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Data Feelings: Everyday Affects and Sensory Dimensions of Personal Digital Data

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People's everyday encounters with digital technologies now create continuous flows of data, leaving digital traces that are algorithmically processed for several purposes. This article presents findings from a study exploring "data feelings": the corporeal and affective entanglements people have with their personal digital data and the technologies that generate and process them. In online workshops, participants reflected on, defined, and discussed "data" and "personal data." They then engaged in a writing activity that invited them to think creatively about their understandings, practices, and feelings related to datafied life. Analysis of participants' responses and group discussions illuminates what matters to people about everyday datafication. This article focuses on the materiality, affects, sense-making, and impressions of personal data in participants' understandings and speculative imaginaries. The conclusion reviews the spectrum of tangible and ephemeral data feelings that surfaced in the workshops and reflects on what our creative approach offers to critical data studies.

Keywords: digital data, digital technologies, creative methods, writing prompts, affect, feeling data, everyday data practices

Analyzing how people perceive and engage with digital data and data-generating technologies is important for understanding the broader sociocultural significance of personal data use, including its harms and benefits. The datafication of people's lives, bodies, and relationships continues to intensify (Kennedy, 2018; Kitchin, 2021a; Lupton, 2019; van Dijck, 2014). People's everyday encounters with digital platforms, devices, and software can now create continuous flows of digitized information or "digital traces" (Hepp, Breiter, & Friemel, 2018). Digital data generation and sense-making are embedded in how people work, travel, exercise, form and sustain relationships, participate in public and political systems, access entertainment, monitor their health, and engage in self-improvement efforts. These digital traces contribute

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to the archives of big data commodified and algorithmically processed by third parties, often in ways people find difficult to discern (Kitchin, 2021b; Lupton & Michael, 2017). The data are used for several purposes, including delivering personalized advertising and online content, facilitating social relations, informing decisions about job applications and access to services, and supporting health and fitness activities (Bucher, 2017; Kitchin, 2021a). This information can also be used for dataveillance: watching people through their digital traces (van Dijck, 2014).

Language such as "data clouds" suggests that these traces are ephemeral and impersonal. However, these data can also be experienced as "lively": intensely personal, embodied, and intimate, arousing strong affective responses and physical sensations (Lupton, 2019). A growing body of literature has accordingly focused on the affective, corporeal, and situated entanglements people have with data in everyday life: how they live with and through data, make sense of and respond affectively to personal data and algorithmic processing (Bucher, 2017; Fors & Pink, 2017; Kennedy & Hill, 2018; Kitchin, 2021a; Lupton, 2017, 2019, 2020; Paasonen et al., 2023; Ruckenstein, 2023; Sukk & Siibak, 2021; Watson & Lupton, 2021). The concept of "data sense" (Lupton, Pink, LaBond, & Sumartojo, 2018) directs attention to the increasingly routinized and embodied practices involved in generating, using, transforming, and interpreting personal data. It is argued that we "feel our data" through our emotions and multisensory engagements with digital traces (cf. Lupton, 2017).

Scholars in the field of critical data studies have called for innovative approaches that surface the complicated feelings and entanglements of sensing and living with data (Flensburg & Lomborg, 2023; Kennedy & Hill, 2018; Kitchin, 2021a; Lupton, 2017, 2020, 2021). Taking these calls as our starting point, this article discusses a series of workshops that invited people to consider their affective and embodied responses to personal data. Our approach advances the second author's more-than-human approach to lively data, data sense-making, and feeling data (Lupton, 2019, 2020, 2021), combining emotions, comprehension, and bodily awareness of data as felt insight or attunement. In what follows, we focus on the affects and multisensory dimensions expressed in workshop activities and discussions. We begin with a review of related research, then provide details on our workshops, which include a reflective warm-up activity on the definitions of "data" and "personal data," as well as one of three creative activity prompts. We then analyze how the workshops surfaced the materiality, affects, senses, and impressions of data in participants' experiences and speculative imaginaries. Our conclusion reviews this spectrum of tangible and ephemeral data feelings and discusses the value of this creative approach.

Background

Our focus on the relational and affective complexities of how people live with personal data is guided by sociomaterial analyses of digital technologies, especially those applying more-than-human theory to understand the affective, embodied, and relational dimensions of human-digital-data assemblages (Lupton, 2019, 2020, 2021). More-than-human theory positions humans as always imbricated within complex configurations of other humans, living things, objects, place, and space. This approach avoids the common technological determinism found in critiques of datafication by acknowledging that humans make data just as data make humans. Agency is conceptualized as distributed with and between the agents in these assemblages (Lupton, 2019, 2020, 2021). Human-digital-data assemblages are viewed as lively and

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dynamic, generating affective forces, shaping relational connections, and opening up or constraining capacities for action (Esmonde & Jette, 2020; Lupton, 2017, 2019, 2020, 2021).

The concept of data sense exemplifies this approach by bringing "the body back in," highlighting the human senses and "affective bodily affordances in people's responses to data" (Lupton, 2019, p. 76). By thinking beyond human-centric conceptions of knowledge, literacy, and agency, these approaches consider how people come together with digital devices in multisensory ways and theorize these relationships as mediated assemblages productively in flux. Data sense builds on diverse conceptualizations that concern what personal digital data are, what data do, and how people and data have relational, embodied, and affective connections.

Research adopting a sociomaterial perspective has revealed the significance of people's feelings for how everyday data practices are (re)structured, mediated, and produced. Personal data—including uses and harms—are enacted in everyday contexts, in the day-to-day experiences and relationships forming the fabric of people's lives (Bucher, 2018; Kitchin, 2021a; Lupton, 2019; Lupton & Michael, 2017; Ruckenstein, 2023; Sukk & Siibak, 2021), and in ways that cohere with people's "existing ways of being, knowing and feeling" (Fors & Pink, 2017, p. 10). Vertesi, Kaye, Jarosewski, Khovanskaya, and Song (2016), for instance, consider the "data narratives" that people construct about their digital practices and the networked nature of their personal data. They show how the "emotional, normative language" of these narratives reveals the social relations and moral values at play in how people understand and engage with data-generating technologies (Vertesi et al., 2016, pp. 484–486). Research with fitness self-trackers also highlights the sensory "body work" that the habituation of data-generating technologies requires, borne out in how people interpret the usefulness of such data and respond to them using their embodied senses and experiential knowledge (Fors & Pink, 2017; Lupton et al., 2018).

