'I Don't Have Time to Watch Everybody': Location–Based Monitoring, Timescapes, and Family Life in Germany

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Introduction

'My daughter has just come home', Mariya says as she walks out of a clothes shop in Munich, having bought a handful of colourful dresses. After receiving an app notification around 1 pm, Mariya starts walking quickly to get home to her 14–year–old daughter, while navigating a busy shopping centre. In the morning, during our walk–and–talk interview in a local park, she stopped thoughtfully several times, reflecting on her use of digital apps, and the areas where she would not let her daughter walk alone. Mariya now strides through the park making shortcuts through the wet grass, and we quickly arrive near the car park. After briefly speaking with her husband on the phone, Mariya complains that she cannot understand why her husband has not checked the tracking app Life360,[1] since he could observe her movements by following her on a digital map, so he would know when to pick her up. There was no need to call her, she explains, while still rushing, and she is eventually picked up by her husband in the distance.

   This story captures how parents in Germany are increasingly monitoring family members' locations using tracking apps, when managing everyday caring responsibilities.[2] In this chapter, I explore how mothers, in particular, watch over the rhythms of their family members, digitally enabling them to share time with each other, without always being in the same spatial location. Parents often used one app to geolocate their children, and spoke about these practices as *jemanden orten* (tracking/locating someone), seldomly

using the term *Überwachung* (surveillance) except when referring to how companies might be extracting data from private users. In Germany, various laws have been implemented to prevent hidden surveillance. In 2017, the Federal Network Agency banned a doll called My Friend Cayla, since it was seen as an illegal espionage device, with a hidden camera and microphone that could record children's voices. Some smartwatches were also banned in 2017 if they contained a concealed microphone.[3] Although none of my respondents spoke about these regulations, all parents who participated in the research asserted that children should not be monitored secretly.

Monitoring has always been a key feature of childhood, and has been used to encourage certain forms of behaviour or for providing safety and managing family logistics (Fotel and Thomsen, 2004; Barron, 2016; Taylor and Rooney, 2016; Mavoa et al, 2023). Scholars are increasingly focusing on the use of data technologies, and how they are influencing everyday routines within families (Marx and Steeves, 2010; Madianou, 2016; Barassi, 2020; Mavoa et al, 2023; Mols et al, 2023). 'Femtech' apps, for instance (see Bruun, Chapter 1, and Peacock, Introduction, this volume), are specifically targeted at women, to allow them to monitor their children at various life stages, from conception to pregnancy, but also after birth, such as monitoring an infant's sleep rhythms, as well as different forms of monitoring once they start at school (Barassi, 2020; Lupton, 2020). Recent technological innovations have enabled the monitoring of young people to reach an unprecedented intensity, and new apps such as Life360 or Google Family Link allow users to monitor each other's geolocations in real time or manage screen time (Taylor and Rooney, 2016; Balmford et al, 2020; Sukk and Siibak, 2021; Widmer and Albrechtslund, 2021; Mavoa et al, 2023).

Studies of gender and surveillance have tended to focus on how technologies privilege typically male, young, white bodies, and have explored relations of inequality, power, and domination (Monahan, 2009; Dubrofsky and Magnet, 2015). Employing the term 'Big Mother' as opposed to 'Big Brother', Peacock (Introduction, this volume) suggests how monitoring can also be motivated by care and protection, rather than a form of monitoring perennially characterized by Orwellian discipline. While relations of power between parents and children may never be equal, it is important to study how monitoring practices can be motivated by love, care, and attentiveness to others, not only oppression (Lupton, 2020; Mols et al, 2023; Dungey, 2024).

Wajcman (2020) discusses how time is organized into daily routines by gendered individuals and suggests that we should pay attention to the rhythms of organizing everyday life, such as coordinating activities in the family. I argue that monitoring is often gendered, as in this study, it is mostly women temporally monitoring their family members. Several of the male participants did not see the need to digitally monitor their children, either due to domestic tasks mainly being carried out by their wives, or because

they preferred to take a more relaxed approach to monitoring, and trust that nothing would happen.

In his work *Rhythmanalysis* (Lefebvre, 2004), Lefebvre argues that rhythm is the constellation of time, space, and movement. One of his core concepts, polyrhythmia, he describes as the multiplicity and diversity of rhythms. Here I explore how respondents manage polyrhythmia – such as school timetables, after-school club activities, or the work schedules of their partners. I also draw on Barbara Adam's (2004) concept of a timescape, which has a spatial orientation, and is multifaceted and characterized by power. She traces how clock time became dominant with the industrial revolution in which time was regarded as a commodity. The time–money assumption is now, according to Adam, an unquestioned part of everyday life, and which we talk about in relation to saving or wasting time. Yet time spent by children, the elderly, or unemployed women is often seen as unproductive labour, hence invisible. Adam (2004, 2008) lists various elements of a timescape that are particularly useful here: a timeframe (for example, the beginning of a year), temporality (for example, growing up or ageing), timing (synchronization and coordination), tempo (the speed and intensity of a given activity), duration (for example, temporal distance, or instantaneity), sequence (the order), as well as temporal modalities (past, present, and future imaginaries).

