girlfriend
Mari	32, female, Finnish	Hiking	2-days mountaineering in Alps with group and 1 guide
Paul	25, male, Brazilian	Cycling	3-month tour in USA with a friend
Jenny	37, female, American	Mountain biking	2-day camping trip with husband and child
Aoi	28, female, Japanese	Hiking	2-day hike in Japan with friends
Jeff	27, male, American	Cycling	2-month tour in USA, solo
Sanna	50, female, Finnish	Hiking	5-day hike in Finland with 1 friend
Sanni	42, female, Finnish	Hiking	5-day hike in Finland with husband and two sons
Silja	27, female, Finnish	Hiking	5-day hike in Sweden with boyfriend and 2 friends
Liina	33, female, Finnish	Hiking	7-day hike in Finland, solo
Birgitta	54, female, Swedish	Horseback riding	1-week tour in Iceland with group and guides
Al	51, male, Swedish/Finnish	Horseback riding	1-week tour in Iceland with group and guides

directly through personal and professional networks. These recruitment strategies led to a somewhat culturally specific set of participants. Their interview accounts allow for a rich and detailed account that, however, should be read as situated within bounded cultural and socio-economic circumstances. Table 1 provides an overview of participants’ demographics and activities. We use pseudonyms when referring to participants unless they explicitly permitted using their first name.

3.2 Interview Procedure

The aim of the interviews was to elicit detailed accounts of activities and the gear relevant to them, as well as broader reflections on technology use and social interactions in the course of these activities. Participants were interviewed both before and after their activities, with the exception of three who were interviewed only prior, and one who was interviewed only afterwards. We chose to include the latter four, too, in this study, as they added relevant empirical details for our analysis and since our analysis was not focused on unpacking contrasts between pre- and post-interviews.

Pre-interviews started with questions about the upcoming activity, prior experiences, as well as motivations and aspirations for the activity. We went on to discuss specific gear or equipment, digital or non-digital. Further, we probed into expectations of available resources or infrastructures, the role of digital technologies, as well as thoughts about social interaction with both possible travel companions and strangers encountered in the course of the activity. Post-interviews started with reflections on the experience, supported by questions on expectations, achievements, and disappointments. We then revisited questions about gear, packing, and unpacking. Further, we asked about experiences with connectivity and digital technologies specifically, along with thoughts about the social aspects of the activity. Both interviews concluded with an opportunity for participants to share additional thoughts, stories, or future plans.

We conducted the interviews between April and August 2018 with video calls whenever possible, using voice calls as a backup option. Interviews ranged from just over 30 minutes to over three hours, with most in the range of 50-80 minutes. We encouraged interviewees to show gear during the interviews or to share relevant pictures before, during, or after the trip. Seven participants



shared photos, notes, or other materials to complement the interviews. To ensure informed consent, participants were provided information on the study and their rights, as well as given the opportunity to ask any questions they might have. We explained that we were conducting a study on multiple-day outdoor activities, with a focus on experiences and the role different types of gear play in it. Participants were offered a rechargeable battery pack as a gesture of appreciation. Thirty interviews were conducted in English and four in Finnish. All were audio-recorded and transcribed verbatim. The quotes we present are either from the English transcriptions or translated from Finnish with a focus on retaining both wording and meaning.

### 3.3 Analysis

Our analysis was geared to interpret research materials that depict a diverse range of experiences, featuring different activities, taking place in various parts of the world, and involving a variety of social constellations from solo tours to family time and guided trips. We drew on coding both as an interpretive act [6, 16, 43] and a communication tool for team analysis [43, p. 34]. Before the first stage of coding we exchanged interviews among the researchers to familiarize ourselves with the materials. Each researcher then created an initial coding [6], allowing some freedom in capturing rich text passages, what Layder refers to as pre-coding [32]. Passages could be coded with overlapping, informal codes, such as ‘Family’ or ‘Mobile Phones’. Moreover, we drew on analytic memos [43] as a way to communicate less obvious points. Subsequently, through a series of meetings, initial codes were aggregated into 17 higher level codes (e.g. ‘Aspirations’, ‘Body’ or ‘Infrastructures’) which were used for second-cycle coding [43]. We generated the final themes through this axial level coding, in conjunction with decisions made to aggregate initial codes. We used Nvivo 11, with one researcher as a central ‘codebook editor’ [17, p. 23], given Nvivo’s limitations for collaboration. We now present the key themes we developed through our analysis.

## 4 FINDINGS

We have organized our findings into two broad themes: *experiences of being away* and *managing (dis)connection with technology*. Our first section focuses on experiences of being away: What is different about being on a long-term trip in the outdoors, and why would such a thing be desired? Our findings illustrate that while being away can have varied meanings and take different forms, there are interesting analytic commonalities. We depict cherished freedoms that motivate long-term outdoor activities, the purposeful crafting of experiences that fit participants’ differing situations, as well as the interpersonal implications of going away. This section does not address technology directly but understanding these experiences away from everyday routines and its habitual technology uses can be revealing for thinking about the use and non-use of technology, as well as how these are connected with social expectations and obligations. Second, we discuss how participants managed (dis)connection while away and how digital technologies were reconfigured when taken out of their ordinary context. Here, we address how participants prepared for (dis)connection before going away, how they managed the intermingling of connection and disconnection while away, and how they thought about the transition of coming back from their trip. Throughout this second section, we focus primarily on smartphones. While our interviews were set up to welcome accounts of all digital technologies relevant to outdoor activities, mobile phones were central to our participants’ experiences and they did not have as much to share about wearables or other specialized devices.

### 4.1 Experiences of being away

Long trips in the outdoors create a barrier between everyday activities and time away. Indeed, a concept that our participants returned to again and again during interviews was the idea of

*being away* as something both practical in terms of time, space, and resources, but also something uniquely liberating, rewarding, and restoring. While *away* does not talk directly to the technology or gear relevant to the outdoor activities we were investigating, it does let us explore a different type of an experience that was significant for our participants. Three important aspects of *being away* emerged from our materials: (1) cherished freedoms, (2) the diversity of *away* among our participants and (3) how participants' preferences for sociality influenced their time *away*.

**4.1.1 Cherished freedoms.** While the physical and mental demands of outdoor activities are valuable for their own sake, it is worth considering the broader pleasures that draw people in. Apart from rather ordinary holiday indulgences, like eating or drinking, the physical nature of outdoors endeavours allowed participants to take some extra liberties. For instance, Matt described how the physical effort of cycling allowed him to relax restrictions he had placed on himself around eating:

"[F]rankly, the biggest reason why we do this, the biggest motivation, is that again, it's the thing of being the age that I'm at. [...] Unless you want to get fat, you can't eat what you want. You've got to be careful. That starts around 40, and it's a shock. Because when you're young, you can eat whatever the hell you want. It's all good. With a cycling holiday, you can eat three massive meals a day, and it's fine. You have to in fact. You need those calories, and, really, that's it. It's food, drink, and landscape."