The intimate nature of personal data and how they are used by third parties have also been identified in datafication and critical data studies. This scholarship has highlighted that while people may feel wary and anxious about how digital data technologies and algorithms are used for monitoring, or breaching their privacy, they often feel affectively attached to their digital data and may enjoy the ways their lives and bodies are digitized and datafied (Bucher, 2017; Kitchin, 2021a; Lupton, 2019, 2020; Paasonen et al., 2023; Ruckenstein & Granroth, 2020). People who engage in digitized self-tracking activities, for example, can find pleasure in observing improvements in their health and fitness metrics, and in sharing their data on social media (Esmonde & Jette, 2020; Fors & Pink, 2017; Lupton et al., 2018). Monitoring intimate others, such as children, through dataveillance can be considered a form of care or love (Sukk & Siibak, 2021). People are more irritated by online advertising that seems not to understand them than by ads that accurately discern their interests and habits, helping them access goods and services that fit their needs (Ruckenstein, 2023; Ruckenstein & Granroth, 2020). They are also highly aware that the Internet does not "know everything" about them, and that there are private thoughts and feelings that digital traces from their online activities and app use do not record (Lupton, 2020, 2021).

Researchers in new media and critical data studies are beginning to experiment with design- and arts-based methods to identify what matters to people about datafication, and how people respond emotionally to personal data in ways that resist clear articulation (Ash, Leszczynski, & Kitchin, 2024).

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Several projects have used writing prompts, sometimes combined with visual methods. One study, for example, asked people to draw and write creatively about their personal data profiles (Bishop & Kant, 2023). Another invited participants to create zines (handmade mini magazines) in response to prompts about algorithmic identities (Lupton & Watson, 2021; Watson, Clark, Southerton, & Lupton, 2021). A different approach employed a fictional character, outlined how that character's digital traces were generated and algorithmically processed, and then asked participants to narrate and co-create this character's digital persona with potential risks, harms, and benefits in mind (Armstrong et al., 2023).

The story completion method—in which participants are presented with story "stems" about fictional characters and invited to complete the narrative—has been used to identify the effects, agencies, and relational connections people imagine in response to digital privacy scenarios (Watson & Lupton, 2021, 2022). One such project addressed how digital technologies collect intimate health data about users, with story stems about a menstruation app, a fertility app, sexual health records, and a sexually transmissible disease management platform (Moniz, Mehrnezhad, & Almeida, 2023). Future smart home technologies were the focus of another story completion project that prompted writers to imagine potential privacy issues related to these technologies and how a character in the story might feel about the devices (Reig et al., 2023).

Such developments are connected to broader methodological debates and trends, including a rising embrace of participatory, creative, multisensory, speculative, and inventive methods that enable researchers to better attend to the affective and experiential dynamics of social life (Back & Puwar, 2012; Lury & Wakeford, 2012). Taken together, this body of theoretical and empirical scholarship informs our approach to designing and analyzing research encounters that aim to engage participants in ways that intensify "the affective forces of digitized information" and provoke visceral responses that illuminate "issues concerning what happens to their personal data" (Lupton, 2019, p. 70).

Study Methods

Our project "Living with Personal Data" was designed to investigate people's understandings, practices, and feelings related to digital data-generating technologies within their homes and everyday environments. Engaging a diverse group of participants living in Australia, we sought to illuminate and better understand the many ways people live with and through their personal digital data: the wide range of digitized information generated when they use the Internet, mobile devices, apps, smart home technologies, and move in spaces embedded with digital sensors. Following university ethics approval, we combined qualitative and arts-based research methods across two project phases. The first phase involved ethnographic interviews and participatory mapping activities (for findings, see Watson & Lupton, 2022; Watson, Lupton, & Michael, 2021a, 2021b). Here, we focus on the second phase of the project: a series of creative workshops with small groups of participants from across Australia. We discuss participants' responses to a warm-up activity and to three of the workshop prompts (see Lupton & Watson, 2022; Southerton, Clark, Watson, & Lupton, 2022 for discussions of other prompts used).

Drawing on more-than-human theorizing of personal data, these prompts were crafted to engage participants with the affective, agential, and relational dimensions of digital information and their everyday engagement with data.

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1. *Data mementos.* Think about new ways that your digitized personal information or memories that you would like to keep into the future could be recorded and stored. Draw your ideas or write them down. (Can be digital or non-digital).
2. *Being an algorithm.* Think about three ways in which personal data were generated about you in the past week (digital or non-digital). Write down how they were generated and what information was generated in the framework provided. Combine these details to produce a data profile on yourself. What does this profile reveal about you? How accurate is it? Who could exploit it for their own use? What does it leave out?
3. *Data letters.* Write a love or break up letter to your personal data.

These prompts were crafted to invite participants to reflect on the personal nature of the information generated through their digital technology use, the ways digital traces are algorithmically processed, and the accuracy of these details in relation to how they perceive their identities and relationships. The prompts deliberately encourage people to consider the affective dimensions of their relationships with their digital data: what they appreciate or dislike about how their lives, thoughts, and feelings are datafied. All prompts, except the "data letters" activity, were crafted by the second author. "Data letters" was inspired by a design research method involving writing a personal letter to a commercial product or service as one way of revealing what people feel and value about that product or service, using a familiar format that people can easily understand (Martin & Hanington, 2012, p. 114).

All workshops took place in 2021 and were conducted online via the Zoom videoconferencing platform because of COVID protections in place at that time. We were guided by critical methodological work on the technical and ethical complexities of using video-conferencing platforms for qualitative research (Archibald, Ambagtsheer, Casey, & Lawless, 2019; Howlett, 2022; Oliffe, Kelly, Gonzalez Montaner, & Yu Ko, 2021). A bonus of this approach was that it facilitated participation from people who otherwise might not have been able to participate because of their geographical location or accessibility needs. A research company was commissioned to recruit participants from their panels to facilitate diversity across age groups and locations, as well as to achieve gender balance. All workshops were conducted by the authors using participant details provided by the research company to contact volunteers. Workshops lasted approximately one hour and were videorecorded, providing records of both the visual attributes and the verbal exchanges between participants during the discussions, which were then used for analysis. Participants received gift cards in appreciation of their time and pseudonyms were used to protect their anonymity.

