The Time of the Smartwatch: Taking Care or Wasting Time?

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Abstract

The aim of this article — drawing on qualitative methodology — is to enlarge self-tracking studies, thus to problematise the management of time required to produce reliable and interpretable data. To do so, the essay explores the contamination between self-tracking literature and feminist technoscientific studies, focusing on the digital time enacted by the domestication practices of smartwatches, configured to be simultaneously both time-tracking devices and wearable self-tracking technologies. In the era when Google and Apple manage our well-being, is producing reliable data through smartwatches a waste of time? Or could it be a time to take care of yourself? Qualitative interviews have been carried out to investigate how women appropriate their digital time clocks by experiencing flexible and subjective time as well as strategies to balance self-care time with work and family time. Accordingly, the analysis is presented in two parts. The first section shows how self-tracking habits can become a waste of time by configuring underuse practices. The second section analyses how smartwatches become allies in the processes of re-appropriation of body self-knowledge in the lifetime of women who have to reconcile time for themselves with time for family and work.

Keywords: Self-tracking; smartwatches; self-care practices; wearable technologies; conciliation.

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1   Introduction

This article explores the contamination between self-tracking literature and feminist techno-scientific studies, focusing on the digital time enacted by the domestication practices of smart-watches, configured to be simultaneously both time-tracking devices and wearable self-tracking technologies. The sociology of self-tracking, developed over the last decade, is fledgling and nec-essarily interdisciplinary, as it aims to question the interconnections between humans and digi-tal technologies developed to be ubiquitous, heterogeneous, and plural. The self-tracking liter-ature discusses digital technologies as objects that can record individuals' behaviours and visu-alise specific patterns of their lives through data. Contemporary self-tracking systems are anal-ysed as reflexive practices that help produce greater self-awareness (Lupton, 2019 & 2020; Pink & Fors, 2017), but also as technologies aimed at the constant improvement of one's lifestyle in a vision of individual health promotion, inextricably linked to the processes of biomedicalisa-tion, explored further below (Clarke, 2014). Feminist critiques of self-tracking have underlined the normative assumptions about the body, gender identity, and roles inscribed in the design of self-tracking technologies, which in some cases reproduce women's bodies as embedded in normative social structures (Åsberg & Lykke, 2010; Dolezal & Oikkonen, 2021). Some studies have emphasised how self-tracking encourages forms of self-surveillance that configure a con-cept of empowerment supporting women to adopt a certain way of taking care of themselves, from physical activity to fertility and ovulation monitoring (Algera, 2023; Fox & Speketor, 2021; Grenfell et al., 2021; Zampino, 2019).

The article aims to advance this ongoing debate by highlighting the apparent lack of stud-ies analysing time spent on self-care practices in order to produce reliable data to improve self-awareness. Combining inspiration from feminist technoscientific studies (FTS) and sci-ence and technology studies (STS), the contribution of this article fits into this discussion by adding the question of digital time as time that is lost in the process of technology appropria-tion and subjective time devoted to self-care. Smartwatches, designed to datafy and promote self-tracking practices, are embedded in a constant tension between taking care of oneself and the perception of wasting time in a daily routine driven by rhythms, deadlines, and work sched-ules. To do this, the article presents the results of qualitative research on women smartwatch users. Qualitative interviews have been carried out to investigate how women appropriate their digital time clocks by experiencing flexible and subjective time as well as strategies to balance self-care time with work and family time.

History has been the written prerogative of men, making structural a conception of the family organisation that sees women as biologically suited for caring roles, so it is always some-what more incumbent on them to balance work and family better. In Italy, ISTAT statistics show that domestic and care work is still not equally distributed between men and women. This requires women to reshape non-domestic activities, even remunerative work, according to care work. In couples where both members are employed, the index measuring how much of their time both partners spend on domestic work reaches 62.6% (average 2020/2021) when calculated for women aged 25 to 44 (ISTAT, 2023).

Before focusing on the analysis of interviews, the second section offers a critical reading of the concept of time in the digital society. Then, the third section discusses the theoretical framework, highlighting some distinctive concepts of feminist technoscientific studies. The fourth section presents the methods, and the fifth analyses the story of use collected by shed-ding light on how practices of appropriation of self-tracking technologies are embedded in the concept of time, both as stolen by the machine and as invested in the knowledge of one's own

body.