Building on Adam's conceptualization of 'timescapes', Kitchin emphasizes how living in the same household produces shared temporalities around, for instance, mealtimes, leisure, school times, and childcare (Kitchin, 2023). Some may have more temporal power over others, depending on age and gender, for instance, such as children being monitored by their parents. Drawing on Adam (1998, 2004), Kitchin emphasizes that a timescape is a cluster of associated temporal features and relations that collectively reproduce a temporal regime and landscape. Temporalities are embodied and materialized and performed through individual agency, and entangled with the temporalities of others, as well as being structured through institutional arrangements.

Tracking apps and the German context

When exploring the use of tracking apps in Bavaria in relation to children's mobilities, it is important to understand that the city council approach is that children should learn to walk independently to primary school (*Grundschule*) without any mention of app monitoring. Parents are encouraged to support this by, for example, increasing the length of the journey they are walking alone (around the age of six).[4] Over the course of the research, it became apparent that teenagers were monitored more in real time, as well as their media consumption, than their younger siblings under the age of ten. The latter tended to be monitored in analogue ways – for instance by being

picked up at various locations – and were often, but not always, trusted to walk a short distance to school, either with their friends or on their own. Whenever the temporal distance to school was short, for example, a five-to ten-minute walk, or a route without complications such as without busy roads, many parents did not see the need to monitor their young children, since the school would provide a *Schulwegshelferin* (a lollipop lady) at least on the way to school, and the school would call parents if their children had not arrived. The institutional structure of changing schools after grade four (around the age of ten) meant that many children had to travel further distances, which made several parents anxious, and for this reason thought it was the right time to buy a phone for their children. Some, however, did not trust the institutional structure of monitoring entirely, and preferred tracking as an extra reassurance.

Several mothers explained that they did not feel comfortable letting their children walk alone, especially if this had not been a practice in their home countries, while those born in Germany emphasized that they had a hard time letting go after having spent all their time with their children. The parents I interacted with tracked their children through phone apps (Life360, Find My iPhone, Google Family Link), smartwatches, or through phone calls and text messages (WhatsApp[5] or traditional phone calls). Few children engaged with tracking apps such as Life360 or Google Family Link, beyond occasionally checking their parents' locations. They were more concerned with seeing where their friends or family members were in other apps with geomonitoring functions such as Snapchat (Snap Map). I now provide some background information on how the apps and devices work, before moving on to the specific case studies and their relationship to timescapes and rhythm.

A smartwatch is often the first choice for parents who want to track their younger children before giving them a phone. A smartwatch such as XPLORA, for instance, allows parents to receive precise information, such as when their children walk out of their 'safe zone' – an area on a digital map determined by parents. The watch enables children and parents to call each other, and it also has an emergency SOS button in case the child wants to call his or her parents. The watch can be set to *Schulmodus* (a school silent mode), which means that the watch will stop working temporarily with limited functionalities.[6]

Life360 is a US tracking app that was originally developed in 2008 following Hurricane Katrina, so that family members could locate each other (Gabriels, 2016). The app is intended for the entire family, which also makes it possible for children to track their parents checking a digital map, and all users must give their consent. The app has an SOS button as well as a notification system that allows users to see each other's battery levels (Gabriels, 2016). The app promotes the idea that parents can protect their children from harm without being physically present, with sufficient

intimate user data (Hasinoff, 2017). The free membership of the app allows users a two-day location history, as well as two places with unlimited alerts. There are various paid versions of the app, with the gold version allowing users to get unlimited place alerts and a 30-day location history. This offers users a spatial overview of the month, as well as notifications that can alert them, in case they need to take action, such as driving to a location if their child has not arrived on time. Users can get place alerts without needing to ask family members where they are. The app also has a crash detection function, in both the free and paid version, that can sense collisions and immediately inform family members.[7]

The other oft-cited tracking app is Google Family Link. Family Link was initially released in 2017 by Google, to enable parents to monitor their screen-time use, app usage (such as blocking sites), and to monitor children when moving on a map. The app, which is free, allows parents to receive notifications when their children arrive at destinations. It was originally designed for parents with children under 13 to allow them to have a supervised Google account – however, individual countries have their own restrictions, such as Germany with an age restriction of 16.[8] When a child reaches this age, both parents and children must give their consent before monitoring can start, and the child can opt out which puts the phone into a 24-hour lockdown.[9]

Other families who owned Apple devices used the preinstalled tracking apps on their iPhones. Find My iPhone was released in 2015 by Apple, and included the application 'Find My Friends'. The Find My Friends app was designed with the intention of locating friends or relatives in real time on a map, whereas Find My iPhone was intended to find lost devices, rather than people (Widmer and Albrechtslund, 2021). The research participants referred to it as either Find My iPhone or '*wo ist …*' ('where is …'). On Apple's website, it is promoted as a tool to find both lost devices and your friends, if you consent to sharing your location.[10] According to Apple,[11] it is possible to track a device with a low battery level, and even if it has been switched off for 24 hours. With Apple's technology it is possible for family members to share their location, for example, for an hour, a day, or indefinitely.