In total, 59 participants participated in these workshops. Of these, 31 identified as women and 27 as men (one participant preferred not to indicate their gender). The youngest participant was 14 years old, and the oldest was 77. Forty participants were from metropolitan areas, and 19 were from regional, rural, or remote areas of Australia. To enable each participant to meaningfully contribute to the group discussion, workshops were limited to six to eight participants. Participants were grouped into four age brackets and we ran two workshops for each group: 14–20 years, 21–34 years, 35–54 years, and 55 years and older. We structured the workshops by age based on our assumption that people at similar life stages may feel more comfortable discussing their feelings and experiences—particularly their creative responses—with each other to overcome potential discomfort or hesitancy in the group setting. All participants gave written

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consent before the workshops commenced. Parental or guardian written consent was also provided for those under 18 years of age.

Each workshop was structured into two activities. Following group introductions, the first activity involved an open discussion of the terms "data" and "personal data" to help participants think about these issues before engaging in the creative activity. To encourage active participation from the outset, participants were first given one minute of silence to write brief reflections on how they understood and defined these terms, and were then invited to discuss their understandings as a group for 10–15 minutes. We emphasized that our goal was not to assess their knowledge about personal data, but to hear what was top of mind when they encountered these terms.

The second activity, lasting approximately 30–40 minutes, occupied the remainder of the session. Each workshop group received a different prompt based on what we felt would work best for each age group. Participants were informed of the activity in general terms beforehand during the consent process. They did not know the exact prompt, but were asked to come to the workshop prepared with writing materials, such as a pen and paper, to take part in a creative activity. Prompts were shared verbally and via the Zoom chat function, and participants were given approximately 10 minutes to craft their responses. Discussion of the activity occupied the remainder of the workshop time. After their workshop, we asked participants to share a photograph or scanned copy of their creative work via email.

The workshop activities may be viewed as research elicitation methods, designed explicitly to spark conversations and speculative imaginaries. Our intention was not to elicit new designs for digital data technologies and processes, but to use the prompts as jumping-off points for group discussions. Our materials for analysis included the video recordings of each workshop, automated transcriptions of the verbal exchanges generated during the workshop, copies of the participants' work, and the researcher's field notes recorded by the first author, who convened the workshops, soon after each workshop was completed. By working across these materials, we were able to attend to participants' various verbal, non-verbal, textual, and visual expressions in our analysis.

To interpret and analyze these varied research materials, both authors worked collaboratively, adopting a theory-driven approach using concepts and interpretative strategies from the more-than-human theory described above. In addition to iteratively determining overall thematic and narrative patterns, including common discussion points and how group discussions unfolded, this analysis involves looking for instances and moments where the affective, relational, sociospatial, temporal, and embodied dimensions of personal data, algorithms, and digital devices were described or recounted (Lupton, 2020; Lupton & Watson, 2022). This is a post-qualitative approach that recognizes that all analysis is inevitably partial and situated, and that all research is a mutual creation of participants and researchers. It is a way of making everyday materialities, affective forces, and emplaced knowing discernible, helping researchers attune to how participants interpret, and feel the more-than-human dimensions of their lives and relationships (Denzin, 2019; Renold & Ivinson, 2022). As such, in considering data feelings in the analysis presented below, we focus on the sensory and affective dimensions of what participants shared in the workshops—the various ways they expressed senses and feelings related to digital data, from clear and corporeal perceptions to vaguer and undefined impressions.

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Findings

Data Mementos Workshop

The "data mementos" workshop involved six participants aged between 35 and 54 years. In the first part of the workshop, while reflecting on how to define "data" and "personal data," the group discussed various feelings that shaped their digital data practices. Melissa (aged 36, hospitality worker), for instance, said that she felt okay with some apps collecting personal data about her because she mostly used these at home and therefore believed that nothing particularly bad would result. TikTok became a resonant example for the group: Melissa said that she did not want to download TikTok because she had heard the app collects a lot of personal data, so she prefers to watch video compilations on YouTube. Kate (aged 42, administrator) shared her enjoyment of TikTok, implying that she was not concerned about the kind or amount of personal data generated about her through engagement with the app.

Another participant, Rob (aged 48, carer), raised his concerns about TikTok being a Chinese-owned app. His concerns were significant: He felt that data would be a key component of future wars and cyberattacks, so he was conscious about his personal data going to any foreign government or being stored outside Australia. Shaping Rob's fears was his sense that the Australian government was comparatively limited in its technological capabilities, unable to ensure the privacy or security of citizen information. Melissa put forward another example of the government's COVIDSafe digital contact tracing app, which was a notorious and expensive technological failure. She noted she did not download this app because it would drain her phone battery, but acknowledged others had concerns about the government's management of this kind of technology, especially one that is quickly rolled out without proper testing and privacy safeguards.

We then introduced "data mementos" as an imaginative activity: to think up a new way digital information or memories could be recorded and stored in the future. The word "memento" was deliberately chosen to denote the kinds of affective resonances that material objects can have in people's lives as objects that spark memories. In their responses, participants invented technologies that could help them remember, reminisce, and share life experiences with others. Rob was eager to share first. He imagined a cybernetic implant and biological memory drive that afforded additional memory storage capacity in the human brain, plus an active memory retrieval function. With this, Rob speculated that every person would be able to have a virtual eidetic memory, which, for instance, could help people undergo therapeutic treatment for trauma where memories are repressed. Another participant, Sofia (aged 44, public servant), joked that she could see a valuable use for Rob's design in her own home—for resolving arguments with her husband whenever he could not remember promising to do something around the house—to which the group responded with laughter.

Melissa was the second participant to share her memento. She held her paper up to the screen and described her invention as a timeline that operates similarly to Facebook, mixed with what she called "My Heritage": a combined journal, a photo album, and a music app. Her drawing showed a horizontal scale and a tree, with words sprouting from both elements. It depicted a multimodal digital diary for capturing everyday experiences in a single, searchable, and shareable app—recording aspects from songs she

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discovered to where she went for dinner. Sofia followed, commenting that her invention, "This is My Life," was similar: a smartphone program for recording memories in the form of photos, videos, and voice memos that could be automatically compiled into a short video. Rob noted these would be helpful apps for people with Alzheimer's disease, and Melissa agreed, adding it would be useful for sharing with children and grandchildren to pass down memories. Devesh (aged 38, project manager) reflected that with these inventions, memories can be something more tangible you can leave behind after you die (see Lupton, 2017, 2019 for more on the sociomaterialities of data).