Diving into this world apart from the everyday was also a chance to do away with stress resulting from news cycles and work commitments. For example, in addition to allowing him to eat and drink as he pleased, Matt described that his month on the bike provided a space where it was acceptable to forego many quotidian concerns:

"I run my own business. I work hard. I've got two kids. I've got a mortgage. I've got all that crap. And it's really cool to just be able to go, right, a month, I'm not checking my emails. I'm not going on social media. I don't care about what Donald Trump's doing. I'm not going to let the news upset me about Brexit. I'm just going to switch off, drop off the grid."

Opportunities to disconnect from some everyday demands were highlighted by most participants. Birgitta, who shoulders a lot of responsibility in her work and family life, reflected on how going on a guided horseback riding tour created a much-desired space for letting go of usual expectations of being in charge and looking after others:

"And that feeling is so important that somebody else is taking all these decisions for me and I can just be there, entirely myself."

Stepping away from regular responsibilities freed Birgitta to focus on bodily ways of enjoying the present, a rare freedom she associated with childhood:

"I was a rider as a kid. From when I was 10, it was the big thing I was doing as a leisure time activity and so for me this particular way of riding is reconnecting with that feeling of total freedom and not being responsible for anything else but myself. [...] But I also don't have to. It's not my responsibility. As you know, adult life is full of responsibilities for planning, full of thinking ahead, not being so necessarily present in your body and your physical activities all the time. And so, this is."

Participants shared further accounts of the distinctive sense of freedom they found in being away from their everyday for a prolonged period of time (which ranged from a few days to several months). Mattias described hiking as a necessary opportunity to recharge as a father. He described that focusing on taking care of himself while away made him a better caretaker of his five children upon return. For Teija, it was a relief to forgo the pressures of self-presentation that she attributes to social media usage while at home:



"[W]hen I'm hiking alone for a week in a desert or in a national park, then I don't have to keep up that picture. I can be just... I don't know. That might be an important motivation for me. I don't have to present anything."

For most of our participants, *away-ness* during outdoor activities implied temporary liberties separate from everyday life, an act of being unavailable for a restricted time. Jeff, on the contrary, considered long-distance cycling as a permanent freedom that allowed him to distance himself from his former situation and, in some ways, to start over:

"What gave me the motivation for it was because it's like, my life was really not going well. My house life was bad and my first real relationship was getting all screwed up and my work was suffering. I was just a really unhappy camper."

Taking together our participants' motivations for their chosen outdoor activity, a common feature is the creation of a separate arena for enjoying and making use of cherished freedoms that are not readily available in everyday life. These freedoms included both everyday responsibilities participants could leave behind, and the time and space this opened for non-everyday liberties.

**4.1.2 Different aways.** What participants cherished leaving behind varied greatly depending on what their everyday lives looked like. Many participants expressed stepping away from the keyboard and spending less time online as a central factor in what made outdoor activities enjoyable and rewarding, but this was not the case for everyone. For example, Reetta, a musician by trade, welcomed, instead, the lack of music:

"I would imagine it for most normal, working people, it's like when they're looking at screens all day long, and then they go to the nature and hike, an impact is very big, so your eyes don't get that stressed and stuff like you have the natural feeling. But as I'm working with live music every day, it's a bit different [...] I feel like I'm working if I'm listening to music. So definitely, no music on my trip whatsoever."

Participants spoke a lot to knowing their own personal ideas of what an ideal experience would be like, including customizing selected aspects and discarding others. The way that hiking, bike touring, or horseback riding is perceived and engaged with is a constant integration of, first, what was perceived at times to be a luxury, and second, the mundane, often demanding and repetitive, activities these activities entail, such as walking or pedalling at a sustainable pace. For instance, most participants considered camping and, as a consequence, the carrying of camping gear as an integral part of their activities. This is illustrated by Mattias, for whom the hike provided a sense of solitude for which he was willing to shoulder the additional weight of gear:

"The solitude and being alone [...] Being by yourself. I appreciate sleeping in a tent, doing fine. It's more natural for me to sleep in the tent. I carry what I have to carry for the whole hike."

This was different for Gary, who reflected upon his choice to stay in hotels even if it meant sacrificing potential social encounters. Hotels provided him with his desired level of comfort:

"I don't like camping. But you give up things when you're not, you know, when it's raining and you're in a tent, it's a very different experience than when you're in a hotel, but you don't know anybody."

Outdoor activities are of course selected and planned to not only suit desires, but also different levels of physical abilities that contribute to differing experiences of being away. For instance, Sanni and her husband made efforts to create a trail plan that would not be too strenuous for the family's younger son. Teija was careful to plan her trips in line with what her health allowed. Bodily health

and skills, perhaps obviously, are key to who can engage and gets included in these activities. Teija reflected on how her health constrained her to particular hiking itineraries:

"I have problems with my feet, so that makes me very sad. I am starting arthritis. It started a few years ago. I'm really, really sad and down because I have put everything to this. All my extra money and everything, and now hiking is very painful for me. That's why I couldn't join any crew. I cannot do 20 or 25 kilometers per day."

Financial privileges also contribute to the types of outdoor experiences available to participants. For example, Reetta's hike was organized by a Finnish group that required a fee to join and thus restricted participation. Teija described how by relying upon services included in a guided hike, she was able to save money on necessary gear that she otherwise might not be able to afford:

"I have to tell you that this is a difficult year. I'm kind of missing money, and it would have cost 30 euros to order the map from Norway. I decided not to do that because I have lots of old maps, and when I'm going with a group I will trust the guide."

While many activities can be considered regular holidays or time-off from everyday obligations, this was not the case for all of our participants. Klaus for example, scheduled his bike tour for an opportune time that fit in between his previous job and going back to school. This had required him to set aside time to plan the activity and how the activity would fit amidst other life choices:

"It was making sure that I had the three-month window in my career and in my work life, to pursue this opportunity. So, I had to time the precise moment that I would have three months available to go and do this trip. [...] It's not a matter of how long it took me to plan it, it's just how long it took me to execute it."

Thus, the timing and time frame of participants' activities largely depended upon the types of everyday situations that they were able to take a break from or leave behind. During outdoor activities, this in turn impacted how responsibilities might or might not need to be maintained, in addition to influencing the specific planning of trip itineraries. Moreover, we want to note that the desirability and accessibility of different forms of *being away* are dependent upon many factors. The diversity of our participants' experiences is shaped by their cultural and socio-economic circumstances and points at issues of inclusion that we have not discussed in detail here.

