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Imagination workshops as a creative method for exploring the sociomaterial dimensions of privacy

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Abstract

Purpose – The purpose of this paper is to introduce imagination workshops as a creative method for studying privacy from a sociomaterial perspective. The workshops incorporate a creative element – the imagination game – into a traditional focus group setting. The imagination game is a role-playing card game that involves participants imagining scenarios set in the future.

Design/methodology/approach – The imagination workshop method is illustrated through an empirical study exploring imaginaries of the future smart home. The study encompasses five workshops with a total of 46 participants.

Findings – The findings from the empirical application of the method highlight its strengths in uncovering thoughts and feelings related to human–data relations that might be difficult to attain through more conventional methods, such as affective responses to privacy dilemmas. By combining imagination and collaborative activity, less taken-for-granted ideas can be tapped into.

Originality/value – The paper contributes to consumer research by introducing a novel qualitative method for studying privacy. By drawing from a new materialism perspective, the imagination workshops bring to light the sociomaterial dimensions of privacy that extend beyond mere cognitive decision-making processes. In this way, the method can be applied to reveal the dynamic and visceral nature of the construct. In addition to privacy research, the method provides ample opportunities for application in diverse contexts interested in technological futures.

Keywords Qualitative methods, Privacy, Technology, Imagination workshop method, Sociomaterialism

Paper type Research paper

Introduction

The ongoing exponential increase in the volume of consumer data generated has led to privacy becoming a recurring topic of interest in marketing and consumer research literature (Martin and Murphy, 2017). However, as recent scholarship highlights (Horppu, 2023; Sörum and Fuentes, 2022), most of this research has been conducted from psychological and microeconomic perspectives. From these perspectives, the aim of privacy research is to reveal causal connections among variables to predict consumer behaviour in situations involving privacy dilemmas. This

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approach largely neglects the broader – such as the social and cultural – context of privacy and consumer–data entanglements, the understanding of which is of great importance (Horppu, 2023; Sörum and Fuentes, 2022). Consumers' responses to data collection are not solely governed by individual decision-making processes but instead draw from the surrounding sociocultural environment with its meanings, narratives and materialities. Further, understandings of and meanings given to privacy are constituted within this sociocultural environment and are not something individuals or societies inherently obtain (Altman, 1975; Horppu, 2023; Mulligan *et al.*, 2020; Watson and Lupton, 2020).

The emphasis on uncovering causal relationships is also reflected in the methodological decisions made. Within consumer research, privacy has predominantly been addressed using quantitative methods. As an example, on his review on the privacy paradox, Kokolakis (2017) found that out of the 51 articles reviewed, only six used qualitative methods as the main methodology. Indeed, as recent examples illustrate, surveys (Bandara *et al.*, 2021; Bright *et al.*, 2021; Cowan *et al.*, 2021; Swani *et al.*, 2021) and experiments (Bornschein *et al.*, 2020; Hayes *et al.*, 2022; Song *et al.*, 2021) have been among the most popular methodological options in privacy research.

Qualitative approaches such as semi-structured interviews or focus groups have also been used (Bandara *et al.*, 2020; Kelly *et al.*, 2017). However, thus far, the sociomaterial aspects of privacy – that is, the way the notions of privacy get shaped through the interplay of social (human) and material (non-human) elements (Barad, 2003) – have largely been overlooked. In exploring these aspects, creative methods can be particularly useful. Creative research methods integrate creative practices into the research process (Kara, 2020; Mannay, 2016). For instance, in arts-based research, artistic processes are incorporated into the heart of the research (Kara, 2020; Seregina, 2020). This may involve visual arts such as drawing or collage making, performance arts like dance, drama or role play or literary arts such as storytelling or poetry (Kara, 2020). Although commonly used in the data collection phase, these practices can extend to various stages of the research process (Kara, 2020; Mannay, 2016).Within consumer research, creative methods have been referred to as alternative methods and have been adopted, for instance, through photography (Marshall and Davis, 2021), walking interviews (Mak *et al.*, 2022) or poetry (Rojas-Gaviria, 2021).

By using my research project centred on the future smart home as an example, the purpose of this paper is to introduce imagination workshops as a way of applying arts-based research to study privacy from a sociomaterial perspective. The imagination workshops build on the idea of traditional focus groups and consist of an imagination game and a group discussion. The imagination game, originally developed by Harju *et al.* (2021), is a role-playing card game played in small groups. The methodology incorporates creative activities – play, imagining and writing – into a more traditional focus group setting with the goal of generating novel insights on privacy and consumer–data relations.

Arts-based methods are especially well suited for studying abstract concepts and topics focused on feelings and emotions (Kara, 2020). The imagination workshops enable bringing forth ideas that are immaterial and difficult to explicitly explain through, for instance, traditional one-to-one interviews (Dunphy *et al.*, 2014; Lupton, 2019). Being able to address the future through imaginary characters and situations helps individuals surface their feelings, hopes and fears related to the future. Combining this with coming together with others to take part in a creative activity can inspire new ways of thinking that go beyond taken-for-granted assumptions about the future (Coleman, 2017). In fact, as highlighted by Phillips and Kara (2021), engaging in collaborative creative writing can uncover experiences participants may not be consciously aware of. Additionally, creativity blossoms through

interaction with others; thus, collaboration enables exploring phenomena in ways that would not be possible alone.