While parents used the tracking apps previously listed, Snapchat was only used by child respondents. Snapchat is an American app created in 2011. The company defines the app as a camera that is connected to the user's friends (Dunn and Langlais, 2020). The minimum age requirement is 13, but there is no age verification. Snapchat is similar to other social media platforms as users are able to share content and send messages, but has a specific tracking feature that allows users to continuously monitor their friends in real time when users share their live locations (Vanherle et al, 2023). When users of the application send a 'Snap' to each other, which can either be a text, a video or an image, they last for ten seconds, and the only trace of this

afterwards is a timestamp (Dunn and Langlais, 2020). Snapchat also has a parental control functionality that allows parents to get a glimpse into who they have messaged within a seven-day timeframe, and an option of limiting sensitive content that is available to their children.[12] Let us at this point turn towards how family members manage busy schedules, either by using tracking apps, or making clear temporal arrangements with their children.

Slowing down and speeding up

Mariya lives in a relatively wealthy part of Munich, surrounded by large houses separated by wooden gates. Most people in this neighbourhood have one or two cars parked in the driveway, as opposed to the neighbourhood area with a park where she likes to go walking on her day off. Near the park you would find mostly identical flats in a continuous line, surrounded by a large shopping centre. Most of my interactions with Mariya are on these walks, and she is one of the few people who checks the app while interacting with me, without being asked about the functionalities. On one of these occasions, she spots a group of young people near the lake, and wishes to know if her daughter is there.

By using Life360, Mariya received notifications when her daughter had arrived at school and checked her daughter's geolocation several times a day. If her daughter was still at school, she would not be in a hurry, and would walk slowly. She explains to me that if her daughter is not moving in the app for ten minutes, for example, she will follow up with a phone call to make sure that nothing is wrong. Often it is simply because her daughter has been chatting with her friends.

After receiving a notification in a department store, I observe how she interrupts her activity, and becomes entirely focused on getting home to ensure that her daughter arrives at home within the expected timeframe and is not alone. In an interview, Mariya explained that she had previously driven her daughter to school, but now she lets her ride her bicycle, since her daughter's current school is a short distance away. Mariya had often been worried when her daughter was on her way, especially due to recent news stories about girls being attacked or abducted. For this reason she paid for the full subscription to Life360. Premium membership allows her to see her family members' geolocations, or receive unlimited alerts about their locations. While Mariya aspires to observe her daughter's movements, she does not have time to check on her husband all the time, for example, how fast her husband was driving in the car, which it is also possible to observe in the app. 'I don't have time to watch everybody', Mariya explains, emphasizing that monitoring family members is a time-consuming and labour-intensive commitment, and she had hence chosen only to monitor her daughter.

When reflecting on Mariya's desire to track her daughter, it is useful to think about Adam's (2004) conceptualization of timescapes. Mariya's time for shopping is bounded by an institutional framing of time, in which she wants to be home at the same time as her daughter finishes her school day. She thus increases the tempo, from having casually gone clothes shopping, to suddenly rushing and walking at a high pace. Her motivation to speed up was further intensified when she coordinated time schedules with her husband, also on the app, to see where her husband and daughter were. In many ways, despite being in three different spatial locations (in the car, walking on the way home from school, and walking away from a shopping centre), the family members were immediately temporally co-present in the app. In this way Mariya manages polyrhythmia. Mariya's daughter is considered old enough to walk on her own, but at the same time too young to travel completely independently. Mariya expects that she will track her until she is 18 years old but might continue after.

Managing cooking times

Karen is a woman in her late 40s, who works part time and uses the free version of Life360. I met Karen frequently, at work-related events that she organized, visiting her family at home, or at regular social events designed for women in a local neighbourhood group. Karen and her family live in a similarly wealthy part of town, slightly outside the city centre, with large multistorey houses and driveways.

Karen says she does not mind using an app to track her family members, since she does not have anything to hide, even if the data is shared. Her youngest daughter (who is nine), does not have a phone with a sim card, which means that Karen spends longer picking her up in the car and bringing her to locations. However, she had found a way to ensure that her daughter travels to school safely. Her neighbour uses a tracking app with her own daughter, and the two children walk together, and Karen receives screenshots of the app when they have arrived safely.

When her daughter was about to change schools in the summer of 2023 (*Grundschule* to *Gymnasium* – a type of secondary school – between grades four and five), her daughter, Mia, got a sim card for her phone so it would no longer only work on a Wi-Fi connection, and she could make a phone call. However, her phone was too old to be linked with Life360.