**4.1.3 *Away together.*** While the outdoors was an opportunity to spend time alone for some, most participants did not engage in these activities alone. Although their experiences could still serve self-exploration and personal growth, further supporting the perceived mental benefits of outdoor activities [37], they were also opportunities to spend time with family, friends, or other companions:

"I assert a great value to hike, and often I hike alone. But there is something else. We are bonding like brothers, and we are catching up time that we didn't at time when we were younger, because he is 14 years younger than me and had the same father but not the same mother. So we didn't grow up with each other so much. I couldn't think doing this hike without my brother. So it's a special moment." (Mattias)

Engaging in outdoor activities can involve longer and more intense forms of togetherness than what is typical in the everyday, but also long stretches of shared silence. Ahead of a five-day hiking trip with a friend, Sanna explained the importance of a mutual understanding about the right balance and rhythm of social engagement and alone-time:

"[W]e can speak openly about our energy levels but then also about if it's ok that for the next kilometer we are silent or that we talk, either way [...] I believe there will be both those silent stretches when neither is talking and then others where we talk a lot and that works really well at least for me."

Birgitta also discussed the balancing of when to converse during her group horseback riding tour, emphasizing the activity itself as alone time and the evenings as appropriate social times. She further elaborated upon how the riding provided enough content for conversations, allowing participants to maintain desired social distance as well as distance from their lives back home:

"And that of course leads to talking about a lot of other stuff, but it doesn't have to. You don't have to necessarily open up to other people and discuss whatever issues you have at work or something like that. There's a lot to talk about just in like actual riding."

Moreover, sociality in the course of outdoor activities is not limited to one's pre-established companions on the journey. Being engaged in the same activity and tapping into the same infrastructures can facilitate social interaction with strangers:

"We met, we clicked, they ride the same pace as me, they like to cook, they like to hike. We've just been riding together ever since. So I've got my road trip buddies. It's been a lot of fun. [...] That really changed the pace of the trip." (Jeff)

Yet, meeting others was not always easy. Jeff's decision to head for major bike routes in hopes of enjoyable encounters as described above was in response to a previous bike tour during which he found it exhausting to repeatedly convince non-bikers that he was a safe and trustworthy person to interact with. Furthermore, inevitable interaction with strangers on well-marked trails was not always welcomed whole-heartedly, and while it could feel meaningful and rewarding, it could equally well be awkward and unexpected. Finally, the sociality related to participants' outdoor activities included not only in-person interactions, but also the sharing of experiences — both during and after particular trips — through messaging, social media, and digital photo albums:

"I took photos as I usually do, and I would send them every now and then back home to ... because my granddaughter, Nora, was wondering where I was going. She wanted me to send photos of the horses, so I did. [...] But I also take photos because the other ones, we share the photos. So we gather the email addresses of people and then we share the photos." (Birgitta)

"So, I was just saying the people who are into sports here with me in Brazil, they really wanted to see how I perform over time, and how such a long trip would play out in terms of my activity level. So, that's kind of why I'm taking the GPS, and of course to map my route and to use it like a future record." (Paul)

Being away has deep interpersonal implications, even for those going alone. For most participants, engaging in outdoors activities reconfigured both who they were spending time with and what the time together was like. In response to these changes, participants managed expectations and obligations both with those with them and those who they were away from. While getting away from everyday routines and responsibilities was central in many participants' accounts, social dynamics were never entirely out of the picture, even if sometimes present only in that individuals declined to attend to them for a while. This highlights that rather than simply a break from technology use, going away was also a matter of taking at least some distance from the demands that participants' professional and social relationships put on them.

#### 4.2 Managing (dis)connection with technology

We will now explore in more depth how participants managed (dis)connection to enjoy and protect their time away. This includes how technology — and in particular the mobile phone as the most central device in our participants' accounts — is reconfigured when taken out of its ordinary context,

how connection is managed through pointed (dis)connection, and how participants dealt with transitions upon coming back to everyday routines and responsibilities.

*4.2.1 Taking digital technologies out of their context.* All participants carried some digital technology with them, typically at least a smartphone. Going away for an outdoor activity could make digital technologies less appealing or outright irrelevant: when removed from typical situations of use they became less interesting and thus easier to not engage with. Yet, their place on packing lists was not questioned and particular features were tapped into at opportune moments. While outdoors, smartphones were used not only less but *differently*. In our participants' descriptions, their smartphone use changed considerably once the device was taken out of its ordinary context:

"I stayed away from social media. To be honest, I've been doing that anyway, but this made it much, much easier, because once you sort of break that tie, it's weird. [...] I use Instagram probably on a daily basis and I just stopped. It was weird because I would start my phone up and there would be the Instagram app and I just had no sort of desire or compulsion to open it. It just all seemed a bit unreal." (Matt)

Scaling down technology use was often reported and welcomed, but rather than aiming for complete disconnection, our participants were content to keep using their devices for a narrower set of activities. Their *pointed use* of technology included taking pictures, checking the time, weather, or location, and messaging loved ones. In addition to the tendency of outdoors activities to make it less tempting to browse social media, check email, or to spend a lot of time on one's smartphone overall, having to worry about battery life and protect fragile digital devices from dirt and the elements further contributed to their displacement. Al explains why he kept his phone in flight mode:

"I guess to save battery. If I needed to check what the time was or if I got an inspiration to take a picture I could still use it but since there isn't a whole lot of electricity [...] there are limited chances of recharging your stuff anyway."

For Tuulikki, the situation was further complicated by the fact that she was expecting to freely use her mobile device and was surprised by the one day when she did not have network connectivity:

"I think that one day we were in such kind of area that we couldn't send anything. It's a bit strange today because you have to be in networks and you would like to see news or some kind of things all the time. One day was such that we didn't have network."