This paper contributes to privacy research in the realm of marketing and consumer research by introducing a novel, creative research method that provides the means to gain a deeper understanding of consumer–data relations and the meanings given to privacy. With the help of creativity, we are able to fight familiarity (Mannay, 2016), teasing out meanings and affects that are less obvious and more difficult to articulate (Scott and Bradford, 2022). As a methodology, the imagination workshops are rooted in new materialism – a theoretical perspective wherein attention is placed on the intricate relations between human and non-human entities (Lupton, 2019). In this way, the workshops with their theoretical underpinnings allow for extending the view from psychological decision-making processes and shed light on the sociomaterial dimensions of privacy.

I will begin by introducing the theoretical perspective grounding the methodology and then move on to an overview of the methods previously used to investigate consumer–data relations. Following this, I will introduce the imagination game and detail the structure of the organised workshops. Finally, I will discuss the strengths and weaknesses of the method and provide ideas for its application in alternative contexts.

New materialism as a theoretical foundation for the methodology

As a method, the imagination workshops derive from a wider research methodology which informs not only how the research is conducted, but also why. From this perspective, the method serves as merely a tool for data generation and analysis, while the methodology refers to the overall design of the research project. Methodology is rooted in theoretical foundations which guide the way phenomena are understood as well as the methods through which they can be accessed (Kara, 2020; Mason, 2017).

Against this backdrop, the imagination workshops discussed in this paper align with a new materialism perspective drawing from feminist new materialism scholarship, including the works of Karen Barad, Donna Haraway and Jane Bennett. Feminist new materialism thinking can be viewed as part of the wider theories of sociomaterialism, which focus on the entanglements of the "social" and "material" in everyday life, especially within organisational practices (Leonardi, 2012). However, compared to sociomaterialism, feminist new materialism is a more holistic perspective that rethinks the role of matter in the world. It pays attention to the boundaries between living and non-living things and challenges western binary dualisms (Barad, 2003; Lupton, 2019). Non-human entities – objects and things – are seen as having vitality and life, and for instance, Bennett (2004) discusses "thing-power" referring to the way non-living things have the ability to cause effects when they come together with humans. Thus, agency is not something only humans possess.

In the same vein, Barad (2003) asserts that agency is performative and distributed. It is not endowed to a single actor but rather emerges through the interactions between humans and non-humans. Barad (2007) approaches these relationships through "intra-action", which is distinct from "interaction". In intra-action, the ability to act emerges within the relationship; therefore, agency is not an intrinsic feature of an entity, nor does it exist outside the relationship. In this way, humans and objects become entwined. From a new materialism perspective, phenomena are approached as assemblages of human and non-human entities, highlighting distributed agential capacities and affective forces created within the relationships of the assemblage (Lupton, 2019).

Building upon this, the relationships between humans and their data, including notions of privacy, can be approached through human–data assemblages. This approach also draws from the work of Donna Haraway (2003) and the idea of companion species, which deals

with the relationship humans have with technologies. According to Haraway (2003), humans and technologies co-evolve by mutually influencing and learning from one another. Within data-embedded reality, humans, the devices and software they use and the data that is generated all become enmeshed. Human–data assemblages are constantly unfolding and changing as consumers go through their digitally mediated everyday lives. Humans and their data journey through life side by side, affecting one another and generating various agential capacities. As an example, humans interact with recommendation algorithms, both shaping each other through iterative interactions. Within these entanglements, also understandings of and meanings given to privacy take their shape. Consumers' sense of privacy is not static nor solely based on cognitive and rational decision-making processes but rather emergent, visceral and embodied (Horppu, 2023; Stark, 2016; Watson and Lupton, 2020).

In the imagination workshops discussed herein, the new materialism perspective is combined with a future orientation, as the purpose of the workshops is to imagine various scenarios taking place in the smart home of 2040. Conceptually, this builds on the notion of social imaginaries, which refer to shared cultural understandings of how the future should look (Jasanoff, 2015; Taylor, 2004). When approached from the new materialism perspective, social imaginaries are viewed as affective and relational as well as dynamic and evolving, taking their shape within assemblages of multiple actors (Coleman, 2017; Lupton and Watson, 2022). Imaginaries are embedded with normativity – they construct ideas of what is important and desirable. They guide actors on both the individual and the collective level, impacting for instance research and innovation but also consumers' subjectivities. Therefore, imaginaries have a crucial role also in the present day (Jasanoff, 2015; Mager and Katzenbach, 2021; Preece *et al.*, 2022).

In the realm of imaginaries, Michael (2017) discusses the difference between "Little Futures" and "Big Futures". Big Futures refer to the imaginaries promoted through media and promotional materials portraying technological development as revolutionary and far-reaching. Contrarily, Little Futures are shaped within the everyday lives of consumers and are more mundane and less dramatic. Big Futures and Little Futures shape each other, and when individuals make sense of their everyday lives and practices, they draw from wider sociocultural imaginaries. Similarly, individual meanings of privacy are shaped within the wider sociocultural meanings and imaginaries (Horppu, 2023; Lupton and Watson, 2022; Sörum and Fuentes, 2022). The imagination workshops aim to tap into the interplay between these two levels of meaning and, through creativity, further dissect the affective and relational forces within these imaginaries. A new materialism perspective combined with a future orientation enables diving into the forces that "open and close down capacities for action" (Lupton and Watson, 2022, p. 757) for consumers when it comes to their data and privacy.

The methodological approach informed by new materialism influences not only how phenomena are understood through the relationships between entities but also the overall research process. Barad (2003) discusses research through "onto-epistemology" in which ontology and epistemology cannot be separated. This notion derives from the fact that humans are not observing the world from the outside but rather are inseparably part of it. Thus, in a research process, the researcher is an integral and active participant. The research itself can be viewed as an assemblage of human and non-human actors (Lupton, 2019). Building on this, in this paper, the imagination game and the workshops where it is played are regarded as a research assemblage. Data is generated through the interaction between the researcher, the research participants and the materials involved – including pens, paper, the playing cards and the workshop space – as well as immaterial elements such as ideas.