2 The History of the Concept of Time

As already mentioned, while feminist studies on science and technology have been crucial in advancing the understanding of self-tracking technologies in the study of the biomedicalisation of bodies in everyday life, this study intends to initiate a discussion on the subjective elaboration of the concept of time experienced by individuals in the process of producing reliable data as a result of self-care practices. Time has always been a subject of sociological reflection. The beginning of sociological reflection on time coincides with Durkheim's (1912) studies on primitive societies, which argued that time is a social institution and, as such, it changes with the transformation of society. Time-tracking devices have a long and fascinating history, dating back to the earliest civilisations. The earliest known timekeeping devices were probably simple sundials, which used the position of the sun to track the passage of time throughout the day. These devices were used by ancient Egyptians, Babylonians, and Greeks, among others. Over time, other time-tracking devices were developed, such as water clocks, which measured time by the flow of water through a container, and hourglasses, which used sand to measure a fixed period. These devices were used throughout the medieval period and into the Renaissance (Mazur, 2020).

The invention of the mechanical clock in Europe in the 14th century marked a major milestone in the development of time-tracking devices. These clocks used a spring-driven mechanism to power their movement and were accurate to within a few minutes per day. They quickly became a fixture in public spaces such as town squares and churches, as well as in the private homes of the wealthy. During the Industrial Revolution in the 18th and 19th centuries, time-tracking devices became even more important due to the need to coordinate the activities of large numbers of workers in factories. Punch clocks, which used paper cards to track workers' hours, were invented in the late 1800s and became widely used in factories and other workplaces (Mazur, 2020).

The emergence of the industrial society coincided with a radical transformation in the conception of time: from a measurement marked by Nature to an artificial measurement marked by the industrial machine. In industrial society, time is understood by the dominant role of economic rationality in social life (Gorz, 1988). Industrial time is the time of work, and as such it is measured, paid, and also mechanically repetitive. The industrial paradigm of time is rooted in the dimension of economic rationality incorporated in the emergence of the technological instrument of the watch. Using technology to objectify time means depriving it of those values linked to the natural alternation of day and night typical of traditional society. It is measured using a technical object marked by objective methods in order to make time subordinate to the economic logic of capitalism (Adam, 1992; Hassard, 1990). In this reconstruction, it emerges that time is influenced by the socio-economic context. In this regard, Norbert Elias (1984) underlined that time is the paradigm of history and the expression of change: from the simplest societies when time coincided with the circadian cycle of darkness and light and was marked by "Nature", up to our contemporary society where it is measured by increasingly sophisticated technological instruments.

During the 20th century, time-keeping devices changed further. Electronic time-tracking devices such as time clocks and time stamps were developed, which used electromechanical technology to record workers' hours. Nowadays, time-tracking devices have evolved even further with the widespread use of digital and computerised time clocks, such as smartwatches,

which can track hours worked, breaks taken, and other important data related to recording changes in the body in interplay with others and material space. The transition to an era marked by the industrial machine (Adam, 1992 & 1995) and then to an era marked by the process of digitisation and datafication reinforces the concept of time as historically and culturally situated. With the emergence of digital society (Lupton, 2015), time is a resource to be controlled and managed efficiently. Self-tracking technologies also help quantify wellness and self-care time productively and efficiently, such as an appointment with one's body to fit in between work and personal commitments. Time management-related skills also include the ability to carve out personal time to devote to one's interests outside of work life. In contemporary society, the aim is to optimise time to manage daily tasks and thus keep up with the imperative of speed imposed by the globalised society (Gasparini, 2000).

In this regard, it is interesting the reading of time proposed by sociologist Carmen Leccardi aimed at overcoming the dichotomous dimension between the structured dimension of time — thus the objective processes that produce society — and the time of subjects — the subjective elaboration of time experienced by individuals (Leccardi, 1996 & 2009). The sociologist used the concept of "temporal practices" to refer to those actions aimed at claiming forms of reappropriation of time in an advanced capitalist society in which acceleration is the real watchword. Leccardi captured in collective movements, and particularly in the feminist movement, the drive toward deconstructing the time of accelerated capitalism by enacting practices to claim the flexibility of subjective time and the multiplicity of biographical paths (Leccardi, 2009). The deconstruction of capitalist time is defined in the struggle against a gendered time, i.e., the generalised perception that family care roles are the almost exclusive competence of women (Elshtain, 1981; Kristeva, 1981).

