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‘Friendly’ and ‘noisy surveillance’ through MapMyRun during the COVID-19 pandemic

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A R T I C L E   I N F O

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A B S T R A C T

This paper considers the nature of social surveillance through the physical activity tracking app MapMyRun and examines how this was experienced during the COVID-19 pandemic during the UK and USA summer 2020 lockdowns. In contributing to debates in digital geographies around the entanglements of the fleshy and digital body, the paper responds to calls for research to recognise the increasing sociality of self-tracking (Couture, 2021), specifically considering how, during the COVID-19 pandemic, these apps offered a form of connection during a time of isolation. Using data from email and video interviews, I argue that whilst a Foucauldian account of surveillance can be used as a point of departure, it is limited in accounting for the social aspects of self-tracking. I therefore propose that applying Robinson’s (2000) concept of ‘noisy surveillance’ to self-tracking is useful for understanding the messiness of surveillance in terms of the complications and noisiness involved in interactions in digital spaces, as well as the opportunities for performance management online particularly during lockdown.

1. Introduction

Self-tracking involves the ‘practices in which people knowingly and purposively collect information about themselves which they then review and consider applying to the conduct of their lives’ (Lupton 2016b, p.2). In the last decade, self-tracking practices have rapidly grown in popularity whilst also becoming increasingly digitised, devices and technologies such as smartwatches and phone apps claiming to quantify and visually capture aspects of health, such as blood pressure and emotions (Kent, 2018). In fact, health and wellbeing apps are among the most popular categories of apps for mobile device users (Lupton, 2020). At the same time as growing in popularity, self-tracking technologies have also become increasingly social through integration with social media (Ajana, 2017). Research to date has analysed the panoptic forms of surveillance present within these technologies (Lupton, 2012) and the opportunities for social surveillance, whereby people actively invite surveillance from others, whilst sometimes simultaneously watching, others (Lupton, 2014). However, there remains a need for further research to develop a nuanced understanding of self-tracking as a meaningful and increasingly social practice (Couture, 2021).

During the COVID-19 pandemic, downloads of health and fitness apps increased by 65% in the UK in the first week of lockdown alone (Spreckley, 2020), whilst 74% of Americans used one or more fitness apps during the pandemic (Rizzo, 2021). This mirrored a broader move to digital communication, as a means to interact with people outside of the home (Nguyen et al, 2021), along with the need to change fitness practices (Clark and Lupton, 2021), as gyms and sports centres closed. As such, the COVID-19 pandemic saw a rapid increase in the digitisation of both social and fitness practices, and increased popular discussion of self-tracking. This paper responds to these trends, analysing social experiences of self-tracking during the COVID-19 pandemic in the UK and USA.

In light of the COVID-19 pandemic the aims of this paper are twofold: firstly, to explore the sociality of self-tracking technologies, and secondly, to examine the meanings given to this sociality during the COVID-19 pandemic. Conceptually, this paper advances current research through exploring the potential of Robinson’s (2000) concepts of ‘friendly’ and ‘noisy surveillance’, to account for the messiness of the surveillance present on self-tracking apps. Moreover, this paper brings this conceptual work on surveillance into conversation with work in digital geographies, which aims to understand how the body becomes entangled within the digital as technologies become increasingly

1 However, following Evans and Colls (2009), the extent to which this quantification can capture embodied practices must be questioned, therefore this paper recognises that whilst these devices claim to optimise health, bodies can also exceed these numbers and resist them.

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integrated in everyday lives (Kinsley, 2014; Pink and Fors, 2017), specifically in relation to debates around performance management in online spaces (van Doorn, 2011). Moreover, through a specific focus on the social aspects of self-tracking during the COVID-19 pandemic, this paper also contributes to interdisciplinary literatures concerning both digital sociability (Couture, 2021) and the importance of connection with local outdoor spaces, for wellbeing during lockdown (Burrell et al., 2021).

Empirically, the paper is based on 15 digital interviews with users of the fitness tracking app MapMyRun (MMR) based in the US and UK from June-August 2020. This was during the transition from the first national lockdown in the UK, when social distancing and stay at home guidelines were in place, with people only allowed to leave home for exercise and essential purposes. In July most lockdown restrictions were lifted, although individuals were asked to avoid gatherings of over six people. Similar lockdown measures were also put in place in the US at the end of March 2020 with orders to stay at home however, each state had different lockdown rules. Nearly all of the country opened back up with few restrictions by July 2020, along with the reopening of gyms in most states.

Before engaging with these interviews, I begin with a discussion of the literature relating to the sociality of self-tracking, before outlining the different conceptualisations of surveillance used in this work to date. I then outline how Robinson’s work on ‘noisy surveillance’, in conjunction with work in digital geographies, can offer a more nuanced understanding of social surveillance via self-tracking. The remainder of the paper then discusses the findings from the study, exploring the ways in which ‘noisy surveillance’ is fruitful for understanding the multitude of ways that individuals are enrolled within and engage with social surveillance when using MMR and social media. At the same time, I reflect on interviewees’ experiences of the forms of sociality offered by MMR within the context of the COVID-19 pandemic.

2. Framing social tracking and surveillance

Within this section I will begin by discussing literature on social tracking, before discussing why ‘noisy surveillance’ together with performance management are important for conceptualising the social aspects of self-tracking.