Karen uses Life360 approximately twice a week to track her husband as well as her teenage daughter who is 15. She explained that having an app saved time and enabled her to look after her family members and plan cooking, although it was not always able to track her daughter, when her phone was in flight mode at school, or whenever there was no phone signal. She would only digitally track her teenage daughter when she had not turned up on

time. She seemed to be motivated by the idea of time as a commodity (Adam, 2004), in which she could manage her everyday tasks faster, and therefore free up time. Karen clearly wanted her everyday routines to happen in a particular sequence, and at the right time.

Stefan, her husband, argues, on the other hand, that 'times had changed' in terms of looking after children in Germany. Ideally, he would like his eldest daughter to be able to take public transport to the city, for instance to be able to go to the shops just as he had done already around the age of nine. As a child, he had told his parents when he left the house, and they had an agreed time they had to be home. He suggests that his parents had been more relaxed regarding his upbringing:

> I walked alone to school, what we have is an incredible drama. With a walking bus (*Mit Bus auf Füzen*) walking together to school. They need to be careful. Then there is a main road. I lived by a main road [as a child], there was not a pedestrian crossing. You had to be careful not to be in an accident. Times have changed.

Stefan's complaint about the 'incredible drama' in his household and the 'walking bus to school' (parents and children walking together) is meaningful when reflecting on gendered patterns of monitoring (Wajcman, 2020). Stefan is not particularly interested in the topic of digital tracking, arguing instead that this is a matter that his wife and daughter are much more focused on. He explains that he had been told to 'please install that', suggesting that tracking the children had not been his decision. Moreover, his children are already in the house when he arrives home after work, which means that he did not need to geomonitor their movements. Stefan is often busy in his full-time job, and it is consequently his wife who is mostly busy collecting the children at various locations, and taking care of their everyday routines. Stefan had agreed to use the app but used it minimally – as a family compromise. It is clear that there was a division of labour regarding temporal monitoring, in which his wife is mostly responsible for managing their daughters' routines, as well as her husband's, coordinating multiple rhythms and timetables simultaneously.

Managing screen time and schedules

Some parents in Munich, particularly fathers, are critical of surveillance technologies, and prefer to avoid them altogether, or set up their own private internal systems to track family members. Johann, a father of three in his 40s, is highly critical of digital surveillance as a whole, and had decided to avoid setting up a Google account, instead using an email system that he paid for, arguing that this was more data secure. He explains that he is

suspicious of tracking apps downloaded from Google Play Store, since this kind of information is stored on big servers, and he does not know where the information would be stored and for what purpose. Johann instead values telephone calls and making agreements with his children about when they should arrive home, but refuses to use WhatsApp as his wife does. If the children do not turn up on time, there are consequences. For example, they would not be able to go to the park unless they stuck to agreed arrangements. Johann is critical of companies gathering data, but explains that in principle it is possible to set up a private system to track your child in real time. However, he did not think this was necessary, since he 'trusted his children'.

Nevertheless, Johann did not think the same way about his teenage son's (age 14) media consumption. According to Johann, the guidelines for children's media consumption are 14 hours per week,[13] but his son regularly exceeds this. Johann had set up his own internal private server in order to control his son's media time and thought that his son might be mature enough to manage his media consumption by the age of 16. He explains that his son had in fact managed to 'hack' his father's system, in order to circumvent screen-time monitoring.

Daman, who I talk to via a video call while he is cooking, monitors his daughter's media consumption, but also geomonitors her locations using the free version of Google Family Link. He argues that it was hard to manage cooking, going to work, and keeping an eye on his daughter as a single parent. Daman suggested that he would only track her when she was late:

> Let's say she is supposed to be back home by two o'clock but she is not back by three-thirty to four o'clock and she has not told me she will be late, then I check … Mostly coming from school, or a friend's place maybe she tells me that she is going to a friend's place in the evening, and she says she will be back by nine o'clock, and she is not back by nine-thirty to ten. Sometimes I have to check where she is. Sometimes I will call her, but she never picks up the phone, never hears it [he laughs slightly].

Daman uses digital tracking not only to manage cooking time, like Karen, but also when he starts to worry about his daughter being late when it is dark outside. In addition, he wishes to restrict his daughter's time on YouTube, and instead introduce time of 'being bored' since he considers this a healthier approach. Daman has to manage the overlapping rhythms of his work schedule, his daughter's timetables and homecomings, as well as the length of her media consumption. Both Daman and Johann are critical of their data being observed by third parties, but in different ways. Daman had switched off tracking functions in apps on his phone that would track

him, only keeping the one that permitted him to track his daughter. He is sceptical of apps with geomonitoring features that children could use, since they could be hacked and observed by external partners. Johann, on the other hand, decided to opt out of free services altogether, and had installed a private system for tracking media time use. In the next section, I explore how a teenage girl monitors her own temporal routines.