In light of this consideration, this essay questions how people manage their time using a smartwatch, both a self-tracking technology and a digital version of a time-keeping device. Smartwatches are self-tracking technologies when they transform into data micro-practices — such as taking the stairs and long walks, getting out of a chair every 30 minutes — and bodily and bio-parameters, such as heartbeats and blood pressure, etc. — to generate time to devote to oneself and produce knowledge about one's body (Espeland & Stevens, 2008; Lupton, 2018 & 2019; Pantzar & Ruckenstein, 2015; Schüll, 2016). We can classify the main functions of the smartwatch into three categories: the fitness function (allowing the monitoring of various sporting activities, daily steps and calorie consumption, and the level of sedentariness); the wellness function (allowing the monitoring of heart rate, blood oxygen level, and sleep quality, i.e., biomedical information); and finally, the notification functions (offering the synchronisation of messages, calls, emails, etc.). Since 2009, the smartwatch has been able to establish itself on the market, mainly thanks to two giants, Google and Apple, which are investing heavily in health informatics and the digitalisation of health in everyday life through "apps" (van Dijck et al., 2018). Indeed, smartwatches are marketed as wearable technologies that incorporate a series of sensors that collect real-time information from the body, convert this information into electronic signals, which are in turn processed by algorithms programmed to help consumers in the responsible choice of behavioural patterns dedicated to daily self-care (Schüll, 2016).

In media and self-tracking literature, apps are interpreted as sociocultural and political artefacts situated in complex relationships involving the expert and lay knowledge (Polanyi, 2002; Ribeiro & Collins, 2007) of users, designers and developers, digital infrastructures, and government agencies. The design of these technologies is the result of the interactions between these actors, which tinker in alternative ways with the knowledge inscribed in them (Zampino, 2019). Questioning the time of use of smartwatches in daily life allows us to observe how women claim

their subjective time by tinkering with flexible individual behaviours to enact strategies of trade-offs between time for self, time for work, and time for family.

3   Self-Tracking, Biomedicalisation, and Domestication

The sociology of self-tracking has focused on the analysis of health promotion as an effect of the biomedicalisation process. Biomedicalisation is the result of the influence exerted by technoscientific medicine, which places greater emphasis on the possibilities of intervention, (re)organisation, and the technoscientific transformation of life. At the theoretical level, biomedicalisation marks the shift in medical research from a purely clinical view to a gaze at life itself through the introduction of innovative technoscientific tools that offer the possibility of intervening in biology and the body, i.e., the well-being of users/consumers (Shim & Clarke, 2009). Biomedicalisation theory suggests observing the progressive spread of biomedicine that manages to intervene in the daily well-being of users/consumers of health technologies, including self-tracking technologies. These technologies incorporate medical knowledge that promotes the data visualisation of wellness-related behaviours to establish patterns of healthy lifestyles — starting with diet and ending with physical activity — and thus prevent the onset of heart disease or other types of disorders (Clarke, 2014).

Moreover, visualising otherwise unperceived bodily functions can lead to reconfiguring personal knowledge about how the body works (Crawford et al., 2015). Following the feminist scholar Donna Haraway, the body can be understood in discursive, affective, and material modes of thought and thinking (Haraway, 2016). This requires interpreting the body through movement and sensation, exploring affective entanglements and embodied ways of knowing in practices (Gherardi, 2016 & 2019). "Knowing-in-practices" is an embodied knowledge that "resides in the fingers, the eyes, the nose or the ears" (Gherardi, 2019, p. 65) in modes of incorporation, feeling, and perception. These modes can be both visualised and quantified through self-tracking technologies that encourage the datafication[1] of health through the monitoring of biometric parameters, such as physiological elements and biological functions, during daily practices by connecting different spaces and times: from the home to the hospital (van Dijck et al., 2018).