2.1. Social tracking

There is a fast-growing social science literature on self-tracking. Three key areas of this work are relevant for this paper: research concerning fitness tracking apps, specifically research on MMR; work on the ways in which self-tracking has become a social and communal trend; and literature that explores social tracking and the role of gamification within this.

First, whilst there is a considerable amount of research about the social aspects of Strava (another running app), including Stragier et al. (2015), Pink et al. (2017), Ajana (2017) and Couture (2021), the social aspects of MMR are less well studied. The studies which have focused on MMR have tended to be quantitative, mainly through the analysis of GPS data. Research has demonstrated how MMR data can be applied to understand physical activity patterns across a large geographic scale. For example, Hirsch et al. (2014) used data from MMR to analyse physical activity patterns over North Carolina, specifically focusing on the significant influence of parks on physical activity. In recognising the detailed information MMR data can provide about physical activity patterns, research has recognised the usefulness of GPS running data for urban planning. For example, Anagnostopoulos (2020) analysed the rise of run commuting, finding that run commuting trips must be better integrated in cities for run commuter’s safety. Similarly, Pérez-delHoyo et al. (2021) analysed running movement through MMR to address challenges in urban planning, highlighting that runners need to feel protected within a city and argues that data from apps like MMR needs to be used within urban planning. Work has also used MMR data to understand the experiences of ‘doing’ running. For example, Cook et al. (2016) analysed jogging routes recorded through MMR alongside qualitative accounts to understand jogging as a form of mobility, uncovering the plethora of meanings associated with running, as well as jogger’s experiences of cities. Therefore, previous research using MMR has demonstrated the importance of engaging with physical activity apps for decision making as the popularity of running increases.

In one of the few qualitative studies on MMR, Hughes and Mee (2019) consider the micro-geographies of MMR, through exploring how individuals connect with GPS devices and smartphones during their everyday mobilities through autoethnographic fieldwork. This study is informative in recognising how such technologies can be seen as companions. Hughes and Mee (2019) demonstrate how individuals connect with MMR in intimate ways, for example, through their senses, through the trust placed in the apps when exploring an unknown area and the heightened intensity of emotions. Building on these previous studies on MMR, in particular Hughes and Mee’s (2019) work, in this paper I extend this discussion through considering how MMR became a form of sociality during the COVID-19 pandemic, when digital media was used to combat negative effects of quarantining on social connectedness.

Secondly, research has also begun to address the ways in which self-tracking is becoming a socialised and communal trend (Ajana, 2017). An extreme form of this has been explored through research on the Quantified Self movement, a community of self-trackers founded in 2007, who regularly meet up to share data (Ajana, 2017) and share experiences through an online social medium (Lupton, 2017). Other research has begun to explore more everyday experiences of the sociality of self-tracking (such as, Ajana, 2017; Kent, 2018; Couture, 2021) beyond this particular movement, as self-tracking technologies become increasingly used and entangled with social media encouraging social interaction and providing social support (Littlejohns et al, 2019).

Thirdly, researchers have begun to think about the consequences of self-tracking becoming a social practice in relation to surveillance within the apps and associated social media platforms. In particular, research has begun to explore how this sociality creates opportunities for social surveillance, defined by Marwick (2012) as the observation of other people’s data and the sharing of data on social media platforms. Mann et al. (2003) have termed this ‘sousveillance’, a form of surveillance that isn’t about an expert gaze from above, but accounts for the entanglement of surveillance in everyday social interactions via social media (Marwick, 2012). These forms of social surveillance are more than just a side effect of the increased use of self-tracking technologies, in fact social interaction is often encouraged through the structures and technologies of the apps themselves. Examining the big data aspects of self-tracking is beyond the scope of this paper; however, it is important to understand why self-tracking platforms encourage sociality. Here, research has examined the ways in which exercise activity has been reconfigured as a form of digital labour (Till, 2014), whereby online sites depend on users interacting on the site, generating data through things like ‘likes’ and comments, generating data that can be sold to advertisers and thus ensuring the profitability of sites (Terranova, 2013).

An important aspect of this form of surveillance within self-tracking is gamification, whereby apps apply game mechanics and game design in order to motivate people to achieve their goals (Barratt, 2017). This occurs through features that encourage comparisons and competitions between users (Kent, 2018) through things like ranking on leader boards, promotions and encouraging users to give feedback and ‘likes’ to other users (Ajana, 2017; Whitson, 2013). Whitson (2013) notes that gamification is rooted in surveillance, where data is simplified into things like graphs and charts. In research on Strava, Ajana (2017) found that gamification is incorporated into the app to encourage users to compete for a higher ranking on the leader board, whilst encouraging interaction through giving each other ‘kudos’, a way to ‘like’ and endorse others’ workouts and achievements. These communal aspects of self-tracking can be seen as fun and motivational (Lupton, 2017; Kent, 2018). As Lupton (2016a) explains, practices of mediated social fitness and communal tracking...
appeal to a desire to feel part of a community and a need to create social bonds and a sense of solidarity. For example, Stragier et al’s (2015) study on data sharing from Strava on Twitter and Facebook showed that sharing information with peers was an important reason for data sharing. Ajana (2017) understands such communal aspects of self-tracking through Rabinow’s (1996) concept of biosociality, a connection between individuals based on biologically based forms of socialisation.