Further, the premise of the imagination workshops is inspired by research creation, a process where art, theory and research come together, with creativity placed at its core (Truman and Springgay, 2015). Research creation is emergent; its outcome cannot be

predicted in advance (Manning and Massumi, 2014; Truman and Springgay, 2015), and data is not extracted but rather it emerges in the moment through the interplay between entities (Springgay and Truman, 2018). Similarly, in the imagination workshops, a group of people who do not know each other in advance come together to imagine and engage in a creative activity. The outcome cannot be known in advance, as it can vary significantly based on factors such as the materials involved, the personalities of the participants and the ways they interact.

Methods for researching privacy, data and technological futures in previous research

Privacy research within the realm of marketing and consumer research has widely relied on quantitative methods. This methodological inclination stems from the tendency to approach privacy as a psychological construct that crystallises in cost–benefit analyses. To illustrate, looking at recent research published in marketing journals, experiments have been used to study topics such as the influence of the consumer–brand relationship on the personalised advertising privacy calculus (Hayes *et al.*, 2022), the effect of consumers' perceived power and risk in privacy (Bornschein *et al.*, 2020) or the personalisation technology acceptance model amongst privacy-conscious consumers (Song *et al.*, 2021). Surveys have been used to explore ways to manage consumer privacy concerns and defensive behaviour (Bandara *et al.*, 2021), privacy concerns related to augmented reality face filters (Cowan *et al.*, 2021) or the personalisation–privacy paradox (Cloarec *et al.*, 2022). More qualitatively oriented research has also been conducted; for instance, Plangger and Montecchi (2020) used semi-structured interviews to categorise reactions to customer surveillance into four customer archetypes. Recently, Sörum and Fuentes (2022) acknowledged the need to adopt a wider, sociocultural perspective on privacy and consumers' data relationship. With the help of in-depth interviews, they explored the way sociotechnical imaginaries shape consumers' experiences and responses to data collection. However, in marketing and consumer research, creative methods have yet to be leveraged in the context of data and privacy.

Creative methods have been more commonly adopted in fields such as human–computer interaction, where they are used to generate novel insights that can guide the design of technologies and services. For instance, Dunphy *et al.* (2014) investigated consumers' experiences with privacy and security technologies using methods like collage building, digital storytelling and eliciting discussion by introducing concepts of various future technologies. Heath *et al.* (2019) asked participants to create scenarios using Lego bricks to tap into perceptions related to trust, privacy and security in the context of smart technologies and services. Scholars have also experimented with ways of making data more tangible. As an example, Desjardins *et al.* (2023) designed and created three artefacts that aim to provide alternative and material ways of engaging with internet of things data in the home. Often, this data feels elusive and abstract, but through these artefacts, data could be recast as imaginative sounds, fading fabric or cookie recipes and thus made more material and brought closer to humans.

In the field of social sciences, Watson and Lupton (2020) used creative writing prompts to tap into consumers' affects, tactics and agencies when faced with privacy dilemmas. Creative writing prompts have also been adopted by Lee (2019), who explored datafication in the context of China's social credit system. In these studies, participants were provided with an opening to a story that they were then asked to complete. In their research project, Lupton and Watson (2022) dissected consumers' feelings and imaginaries related to data and data-generating devices by inviting them to imagine, draw pictures and write stories based on prompts concerning topics such as facial recognition, data afterlives or useful apps of the future.

Additionally, creative methods have been embraced within studies that focus not solely on data or privacy but also more widely on technological futures. For instance, Dahlgren *et al.* (2022) researched smart home futures with the help of comic strips combined with ethnographic visits and home tours. This methodology allowed for delving into consumers' personal imaginaries, which are rooted in everyday life and its meanings, feelings and practices, and which differ drastically from the imaginaries crafted by industry experts and commercial actors. To follow on the theme of everyday imaginaries, Pink (2022) adopted anthropological filmmaking to study everyday life in the home with various technologies. Further, to explore the future narratives around sustainable energy transitions, Jordan *et al.* (2021) used multiple techniques such as designing prototypes, writing narratives and creating visions of the future based on traits that were determined by dice rolls or coin flips.

A role-playing game similar to the imagination game introduced in this paper was used by Popan *et al.* (2023) to investigate alternative futures in the gig economy from the perspective of food couriers. In this game, four decks of cards were created, each representing a category related to issues in the couriers' work. These decks included small stories, to which the participants were then asked to respond. In the second part of the game, "What if?" questions were used to orient discussion towards the future. Using a role-playing game for research purposes aligns with the concept of serious games. In game studies, serious games are defined as games that do not prioritise entertainment, enjoyment or fun as their main objective (Michael and Chen, 2005), although elements of these might still present. Such games have been used in various fields, including health care and education (Laamarti *et al.*, 2014), for purposes like increasing physical activity levels (Buttussi and Chittaro, 2010), aiding in stroke rehabilitation (Cameirão *et al.*, 2009) or enhancing classroom learning in an engaging and interactive manner (Watson *et al.*, 2011).

As can be seen from the introduced examples, creative methods have previously been taken up to delve into consumer–data relations, privacy, emerging technologies and the future. Yet, in the domain of consumer research and marketing, the incorporation of creative methodologies in this context has been notably absent. Next, the imagination game is introduced as an example of a creative method that contributes to consumer research by providing the means to explore the sociomaterial aspects of privacy.