The time journal

Alina is 15 years old and lives with her parents and younger sister in Munich. When ranking various apps with her friends, Alina and her friends placed Life360 and Google Family Link at numbers 18 and 19 on the list, in other words some of the least important. On the other hand, calling someone (*anrufen*), and WhatsApp are the most important, even though her parents do monitor her geolocations using these apps.

Alina: I use it when mummy asks me to check where daddy is. I do it myself, if I want him to come back early because I want us to do something together.
Mother: It's mainly checking on the dad [the mother laughs].
Alina: Mummy as well.
Mother: Do you check on me?
Alina: I remember once or twice it happened.
Claire: So you want to know where they are? Or why do you want to check on them?
Alina: Most of the time to know when they come back home. It's not like I worry about them or anything. I don't think I'm really in a position to. Yeah …
Claire: Do you ever check in or checkout? [marking in the app when she arrives or leaves]
Alina: No.
Claire: You just go to places, right?
Alina: Yeah. I'm like almost never on this app to be honest.

Alina uses two separate apps to monitor her everyday routines – an app that records her routines, as well as an app that acts like a timer. The difference between the two, is that one of them is giving her instructions (such as telling her to go to bed), while the other one, the time-logging app, records her everyday routine, and shows her how much time she spends on various activities, but does not give particular prompts. Alina lists various examples of daily activities that she records in the routine app, such as brushing her teeth, putting on her clothes, drawing, or playing the piano, and which tells her how many minutes she has spent on each activity.

Alina: I am trying to do my sort of time journal, I just like track what I have been doing … It is pretty much an experiment for me.

Claire: Is this like an app or your own thing?

Alina: I tried doing it on an Excel spread sheet … how many minutes I spend, this one is so much easier so. So here I just track what I have done. Yesterday what I did, try time journals for 13 minutes and 12 seconds. 10.16 to 10.29. After that there was messaging for 30 minutes 54 seconds. 10.29 to 10.42. Then there was a meal for 30 minutes. 10.45 to 11.15. Then I was watching TV with mummy from 10.46 to 11.16 [laughing as she speaks]. Then I was drawing for three hours. 11.24. Then studying, then grocery shopping, then studying.

Here it appears that Alina is endeavouring to control her experience of time by recording every minute of her daily activities, firstly in an Excel spreadsheet but afterwards through the app. My reflection is that Alina is trying to customize her experience of time, both by controlling the frequency of activities, how long they take, as well as ensuring that there is no time wasted (Flaherty, 2011). It may be that this form of self-monitoring or self-cultivation gives her a sense of autonomy over her time, managing it herself rather than being managed by her parents.

Contesting parent perspectives on monitoring

Anna, Katharina, and Paul live in a small town outside Munich. As opposed to Munich's urban bustle, with hundreds of people getting out of public transport, and bicycle riders riding on busy cycle paths, their town seems quiet on a Wednesday afternoon. A mother and a child cycle on the pavement, and two schoolgirls around six or seven, with identical school bags, walk on their own up the quiet street, stopping along the way. I had been given Anna's contact through a local friend who I had met in a so-called *Nachbarschaftstreff* (a neighbourhood socializing group) who thought that Anna would be interesting to talk to due to her use of Alexa[14] and other tracking technologies.

Inside their house, Anna and her daughter Katharina are in the large, combined kitchen/living room waiting to start our conversation and spoke to me at first in German. Anna's son joins us later, after having played video games in his room, and appears more reserved than Katharina, who chats relaxedly for most of the time. Anna's husband is not there. She offers me a cup of tea at the dining table. An Alexa device sits in a corner of the room. It looks like a grey satellite dish, that blends into the other grey colours in the room. The family owns several devices in the home, for example, in

the children's bedrooms, as well as a video-recording Alexa in another part of the house. Anna soon switches to English, her mother tongue, perhaps due to her daughter teasing her that she made mistakes in German. Anna uses Find My iPhone to get in touch with her children at a distance. All her family members have Apple products, and it is therefore easy to track each device. When talking to Anna's husband, Elias, while he is eating his breakfast a few days later, after returning from his business trip, he tells me that he never actually checks this information. It is simply a backup for him in case something happens, and they have set their devices to the highest security settings, fearing intrusive surveillance from companies. Anna is anxious about certain apps that performed location-based tracking, such as Snapchat that her daughter used.