However, as Kent (2018) highlights, there are debates as to whether this competition is healthy and genuinely supportive, as whilst the sociality of these apps offer opportunities for a supportive gaze there is also the possibility of negative feedback and fierce competition. The gaze of others can increase pressure to conform to certain health behaviours and an increased consciousness of others seeing your data can impact how you represent your health behaviours online (Kent, 2018). The social aspects of self-tracking apps can therefore encourage and reward displays of self-discipline, whereby sharing data can be read as a way of showcasing taking responsibility for health and demonstrating an ongoing desire to be held accountable (Kent, 2018). The workplace has become a key site for quantified self-tracking. For example, Stragier et al. (2015) contend that self-tracking provides a means for ‘expert’ surveillance because whilst the device provides guidance and a means to record and compare individual data against recommendations, users are encouraged to turn the gaze upon themselves through self-monitoring. The rationales of self-monitoring become internalised, with individuals not knowing whether others are watching them, whilst also accepting the rationales as part of the practices of the self (Lupton, 2016b).

Research on digital technologies has also explored the ways in which these technologies complicate the panoptic metaphor. Wood (2007) contends that Foucault never intended this metaphor to be used to describe every situation in which surveillance is present, suggesting the need for a more nuanced approach than one in which each technology is understood as the panopticon recreated. The extent to which the panoptic metaphor resonates with surveillance society today has, therefore, been questioned in relation to contemporary digital technologies (Lyon, 2003).

Foucault’s panopticon metaphor has been criticised for being too focused on the disciplinary, top-down aspects of surveillance (Galić et al., 2017), leaving little room to understand more complex, messy processes of surveillance, discipline and, importantly, resistance. For example, through advancing Foucault’s conceptualisation of power, Esmonde (2020) identifies four ways in which the domination of quantification can be challenged in the context of women’s running and fitness tracking practices: labelling some data as excessive, not tracking every run or every day, invoking one’s humanity and fallibility as a way of limiting disappointment from unfavourable data, and re-valuing feelings over data. (p.76). Moreover, Goodyear et al’s (2019) work in which school children were asked to wear Fitbit Charge for an 8-week period and encouraged to aim for 10,000 steps per day, shows that whilst children internalised this step count as the measurement for health to some extent, there were also multiple ways in which they resisted this. As such, following Vaz and Bruno (2003), Goodyear et al (2019) contend that self-tracking literature must combine Foucault’s work on surveillance with elements of his work on resistance in order to more fully understand self-tracking practices.

One possible route to more adequately theorise the messy forms of surveillance and social relations in self-tracking, I suggest comes through the combination of Robinson’s (2000) work on ‘friendly’ and ‘noisy surveillance’ with work in digital geography on performance management. Robinson (2000) developed the concept of ‘noisy surveillance’ through research on the embodied gaze in relation to housing managers in 1930s South African housing estates. Conceptualising the forms of surveillance and power present here as ‘power as friendship’ and ‘noisy surveillance’, Robinson discussed how British, white, middle-class women housing managers were deployed into black, working-class homes and lifestyles. This was a way for the South African government to govern at a distance and shape the behaviours of working-class black women. However, as Robinson explored, the surveillance gaze here was more framed as friendly, female enquiry that forged links across racial boundaries at the same time as operating through unequal classed and racial hierarchies.

Robinson argued that this surveillance complicates panoptic models of surveillance as it was not distanced, unverifiable and reliant on separating the subjects and objects of the gaze, rather was ‘noisy’, involving moving, speaking, subjects who interact with one another, through relationships framed as ‘friendship’. Robinson argues that this ‘noisy surveillance’ has implications for how we theorise and
understand power in relation to surveillance that involves modes of ‘friendship’. Rather than being a form of power that is ‘simply objectifying, intrusive and imposing’ (p.68) surveillance operates through interpretation and translation to the lived experiences and contexts of those involved, in ways that may, or may not, be aligned with the concerns and interests of those being surveilled. Thus, surveillance doesn’t always occur ‘entirely on the terms of the powerful’ (p.68) and whilst in Robinson’s example there are clear power differentials, her work suggests a rethinking of surveillance forms of power towards one in which:

‘Power can be understood as a mutual, although rarely equal, relationship (rather than simply a technology) in which active subjects (both the ‘dominated and dominator’) participate.’

Moreover, Robinson argues that this surveillance can also be seen as ‘noisy’ with reference to ‘interference’ that occurs as the surveillant gaze is interpreted in different ways by the various actors involved. Geographically, this case is conceptually important as Robinson also demonstrates that there is a spatiality to this: the surveillant gaze is not the panoptic view from ‘everywhere and nowhere’ (p.79) but is embodied in individuals who may also be seen themselves, and constituted by and constitutive of particular social contexts. Central to Robinson’s argument, are relationships of trust, respect for individuals’ rights, and mutual friendship.