The remoteness experienced by many participants was a central reason for the limited availability of electricity and connectivity. Beyond this, outdoors activities themselves contributed to interactions with digital technologies becoming awkward and even burdensome:

"When you're riding, they're not going to stop if you say that you lost your mobile because it's 50 horses and they're just going. So, as I'm riding, I'll take up my mobile and I'll take these videos that are really shaky, I can send you some, shaking photos and so on. And then I need to put it back and then, you know, that is using one hand because the other one I need to hold a horse and if this is a strong horse, it's super hard to hold them with one hand. So, the risk of losing the mobile is huge and still, you really want to take some photos here and there [...]" (Birgitta)

While participants' relationship to their phones was markedly different during their time away, the appeal of digital technologies did not vanish entirely. Smartphones had their uses in the midst of outdoors activities, too, for instance in providing much-needed relief during demanding activities. Jenny relied on music when going uphill on her mountain bike and Yann turned to it to ease the nerves or to make particular moments more momentous:

"It's more so when I'm doing a grueling climb that the music really helps, because you're having fun with the down, so I don't need music for that." (Jenny)

"When I get too anxious or annoyed sometimes, I don't know sometimes by drivers or whatever, I will put on something relaxing. Or when I want to enhance the experience that I'm having [...] Sometimes I know right away a song that will fit that very well. So, I kind of imagine shooting a movie from this part." (Yann)

For some participants, especially the cyclists we interviewed, digital technologies played a significant role in the everyday planning of their activities. As an example, Adrian explained how he used a navigation app, Wahoo, to find camping grounds:

"[It] made a huge difference. It was so much easier on any given day to just say like... you have the cycle routes of course, but then you also need to find your campsites, and we always looked for the ones that were nice. Not necessarily the closest to the route, but just the ones that looked nice, had a swimming pool et cetera." (Adrian)

Moreover, some familiar uses from accounts of smartphone usage in urban settings were relevant in this context, too, although typically more as an exception or a luxury than as an everyday routine. For example, consider Matt's story about his brother-in-law booking a restaurant or Adrian's appreciation of being able to stream media at night:

"I woke up, because he [brother-in-law] was talking on his phone. [...] He was reserving a table at a restaurant. It was quite late. It was about ten o'clock, I'd been asleep. [...] He had found a restaurant online that had really good reviews. He had then phoned that restaurant, reserved a table. That's what he was doing when I woke up, and then plotted the route exactly to right outside the restaurant. All on his smartphone, all lying in a tent beside a river [...] Which I've got to say I thought was pretty cool." (Matt)

"I can actually watch Netflix and YouTube when I'm on the road. So, the most luxurious thing is just to be in the tent and listen to music or watch a funny movie on Netflix, just for 15 minutes before I go to sleep. [...] It's amazing that it's possible nowadays actually, just wherever you go." (Adrian)

These familiar uses were valued, but at times technology use in unfamiliar settings raised contradictory sentiments. Yann, for example, was not proud of his frequent use of Reddit:

"I was excessively using it for just surfing mindlessly, like reading Reddit too much."

This example points to the significance of time in participants' experiences of being away. Those who went away for a few days of hiking often aimed at disconnecting more fully during their trip. Those who spent a more extended period of time away, such as Yann on his four-month bike tour, ended up experiencing more varied (dis)connection over the duration of their trip.

**4.2.2 Pointed (dis)connection.** There is often an almost sacred nature to the outdoors and time away. Unexpected or undesired encounters with people, infrastructure, or digital technology can severely impact that experience. Sini, for instance, conveyed slight disappointment when she ran into other people upon reaching the mountain peak that she had worked so hard to get to. These desires of isolation, or not, varied a great deal among our participants. One way to protect one's experience of being away was to turn off the phone. This, however, was often not as straightforward as it may sound. For instance, Paul reflected on the worries it might cause for his family:

"I mean, nothing is going to happen, and maybe they'll worry. But, I think they're expecting me not to be connected full time. So, they're also giving me a lot of space to not go into a spiral of worry, just because I didn't send them a message one day or the other."

Disconnecting was not a simple binary decision. It required careful evaluation of the conditions under which one is allowed and willing to disconnect, along with some management of the expectations that one might fail to meet by being unavailable and the frustration that might follow. For example, while anticipating network connectivity throughout her trip, Tuulikki prepared her family for the possibility that she might be disconnected at times:

"Maybe we call to the children. [...] My mother would like that we call [...] I said that we are in such kind of area that maybe it's not possible."

The demands of work life, in particular for Adrian who is a freelancer, required further preparation, along with agreeing to some constraints on one's disconnecting:

"Some of the people I work with did contact me just casually through WhatsApp. But they respected the fact that I wasn't there. I don't know, I guess ... I think I do tell people that I don't read email on my phone, so the people know that we can chat but we can't really do anything right now."

Adrian generally welcomed connectivity, to watch Netflix or YouTube in the evenings for instance, and so his concerns were in tailoring that connectivity to match his wishes. Yet, such tailoring required caution: once participants reconnected, even if only for a short while and a particular purpose, it was easy to get pulled back into everyday habits. Liina described how taking the phone out daily during her solo hike to message her mother disrupted the self-reflective time she was seeking from her time away:

"Because I message my mother every day, or every chance I get, because at the same time, I felt it was handy to message other people also. [...] Maybe I could have [...] gone deeper in my sort of things [...] But, when I had some contact with other people every now and then, it interrupted my dialogue with myself. So, I can blame only myself, because I had... we had to make a deal with my mother that I message her, so it was so easy [to do so] at the same time with other people."

Many strategies emerged for dealing with reconnecting amidst being away. Jeff aimed to reserve interactions with the mobile to a time and place when activities requiring connectivity could be taken care of in bulk. In the meanwhile, he welcomed the fact that while cycling and camping, he often did not have an easy way to get online:

"I want it to be deliberate as opposed to passively being online because it's just like the internet's so distracting. I feel like it's like having candy in your pocket and always checking email and messages and stuff like that. So, it's nice to ... I like it that when I'm camping it's just there's no way to do it, and then when I come into town, I have a specific list of things. It's like, 'Okay, I want to communicate with this person,' or, 'I want to send ... I want to upload these pictures or I want to post something on social media,' or something like that. Then you leave and that's it. You know you're not just on it all day just checking, checking, checking." (Jeff)

In Jeff's account, the restrictions in digital infrastructures created opportunities for being more deliberate and more in control of digital interactions, relegating them to their appropriate moment, "*coming into town*". Another way of dealing with taking charge of the necessities of interactions and social demands deliberately, was to have a specialized device, which addressed two important needs while outdoors: communicating your safety status to family and friends and calling for help. Mattias addressed this through his desire to purchase a SOS satellite system called Spot:

"I think it's called Spot Generation Free. [...] It's like a technical device. Small like a telephone [...] Then you have an SOS emergency button, so if you press that one, it will send your coordinates to I think it's to SOS International, and a rescue team will

come and search for you. That's just the SOS button. Then you have another button, that just sends your coordinates to your parents or your girlfriend so they know where you are and so on. It works with the GPS signals, so even though you don't have so good a connection, you can always rely on GPS."