Mother (Anna):	I think for this age, I think it's something that worries me that anyone can see where we are at any one time. So they can see, for example, if anyone's home, or maybe not home, if they want to walk in the backyard, walk in the back door, for example. If they could track any of us, if especially kids, for example, they're on the way to school and back at regular times throughout the week. Someone wants to, you know, know where you are then it makes it very easy.
Daughter (Katharina):	It is really, really easy. Because even if you don't have the Snap [Snap Map in Snapchat], I'm not arguing against you. I'm just like, every, like 2,000 kids go to school. At this one point, you can literally wait by the *Sbahn* [train] at a certain time or on the street at a certain time and kidnap somebody
Mother (Anna):	I know. But we don't want to make it too easy for them, right?[15]

Anna, Katharina, and Paul participate in a family discussion about tracking technologies, in which they debate how they use them in their everyday lives. They use Alexa in the house, which means that rather than Anna shouting through the house that the dinner is ready, she speaks into Alexa, to tell them this. In one part of the house, Alexa also had a camera, which Katharina amused herself with, suggesting that her mother was only filming part of her forehead when shouting that dinner was ready. Despite the family being surrounded by digital technologies that could potentially record their voices and faces, Anna had a very cautious approach regarding digital technologies, but still used the tracking app (Find My iPhone) to follow her children.

Anna was concerned about her daughter using the geomonitoring features on Snapchat, and all the potential hackers who could gain access to their data in real time. She wanted this kind of information to be kept within the family. While Anna's son did not say much during the conversation, he clearly stated that he did not use Snap Map since he did not want his friends to know where he was, and he would only call them if he wanted to get hold of them. He used digital technologies to track his exercise routine or background noise, and communicated with his friends on the phone, or by sending messages on the PlayStation.

Anna wanted to make it clear that digital surveillance in Snap Map was risky, due to data about their family members potentially being leaked to others at any given time. Katharina challenged her view on this, by saying that any child could always be kidnapped if someone went to a busy location where children would take public transport, and was not entirely convinced by her mother's concerns. Anna warned her daughter about leaving digital traces on the internet depending on her search history, and kept emphasizing that they were using their own Wi–Fi connection which made digital monitoring safer. Katharina does not seem to be too concerned about leaving digital traces, and suggested instead that this was useful, since she would then receive the kind of adverts that were based on content that she wanted.

Katharina uses a joking style of communication, perhaps as a way of claiming her own viewpoints. For instance, when her mother said that she tracked her 'twice a month', Katharina asserted that this was in fact 'twice a day', and when her mother announces that she used WhatsApp to communicate most of the time, Katharina said this is in fact 'all the time'. When discussing how they would get hold of each other when they were in different locations, Katharina jokes 'I scream into nothingness and sometimes they answer.' Perhaps Katharina wished to say that she did not always feel heard when she 'screams into nothingness', but mentioned later that they use WhatsApp or their Alexa device as a 'walkie-talkie' to communicate with each other in real time in the same house.

Anna is more concerned about how the app does not offer precise information and gives the example of how the app had shown that Katharina was at the airport, around 40 kilometres from their location, even though this had not been the case. She thus raises the topic of children's independent mobilities outside the house. Anna is concerned about whether her daughter's battery had gone flat. Katharina clearly contests her mother's view, arguing that she had sent a photo of where she was (after being requested to do this), which indicated that her phone had battery and had hence been temporally co-present at least.

Katharina is keen to monitor her friends in Snap Map, but said that although she did not actually want to share her own location, she would

always know when her friends would leave a location in real time. She said that this was useful in terms of determining whether friends or their potential lovers were being truthful, as anyone could always see where they had been. While her mother contests this, suggesting that any relationship should rely on trust, Katharina asserts an approach to technology that is characterized by being together in time, and datasets that she trusted, arguing that people could be lying.

Our conversation is soon interrupted by an alarm that Anna had set, since she wanted her daughter to pick up her bicycle at the train station. Her mother has set several alarms and reminders, for instance to empty the washing machine, or alarms for her daughter to go to after-school activities, which clearly impacts the temporal rhythms of the household. Although Katharina asks whether she can stay at home, her mother decides on her behalf that she should not miss her after-school activity.

Anna is present throughout, and hence shaped her children's views, seeming to steer them towards what she sees as appropriate use of digital media. Katharina, on the other hand, communicates in a joking style to assert her own autonomy and capacity to influence the direction of the conversation. In her view, digital tracking in Snap Map is a useful tool to manage her relationships with friends, by tracking them in real time.

Conclusion

This chapter has focused on the everyday temporal rhythms that families engage in when using monitoring technologies. Barassi (2020) discusses the time regime of surveillance capitalism in which corporations have come to govern people through time. Examples of these include apps to increase productivity, exercise, or tracking apps to track children's everyday movements, and media activities in which data is extracted for profit. Barassi argues that immediacy has come to define a way of life in data-driven economies and particularly within families, who stay connected in real time and organize everyday rhythms through technologies. Co-surveillance in family life is largely structured by the design of data technologies, which in the case of my research was characterized by children checking their friends' location in real time in Snap Map, or parents checking where their children were in Life360 or other tracking apps and devices.