Imagination game

The imagination game is based on a game developed by Harju *et al.* (2021) as part of a research project that explored young people's imaginaries of everyday life, media and technologies in the year 2030. In the project, the goal was to understand how young people experience their day-to-day lives with various media outlets and technologies and get an idea of their hopes related to the future of these technologies. The creation of the game drew inspiration from design methodologies, particularly "What if?" thinking as advocated by Dunne and Raby (2013). In developing the game's content, such as the playing cards, Harju *et al.* (2021) relied on a survey conducted within the 16–30-year-old population in Finland.

Harju *et al.* (2021) encourage researchers to adapt the game to fit diverse contexts and to apply it across a broad spectrum of research fields. The game seemed well suited for inspiring consumers to contemplate various technological futures and for investigating consumer–data entanglements in a novel way. Therefore, the original game was used as a base and modified to align with the research purpose of exploring imaginaries related to future technologies, data and privacy in the context of a smart home. This specific context was chosen firstly because the future smart home filled with connected devices has for some time featured in the visions of industry experts. In the industry narratives, smart home systems are portrayed as capable of completely transforming the way we live by making our

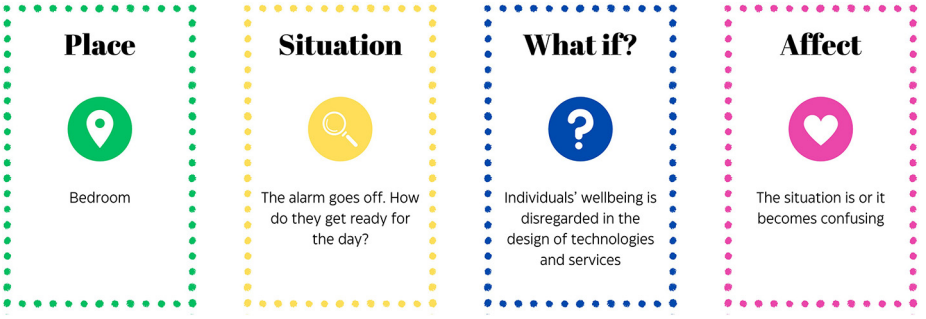
lives easier and more efficient (Dahlgren *et al.*, 2021). Although a plethora of smart home technologies are available or under development, most of the grand visions are yet to be fully materialised. Secondly, the home provides an interesting context for exploring questions of privacy, given its traditional conception as a rather private space.

The game consists of a character sheet and four decks of cards (see Figure 1), each serving a distinct purpose:

(1) depicting a room (four cards);
(2) presenting a situation (eight cards);
(3) proposing a "What if?" scenario (six cards); and
(4) describing an affect (eight cards).

The character sheet includes the character's name, age and descriptions of who they live with, their three main characteristics and their relationship with technology. Both the character sheet and the cards were adapted from the original game to better fit the study's focus. Given the research context of the smart home, an additional question was added into the character sheet to inquire about the characters' living arrangements. This addition was aimed at encouraging participants to also pay attention to how personal relationships might shape and be shaped by smart technologies and notions of privacy.

In the original game, the first deck of cards featured descriptions of a place. For my adaptation, these were specified to rooms within a house. Additionally, the cards depicting different situations were adjusted to portray scenarios commonly encountered in a home environment, such as cooking or spending time with friends. The "What if?" scenarios and affect cards were modified to specifically prompt reflections on matters related to data and privacy. While these cards were largely the same as in the original game, some of the more optimistic scenarios and affects were excluded, as they tended to divert the discussion away from privacy topics during the pilot workshop. Although this posed a risk of steering the conversation towards only very dystopian futures, this risk did eventually not materialise. The affect cards describe an emotional response such as "awkward" or "disturbing". The "What if?" scenarios include statements such as "There is no regulation regarding data collection" or "Apps and devices completely control individuals and their lives". These were chosen to correspond to the current academic and non-academic discourse on data collection, privacy and emerging technologies. Further details about the decks of cards can be found in Table 1.



Source: Author's own work

Figure 1. Examples of the playing cards

Table 1. Card decks and their content

Room	Situation	What if?	Affect
Bathroom	The alarm goes off. How do they get ready for the day?	Individuals' well-being is disregarded in the design of technologies and services	The situation is or it becomes uncomfortable
Living room	Working/studying from home. How does the day unfold?	Technologies make decisions on behalf of humans	The situation is or it becomes intrusive
Kitchen	Time for dinner. What does planning and preparing it look like?	Apps and devices completely control individuals and their lives	The situation is or it becomes confusing
Bedroom	A free evening at home. How do they entertain themselves?	The internet is unsafe and untrustworthy	The situation is or it becomes amusing
	Making plans for the weekend. How do they find information?	Facebook has complete control over the technology market and the internet	The situation is or it becomes awkward
	A get-together with friends. What activities do they come up with?	There is no regulation regarding data collection	The situation is or it becomes threatening
	Time to wind down. How do they get ready for bed?		The situation is or it becomes disturbing
	They are away from home. How can they keep an eye on it?		The situation is or it becomes strange

Source: Author's own work

The game is played in groups of 3–4 people. The game begins with the group developing a character, which is done by filling out the character sheet. After creating their character, the players engage in two rounds of the game. In the first round, the players pick one card from each of the room, situation and "What if?" decks. In the second round, the first two decks remain the same, but now the "What if?" card is replaced with an affect card. The prompts provided by the cards create a starting point from which the envisioning of a scenario set in a future smart home can begin. The cards provide participants with a specific situation and the room where it unfolds. The "What if?" card creates a broader context for the situation, while the affect card guides imagination by indicating the emotional responses that may be present in the scenario.