In order for time outdoors to serve as the liberating space away that our participants appreciated, digital technologies were relied on as an enabler (i.e. staying safe, wayfinding, and so on), but at the same time, there was a need for a more or less deliberate reorganization of interactional habits. The mobile phone's modern form is almost like a digital Swiss army knife where functionality is commonly added. This provides a somewhat awkward foundation for building personalized interaction styles, whether temporarily, such as our participants, or potentially more permanently by crafting deliberate modes of everyday (dis)connection, in a contrast to being online by default.

**4.2.3 Coming back.** For all of our participants, time outdoors was positioned as a distinct break from everyday routines and responsibilities. Similarly as participants' varied motivations for being away and the meanings they associated to their activities, coming back sparked differing reflections. While Birgitta looked forward to reconnecting with her family (despite cherishing the opportunity to disconnect when riding), Jeff wanted to maintain the distance he had established while on tour:

"For me it's very much coming back to family. There's a lot of chatting with my siblings, my mother, my husband, my kids, my grandchildren. So there's a lot of messaging. While in Iceland I do very limited [amounts] of chatting. I will read every now and then, but not write so much. So then all of this comes back and it's a particular life that I find interesting and positive." (Birgitta)

"Honestly, it's really nice to get away from so much internet. [...] Don't get me wrong, I really like to stay in touch with my friends and hear how everybody's doing, but I prefer not being so reachable. I think when I get to Oregon, I'm planning to get rid of my data and purposely not have any internet in my living space. I'm going to deactivate my Facebook probably, I don't know, probably a week after I get there." (Jeff)

For some, returning from the outdoors resulted in a gradual return from pointed (dis)connection to ordinary, often habitual routines of using digital technologies. For instance, Al who had kept his smartphone predominately switched off or in flight mode while horseback riding, did not turn his phone back on immediately. Rather, he first adapted to being back in an urban setting where he would normally use and be expected to use his phone, and only then did he turn it back on:

"This year it was, I actually spent two extra days in Reykjavík after the trip. This year it was on the second day in Reykjavík because then I'd been in civilization for one day. I'd slept in a real bed, had a really good, long shower and stuff like that. After a while you felt like civilization started creeping in on you again so, okay, maybe it's time to turn on the phone."

For other participants, coming back to connectivity was more abrupt and, in one case in particular, rather overwhelming. Sanni reflected how upon turning on her phone at the end of her family's hike — in order to call her parents-in-law to come pick them up — the phone was blasting and beeping out all messages and notifications that were cued up, making for a busy experience:

"It felt funny, like does it make any sense that the phone beeps for half an hour before I can even make a call with it, since after it got reception it pushed out all the messages."

She went on to describe how, despite having enjoyed the time offline while hiking with her family, she quickly "*slipped back into*" her ordinary habits of spending more time on her phone than she considered desirable. This was a pattern that repeated across many of our interviews: Being away made it effortless for our participants to disconnect or only engage with devices and



web services in deliberate moderation. Upon returning to everyday life, it was equally easy to fall back into ordinary routines and habits of engaging with digital technologies, including the kinds of practices that participants had been happy to get away from, such as checking email and social media constantly or browsing the web passively and getting upset about the news.

## 5 DISCUSSION

While these findings talk to a particular category of experiences, we believe that they are of broader relevance for how we think about technology and its design. We will now discuss conceptual constructions of *away* and how moving from a binary idea of *connection* and *disconnection* to thinking with the flexible notion of *away* can help us create alternative modes of engaging with technology. Second, we draw upon participants' pointed use of technology and their practices of pointed (dis)connection to discuss how the notion of *being away* can be used in the design of technology also in non-outdoor settings.

### 5.1 What is away?

Perry *et al.*'s paper on mobile workers [38] made an important break with the idea of '*anytime, anywhere*' technology use, arguing that workers actually made use of being in different places to manage their time flexibly. Mobility, then, was not seen as something to overcome, but rather mobile workers deployed it artfully to make a space for their work. Although our study is situated in a different domain, we touch on a similar argument: For our participants, *being away* was not something to be overcome with better network or mobile technology, but rather it was, in itself, one goal of these activities. Indeed, there was a whole range of ways in which our participants made use of their trips to get distance from something else, including their jobs, relationships, or particular uses of technology. To be *away* was dependent on what it meant to be *there*, and for our participants, the distinction between the two was partial and flexibly adjusted. This was particularly true in that instead of being straightforwardly blocked out or minimized, technology was actively brought into some aspects of the activities and left aside from others, in line with what was relevant to the desired freedoms. Rather than being fully disconnected, participants chose when and where to draw the line. Many mentioned becoming more purposeful in how they engaged with devices.

To some extent, the practicalities of being away came automatically with how these outdoor experiences were done. The remote locations of journeys and the non-urban settings contributed to expected issues around electrical power and network connectivity that lead to disconnection from the everyday. How trips were set in time and the routines within the activities themselves, such as a full day of cycling or the tedium of setting up camp, also justified either a temporary loosening of, or as in the case of Jeff, a more permanent detachment from commitments central to participants' everyday lives. Although technologies such as mobile phones were useful during our participants' activities, they have been primarily developed with the urban environment in mind. Outdoors, mobile phones became '*matter out of place*' [12] in that they could still be used, but many applications and features made less sense or lost some of their appeal. Similarly as in descriptions of Pacific Islanders incorporating mobile phones into lives where much of the time was spent in or around water [14], the fragility and bizarreness of mobile technologies — when taken out of their ordinary context — was on display in our study.

By contrast, in non-outdoor settings it has become increasingly hard to take distance from technology — thinking back to the quote from Solnit [45] we opened the paper with, one might say that technology itself has become a series of portable interiors that can inhibit other ways of being connected with the world. When originally introduced, the design of land line telephones was rather unique in that they required being *always on*. In some cases, turning them off required severing the wire connecting the phone to the exchange. However, as technology has developed, nearly all

systems such as mobile phones, personal computers, or home automation have become *always on*. This forces us into extreme measures to be *away*. To put it crudely, the promise of ‘*anytime, anywhere*’ has turned into ‘*all the time, everywhere*’. Disconnection thus frequently requires turning a device completely off, removing batteries, severing from the network, or if one prefers a less technology-oriented strategy, lying. This is a stark contrast to our participants’ technological status of being *away* – a specific mode in its own right that involved a purposeful, yet flexible, non-engagement with technology.

As a final broader observation, we would like to point out that, while outdoors, it was not difficult for participants to lessen their engagement with connected devices or social media. It was not so much a matter of abstaining from a habit as a question of being pulled into a different situation that offered other, more compelling activities and interactions to focus on. The outdoors, and more specifically being *away*, reconfigured not only participants’ daily routines and interactions with loved ones and strangers, but also their relationship to digital technologies and connectivity.