Devesh then presented his idea for a data storage card (Figure 1). He described this object as helping people download and store their personal data in something similar to a non-Internet-connected hard drive, rather than via overseas servers. As such, this would let people have full access over how and with whom this information is shared. Sofia noted that, for extra safety, we should return to Rob's idea and have the device implanted, so it would not be stolen or lost. Kate designed two objects (Figure 2): a technological scrapbook and jewelry with embedded storage chips, both imagined to have a similar function and similarly intimate size to Davesh's memory card memento. Tim (aged 42, airline professional), the sixth participant in the group, noted that "the word vault came to mind." With an imaginative leap, Tim's design brought digital and physical mementos together: a hybrid storage device that could store everything from heirlooms to photographs and important documents, with a retrieval system he likened to a Tardis, a time machine and spacecraft from the television program *Doctor Who*.

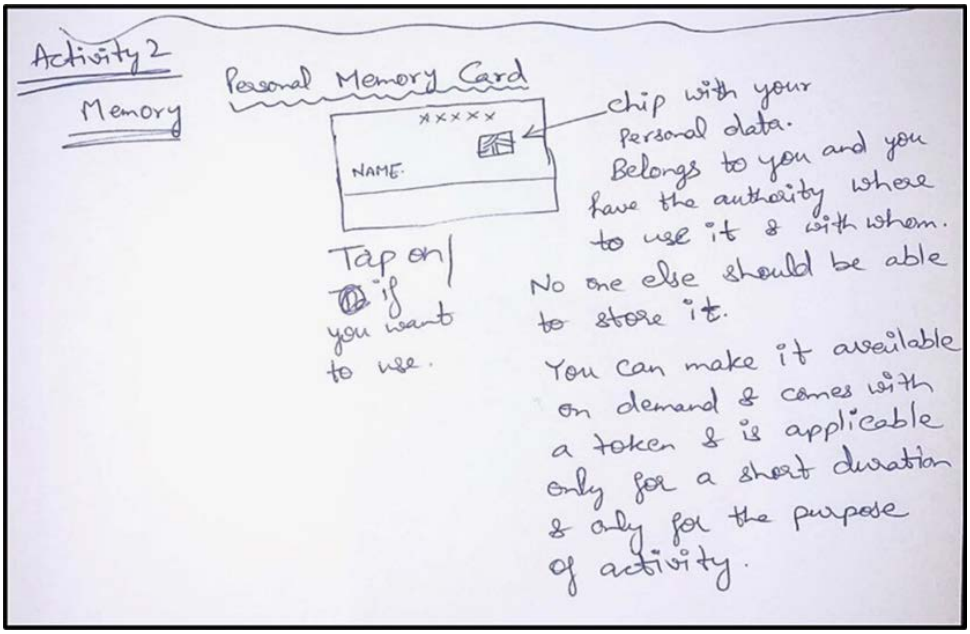

Figure 1. Davesh's data memento, a personal memory card.

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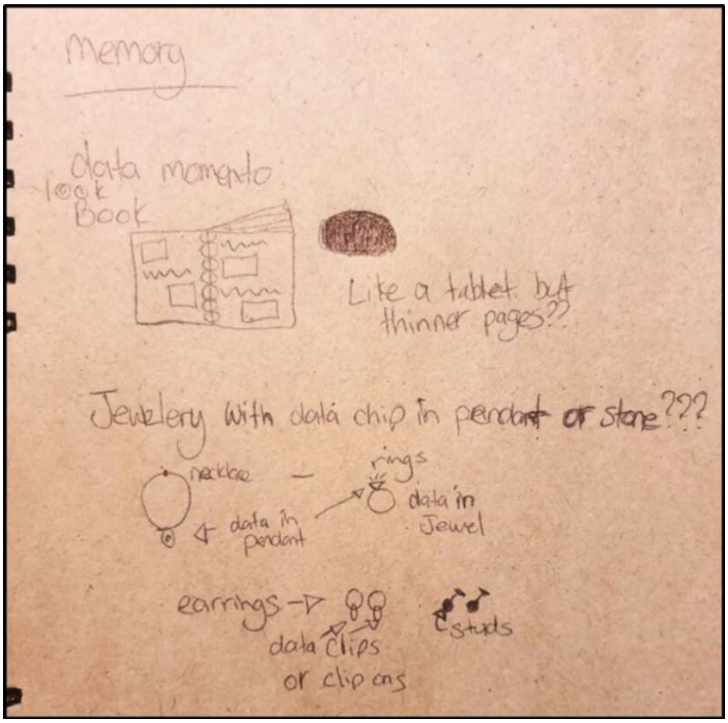

Figure 2. Kate's data memento "look book" and jewelry with data chips.

Being an Algorithm Workshop

This workshop involved seven participants aged between 14 and 20 years. There was a noticeable focus on security and risk in the group's initial discussion of data and personal data. They cited instances of hackers, identity theft, and data breaches. Online advertising was a key focus for this group. Charlotte (aged 17, student) commented on how pervasive targeted advertising seems across the apps and platforms she uses. The group agreed, using words such as "creepy" and "annoying" (see Lupton & Michael, 2017, for similar findings). Ads that were too specific and repetitive were described negatively. However, participants said that more general ads tailored to their personal style were more interesting and useful.

The convenor asked the group what else made them conscious of data processing other than targeted ads. Mia (aged 19, student and educator) shared an example of location tracking, where a map application would send her notifications marking her parked car or preempting traffic information on her routine routes. She did not like this surveillance and, as a result, deleted the app. Charlotte said she often found the same things convenient—if a bit creepy (cf. Chun, 2016; Phelan, Lampe, & Resnick, 2016 on mundane creepiness). Jade (aged 19, student and health worker) responded that being sold things does not bother her, as advertising has "always existed." However, after recently watching a documentary on the topic, she was concerned about how personal data could inform behavioral targeting, which she defined as intentional efforts to manipulate people and change how they think. The group had a longer discussion on this point, focusing on how intent, influence, and perceived value of data shape their feelings (see also

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Bucher, 2018 on value and power). Within this discussion, Jade made a point to which others nodded in agreement: that "big companies don't care about what we want, they care about profit." Mia reflected that intent was more significant for hers: malicious intent was much more concerning than, for instance, the unintentional behavioral impacts of social media.