In the example Robinson discusses, whilst rent collection provided the reason for visiting tenants’ homes, the associated surveillance and friendship developed through entering the properties was only with the consent of the tenant. Moreover, the housing managers also acted as negotiators between tenants and landlords, advocating for improvements to the properties as well as checking up on the ways in which tenants were maintaining them. The relationship was, therefore, not simply one of domination and subordination, but more complex and the tenants (the subjects of the gaze) had agency in the decision about whether to allow access to their homes, and freedom, for example in choosing whether to adopt the forms of behaviour suggested by the housing managers. Robinson argues therefore, that in this example, subjects can displace the gaze, by denying entry to the housing managers. They can also transform the gaze, which means the outcome of the gaze cannot be predicted. As subjects have agency, they can actively (re) formulate their identities within this power relation by choosing which behaviours to adopt. There is a moment of (mis)recognition, whereby the gaze can fail to adequately recognise the subject and the subject of the gaze can shape the surveillant relationship. As this power depends on the recognition of individual agency, Robinson suggests that surveillant practices become successful at the point of (mis)recognition, choosing whether to adopt the forms of behaviour suggested by the housing managers. Robinson argues that it is precisely because this surveillance is ‘noisy’ and not simply objectifying that is at the root of its success as a form of disciplinary power, that ‘the moments when the surveillant gaze fails...ensure its success’ (p.77). If the subjects did not feel they were choosing to adopt forms of behaviour, choosing to invite housing managers into their homes, and they were instead being imposed, there could be more resistance.

It is important to recognise the different power relations present in the context of Robinson’s study and the empirical context for my paper here. In fact, one of Robinson’s key assertions is that the gaze is always located and specific to each context. In Robinson’s empirical context, there are significant unequal positions between the women housing managers and the tenants along race and class lines; meaning there is a degree of coercion within the mode of surveillance, and the relationships between the housing managers and the tenants is not reciprocal. Within practices of self-tracking, the extent of freedom individuals have varies according to whether they have chosen to self-track freely, or they are doing so on instruction from others. In this paper, I discuss people who have opted to track their running for themselves, opting into this surveillance as a form of connection during the COVID-19 pandemic. This means that Robinson’s conceptualisation of surveillance cannot simply be transferred but must be considered within the specific context, combining Robinson’s assertions with understandings of performance management online allows us to think about how Robinson’s conceptualisation may be transferred to online spaces.

Here, I suggest that theoretical approaches within digital geography that draw on Goffman’s (1959) and Butler’s (1990) work on identity as performed and performative (Gregson and Rose, 2000), offer important avenues for theorising embodied and performative relations in online self-tracking spaces. For example, Kent (2020) engages with Goffman’s self-presentation theory to explore how self-tracking data is used for self-representation on Instagram to perform optimal health identities. Kent explores self-representation practices through the lens of Goffman’s (1959) work, whereby self-representation is a performance, with Instagram being a space for health identities to be constructed and performed. For example, individuals shared their ‘personal bests’ as this was seen by peers as representative of an ideal fitness standard. Therefore, users deliberately shape their health identities online through self-tracking data.

These approaches provide a means to understand what Robinson describes as disturbances, discontinuities, displacements and interference in the surveillant gaze in a context in which individuals have a choice in how to perform their identities online. This is demonstrated in Bonner-Thompson’s (2017) work on the online performances of masculinities on Grindr where digital masculinities were constructed and performed in online spaces to reinforce societal norms. Grindr users present their digital body in line with offline norms for example, through presenting a youthful muscular body as this is seen as desirable. Bonner-Thompson demonstrates that identities are negotiated by constructing the digital body in a certain way so as to be seen as desirable. Thus, demonstrating how the body can be remade online.

Synthesising Robinson’s (2000) concept of ‘noisy surveillance’ with work on performance management online, offers the potential to conceptualise the ways in which individuals play an active role in negotiating the surveillant gaze present in social elements of self-tracking. In the remainder of this paper I explore this in relation to the use of MMR and its connections with social media during the COVID-19 pandemic.

3. Methodology

This paper draws on in-depth interviews with 15 users of MMR. Semi-structured interviews were conducted during June-August 2020 via email (8) or video call using Zoom (7) and participants were recruited through social media, particularly the MMR Facebook group, on Twitter, and through pre-existing connections. Informed consent was gained from all participants and pseudonyms are used in this paper to ensure the confidentiality of each participant.

MMR is part of the MapMyFitness platform, owned by Under Armour. The app was developed for runners to log running data, set activity goals, create and search for routes. The platform goes by the ethos of; ‘You can’t improve what you don’t track’ (MMR, 2020) and thus the focus is on allowing users to create personal records and motivate them to meet them. The app syncs with smart watches and fitness trackers and also connects to Under Armour shoes, allowing the app to coach you on your form and cadence. The data generated can be accessed online or within the app.

Importantly for this study, the app hosts many social features and has a large social community. Users can choose their privacy level when using the app however, whilst individuals can choose to make their data private, the default option is to share with others. Interaction is encouraged within the app through allowing users to add friends to their networks and communicate with each other through ‘liking’ and commenting on other people’s workout data and through sharing routes and hints and tips on the blog section. The app sends you a push notification if a friend has completed a workout and also allows users to create...
challenges with friends and compete in wider competitions. Much of the sociality and surveillance encouraged by MMR in this paper does however come from MMR’s connections with social media, especially Facebook and Instagram. Through the MMR app, users can choose to post an image of their workout activity or share a link to their workout on their chosen social media and therefore voluntarily increase the omnipresence of surveillance.