## 5.2 Pointed use and pointed disconnection

In our findings, we talked about *pointed use*: technology usage that is demarcated in terms of time, place, and purpose. Being outdoors served as an opportunity to break away from routines and reflect on one’s habits, with devices being relegated to the periphery and pulled out for more specific and deliberate uses at opportune moments. This connects to Harmon’s observation [21] that social and economic pressures are communicated through digital technologies: while away, our participants often did not need to make themselves available for employers or colleagues and this, in part, made it easier for them to (dis)connect in line with their preferences. Rather than refusing technology usage entirely, participants engaged in pointed use: Matt’s brother booking a restaurant from his tent, Jenny listening to music during tough climbs on her mountain bike, or Adrian and his girlfriend watching Netflix to unwind after a long day on their bikes. With the exception of Yann who regularly spent time on Reddit, no one talked about extended sessions of surfing the web or patterns of checking email or social media constantly.

While participants were delighted to shift away from their ordinary habits, within this shift, they remained partially and purposefully connected to what they were away from. We refer to this as *pointed disconnection*: (dis)connection that involved the careful management of unavailability and remained porous enough to permit selected engagements. This can be seen in Liina sending a message to let her mom know she was okay and Adrian managing expectations by making clear that he would not be checking work email. As the idea of being away implies, one will return. Eventually pointed use and pointed disconnection will come to an end. What we are discussing, then, is a temporary change that came to a close as participants transitioned back to their everyday. Prior research [3] rightly cautions us to consider critically whether and when non-use is a choice that individuals are free to make. For our participants, too, the cherished freedoms of *away* had limits, and few hoped (or would have preferred) to sustain pointed disconnection in the everyday.

Finally, we want to emphasize that, while outdoors, our participants were not without technology, or always disconnected, but rather they made a space for it where being *away* was primary. It is worth considering how, in the everyday, the burden is often placed on individuals to draw and maintain boundaries of technology use, in a world that seems to expect and reward being constantly connected. Echoing Ferreira & Höök’s concerns [14], the burden of weaving interactive technologies into everyday situations should not be placed exclusively on those using them. Considering how going *away* for outdoors activities enables more deliberate and focused engagements with digital technology speaks to the power situations have on our actions.

### 5.3 Designing for away

This presents us with an interesting design challenge: How can collaborative systems be designed to support wishes of being not simply disconnected or connected, but rather *away*? How might this be done with sensitivity to the social and collaborative arrangements that people need to take into account when they arrange and enjoy time away, rather than falling back on narratives that create "unreasonable expectations of agency and action on both the part of technologies and people" [20], essentially asking individuals to regulate their communication habits without regard for the needs and desires of others? Drawing inspiration from how being away informed our participants' pointed use and pointed disconnection, we see two different types of design situations that these insights could benefit: *everyday aways* and *artificial aways*. We are hesitant to promote technological tools for fostering the desired qualities of *being away* — after all, the experiences that we have discussed are only in part to do with technology and opportunities to be away hinge upon a range of other factors, including social commitments, professional obligations, and economic constraints. Yet, we believe designs for supporting *everyday aways* and constructing *artificial aways* also in non-outdoor settings are, at the very least, worth exploring and reflecting upon in future work.

*Everyday aways* refer to situations of being away from the everyday, similar to our participants' experiences outdoors, yet also ones that might not include constraints on technology usage in the form of limited access to network connectivity or electricity. Examples include sabbaticals, parental or care leave, holidays, or, if we consider a shorter instance, being on an airplane. Within these, *away-ness* does not need to be a struggle of being offline or a situation that needs to be fixed by finding a way to provide a digital connection. Consider, for example, how out-of-office autoreplies handle being away by crafting disconnection as a binary state that delays responsibilities to be resolved upon return, with the burden placed upon the person who is away. Instead, designers could make use of how our participants handled pointed disconnection by designing systems that actively consider being offline or unavailable a status that has its merits, such as potential for nuanced engagement, and that should not be treated as an anomaly or a problem. Facilitating everyday aways requires a focus beyond the individual as it is not enough to take into account only individuals' wishes for (dis)connection. Rather, such desires have to be fitted with the needs of others and coordinated so as to sustain relationships and manage expectations.

The second situation is *the construction of artificial aways* within everyday situations. These might include commuting on the train, taking a break at work, or even pausing responsibilities while at home. There may be nothing problematic about these types of aways. Yet, there seems to be a market for solutions that relate to them: Many existing digital services, such as Freedom, AntiSocial, and Apple's ScreenTime, focus on limiting technology usage in everyday situations through self-tracking and self-regulation. This approach positions usage as something negative to be controlled through individual abstinence and discipline. In contrast, we propose shifting perspectives to promote more purposeful and meaningful engagements with technology by explicitly encouraging people to create *aways* within their everyday. As an example, people might choose to limit themselves to particular applications in particular places. This approach foregrounds users creating a space for what they desire to be away from, rather than restricting what they might like to do. The sorts of tools this requires would be more extensive than 'Do Not Disturb' and they would need to support the more explicit configuration by people of the times and places of their technology use. For example, a person might specify that they can only use a language learning app on their train commute to work, choosing to step away from work and family responsibilities. Future work might also explore ways for groups to create *shared aways*, be it family time or small retreats for teams.

## 6 CONCLUSION

We have presented a study of long-term outdoor activities with 19 participants who engaged in hiking, cycling, mountain biking, or horseback riding. Our goal was not only to explore these enjoyable experiences, but more broadly to examine how technology use and non-use was recontextualized while *away* from the everyday. We have depicted cherished freedoms that motivate outdoor activities, the purposeful crafting of experiences that fit participants' differing situations, and the interpersonal rearrangement central to going away. Second, we discussed how participants managed (dis)connection while away and how digital technologies, in particular the smartphone, were reconfigured when taken out of their ordinary context. From our findings we suggest three opportunities for rethinking technology use and non-use in light of the outdoors: We propose (1) moving from a binary idea of *connection* and *disconnection* to thinking with the more flexible notion of *away*, (2) considering pointed use and pointed disconnection as two deliberate and focused modes of engaging with digital technology, and (3) exploring ways to support everyday aways and construct artificial aways to create designs that are attuned to wishes of meaningful (dis)connection.