Before commencing the second activity, the convenor prompted the group to reflect on the various forms their personal data can take (such as how numbers are visualized, as in Kennedy & Hill, 2018; or the sociomaterialities of data, as in Lupton, 2017, 2019). Mia showed the group her wearable fitness tracker by holding it up to her camera. Others noted the value they found in streaming services, the social/caring location-tracking they engaged in via apps such as Snapchat, and how they used banking and transaction records. The convenor reflected that their examples spoke to the same kinds of data-generating technologies they had referenced earlier as being creepy. In response, the group considered the complexities of safety, trust, and risk. Lily (aged 19, administrator) noted that what we do to protect our private information is often contradictory, such as using password storage apps that keep that information in the same physical place and virtual place (such as a smartphone and the cloud). Interestingly, the group agreed that a physical book felt safer than an app for storing passwords and sensitive information. Charlotte noted that the only reason she does not use a real book is that it is inconvenient.

After the group completed their data profiles for the second activity, Jake (aged 15, student) shared first. His forms of personal data included his Google search history, activity across various apps, and what he views on social media; his data generation processes included records of web browser cookies, details recorded when setting up an account on an app, and his interactions within those apps. Jake saw that a resulting data profile would capture general key details, such as his suburb of residence, but not overly specific information, such as the name of his school.

Other participants then discussed examples that drew the material and digital together. Lily, for example, had selected her student ID card, which showed her full name, photo ID, and movement records. She suggested that someone accessing these data could possibly impersonate her or use this record to access further secure information. Charlotte noted that her social media data could paint an extensive and accurate picture of who she is, from where she lives to many of her relatives and personal interests. She felt that the only thing this did not capture was her private thoughts or interior monologue (Figure 3) (cf. Lupton, 2020, 2021). Connor (aged 18, student) said he felt similarly: someone could create an entire fake identity based on the information that could be accessed via his social media profile. Together, the group considered the ripple effects of a single data point; that is, what one form of data could go on to reveal.

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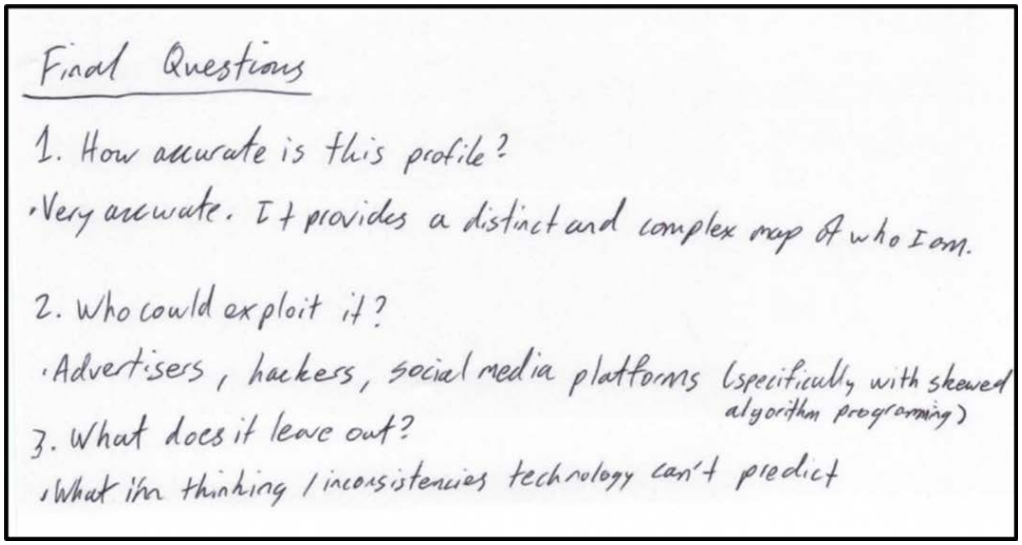

Figure 3. Charlotte's reflections on her data profile.

Personal interests and location data were common points of focus in this group's discussion. Considering how the data profiles they had created could be used algorithmically (as in Bucher, 2018 on data relations), the group discussed the range of content they would show to themselves: recent products they had searched for, such as new shoes, or items related to places they had been that day, such as textbooks for university. Beyond products, the group discussed content relating to where they lived or often visited, such as events and other social activities that occurred near those places.

Engaging in a more overtly anticipatory mode, the convenor prompted the group to consider, based on the data profiles they had just written, what their algorithm might determine they would want or need next. Lily shared that she had recently been on a weekend away, so it was likely that she would want to travel more soon. Jade said, "According to this, I want to take the train somewhere, buy some food, and then I want to scroll for a bit. That's pretty much the whole profile of me." She noted that it could be very specific: the exact train she takes, the kind of sushi she always buys, and the specific social media app she looks at (Figure 4). Reflecting on this location-based tracking in particular, Jade commented, "I think the knowing where I am and where I'm going worries me." She further explained, "knowing where I am and tracking my movement scares me more because there could be physical implications. Like, it doesn't matter if I eat sushi or pasta, but it does matter where I am and who knows." Connor added that discrete current location tracking is less concerning for him than the details these data can reveal over time about a person's patterns and routines (see Kitchin, 2021a; Paasonen et al., 2023, on the vitality and liveliness of digital traces and digital infrastructures).

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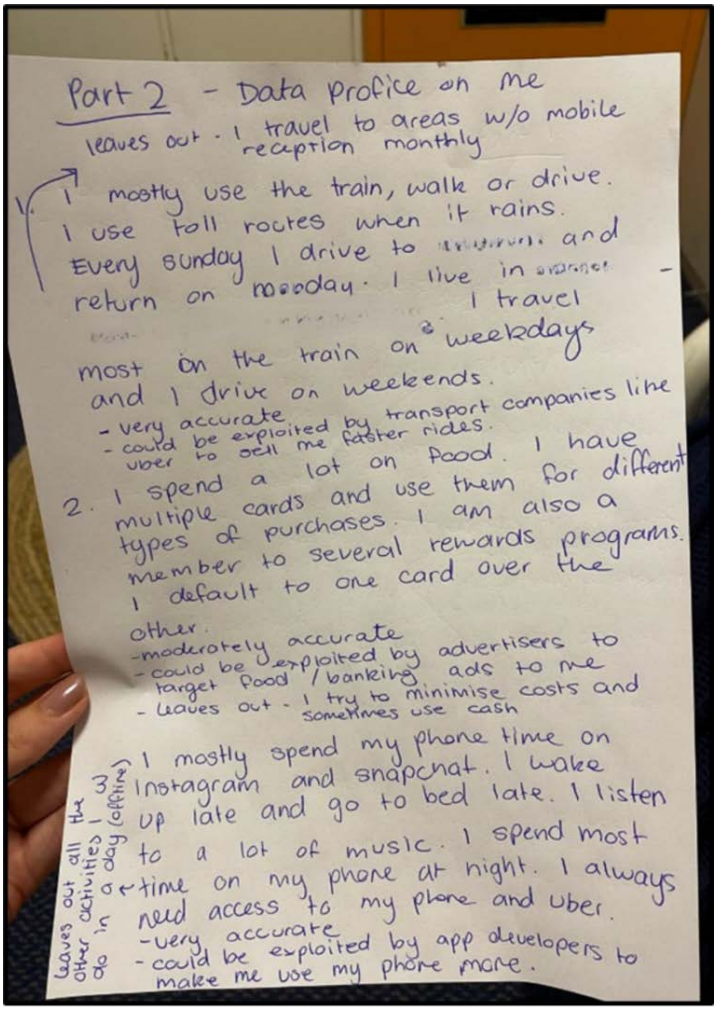