Each round takes 15 minutes and ends with the participants summarising their discussion in a short story on a digital storyboard. The rounds are short, as the goal is to create short snapshots of everyday situations, not wide-spanning predictions of the future.

The imagination game was specifically selected as the applied methodology for several reasons. Firstly, I wanted to leverage a group activity, as interaction with others fosters creativity and allows for tapping into thoughts and feelings in ways that could not be done alone (Phillips and Kara, 2021). Secondly, incorporating an aspect of gamification into the process kept the data generation exciting for both the participants and the researcher. As the cards were picked up at random, an element of surprise was present. Thirdly, envisioning the future through imaginary characters produced unique insights and made the participants think about the topics from perspectives that might differ from their own. This combination of a group activity, gamification and imaginary characters also distinguishes this method from other creative approaches such as Lego building (Heath *et al.*, 2019), story completion

(Watson and Lupton, 2020), collagebuilding or digital storytelling (Dunphy *et al.*, 2014) previously used to study data and privacy.

Imagination workshops

The participants for the workshops were recruited through the author's home university intranet page by posting an ad looking for people interested in a study about the future smart home and privacy. With the aim of incorporating a diverse range of perspectives, interest in the topic and the workshop activities was deemed enough, and no other criteria were used to select the participants. Altogether, 46 people took part in the workshops, the ages of the participants varying between 18 and 66 years. All participants were either students or university staff from both non-academic and academic positions. There was also variation in how invested the participants were in the topic. From a research ethics perspective, the research participants were asked for informed consent and made aware that their participation was voluntary and could be withdrawn at any time.

The workshops were designed to include two groups of 3–4 participants each. Two groups per workshop was considered the ideal number to encourage lively discussions while ensuring sufficient time for conversation between rounds. However, due to cancellations, one workshop only had one group, while one had three (see Table 2). A minimum of three people per group was needed to account for varying levels of enthusiasm to partake in the game, while more than four could lead to off-topic discussions, given the limited time.

The workshops began with an introductory session, during which the research topic was briefly outlined, and both the researcher and the participants introduced themselves. Following this, the game and the structure of the workshop were explained. Here, the participants were encouraged to direct their thoughts into the future, collaborate and freely share ideas, emphasising that there were no right or wrong answers. After that, 10 minutes were allocated for creating the character, and then 15 minutes for each round of play (a picture of a group playing in Plate 1). Between rounds, the stories were read out loud and discussed. Lastly, after the two rounds, a more general discussion on imagining, future technologies, data and privacy was facilitated. Overall, the workshops lasted between 90 and 120 minutes. The structure of the workshops is detailed in Figure 2.

Before the actual workshops, a pilot study was conducted to test out the method and collect feedback on what worked and what did not. The pilot was carried out during a lesson of a master's level course on business anthropology. Based on the pilot, some small changes were made. Firstly, some cards were removed and some added to the card decks to make sure that the discussions and stories were more aligned with the study's core topics. Secondly, based on feedback, the method for writing down the stories was changed from pen and paper to an online storyboard. Lastly, at the beginning of the pilot workshop, two videos were shown to give the participants an idea of what the technological future, especially in the

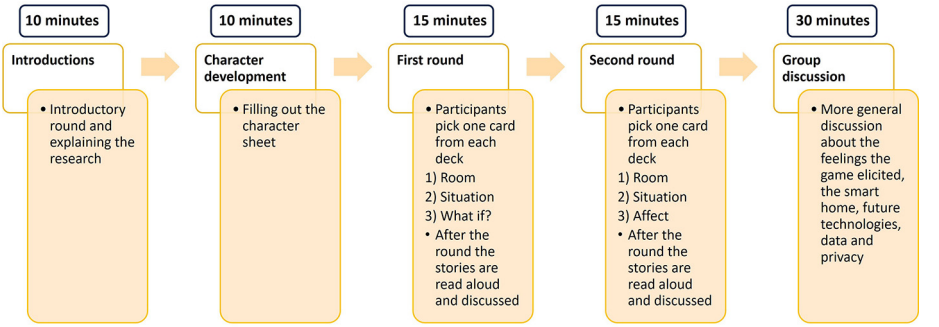
Table 2. Details of the workshops

Workshop	Date	No. of participants	No. of groups
1	6.11.2023 (pilot)	19	5
2	15.11.2023	4	1
3	17.11.2023	7	2
4	17.11.2023	7	2
5	22.11.2023	9	3

Source: Author's own work

Source: Author's own work

Plate 1. A group playing the game



Source: Author's own work

Figure 2. Structure of the workshops

context of the smart home, might look like. However, both the participants and the researcher felt that the videos guided thinking too strongly towards specific directions, which is why they were not shown in the other workshops.

Findings from the workshops

To illustrate the strengths of the method, in this section, I will highlight some key observations drawn from the data generated in the workshops. The findings are part of a broader research project and will therefore not be discussed in depth in this paper.

Firstly, the method brought forward the strong entanglements between humans, technology and data. The stories produced in the workshops included technologies such as

smart fridges, smart mirrors, robot dogs, VR worlds and holograms. In fact, in the minds of the participants, the future smart home is a network of various smart technologies that are seamlessly connected, creating an integrated automatic system through which data flows effortlessly. These technologies collect data such as health information, eating habits, social media activity, location, daily habits and activities as well as sensory experiences and states of mind. This data, the technologies through which it is produced, and the human characters all interact becoming entangled amid everyday life.