Participants were English speakers in the UK and the USA within the age range of twenty-two to fifty-five. There were no notable differences between UK and USA participants, and the purpose of this paper is not for comparisons across national contexts. Nine women and six men participated and the sample was limited to the global North. The participant group was not selected to be representative, although I recognise that the situatedness of the participant’s experiences may have impacted the research findings as members of different groups may have different experiences to relay about self-tracking (Lupton, 2021). Whilst this paper is limited to discussion of people’s experiences in the UK and USA, self-tracking is not limited to the global North, see for example Crawley’s (2021) research on the self-tracking experiences of Ethiopian runners.

Participants’ running identities were not homogenous. Some participants were serious runners, others ran sporadically, and some had only begun running at the beginning of the COVID-19 pandemic. The runners also differed in their use of MMR, with some users using it most days and for every run, whilst others were more inconsistent with their use. Moreover, the way they tracked differed, with some solely tracking on MMR, some used MMR alongside other tracking apps such as Strava. The technology used also differed, with some participants tracking using fitness watches, whilst others tracked on their phones. The purpose of this paper is not to generate generalisable results, rather it is to offer an in-depth account of participants’ everyday experiences.

Interview questions asked participants to reflect on the sociality of the self-tracking technologies they used, and on the meaning given to this sociality during the COVID-19 pandemic, particularly in relation to ‘friendly’ forms of surveillance. Video interviews were audio recorded and later transcribed verbatim to allow a process of thematic open coding. As I was interpreting the data, I returned to the literature to connect the data to Foucauldian theory and prior self-tracking research.

The data generated and the interpretations of the data were informed by my own subject position as a White, female, non-disabled, casual runner and casual self-tracker. Whilst I do not identify as an avid self-tracker, I have counted my steps every day for the past four years and track my runs. I only began running and subsequently tracking my runs using MMR at the beginning of this research, when the gyms were closed due to the COVID-19 pandemic. This meant that my degree of insider-ness was fluid (Ty and Verduyn, 2008), with most of the participants being more experienced runners than me. As a result of identifying both as a casual runner and a self-tracker, I was not a passive interviewer, instead drawing on my own experiences when speaking with participants as a way to facilitate a conversation, which undoubtedly shaped the interviews. What follows is a discussion surrounding the main themes from the interviews; the complications within this surveillance and online performance management.

4. Discussion

This section responds to the aims of the paper; firstly, to analyse social relations online through self-tracking and secondly, to analyse this in relation to the COVID-19 pandemic. This will be done through discussing the following themes; motivation for running, competition, comparison and support and finally performance management.

4.1. Motivations for running during COVID-19

A common theme from the interviews was the motivation to take up running during the COVID-19 pandemic. As previously discussed, during both the UK and US lockdowns gyms were closed and social connections moved online. As Alice explains, her tennis training stopped during lockdown, which meant her and her tennis friends took up running instead:

Alice: ‘it’s just kind of something to talk about and then kind of during lockdown we couldn’t play tennis so that was just like another sport.’

Alice’s experience offers an example of Clark and Lupton’s (2021) assertion that individuals were forced to change their fitness practices during the COVID-19 pandemic. Alice also notes how running became a social activity when her and her tennis friends could no longer meet to play tennis together, running became a source of digital social connection, ‘something to talk about’. Such observations are important when considering the digital sociality of running (Couture, 2021) and here we can see why it is important to examine the meanings given to the sociality of self-tracking during the COVID-19 pandemic.

Not only were more people running during COVID-19 lockdowns, they were also posting their runs more on social media, which in turn motivated some participants to run. One point at which running had infiltrated social media the most for participants in the UK was the time of the Run for Heroes Challenge. This was an initiative to raise money for NHS workers during the pandemic and involved running 5 K, donating £5, sharing your run, and nominating 5 other people on your Instagram story. As Ruth explains, this meant more people were running during lockdown and sharing their times, motivating Ruth to run:

Ruth: ‘because the whole 5 K thing was going about with the NHS and I was like well I might as well do it and give it a go as well, you know if, that was definitely another way, another reason why I took it up because loads of other people were doing.’

Ruth demonstrates how social media trends, like the Run for Heroes Challenge can increase the visibility of fitness data. This resonates with Marwick’s (2012) argument that social media can create an intensified form of social surveillance. Such observations are important when considering the experiences of the increasing sociality of self-tracking apps, as identified by Couture (2021), suggesting that attention needs to be paid to the ways in which self-trackers seeing other people’s data may impact their own experiences. Ruth’s quote resonates with Kent’s (2018) assertion that through using self-tracking and social media, users can track their own health, whilst observing and comparing themselves to others, which may have implications for their own health behaviours.

Although the COVID-19 pandemic motivated some to begin running and using self-tracking apps, the pandemic influenced running habits differently for others who were running before the pandemic. Sarah notes that she did not record her runs on MMR as much during lockdown because she was familiar with the area she was running in:

Sarah: ‘since lockdown, because I use it where I live which is 8 miles out of the city, because I know the area more, I’ve got a much clearer sense of how far I’m going every time I run, I’ve not used it as much.’

Sarah noted elsewhere in her interview that she generally uses MMR to know her speeds and her nearby routes, and that for her, sharing data is secondary to route mapping. Forgetting to track her runs is exacerbated by being at home during lockdown and not needing guidance about where to run. For some people, then, lockdown resulted in micro changes in how pre-existing users engaged with self-tracking technologies. Moreover, Sarah’s experience runs counter to Pink et al’s (2017) research with self-tracking commuting cyclists, in which participants often said ‘if it isn’t on Strava, it didn’t happen’. Pink’s respondents’ normalisation of data (over)reliance and the influence of self-tracking in stories of exercise habits is also common in broader self-tracking research (Couture, 2021). However, Sarah clearly has a different relationship with self-tracking and demonstrates that this is not something she has become reliant on when running.