Figure 4. Jade's data profile reflection (with identifying information blurred).

While discussing the differences between a specific person accessing personal data and third-party processing, Charlotte noted that many young people are concerned about their parents constantly accessing their location, though this can be useful for safety "when done correctly." Others agreed with this, sharing friends' bad experiences with how this form of surveillance is undertaken and how people become subject to it. This focus on specific personal targeting, in beneficial and potentially harmful forms, dominated what the group imagined could result from their personal data profile. Notably, they also voiced concerns about third-party access, though this was noted in much more general terms compared with the details and specificities the group considered in other registers. Charlotte commented that it was not surprising that the group agreed that datafication was concerning for everyone, as their generation had grown up on post-apocalyptic stories about the threats of datafication (as echoed in Ruckenstein, 2023 on popular culture narratives).

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Data Letters Workshop

The "data letters" workshop focused explicitly on the affective dimensions of data in people's personal lives. It brought together eight participants aged between 21 and 34 years. Several participants agreed that the first things that came to mind when they thought about personal data were concerns about how their information was used and who had access to it. Participants had a keen sense that their data—and, by extension, they themselves—were valuable commodities. This phrasing was suggested by one participant, Alex (aged 33, teacher), and several others nodded in agreement. Another participant, Luca (aged 25, engineer), summarized these concerns as a question of dollars: of what his information is worth and how (and why) it is bought and sold.

Targeted advertising was also a major discussion point for this group. For most of the opening discussion, participants talked generally about anonymous third parties, referred to as "they" and "them," accessing personal data, yet their examples indicated some sense of diversity about who these parties may be. The convening researcher prompted the group to specify who they were talking about in terms of personal data access, and how that related to their sense of (in)security. In addition to consumption drivers, they clarified their concerns about active malicious intent and passive security failures. Several shared personal experiences or experiences of family members—especially vulnerable relatives—being hacked and having their finances compromised after being targeted by scammers. In addition, similar to the first group above, participants discussed large companies and governments and their (in)capacities to protect server security and prevent personal data breaches.

The workshop convenor then asked if anyone had any positive feelings to share about their personal data. Alex responded first, saying he only had negative emotions about data; Kristen (aged 31, project manager) agreed, questioning why "they" needed to keep her information on record. Luca felt there was good and bad, musing that he found it handy and convenient to have his shopping data used to advertise things he wanted, streamlining parts of his day-to-day life (see also Lupton, 2019, 2021; Ruckenstein, 2023 on how the affective force of data and how algorithms feel in the everyday). Amy (aged 22, analyst) commented that she found geolocation-based services and records useful, both in her own personal life and aspects of her job.

The group then considered the relevance of context. Daniel (aged 33, public servant) highlighted circumstances in which he found this valuable, such as tracking his fishing locations. Erin (aged 25, lawyer) and Lauren (aged 29, unemployed) also shared experiences with apps that allowed them to share their real-time location with selected others. For Erin, this was a safety issue. She lived remotely and would often journey into the bush, and these data provided a record of her movements in case she needed to be found. Lauren noted that her female friends shared their locations when they went on dates, so they could monitor each other's movements together and be alert to indicators of risk or violence (see also Moniz et al., 2023; Sukk & Siibak, 2021 on dataveillance).

Building on the complexities of feeling the participants voiced, we introduced the data letters activity. Each participant was invited to pen a letter starting with "Dear Data," addressing either a specific kind of data or their broadly conceived personal data. The convenor summarized some of the data featured

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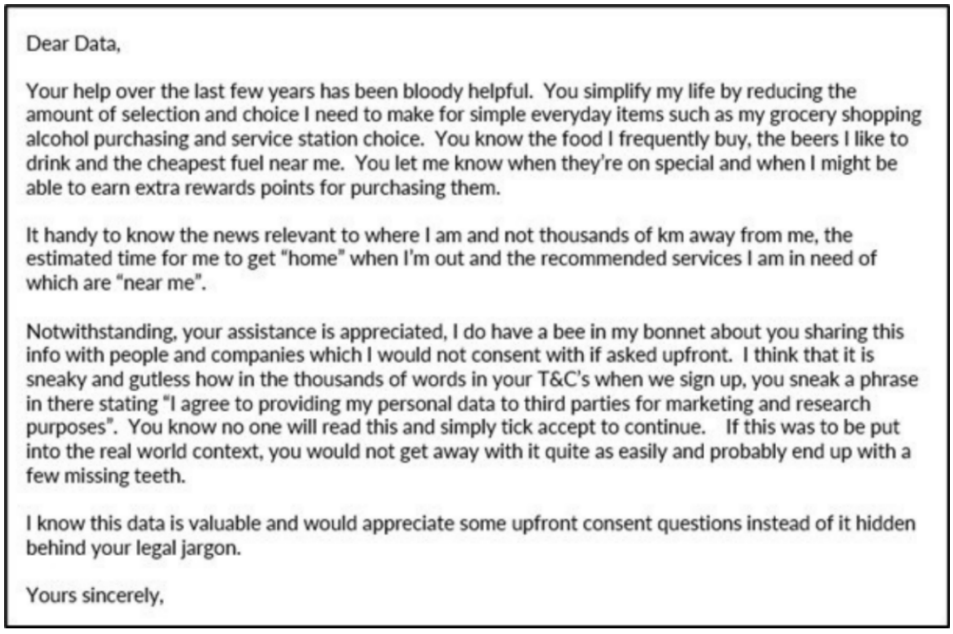
in the group's earlier discussions as an example of what they could write about. She also stressed that participants could be as creative as they liked, emphasizing that we were looking for further insight into the feelings they had already begun sharing with us—whether strong, positive, negative, or mixed feelings; whatever they felt like writing. Two people typed their letters using their digital devices, while the other six wrote by hand.