It is clear that parents and children in Germany are reflexive about the pros and cons of using digital tracking technologies, and how they were being used for profit. Several parents warned their children about this and preferred that they only tracked each other as a family unit, without introducing external watchers or hackers. Tracking technologies carried an ambivalence that was two-fold. On the one hand, many parents explained that it was helpful

in managing family logistics and the temporal organization of family life, for example, picking up children at various locations, or knowing when someone would come home in the family to plan activities. Yet on the other hand, many were concerned about digital surveillance since it prejudiced children's privacy and autonomy, as well as trusting relations between parents and children. Some therefore considered it important to emphasize that tracking children should not be carried out all the time, but occasionally instead. The children I engaged with were less sceptical of digital surveillance technologies than their parents, and often showed little interest in using the apps themselves, beyond occasionally checking their parents' locations in real time, especially when being asked to do this. Both Paul and Katharina do not want to show their own locations in real time, perhaps due to their parents' warnings about data safety, but Katharina is keen on being able to 'watch' others as a way of being co-present with her friends. Alina, on the other hand, monitors her own activities down to minutes and hours, an expression of temporal autonomy.

The chapter has shown how parents are keen to track their children's temporal routines to provide protection from bad actors, but also to offer convenience in managing the everyday durations and timings of various activities. As Lefebvre (2004) suggests, organic and inorganic rhythms were continually interacting. Parents would speed up or slow down after checking the information provided by their apps, or they would check app information as a way of determining how long their children had been away, and when they thought they should return. In this context, monitoring appears highly gendered. It is often mothers who carry out the care work of digital monitoring, which in some cases involves convincing reluctant husbands to engage with these technologies.

Notes
[1] Life360 is explained in the next section.
[2] This chapter is based on nine months of ethnographic fieldwork in Munich between 2022 and 2023 with parents and children in various settings, such as neighbourhood group meetups, in private homes, or in public venues. This included participation in public or private events, as well as formal or informal interviews/conversations with parents and

children about digital monitoring. Some participants were born in Germany, whereas others had settled in southern Germany after living in other countries: in Africa, in Asia, elsewhere in Europe, in Australia or in the US. For anonymity reasons the specificities of these details have been left out. A core part of the approach has been shifting between different roles, such as playing and interacting with children between eight and 17 in informal ways after their parents consented to this, but also listening to adult perspectives and viewpoints. All names are pseudonyms. This project has received ethical approval from the European Research Council and the ethics committee at King's College London.

[3] Bundesnetsagentur (2024): https://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/DE/2018/20180405_GPStracker.html (Accessed: 29 February 2024).

[4] München Unterwegs (2023): https://muenchenunterwegs.de/angebote/schulweg-darum-lohnt-sich-der-weg-zu-fuss (Accessed: 28 September 2023).

[5] Whatsapp is a messaging service owned by Meta/Facebook that allows users to send messages, videos, and photos. Whatsapp (2024): https://www.whatsapp.com/ (Accessed: 29 September 2024).

[6] XPLORA (2024): https://myxplora.de/ (Accessed: 28 February 2024).

[7] Life360 (2024): https://www.life360.com/uk/ (Accessed: 28 February 2024).

[8] Google account help (2024): https://support.google.com/accounts/answer/1350409?hl=en#zippy=%2Ceurope (Accessed: 29 February 2024).

[9] The Verge (2024): https://www.theverge.com/2018/9/18/17855746/google-assistant-family-link-parental-controls (Accessed: 29 February 2024).

[10] Apple (2024): https://support.apple.com/de-de/102648 (Accessed: 29 February 2024).

[11] Apple (2024): https://www.apple.com/uk/icloud/find-my/ (Accessed: 26 February 2024).

[12] Snapchat (2024): https://www.snapchat.com/ (Accessed: 29 February 2024).

[13] Johann does not mention specific guidelines, but similar recommendations can be found on Klicksafe (2020): https://www.klicksafe.de/bildschirm-und-medienzeit-was-ist-fuer-kinder-in-ordnung/bildschirmzeiten-bei-kindern-von-12-16-jahren (Accessed: 22 October 2024).

[14] Alexa is a virtual assistant technology owned by Amazon with voice AI that allows users to ask questions, and receive answers from the virtual assistant, as well as play music. When users have multiple devices, they can use them to communicate with each other in a household. Alexa can be taught the voices of the household members. Amazon (2024): https://www.amazon.com/alexa-for-kids/b?ie=UTF8&node=21474972011&ref=pe_alxhub_aucc_en_us_IC_HP_9_HUB_KID (Accessed: 29 February 2024).

[15] Excerpt from a group discussion with Anna (mother) Katharina (daughter, 13), and Paul (son, 15) conducted in English, July 2023.

References

Adam, B. (1998) *Timescapes of Modernity: The Environment and Invisible Hazards*. London and New York: Routledge.

Adam, B. (2004) *Time*. Cambridge: Polity Press.

Adam, B. (2008) 'The Timescapes Challenge: Engagement with the Invisible Temporal', in B. Adam, J. Hockey, P. Thompson, and R. Edwards (eds) *Researching Lives Through Time: Time, Generation and Life Stories*. Leeds: University of Leeds, pp 7–12.