We can see in Sarah’s account why it is important to conceptualise...
forms of surveillance in self-tracking not through simple panoptic models, but as a noisy form of surveillance. What such observations show us is the capacity and individuality of subjects, whereby the surveillance present in these technologies does not result in a predetermined outcome. Rather, the gaze has been displaced by Sarah by not tracking her run, although she is still running and is therefore still internalising this form of behaviour encouraged by the app. Here, we can see an example of Robinson’s suggestion that power is only successful if it enrols subjects by giving them freedom to choose. Sarah has chosen not to always track her runs; however, she still uses the app and within the interview Sarah stated she wanted to track her runs more. Thus, whilst Sarah is still enrolled within this mutual relationship of power, although she is displacing the gaze, she is exercising her own power and freedom. Whilst still adopting the form of behaviour encouraged by the app in her own ways, and still running as part of a responsibilisation for health.

4.2. Competition, comparison and support

A common theme from the interviews was the importance placed on using the competition features of MMR to challenge their friends and family:

Hannah: ‘Sometimes we’ll like create a challenge within the family… like it does motivate you to do more… My boyfriend set one of those up and it did motivate me to do more miles because I was like I want to beat him.’

Jack: ‘We usually set a challenge for 1 month and see who can run the furthest. It normally quite fun and not too serious.’

Hannah and Jack’s descriptions of competing with friends and family as an important form of motivation accords with what Whiston (2013) refers to as gamification features of self-tracking apps. Ajana (2017) explains, competition can introduce a pleasurable element to self-tracking, whereby these mutual comparisons become playful and motivational. As demonstrated by Hannah, attaching a competitive value to self-tracking technologies further encourages the monitoring of users’ physical performance. The playfulness of this, complicates any simple panoptic reading of power here, and aligns more closely with Robinson’s discussion of ‘power as friendship’. Moreover, it is Hannah and Jack’s choice to compete via the app and those involved are simultaneously subject and object of the gaze. This ‘friendly’ form of power can arguably be seen as a form of ‘noisy surveillance’, with active subjects participating in this mutual relationship. Surveillance operates here in transforming Hannah into someone who is motivated to run more as a form of friendly competition; by running more, Hannah is (re) constituting her running identity and adopting the form of behaviour encouraged by MMR.

Not all participants engaged with the competition elements of the app. For some, tracking runs involved comparisons with the self rather than with other people, as demonstrated by Betty’s discussion of seeing her friend’s data:

Betty: ‘No, I don’t compare because she’s a new runner and I’m kind of like I’m pleased for her if she’s got a consistent pace. And like I know my running quite well, so I know what’s good and what’s not, like what’s a bit slower for me.’

As Betty explains, she does not compare her friend’s data to her own, as she recognises that they are at different levels of running. Rather than judging her friend’s speed, she notes that it is a consistent pace and focuses on her own speeds and comparisons with herself. Rather than Betty experiencing an intrusive and imposing gaze, Betty is actively choosing not to compare herself to her friend. As outlined above, Robinson suggests that rather than a passive form of power, ‘noisy’ surveillance recognises that surveillance power involves the subject making an active choice. Here, this is evident as Betty is still adopting a certain form of behaviour (improving her running) however, she is choosing how she does this on her own terms.

For other participants, like Jess comparisons with other people, had the opposite effect, leading to de-motivation:

Jess: ‘If I am being honest, a lot of the time when I see someone else’s workouts I feel less motivated. Seeing how much faster and farther others are currently running sends me down a spiral of negative thinking that ends with me not working out for a few days.’

This example suggests that simple panoptic models of surveillance would fail to recognise the complexity within data sharing, whereby individuals do not always respond in the same way. Part of the usefulness of a conceptualisation of surveillance as ‘noisy’ then, is recognition that there are different ways in which people will respond to surveillance. If Jess sees other people running faster than her, she stops running for a few days due to the negative implications of these comparisons. This observation offers a further example of Couture’s (2021) findings that runners can be reflexive when thinking about the effects of being exposed to other people’s data and certain variables, such as personal expectations, impact how individuals are influenced by other people’s data. Moreover, what we can see here is an example of surveillance power needing to incorporate resistance to be successful in ‘noisy surveillance’. As Jess says, she is de-motivated by comparisons, showing how her own concerns operate within this relationship of power. This finding offers a contribution to self-tracking literature by suggesting that although gamification features encourage competition, this may not be an aspect of self-tracking that is equally important to all users.

Mutual support and motivation were another emergent theme from the interviews, whereby participants commented on the importance of social media to motivate themselves and others through sharing data and advice. When commenting on his participation in the MMR Facebook group, Allen demonstrates how he helps strangers by sharing advice, as well as through encouragement, and Tom demonstrates how he offers support in a different way, through sharing routes on Instagram:

Allen: ‘I interact with them in every way possible on the fb group. likes, laughs, cheers, comments and tips to help them. We had one post about his first ultra and then a second runner a year later. This convinced me to try one… Seen anyone sharing running advice? yes, just yesterday. She asked, ‘4 words or less advice for a runner’. I gave, ‘listen to your body’. She had many more runners give her advice as well.’