Steven said he found the activity easy and knew immediately upon hearing the prompt that his letter would draw on his negative emotions. Daniel shared that his letter started positively and then ended by sharing negative feelings about where else his data was going and his resulting fears. Luca volunteered to read his letter aloud (Figure 5), prefacing that his also started positively, but concluded with expressions of concerns.



Dear Data,

Your help over the last few years has been bloody helpful. You simplify my life by reducing the amount of selection and choice I need to make for simple everyday items such as my grocery shopping alcohol purchasing and service station choice. You know the food I frequently buy, the beers I like to drink and the cheapest fuel near me. You let me know when they're on special and when I might be able to earn extra rewards points for purchasing them.

It handy to know the news relevant to where I am and not thousands of km away from me, the estimated time for me to get "home" when I'm out and the recommended services I am in need of which are "near me".

Notwithstanding, your assistance is appreciated, I do have a bee in my bonnet about you sharing this info with people and companies which I would not consent with if asked upfront. I think that it is sneaky and gutless how in the thousands of words in your T&C's when we sign up, you sneak a phrase in there stating "I agree to providing my personal data to third parties for marketing and research purposes". You know no one will read this and simply tick accept to continue. If this was to be put into the real world context, you would not get away with it quite as easily and probably end up with a few missing teeth.

I know this data is valuable and would appreciate some upfront consent questions instead of it hidden behind your legal jargon.

Yours sincerely,

Figure 5. Luca's letter.

Luca's letter emphasized simplification, localization, and clarity (or, from the other angle, obfuscation). Opening with a sentiment of gratitude, he appreciates how routine tasks of decision making are made simpler and more rewarding through datafication related to his common purchases. The effect is a streamlining of his everyday life, a smoothing out of mundane frictions, and the alleviation of the minor mental loads that come with consumer choice (Paasonen et al., 2023). This feeling extends in his second paragraph to how information, of an otherwise global scale on his smartphone, becomes local to him: his news, his directions, the things he needs. This appreciation sours when Luca's letter reaches the primary source of his feelings of irritation and discomfort: third-party data sharing (Lupton & Michael, 2017). Shaping Luca's feelings is his sense that these systems are obscured, hidden behind jargon, and buried in lengthy terms and conditions, a style of agreement that would not fly in a "real world" conversation.

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Another participant, Lauren, shared with the group that her letter was also largely tinged with negative emotions, expressing how her personal data being processed into advertising played on her insecurities. Lauren's letter creatively adapted the format of the titular poem from the 1999 film *10 Things I Hate About You* (Figure 6). By employing this format, Lauren's feelings are clearly expressed on the page: she hates that her data can find her, that her data is "an all seeing enigmatic being," that she cannot escape her data's gaze. However, not all feelings expressed here are negative or rooted in hatred. Lauren's use of this film reference teases out the complexities of her mixed-data feelings. In the film, the character who shares her own "10 Things I Hate About You" letter uses it as a moment to confess the very opposite—her love. Lauren's final paragraph echoes this sentiment, drawing on cultural familiarity to share the anticipation of this complication or affective switch, and this colors the whole letter from the first point. "But most of all, I hate that I don't hate you at all," she writes. Lauren's letter finishes on a pointedly more ambiguous note than the film. Considering how her data's judgment is always more accurate than her own typically is, she concludes: "but maybe is it because that's the only side of me I have shown?" Lauren questions the all-knowing data gaze, ending her letter by evoking consideration of all the parts of ourselves that escape datafication—those that lie outside the varied entanglements we have with digital devices (Lupton, 2020, 2021).

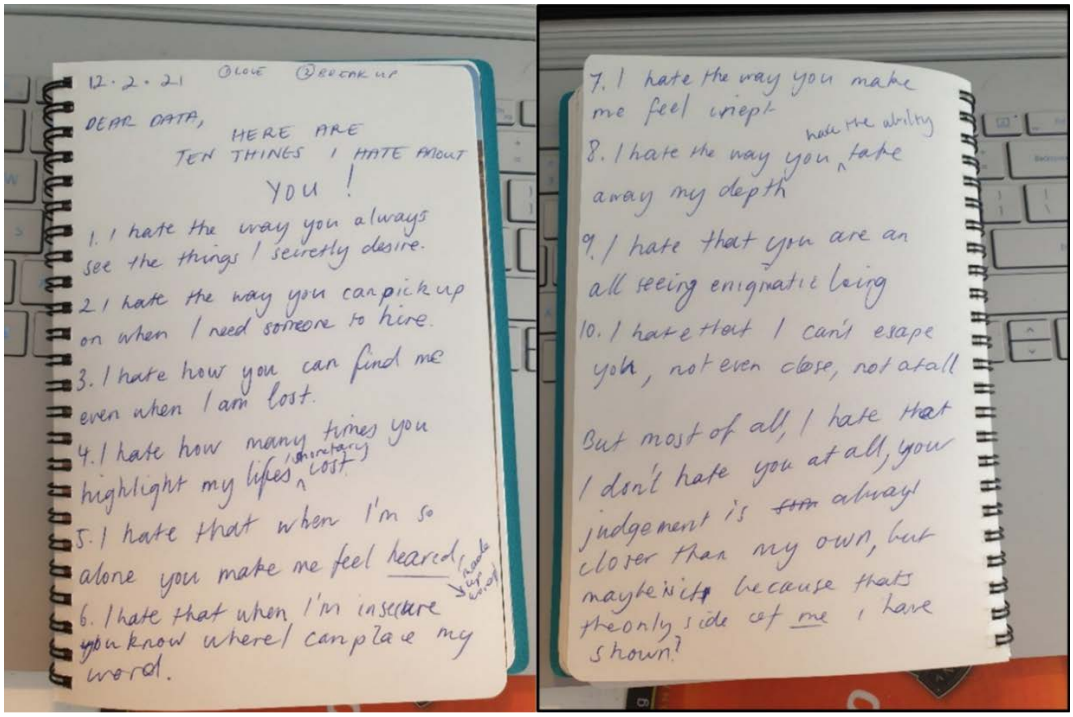

Figure 6. Lauren's "ten things I hate about you!" data letter.