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## REFERENCES

- [1] [n. d.]. AntiSocial Phone Usage Tracker. <http://antisocial.io>
- [2] Julie H. Aranda and Safia Baig. 2018. Toward "JOMO": The Joy of Missing out and the Freedom of Disconnecting. In *Proceedings of the 20th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '18)*. ACM, New York, NY, USA, 19:1–19:8. <https://doi.org/10.1145/3229434.3229468> event-place: Barcelona, Spain.
- [3] Eric P. S. Baumer, Jenna Burrell, Morgan G. Ames, Jed R. Brubaker, and Paul Dourish. 2015. On the Importance and Implications of Studying Technology Non-use. *interactions* 22, 2 (Feb. 2015), 52–56. <https://doi.org/10.1145/2723667>
- [4] Eric P. S. Baumer, Shion Guha, Emily Quan, David Mimno, and Geri K. Gay. 2015. Missing Photos, Suffering Withdrawal, or Finding Freedom? How Experiences of Social Media Non-Use Influence the Likelihood of Reversion. *Social Media + Society* 1, 2 (July 2015), 2056305115614851. <https://doi.org/10.1177/2056305115614851>
- [5] C. Boreham and C. Riddoch. 2001. The physical activity, fitness and health of children. *Journal of Sports Sciences* 19, 12 (Dec. 2001), 915–929. <https://doi.org/10.1080/026404101317108426>
- [6] Kathy Charmaz. 2006. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. SAGE.
- [7] Elizabeth F. Churchill and Alan J. Munro. 2001. Work/place: mobile technologies and arenas of activity. *ACM SIGGROUP Bulletin* 22, 3 (Dec. 2001), 3–9. <https://doi.org/10.1145/567352.567353>
- [8] Luigina Ciolfi and Eleanor Lockley. 2018. From Work to Life and back again: Examining the digitally-mediated work/life practices of a group of knowledge workers. *Computer Supported Cooperative Work (CSCW)* 27, 3-6 (2018), 803–839.
- [9] Florian Daiber, Michael Jones, Frederik Wiehr, Keith Cheverst, Felix Kosmalla, and Jonna Häkkinä. 2017. UbiMount: 2Nd Workshop on Ubiquitous Computing in the Mountains. In *Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers (UbiComp '17)*. ACM, New York, NY, USA, 1022–1026. <https://doi.org/10.1145/3123024.3124462>
- [10] Janet E. Dickinson, Julia F. Hibbert, and Viachaslau Filimonau. 2016. Mobile technology and the tourist experience: (Dis)connection at the campsite. *Tourism Management* 57, C (2016), 193–201. <https://ideas.repec.org/a/eee/touman/v57y2016icp193-201.html>
- [11] Paul J. DiMaggio and Walter W. Powell. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review* 48, 2 (1983), 147–160. <https://doi.org/10.2307/2095101>
- [12] Mary Douglas. 2003. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. Psychology Press.
- [13] Anton Fedosov and Marc Langheinrich. 2015. From Start to Finish: Understanding Group Sharing Behavior in a Backcountry Skiing Community. In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct (MobileHCI '15)*. ACM, New York, NY, USA, 758–765. <https://doi.org/10.1145/2786567.2793698>

- [14] Pedro Ferreira and Kristina Höök. 2011. Bodily Orientations Around Mobiles: Lessons Learnt in Vanuatu. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11)*. ACM, New York, NY, USA, 277–286. <https://doi.org/10.1145/1978942.1978981> event-place: Vancouver, BC, Canada.
- [15] Freedom.to. [n. d.]. Freedom: Internet, App and Website Blocker. <https://freedom.to>
- [16] Barney G. Glaser and Anselm L. Strauss. 1998. *Grounded theory: Strategien qualitativer Forschung*. Huber.
- [17] Greg Guest and Kathleen M. MacQueen. 2008. *Handbook for Team-based Qualitative Research*. Rowman Altamira.
- [18] Carl Gutwin, T. C. Nicholas Graham, Chris Wolfe, Nelson Wong, and Brian de Alwis. 2010. Gone but not forgotten: designing for disconnection in synchronous groupware. ACM, 179–188. <https://doi.org/10.1145/1718918.1718951>
- [19] Lars Hallnäs and Johan Redström. 2001. Slow Technology – Designing for Reflection. *Personal Ubiquitous Comput.* 5, 3 (Jan. 2001), 201–212. <https://doi.org/10.1007/PL00000019>
- [20] Ellie Harmon and Melissa Mazmanian. 2013. Stories of the Smartphone in everyday discourse: conflict, tension & instability. In *Proceedings of the SIGCHI conference on human factors in computing systems*. ACM, 1051–1060.
- [21] Mary E Harmon. 2015. *Computing as context: Experiences of dis/connection beyond the moment of non/use*. Ph.D. Dissertation. UC Irvine.
- [22] Terry Hartig, Marlis Mang, and Gary W. Evans. 1991. Restorative Effects of Natural Environment Experiences. *Environment and Behavior* 23, 1 (Jan. 1991), 3–26. <https://doi.org/10.1177/0013916591231001>
- [23] Martin Heidegger. 1977. *The Question Concerning Technology, and Other Essays*. Garland Pub.
- [24] Jonna Häkkinä, Keith Cheverst, Johannes Schöning, Nicola J. Bidwell, Simon Robinson, and Ashley Colley. 2016. NatureCHI: Unobtrusive User Experiences with Technology in Nature. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16)*. ACM, New York, NY, USA, 3574–3580. <https://doi.org/10.1145/2851581.2856495>
- [25] Kristina Höök. 2010. Transferring Qualities from Horseback Riding to Design. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries (NordiCHI '10)*. ACM, New York, NY, USA, 226–235. <https://doi.org/10.1145/1868914.1868943>
- [26] Kristina Höök, Baptiste Caramiaux, Cumhur Erkut, Jodi Forlizzi, Nassrin Hajinejad, Michael J. Haller, Caroline Hummels, Katherine Isbister, Martin Jonsson, George Poonkhin Khut, Lian Loke, Danielle M. Lottridge, Patrizia Marti, Edward F. Melcer, Florian Mueller, Marianne Graves Petersen, Thecla Schiphorst, Elena Márquez Segura, Dag Svanæs ahl, Anna Ståhl, Jakob Tholander, and Helena Tobiasson. 2018. Embracing First-Person Perspectives in Soma-Based Design. *Informatics* 5 (2018), 8. <https://doi.org/10.3390/informatics5010008>
- [27] Mizuko Ito, Daisuke Okabe, and Misa Matsuda. 2006. *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*. The MIT Press.
- [28] Michael D. Jones, Zann Anderson, Jonna Häkkinä, Keith Cheverst, and Florian Daiber. 2018. HCI Outdoors: Understanding Human-Computer Interaction in Outdoor Recreation. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18)*. ACM, New York, NY, USA, W12:1–W12:8. <https://doi.org/10.1145/3170427.3170624>
- [29] Oskar Juhlin and Alexandra Weilenmann. 2008. Hunting for Fun: Solitude and Attentiveness in Collaboration. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work (CSCW '08)*. ACM, New York, NY, USA, 57–66. <https://doi.org/10.1145/1460563.1460575> event-place: San Diego, CA, USA.
- [30] Stephen Kaplan. 1995. The restorative benefits of nature: toward an integrative framework. *J Environ Psychol* (1995).
- [31] Kristina Knaving, Paweł Woźniak, Morten Fjeld, and Staffan Björk. 2015. Flow is Not Enough: Understanding the Needs of Advanced Amateur Runners to Design Motivation Technology. ACM, 2013–2022. <https://doi.org/10.1145/2702123.2702542>
- [32] Derek Layder. 1998. *Sociological Practice: Linking Theory and Social Research*. SAGE.
- [33] Herbert Marcuse and Institut für Sozialforschung. 1941. Some Social Implications of Modern Technology:. *Zeitschrift für Sozialforschung* 9, 3 (1941), 414–439. <https://doi.org/10.5840/zfs19419339>
- [34] D. Scott McCrickard, Michael A. Horning, Steve Harrison, Ellie Harmon, Alan Dix, Norman Makato Su, and Timothy Stelter. 2018. Technology on the Trail. In *Proceedings of the 2018 ACM Conference on Supporting Groupwork - GROUP '18*. ACM Press, Sanibel Island, Florida, USA, 365–368. <https://doi.org/10.1145/3148330.3152161>
- [35] Florian 'Floyd' Mueller and Matthew Muirhead. 2015. Jogging with a Quadcopter. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 2023–2032. <https://doi.org/10.1145/2702123.2702472>
- [36] Cal Newport. 2019. *Digital Minimalism: Living Better with Less Technology*. Penguin Books, Limited.
- [37] Ingeborg Nordbø and Nina K. Prebensen. 2015. Hiking as Mental and Physical Experience. In *Advances in Hospitality and Leisure*. Advances in Hospitality and Leisure, Vol. 11. Emerald Group Publishing Limited, 169–186. <https://doi.org/10.1108/S1745-354220150000011010>
- [38] Mark Perry, Kenton O'hara, Abigail Sellen, Barry Brown, and Richard Harper. 2001. Dealing with mobility: understanding access anytime, anywhere. *ACM Transactions on Computer-Human Interaction (TOCHI)* 8, 4 (Dec. 2001), 323–347.