Tom: ‘To show other people maybe nearby that there are certain routes you could take or you could try it out yourself. And it’s also a personal thing, it gives you an incentive to try and improve.’

As Allen and Tom demonstrate, through this type of dialogue between users, the communal aspect of self-tracking can become a way for users to share advice. Such examples resonate with Couture’s (2021) observation that self-tracking apps can be experienced as ‘meaningful sites of interpersonal connection’ (p.193). These observations add nuance to Lupton’s (2016b) notion of the wisdom of the crowd, whereby self-trackers draw on each other’s experiences and exchange constructive advice about health and fitness. These accounts also demonstrate how online spaces offer a space for self-trackers to perform their health identity for participatory audiences (Kent, 2020). Therefore, when applying Robinson’s notion of ‘power as friendship’, we can see that central to this power are relationships of trust and respect based on a mutual friendship within these online spaces. This helps us to understand how surveillance is not operating here on the terms of the powerful, and recognition of the voluntary and communal aspects of this surveillance are important for our wider understanding of the limitations of the panoptic metaphor.

As self-tracking practices became more popular during the COVID-19 pandemic, these comparisons were, arguably, heightened as digital fitness became a solution to barriers of engagement (Criddle 2020). As people sought social connection online, more people engaged with self-
tracking apps, As Betty explained, this led to increased visibility of fitness data on social media during lockdown:

Betty: ‘I guess loads of people have been running in lockdown, so I’ve been seeing it a lot more on social media. Whereas I’ve been on strava and whatever for years, so I feel like recently there’s been more of a, it’s like infiltrated into Instagram. Particularly on stories.’

Betty’s observation that more people shared their runs on Instagram during lockdown is an example of Marwick’s (2012) contention that social media breaks down social boundaries to make individuals highly connected, demonstrating how power flows through everyday interactions. Moreover, when we apply Robinson’s concept of ‘noisy surveillance’, we can see the spatiality to the exercise of power. Rather than a distanced, disembodied observer, at a time when social connections were largely moved online, social media brought Betty and other people into digital proximity, which in turn intensified the omnipresent gaze.

4.3. Performance management

As outlined above, it’s not difficult to see that the characteristics of ‘noisy surveillance’ Robinson outlines, are present within self-tracking technologies, particularly where people have chosen to engage with these and where the integration with social media allows people to both watch others and be watched themselves. Moreover, in these technologies, and perhaps more so during the COVID-19 lockdown, a desire for friendship, to create social bonds and a sense of solidarity (Lupton, 2016a) actively encourages information sharing and support. The greater degree of control people have over what they share on social media does, however, mean Robinson’s conceptualisation of surveillance does need some modification for this context. A common theme within the interview data was the process of choosing who to share data with and whether to share it at all. Many participants noted that they chose to only share their data with close friends and family within the app. There is a feeling amongst those who do not share their data publicly that they do not see the benefits of sharing on social media. For these individuals, a clear distinction was drawn between sharing with close friends and sharing with others:

Lucy: ‘I don’t tend to post map my runs on social media as I’m not keen on everyone seeing my time/distances! I like to keep this more private and just have close friends and family who can view this on the app.’

As Lucy demonstrates, users are in control of who they want to see their data. As such, for people like Lucy, online relationships via self-tracking apps augment offline relationships, especially during the COVID-19 pandemic, rather than opening up to surveillance from strangers. This is similar to Lupton’s (2021) argument that when people do share their data it is often with people who have an established face-to-face relationship and thus offers an example of what Levy (2015) terms intimate surveillance. Lucy only sharing her data with people she has close offline relationships with can be seen as an example of Robinson’s understanding of ‘power as friendship’, which operates based on relationships of trust, perhaps more so in the example of self-tracking where hierarchical power relations are less present than they are in the context of Robinson’s research.

Other participants chose to keep their running experience completely private:

Jess: ‘Posting my own workout data rarely happens. I see the information as being just for my benefit. Sharing it with others undercuts my goal of staying mindful of my progress. I run for myself, so I can stay healthy. Publishing my information would feel like I am sharing in order to garner attention, so I refrain from doing that.’

Jess’ decision to opt out of sharing her data can be seen as an exemplification of how Robinson understands ‘noisy surveillance’ to operate through disturbances and displacements. As Jess has the ability to choose who sees her data, Jess can deny access to others and thus has the power to shape this surveillant relationship based on her own preferences.

Other participants discussed how they often changed their privacy settings, deciding on the basis of each run, whether to make their runs public or chose not to share a run at all. For example, Ruth changes the privacy settings on some of her runs if she feels she has not performed well, Alice notes how she posted an older run for her Run for Heroes 5 K time, because it was a better time, and only shares her best times on Instagram:

Ruth: ‘I know in the past that I’ve done workouts and then like say I’ve stopped halfway because I’m tired or something or like just didn’t do very well, like walked it and just didn’t feel like I did well in it. I know that I’ve like then changed the settings to be like only me. So, like only me can see that workout because I don’t want other people to see it… because I don’t want other people to see how badly I’ve done that day.’

Alice: ‘I posted a run that I did a few weeks before because I couldn’t get to that that same time again… I’m selective about who’s on my thing and I only post the best times on my Instagram.’