As highlighted by STSs, the use of artefacts requires a time of domestication, in which users learn to incorporate technologies into everyday practices. This concept assumes that users have an active role in defining the meanings and use of technologies (Magaudda & Piccioni, 2019; Silverstone & Hirsch, 1992). Domestication presupposes a process in which designers' vision is negotiated by users' needs and interests, redefining what is called a "script". Each technological artefact draws a script that is the result of the interconnections between expert knowledge, such as biomedical knowledge, engineering, etc., and tacit knowledge, which is the knowledge embedded in practical experience produced within multiple socio-material interactions. A script is a usage scenario that configures a framework of actions and practices. It is the screenplay, and it says what the actors have to do in the scene while they are acting. The idea is that objects have inscribed in their configurations a series of behavioural instructions for their potential users (Akrich, 1992). However, in enacting the script, users put in place practices of resistance and subversion. Resistance practices are different and can include forms of non-appropriation but also creative appropriation of technology (Kline & Pinch, 1996).

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1.   The process by which human behaviours, emotions, and social relations are recorded and converted into numbers (van Dijck, 2014).

This implies that self-tracking technologies combine multiple types of bio-knowledge *suggested by* and/or *inscribed in* technologies (Zampino, 2019) enacted by temporal practices. Based on these theoretical considerations, we discuss the time invested in practices of appropriation, reappropriation, or non-appropriation (Kline & Pinch, 1996) experienced in everyday life by women who use their smartwatches to quantify self-care, among the difficulties they face in managing daily commitments that for some are compounded by family and caregiving responsibilities.

4   Methods

From a methodological point of view, 30 semi-structured interviews were carried out between January 2019 and July 2020[2] with women that were users of self-tracking technologies, such as smartwatches and their health-related applications. All participants were recruited via a cascade mechanism to respect the plurality and the complexity of the uses.

The methodological paradigm employed by sociological self-tracking research aims to study the mind–body relationship to produce an understanding of the experience arising from self-tracking practices (Pink et al., 2017). Adopting qualitative methods facilitates recruiting persons who are engaged in self-tracking practices mediated by apps and smartwatches (Pink & Fors, 2017). For these reasons, interviews were semi-structured, including an introductory question to collect basic personal information such as age and profession. The interviews were additionally enriched by using digital technologies in real time to join the story of use to the practice of use. Lasting between 50 and 60 minutes, they were audio-recorded and transcribed verbatim. Interviewees were aged between 20 and 49 and living in Italy; whilst the heterogeneity of the participant group was not the aim of the study, the sample, which was white and middle class, constitutes a limitation of this research.

Drawing on feminist studies of science and technology, my research questions constitute interpretive devices rather than defining questions about reality. We usually imagine a method as a set of particular and systematic procedures to follow in order to reach a particular destination. However, the method is not just a philosophy of method, nor a set of techniques (Law, 2004). From a feminist perspective, the method is understood as assemblages of performative and relational practices, which enact multiple and partial visions. Feminists distance themselves from any claim to objective knowledge, in favour of situated knowledge(s), where objectivity comes from researchers' local position (Haraway, 1988).

The main question concerns the digital times of smartwatches that require domestication practices to produce reliable data that can visualise one's body and at the same time construct a flexible and subjective time in which to reconcile self-care with family and work time. How do the digital technologies purporting to support time management and optimise self-care affect the process of appropriation of the technologies in everyday life? What kind of digital time is defined in the use of technologies? In the era when Google and Apple manage your well-being, is producing reliable data through smartwatches a waste of time? Or could it be a time to take care of yourself?

Following these questions, the analysis is presented in two parts. The first section investigates how learning to use technology can become a waste of time by configuring underuse practices. The second section analyses how smartwatches become allies in the processes of re-

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2.   Twenty-six interviews were carried out in person, while four interviews were conducted online.

appropriation of body self-knowledge in the lifetime of women who have to reconcile time for themselves with time for family and work.

5 Findings

5.1 Self-Tracking Technologies Between Time-Consuming and Self-Care Practices

The smartwatch interface displays the time and date but can also show different information depending on the preferences the user sets. It is possible to customise the interface to visualise some information such as steps, heartbeats, and notifications of calls and messages.