In the stories, technology affords individuals various capacities. For instance, smart technologies collect and combine information from different sources, and by offering this to individuals as recommendations, ease decision-making. Further, these technologies can aid in situations where, for instance, memory or eyesight is impaired, thus enhancing the capabilities of individuals. Additionally, similar to what was found by Watson and Lupton (2020), technology affords ways of coping with privacy dilemmas. In the stories, the characters could, for example, choose whether the data from their smart speaker leaves the server or adjust the privacy settings on their devices to protect their children.

As the imagined stories took place in the home and included various characters, the game made evident how privacy is made sense of in relation to other people. The stories deal with questions of privacy between family members, and violations of privacy are envisioned happening when sensitive data leaks to people you know, such as your co-workers. This story describes how technology can impact privacy within a family:

Eino is craving something sweet. He knows that there is a treat cupboard in the kitchen, and he wants to get some sweets for himself. His mom has forbidden him from having sweets on weeknights, but Eino knows the PIN code for the cupboard and goes for it anyway. Eino sneaks into the kitchen, keys in the code on the touch screen and the cupboard clicks open. Eino grabs a bag of sweets and puts it in his pocket. He then notices a bottle of wine on the top shelf. He remembers that on the weekend he has plans to go to the park with his friends. He decides to secretly also grab the bottle. When he does this, in the living room his dad gets a notification on his phone about a new serving of alcohol and the possible risks related to it. […] Eino is caught red-handed, the PIN code for the cupboard is changed and he gets grounded. (Cards: 1) Room: kitchen 2) Situation: A free evening at home, how do they entertain themselves? 3) Affect: confusing)

The extract shows how technology compromises the privacy between a teenager and his parents. In the joint discussion, the research participants all felt that even as parents they found the situation uncomfortable and would rather not know everything that their teenage children are up to.

Further, the stories include instances where through technology, individuals can find information about and keep an eye on their family members, friends and acquaintances. This connects with the concept of intimate surveillance, which involves the close and sometimes invasive monitoring of infants by their parents, often facilitated by wearable technologies (Leaver, 2017). In the stories, this monitoring included information such as the hunger level of dinner guests or the vital signs of friends on social media, as can be seen here:

The robot dog is constantly live streaming on Facebook and automatically adds updates about Sumu's vitals. Sumu can also find information about others and can for example check the morning condition of his co-workers through Facebook. (Cards: 1) Room: bathroom 2) Situation: The alarm goes off. How do they get ready for the day? 3) What if?: Facebook has complete control over the technology market and the internet)

This aligns with Lyon's concept of a surveillance culture (Lyon, 2017), where individuals actively participate in surveilling others. In general, the stories make evident that consumers think about privacy and its boundaries in relation to their personal relationships. Further,

surveillance is imagined as conducted by the characters themselves and the people around them. For instance, in the above story, the main focus is on Sumu's data ending up in the hands of his Facebook friends. There is less concern about what businesses and other market actors might do with the information. Indeed, companies and their practices of surveillance rarely had a role in the imagined stories.

Through the imagination game, it is also possible to tease out the affective responses emerging in situations that involve privacy dilemmas. In this way, the imagination game makes it possible to tap into the affective side of privacy and its visceral character (Horppu, 2023; Stark, 2016; Watson and Lupton, 2020), extending the view from mere cognitive decision-making processes. In the imagined stories, also affective responses arise specifically in relation to other people and can include for instance shame, embarrassment or discomfort. These affective responses are related to situations where intimate data winds up in the hands of people it is not meant for. To illustrate, in this story, the character is in the bath and starts to wonder who can in fact see her:

> Magdalena is in the bath. She starts thinking about what to do on the weekend and decides to ask Dorota (a virtual assistant) what events are taking place. Dorota suggests some events and gives an option to call Magdalena's daughter. Magdalena decides to make the phone call and ask her daughter if she would like to do something together. A hologram of her daughter is reflected in the air and Magdalena knows that her daughter can see her too. Given that she is a well-known person in her professional life, Magdalena gets scared and starts to wonder who can actually see her in the bath and listen to the phone call. It makes her feel a little uncomfortable. (Cards: 1) Room: bathroom 2) Situation: Making plans for the weekend. How do they find information? 3): What if?: The internet is unsafe and untrustworthy)

Here, the main character is worried about losing face within her professional network, and these potential feelings of embarrassment make her feel uncomfortable. The story illustrates how the boundaries of privacy get constructed through emotional responses. From this perspective, privacy can thus be addressed through "a sense of privacy", referring to the way consumers sense privacy without being able to explicitly explain it (Horppu, 2023). This is made evident by the fact that privacy violations seem to be experienced specifically within personal relationships. As personal data moves between these relationships, various affects are strongly present. By contrast, despite the prompts of the "What if?" cards, data collection and surveillance at a structural level rarely played a major role in the stories. In the group discussion, participants often expressed little concern about how companies might use their data. This could be due to consumers not experiencing an emotional connection to this data. Its misuse as well as possible violations of privacy are rarely experienced emotionally in everyday life. For this reason, consumers are not attached to this data and seem to express a lack of interest in the way companies collect and use it (Stark, 2016).