<https://doi.org/10.1145/504704.504707>

- [39] Martin Pielot, Benjamin Poppinga, Wilko Heuten, and Susanne Boll. 2012. Tacticycle: Supporting Exploratory Bicycle Trips. In *Proceedings of the 14th International Conference on Human-computer Interaction with Mobile Devices and Services (MobileHCI '12)*. ACM, New York, NY, USA, 369–378. <https://doi.org/10.1145/2371574.2371631> event-place: San Francisco, California, USA.
- [40] David Pinelle, Jeff Dyck, and Carl Gutwin. 2003. Aligning Work Practices and Mobile Technologies: Groupware Design for Loosely Coupled Mobile Groups. In *Human-Computer Interaction with Mobile Devices and Services (Lecture Notes in Computer Science)*, Luca Chittaro (Ed.). Springer Berlin Heidelberg, 177–192.
- [41] Maaret Posti, Johannes Schöning, and Jonna Häkkinä. 2014. Unexpected Journeys with the HOBBIT: The Design and Evaluation of an Asocial Hiking App. In *Proceedings of the 2014 Conference on Designing Interactive Systems (DIS '14)*. ACM, New York, NY, USA, 637–646. <https://doi.org/10.1145/2598510.2598592>
- [42] John Rooksby, Parvin Asadzadeh, Mattias Rost, Alistair Morrison, and Matthew Chalmers. 2016. Personal Tracking of Screen Time on Digital Devices. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16)*. ACM, New York, NY, USA, 284–296. <https://doi.org/10.1145/2858036.2858055> event-place: San Jose, California, USA.
- [43] Johnny Saldaña. 2015. *The Coding Manual for Qualitative Researchers*. SAGE.
- [44] Georg Simmel. 2012. The metropolis and mental life. In *The urban sociology reader*. Routledge, 37–45.
- [45] Rebecca Solnit. 2001. *Wanderlust: A History of Walking*. Penguin.
- [46] Daniel Spelmezan and Jan Borchers. 2008. Real-time Snowboard Training System. In *CHI '08 Extended Abstracts on Human Factors in Computing Systems (CHI EA '08)*. ACM, New York, NY, USA, 3327–3332. <https://doi.org/10.1145/1358628.1358852>
- [47] Anna Ståhl, Jakob Tholander, Jarmo Laaksolahti, and Elsa Kosmack-Vaara. 2017. Being, Bringing and Bridging: Three Aspects of Sketching with Nature. In *Proceedings of the 2017 Conference on Designing Interactive Systems (DIS '17)*. ACM, New York, NY, USA, 1309–1320. <https://doi.org/10.1145/3064663.3064764>
- [48] K. Taczanowska, C. Brandenburg, A. Muhar, K. Hat-Pawlikowska, S. Ziobrowski, B. Chlipala, S. Grocholski, J. Krzeptowski, M. Jodlowski, M. Bielanski, Z. Witkowski, J. Balon, and K.: Biernacki Berbeka. 2014. Who is hiking in the Tatra National Park, Poland? A socio-demographic portrait of visitors. In *The 7th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas: Local Community and Outdoor Recreation*, M. Reimann (Ed.), Vol. MMV 7 - Proceedings. University of Tartu, Tallin, Estonia, 27–29. <http://www.boku.ac.at/ifl/veranst/mmvconference/>
- [49] Jakob Tholander and Carolina Johansson. 2010. Design Qualities for Whole Body Interaction: Learning from Golf, Skateboarding and BodyBugging. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries (NordiCHI '10)*. ACM, New York, NY, USA, 493–502. <https://doi.org/10.1145/1868914.1868970>
- [50] Jakob Tholander and Stina Nylander. 2015. Snot, Sweat, Pain, Mud, and Snow: Performance and Experience in the Use of Sports Watches. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 2913–2922. <https://doi.org/10.1145/2702123.2702482>
- [51] Mark Weiser. 1999. The Computer for the 21st Century. *SIGMOBILE Mob. Comput. Commun. Rev.* 3, 3 (July 1999), 3–11. <https://doi.org/10.1145/329124.329126>
- [52] Nancy M. Wells. 2000. At Home with Nature: Effects of “Greenness” on Children’s Cognitive Functioning. *Environment and Behavior* 32, 6 (Nov. 2000), 775–795. <https://doi.org/10.1177/00139160021972793>

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