For the remaining time, participants fleshed out the details of their complex feelings: their frustrations related to things such as the opaqueness of terms and conditions, and the everyday value they find from personal data, despite gut reactions to the topic being particularly negative. In this conversation,

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the convenor probed the inflection points of their mixed feelings, where the nexus or boundaries were between their love and why they would want to break up. In response, participants reflected on the complications of convenience—what is lost and what is gained when services become digitally streamlined (cf. Seberger, Shklovski, Swiatek, & Patil, 2022 on the normalization of discomfort)—and the relationship between convenience and privacy (see also Vertesi et al., 2016 on tensions in personal data management). This led the group to discuss the complex social and safety affordances of platforms and services that run on personal data processing—including social media platforms and apps they discussed, which afford intimate and caring surveillance (Sukk & Siibak, 2021)—which they saw as both creating and preventing risk and harm through the same kinds of data processing.

Concluding Comments

Our findings demonstrate the knowledge people have of personal digital data and, importantly, the affective, embodied, and multisensory dimensions of these knowledges. Together, the prompts and participants' responses help create a clearer picture of how people sense, feel, and live with and through their data (Bucher, 2017; Fors & Pink, 2017; Kennedy & Hill, 2018; Kitchin, 2021a; Lupton, 2017, 2019, 2020, 2021; Paasonen et al., 2023; Ruckenstein, 2023; Watson & Lupton, 2021). The first workshop task, simply asking participants to write down and discuss their definitions, was useful in providing perspectives on what "data" and "personal data" mean and the circulating discourses that inform people's understandings. Experimenting with different creative writing prompts then allowed us to gain further and deeper insights into the multifaceted entanglements of human-digital-data assemblages and the agencies and capacities that can be opened or closed down through these engagements.

From prompting participants to recall feelings and emotions and give them a creative form, our analysis considers affects as vital forces that drive people's practices and relations with technologies and data. The creative activities inspired a diverse array of speculations about possible data technologies that revealed people's anxieties and discomforts about how their personal information is digitized, datafied, and algorithmically manipulated, as well as the value and emotional resonances of these processes and practices.

The complexities and ambivalences of people's data feelings and sense-making were evident in their responses. The workshop creations and discussions reflected little sense that people were wholeheartedly positive or negative about how their digital traces were recorded, processed, and used, whether by themselves, intimate others, or corporations. Instead, they acknowledged the manifold contradictions and tensions in how they feel about the benefits and harms that are part of living with data. As the findings of previous studies have echoed (Bucher, 2018; Chun, 2016; Lupton & Michael, 2017; Phelan et al., 2016; Seberger et al., 2022), for our participants, the intimate nature of algorithmic processing and surveillance through personal data was considered at times intrusive or creepy, and as posing a possible threat to personal data security. Feelings of unease, enjoyment, appreciation, and being creeped out are particularly heightened by targeted advertising (Ruckenstein & Granroth, 2020). These become more pronounced when people feel dehumanized by datafication (Petty, Saba, Lewis, Gangadharan, & Eubanks, 2018). However, belief in the convenience of apps with personal data recorded and in the value of algorithms that can "know" people and deliver interesting and personalized experiences (Bucher, 2017; Paasonen et al., 2023; Ruckenstein & Granroth, 2020) was also evident in our participants' accounts. People also

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recognized that digital surveillance through apps or Internet use is not all-seeing and all-knowing, and that some private thoughts and feelings are not recorded through datafication (Lupton, 2020, 2021).

The situated spatialities, intimacies, and more-than-digital dimensions of data feelings were also highlighted in the workshops. The prompts helped participants recognize and explain feelings that seemed contradictory, such as feeling uneasy with a website requesting location access, but comfortable allowing apps to do the same. How participants felt and made decisions varied depending on why they themselves wanted to use those digital platforms and who they imagined was asking for their personal data (Lupton & Michael, 2017).

Participants were able to supply multiple examples of the ways personal data could be used maliciously as part of scams or threats to personal safety. Across the workshops, many participants described instances of using geolocation data to ensure their personal safety or that of intimate others. Notably, while older people were concerned about the ways government or corporate entities could watch them through their personal data, members of the youngest group were also highly aware that non-corporate digital surveillance could be conducted on them, citing specific examples of parents tracking them on an app. While such dataveillance may be conducted with care, as part of intergenerational familial relationships (Hjorth & Lupton, 2021), those being watched may perceive this not as benign, but as controlling (cf. Sukk & Siibak, 2021).

The prompts involving speculative tasks of creation elicited more imaginative ideas that highlighted some less-expected feelings and views. It was recognized in responses to these prompts, both written and discussed, that materializations of personal data can be forceful, affective artefacts: recording nostalgic details about individuals and memories to pass down through generations. Participants' inventions and responses surfaced the role played by personal data—and the technologies and algorithms that generate and process these digital traces—as highly affective and effective interventions: for trauma, for illness, for domestic arguments, to help remember, to help not forget, for care, and for control. Some used elements of popular culture (for example, television shows) to express their thoughts and feelings about datafied life. These ideas brought a new lens to participants' understandings of personal data storage and illuminated the kinds of intimate data they considered important—for themselves, and perhaps for their loved ones—to record their identities, lives, and important relationships.

What mattered was not so much the specifics of the personal information captured about the participants, but how datafication made them feel seen—too intimately, too often, as objects, by those intending harm, by those offering help, and by friends, partners, and family. Such contradictions are reflective of broader perceptions and behaviors related to privacy (Hinds, Williams, & Joinson, 2020; Sukk & Siibak, 2021; Watson & Lupton, 2022) and highlight the contextual specificities of people's mixed feelings. In these conversations, space and time surface as significant in participants' feelings about data: from the micro-level locations of personal device use to the geo-political contexts of datafication, and from the pace of technological roll-out to the possible futures in which contemporary personal data may be instrumental. Crucially, it was not so much the intrusiveness of dataveillance that bothered people, but the risk of exposure it carries: specifically, the exact details that digital traces could reveal about them and to whom. Shopping habits or fitness data were viewed as relatively unimportant personal details, while information such as a

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person's geolocation in real time or over time posed far more of a risk to safety and security if it were gathered for malicious purposes. These examples are illustrative of the many ways participants understand and live with data as relational and intrapersonal mediators.

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