Balmford, W., Hjorth, L., and Richardson, I. (2020) 'Intimate Surveillance and Children's Mobile Media Usage', in L. Green, D. Holloway, K. Stevenson, T. Leaver, and L. Haddon (eds), *The Routledge Companion to Digital Media and Children*. New York and London: Routledge, pp 393–402.

Barassi, V. (2020) 'Datafied Times: Surveillance Capitalism, Data Technologies and the Social Construction of Time in Family Life', *New Media & Society*, 22(9): 1545–60.

Barron, C. (2016) '"Where Are You, Who Are You With, What Are You Doing?": Children's Strategies of Negotiation and Resistance to Parental Monitoring and Surveillance via Mobile Phones', in E. Taylor and T. Rooney (eds) *Surveillance Futures: Social and Ethical Implications of New Technologies for Children and Young People*. London and New York: Routledge, pp 110–21.

Dubrofsky, R.E. and Magnet, S.A. (2015) 'Introduction: Feminist Surveillance Studies: Critical Interventions', in R.E. Dubrofsky and S.A. Magnet (eds) *Feminist Surveillance Studies*. Durham, NC, and London: Duke University Press, pp 1–17.

Dungey, C.E. (2024) 'A Bird's Eye View: Care, Control, and the Use of Surveillance Apps Among Family Members in Germany', *Sociológia – Slovak Sociological Review*, 56(4): 325–45.

Dunn, T.R. and Langlais, M.R. (2020) '"Oh, Snap!": A Mixed-Methods Approach to Analyzing the Dark Side of Snapchat', *The Journal of Social Media in Society*, 9(2): 69–104.

Flaherty, M.G. (2011) *The Textures of Time: Agency and Temporal Experience*. Philadelphia: Temple University Press.

Fotel, T. and Thomsen, T.U. (2004) 'The Surveillance of Children's Mobility.', *Surveillance & Society*, 1(4): 535–54.

Gabriels, K. (2016) '"I Keep a Close Watch on this Child of Mine": A Moral Critique of Other-Tracking Apps', *Ethics and Information Technology*, 18(3): 175–84.

Hasinoff, A.A. (2017) 'Where Are You? Location Tracking and the Promise of Child Safety', *Television & New Media*, 18(6): 496–512.

Kitchin, R. (2023) *Digital Timescapes: Technology, Temporality and Society*. Cambridge and Hoboken: Polity Press.

Lefebvre, H. (2004) *Rhythmanalysis: Space, Time and Everyday LifeI*. Translated by Stuart Elden and Gerald Moore. London and New York: Continuum.

Lupton, D. (2020) 'Caring Dataveillance: Women's Use of Apps To Monitor Pregnancy And Children', in L. Green, D. Holloway, K. Stevenson, T. Leaver, and L. Haddon (eds), *The Routledge Companion to Digital Media and Children*. New York and London: Routledge, pp 393–402.

Madianou, M. (2016) 'Ambient Co-Presence: Transnational Family Practices in Polymedia Environments', *Global Networks*, 16(2): 183–201.

Marx, G. and Steeves, V. (2010) 'From the Beginning: Children as Subjects and Agents of Surveillance', *Surveillance & Society*, 7(3/4): 192–230.

Mavoa, J., Coghlan, S., and Nansen, B. (2023) '"It's About Safety Not Snooping": Parental Attitudes to Child Tracking Technologies and Geolocation Data', *Surveillance & Society*, 21(1): 45–60.

Mols, A., Campos, J.P., and Pridmore, J. (2023) 'Family Surveillance: Understanding Parental Monitoring, Reciprocal Practices, and Digital Resilience', *Surveillance & Society*, 21(4): 469–84.

Monahan, T. (2009) 'Dreams of Control at a Distance: Gender, Surveillance, and Social Control', *Cultural Studies ↔ Critical Methodologies*, 9(2): 286–305.

Sukk, M. and Siibak, A. (2021) 'Caring Dataveillance and the Construction of "Good Parenting": Estonian Parents' and Pre-Teens' Reflections on the Use of Tracking Technologies', *Communications*, 46(3): 446–67.

Taylor, E. and Rooney, T. (2016) *Surveillance Futures: Social and Ethical Implications of New Technologies for Children and Young People*. Oxford and New York: Routledge.

Vanherle, R., Trekels, J., Hermans, S., Vranken, P., and Beullens, K. (2023) 'How It Feels to Be "Left on Read": Social Surveillance on Snapchat and Young Individuals' Mental Health', *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 17(5): 1–25.

Wajcman, J. (2020) *Pressed For Time: The Acceleration of Life in Digital Capitalism*. Chicago, IL: University of Chicago Press.

Widmer, S. and Albrechtslund, A. (2021) 'The Ambiguities of Surveillance as Care and Control: Struggles in the Domestication of Location-Tracking Applications by Danish Parents', *Nordicom Review*, 42(s4): 79–93.