MMR, like other social networking sites, automatically makes people’s data public but offers some control over privacy settings such as those used by Ruth and Alice. As such, it can be understood as what Boyd (2011, 507) refers to as ‘public-by-default [and] private-through-effort’. Ruth and Alice’s online health performance is therefore curated, it is filtered in line with how they wish to present themselves to others. This example resonates with what Marwick and Boyd (2011, 13) term an ‘ongoing loop of impression management mixed and based upon audience feedback’ on social media. In relation to imagined audiences, individuals are careful in considering what to post, meaning that there is a balance of sharing and concealment when choosing what health data to post (Kent, 2018).

This example resonates with Robinson’s concept of ‘noisy surveillance’, demonstrating how the gaze becomes embodied and the active role of the subject in putting the gaze into practice. These observations demonstrate that there is a possibility for the gaze to be limited, only witnessing what the subject wants to be seen, without information on what cannot be seen or their internal choices or reasons for this. As Ruth and Alice suggest, they are actively performing their online health identity through choosing to only share their best runs, exemplifying an interference with the gaze. This finding extends Kent’s (2018) study, whereby individuals actively constructed certain health identities for other users within the social media community to perceive and connect with and thus these health identities are open utopian-idealised representations. Again, a panoptic understanding of surveillance is problematic here as surveillance from others is not omnipresent as the gaze will involve multiple mis-recognition, making the internalisation of power far from pre-determined or reliant on the gaze of others. Thus, whilst use of self-tracking apps increased during COVID-19, the forms of surveillance that people entered into in doing so, were varied, messy, ‘friendly’ and ‘noisy’ forms of surveillance in which people had control over their presentation of self.

5. Conclusion

This paper has demonstrated; first, the sociality of self-tracking devices, and second it has shown how these devices have been creatively reworked in light of COVID-19. In doing so, this paper makes the following contributions. First, it provides empirical evidence which responds to calls by Couture (2021) to engage more with the sociality of self-tracking technologies. It contributes to conversations in digital geographies around the way the body is becoming increasingly entangled with technology, in showing how online performances of health are managed. Conceptually, the paper has shown that the oft-used metaphor of the panopticon fails to account for the messiness of the surveillance
associated with social tracking, and that instead combining Robinson’s (2000) concept of ‘noisy surveillance’ with debates in digital geographies around performance management online offers a more useful conceptualisation for these technologies and their increasing sociality as it allows us to recognise how surveillance is entangled within self-tracking spaces, and the role of users within this.

Secondly, in demonstrating the usefulness of applying and extending Robinson’s concept of ‘noisy surveillance’, this paper also demonstrates that the sociality of self-tracking involves ‘power as friendship’, particularly during the COVID-19 pandemic when social connections were largely moved online. Like Robinson’s study, surveillance occurs through interactions (in this case on social media and on the app) and unlike panoptic forms of surveillance, the gaze is not distant and unverifiable, it is practiced through everyday interactions. The relationship between self-trackers is more reciprocal than the relationship explored in Robinson’s study, and so this paper also demonstrates that the concept of ‘noisy surveillance’ must be adapted for different empirical contexts.

Thirdly, this paper demonstrates that performance management is central to surveillance in self-tracking. Unlike panoptic forms of surveillance, users of MMR have a choice in how they present themselves online. As Robinson’s concept of ‘noisy surveillance’ demonstrates, surveillance operates in the transformation of subjects, whereby subjects (re)formulate their identities as a consequence of the gaze. Within ‘noisy surveillance’, the gaze becomes embodied and relies on the freedom to choose. Due to the everyday nature of self-tracking and the levels of control that individuals have, this work therefore furthers Robinson’s suggestion that context matters showing that the forms of surveillance and associated power relations present within self-tracking are both spatially and temporally contingent. This means that individuals are able to manage what they post to perform their self-tracking identities in particular ways, and the level and type of surveillance they engage with varies. There are therefore more opportunities for resistance present within this context, when there are opportunities for a curation of health identities, than in the one Robinson discusses.

Finally, this paper contributes to literature surrounding the forms of online sociality during the COVID-19 pandemic when social interaction had to take place without meeting in-person (Nguyen et al., 2021). This paper demonstrates how self-tracking sites and the associated social media brought people into digital proximity in a time of isolation. They augmented offline relationships and offered a means to connect with others online through sharing data and interacting in these digital spaces.

There is still much to be learned about how individuals engage with self-tracking technologies. It is important that we continue to research self-tracking to better understand self-tracking practices. Previous research using MMR has demonstrated the importance of engaging with physical activity apps for decision making (Hirsch et al., 2014; Cook et al., 2016; Anagnostopoulos, 2020; Pérez-delHoyo et al., 2021) as well as the importance of engaging with self-tracking practices on a more individual level, to understand the intimacies experienced with a through such technologies (Hughes and Mee, 2019).

Whilst this study highlights the importance of engaging further with self-tracking and its associated surveillance, it is important to note that the findings are based upon a small sample of participants. Further research could examine the differences in how individuals engage with self-tracking technologies by paying attention to the specificities of geography, age, gender, class, ethnic identity, sexuality, disability and other intersecting forms of difference. Methodologically, further research could contribute to conversations about new ways of knowing through a digital lens, to work towards a better understanding of how and in what contexts data can assume importance and significance in people’s lives.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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