In the scenarios, technologies are envisioned to make life easier, and problems as well as privacy violations only arise when technologies malfunction. Even though in discussions the participants raised the influence of popular culture such as the Netflix show *Black Mirror* in guiding imagination towards rather dystopian directions, this was not that apparent in the stories, which dealt with more everyday occurrences. As an example:

> Halla is wearing VR glasses, which makes it feel like she and her colleagues are in the office. Halla has placed her smart watch on the edge of the bathtub. Halla's child calls the watch as she starts to walk home from school. As the phone call happens, the software connected to the VR glasses stops working, which results in the camera on Halla's laptop switching on. Halla hides in the bubbles of the bath and closes the laptop. To make herself feel better, she orders herself and her child some ice cream through a food courier service. (Cards: 1) Room: bathroom 2) Situation: Working/studying from home. How does the day unfold? 3) Affect: amusing)

In this story, the software connected to the VR glasses has an issue, which results in the character's colleagues seeing her while she is in the bath. However, Halla seems relatively unbothered by the situation, and the story concludes with her ordering ice cream for herself and her child. However, in popular culture, ice cream is frequently depicted as a comfort food, often consumed after experiencing negative emotions. Therefore, the ending could be interpreted as Halla seeking comfort after an awkward situation. By examining ice cream through its shared cultural meaning, this excerpt illustrates how consumers draw from larger social imaginaries (Watson and Lupton, 2020; Michael, 2017). Simultaneously, the snippet shows how consumers' visions of the future are situated in everyday life, and thus distinct from grand dystopian or utopian technological visions (Strengers *et al.*, 2022).

Overall, the imagination game provides the means to explore how a sense of privacy is shaped in everyday situations and encounters with technology. By asking participants to imagine day-to-day situations taking place in the home, we can get a grasp of the complex reality consumers live in. This reality is infused with affective responses as well as entangled relations between individuals, their personal relationships, data and technologies. Hence, a sense of privacy is constructed within an assemblage of human and non-human actors and is constantly in flux. In this way, we can acknowledge the larger sociomaterial context where decisions regarding privacy are made.

Theoretical and practical implications of the method

The findings of the workshops show how theories of new materialism can be applied to enrich our understanding of topical phenomena such as privacy. A new materialism perspective directs our attention to how privacy unfolds through the intra-action (Barad, 2007) of human/human, non-human/human and non-human/non-human entities. This shifts attention away from the individual and their decision-making and highlights how data and technologies become lively – how they have "thing power" (Bennett, 2004) – as part of the privacy assemblage. This assemblage is emergent, meaning that privacy is not a static construct but one that is continuously shifting. Further, using the theories of new materialism helps bring forth the affective forces that emerge within this assemblage, casting light on the emotional dimension of privacy.

The workshops proved effective in eliciting thoughts and feelings related to data, future technologies and privacy. As the participants threw themselves into a creative activity alongside others, the game managed to surface insights that might be difficult to attain through more conventional methods or without collaboration. Being able to think through imagined characters and focus on imagined scenarios allowed participants to tap into their thoughts and feelings through imagination, which resulted in less taken-for-granted ideas. Further, by negotiating different ideas with others, the participants' own views became crystallised. In this way, the workshops provided a platform for the negotiation of personal and cultural meanings. The produced stories managed to spark lively discussion among the participants, thus serving as fruitful prompts for the more general group discussion as well. As also noted by the participants, the group discussions reached a more nuanced level after the imagination game had stimulated the participants to think about the topics more deeply.

After the workshop, the participants were filled with enthusiasm and noted how much they had enjoyed playing the game and envisioning the future. Many participants also mentioned how they had learnt from the discussions with others. They expressed an increased awareness of various privacy-related issues and, simultaneously, a better understanding of the potential technologies hold for shaping a brighter future. In this way, the workshops generated affective forces in both the participants and the researcher, who also felt excitement upon getting to hear the stories produced and uncovering the participants' thoughts. Overall, the idea of research

creation (Truman and Springgay, 2015) was materialised in the workshops as data emerged in the moment through the interplay of human, non-human, material and non-material entities.

The generated affective forces might carry into the day-to-day lives of individuals and impact their digital practices. For this reason, the imagination game could be used as a method for creating more awareness about privacy issues, data practices and future technologies among consumers. Beyond this, marketing practitioners could use the game to refine their techniques for generating customer insight with a creative twist. With the help of creative methods, the increasingly complex realities of consumers can be accessed. Through creatively imagining the future, the method can help businesses uncover less taken-for-granted views and preferences of their customers. Further, it can reveal some future trends that are at the time just beginning to surface.

A reflection on research creation and ethics

Viewing the research process through research creation raises questions about ethics. According to Barad (2007), ethics is further entangled with ontology and epistemology and can be understood as the responsibility of becoming aware of our interconnectedness with the topics we study. This entails being receptive to the phenomenon as well as to the possibility of being changed by it. Along the same lines, Haraway (2008) underscores the importance of response-ability, a relational approach to ethics and responsibility. Response-ability shifts the focus away from individual accountability, viewing ethical actions as emerging within the relationships of human and non-human entities. Rather than relying on predefined ethical frameworks, she argues for responding in a manner suitable for each specific situation. This translates into being present in the moment and being receptive to any issues that might arise. On a more concrete level, this aligns with relational ethics (Ellis, 2007), which focuses on building relationships with research participants based on dignity and respect. In this study, this was implemented by fostering an open and relaxed atmosphere and making an effort to ensure that in the group setting, both vocal and quieter participants had the opportunity to be heard. Moreover, it was important that the participants knew what to expect, and that there was clarity and transparency about the research project, the workshop structure and the finalised output.

Research ethics is also concerned with how the quality of research can be assessed. With the chosen theoretical and methodological approach, wherein the researcher is seen as an inseparable part of the research assemblage, objectivity is not a desired end-goal. Yet, reflexivity – paying attention to the researcher's own assumptions, feelings and decisions and how they might impact the research process – is still crucial (Leavy, 2017). Even though I felt like I was actively in the moment with the participants, I was constantly aware of not guiding them based on my own assumptions and making sure their voices were heard (Leavy, 2020). Research quality is also connected to the question of how the rigour of data can be ensured when generated through creative methods such as the imagination game. The first step is a careful alignment of the method with the research purpose. Further, the above-mentioned open and relaxed environment as well as being present and receptive in the moment are all gateways into rigorous data. Another crucial dimension is flexibility throughout the process. In this study, flexibility was present in the iterative development of the method starting from conducting a pilot workshop and continuing throughout by adjusting both the content of the game as well as the structure of the workshops where needed.

Possible challenges and limitations of the method

The imagination game effectively brings forth new insights and dimension even on extensively studied topics. Although here the methodology was approached from a new materialism perspective, the game can be adjusted for various theoretical lenses. Moreover,

the game can be used for the study of myriads of topics in which the focus is on envisioning the future. However, before embracing this method, there are factors to consider (see Table 3). Firstly, organising the workshops demands time and effort. Securing time slots and participants for each session entails more logistical coordination compared to, for instance, the scheduling of individual interviews. As only one group per workshop or having groups of less than three people is not optimal, it is advisable to overbook the sessions to account for potential cancellations. Additionally, dedicating time to prepare the materials is essential. The material dimension of the game is focal, which is why effort should be put into ensuring the cards look and feel like components of a real board game.

The method is well suited for rather open-ended research questions and topics. As the point of the game is to let imagination flow and not in any way restrict the process, the outcome of the game cannot be predicted. It might prove difficult to gain relevant data if the focus of the research is too narrow or if strong expectations are set. Connected to this, it is important to carefully consider the analytical focus of the research and adjust the prompts on the cards accordingly.

Another important point is related to the relationships between the participants and the general atmosphere in the workshops. The game necessitates participants who are interested in participating in a creative activity within a group of strangers, thus requiring an open-minded and playful attitude. Therefore, when recruiting participants, they should be made clearly aware of what to expect from the workshops. It may be beneficial to incorporate some warm-up activities in the beginning to steer the participants' thoughts towards the future and get them to start using their imagination. While these were not deemed necessary in the conducted workshops, they could prove helpful in some cases.

Lastly and connected to the previous point, it is difficult to predict how the people in the groups will work together and whether they feel comfortable enough to start throwing around ideas. In the organised workshops, some participants attended with people they knew. This positively impacted the liveliness of the discussion and notably contributed to participants feeling more at ease in sharing their thoughts. Therefore, it is advisable to encourage participants to attend together with

Table 3. Challenges in organising the workshops and tips for overcoming them

Challenge	Tips for overcoming
Organising the workshops requires time and effort	• Reserve enough time for preparations • Overbook sessions in case of cancellations
Outcome cannot be predicted	• Avoid narrow research focuses or set expectations • Carefully adjust the prompts on the cards according to research purpose
The game requires participants to have an open mind and a playful attitude	• When recruiting, ensure participants know what to expect from the workshops • Consider warm-up activities to stimulate imagination
Creating an open and comfortable atmosphere among people who do not know each other	• Encourage participants to come with friends • Consider ice-breaking activities

Source: Author's own work

friends. Additionally, incorporating ice-breaking activities before starting the game could be a beneficial strategy for fostering a sense of comfort among participants.

These challenges in organising the workshops highlight the limitations of this method. Additionally, while a group activity generates a variety of thoughts compared to one-on-one interviews, it naturally lacks the same depth of discussion. This also applies to the duration of the game rounds – allowing more time for envisioning and writing the story could generate more nuanced perspectives. Another important aspect to consider is the influence of the setup and prompts in shaping the content of the stories. In the context of this study, it is crucial to emphasise that relationships and emotional responses take centre stage primarily because the stories are set in a home environment and the prompts include affective responses. If the game was framed differently, the emerging themes would likely be very different as well. Further, in this specific study, the number of organised workshops was small; thus, for rigorous data, the number should be increased. Connected to this, since all participants were either students or university staff, they shared a relatively homogeneous background. Future workshops would benefit from including participants from more diverse backgrounds.

Conclusion and future research

In this paper, I have introduced imagination workshops as a method for studying privacy from a sociomaterial perspective. As previously stated, the imagination game can be applied to nearly any context, topic or theoretical framework, provided the focus is on exploring imaginaries and the future. Firstly, other emerging technologies like virtual reality and the metaverse, as well as various health technologies, could serve as compelling study contexts. Within these domains, the interconnections between humans, technologies and data grow increasingly complex. Beyond technology, the method could be used to uncover consumers' visions regarding various forms of future consumption. As imaginaries are performative and shape present-day actions, understanding consumers' imaginaries could be particularly valuable in contexts where there is a need to initiate change in consumption practices. Therefore, to use sustainable consumption as an example, potential research areas could encompass imaginaries concerning the future of fashion or food consumption, as well as the future of travel.

Overall, this paper contributes to consumer research by introducing an alternative, creative method that can be used to study not only privacy but various consumption phenomena. Alternative methods often encounter heightened scrutiny within the traditional review process and thus remain underutilised despite their considerable potential for advancing marketing theory (Coffin and Hill, 2022; CRIS Collective, 2023). Coffin and Hill (2022) assert that presenting marketing differently – which is linked with the use of alternative methods – can also help us think, feel and act differently. Further, it can strengthen the communicative power of academic knowledge amongst practitioners. Hence, the significance of this paper lies in the way it progresses important methodological debates within the field. The imagination workshops discussed in this paper demonstrate the ability of less conventional methods to elicit different kinds of knowledge and enrich our understanding of complex topics.

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