The smartwatch is used because it is aesthetically pleasing and deemed an innovative technological tool. It is functional to manage notifications without using a smartphone because it is faster to engage with time under the control of a watch that is always on the arm as a real extension of the body. In this regard, Giuseppina told us:

> Passing through a shopping mall, I saw a Samsung model, the Galaxy Watch, which was also at a good discount, and I liked the look of it. So, I took it without checking too closely the benefits and technical features. I confess this. It was a nice object; unlike other types, the Samsung one has a peculiarity. It has a round shape like a watch and the possibility to show only the hands on the home screen. So, good or bad, it had a certain continuity compared to a mechanical watch. (Giuseppina, age 50)

Giuseppina was a lawyer, and she liked stylish watches but also digital objects. She was attracted by the beauty of the watch, not just its technological features. Giuseppina learnt to adapt the use of a mechanical watch to the use of a technological object designed to measure not only time but also the body in movement through space (Lupton, 2019). We can see how the user customises the script of the digital object in everyday life by using only those functions that are useful to her in the economy of her own commitments and self-monitoring needs (Akrich, 1992). At the end of the domestication process (Silverstone & Hirsch, 1992), however, Giuseppina began to consider the technology too invasive and ended up using it as a small surrogate for her smartphone to "measure the time" and keep track of emails and call notifications:

> It's a nice device, but it had become less nice to me over time, and it became a little bit nice again when I decided to use it only for specific tasks, taking off most of the notifications and functions. This is paradoxical because in the end I have the same function as a traditional clock and practically, in addition to the function of monitoring time, I ended up using it only to take a sporadic look at the daily steps, rather than the heartbeat. All in all, this is information that seems quite accurate. So, I excluded all WhatsApp notifications and all notifications in this world; otherwise my wrist was vibrating every 3 minutes, and not even in a seismic zone. I only left the notifications for incoming calls. It is useful because if I leave my mobile phone in another room, I can see who is calling me and I can decide if I have to quickly reconnect to my phone or if I can ignore it. The same goes for e-mails. (Giuseppina, age 50)

The smartwatch became less appealing to Giuseppina. After experimenting with time and learning the various functions, she noticed aspects that annoyed her because they made her

daily life more exposed to notifications and therefore distractions. Even though the smartwatch was designed to suggest care practices aimed at implementing a healthy lifestyle, Giuseppina bought it out of curiosity and discovered how it could be used in real time. She put in place resistance practices: she did not use her smartwatch to monitor her body whilst engaged in wellness-related activities (Kline & Pinch, 1996).

One aspect that has already emerged is the aesthetic function of the smartwatch, to the point that even famous jewellery brands are starting to produce them, as Stefania told us. She worked in a jewellery shop, and a famous watch brand had given her a smartwatch to test it. At first, she played with the smartwatch because she could check WhatsApp, e-mails, and social notifications without using her smartphone. Lifestyle and fitness data were information she looked at out of curiosity. She said:

> Frankly, the only data that affected my lifestyle was the pedometer, because I was taking far fewer than ten thousand steps. Actually, when I was studying or rather working, I was taking less than three thousand steps. That's why I set myself to take ten thousand steps a day as my goal, and so maybe the next day I would try to take a couple thousand more steps and so on. But otherwise, I don't look at the graphs. Basically, I use it as a normal watch. Then, having a good operating system, I synced my WhatsApp, my Instagram, so maybe I'd spend two hours changing the wallpaper rather than checking other things. It was a nice toy; I had a lot of fun with it. (Stefania, age 29)

The time-measuring function of Stefania's watch was extended by the sensors and the operating system, which could capture and quantify habits and biological parameters. The domestication of the smartwatch by passing through knowing-in-practices (Gherardi, 2016 & 2019; Silverstone & Hirsch, 1992) involves temporal practices that design processes of subjective reworking of the time devoted to caring for one's body. The smartwatch embeds biomedical knowledge, suggesting temporal practices geared toward activities that promote a non-sedentary lifestyle (Clarke et al., 2003; Leccardi, 2009). However, self-tracking devices require too much time to work well, so the smartwatch is readapted for a purely aesthetic function (Lupton, 2019), replacing the mechanical watch. Temporal practices (Leccardi, 2009) coexist in a tension between the knowledge suggested by digital clocks and the time consumed in the operation of technology, which results in substantial underutilisation (Zampino, 2019; Kline & Pinch, 1996).

In this regard, it is useful to take into account the experience of Teresa, for whom the decision to buy her first digital wristband coincided with a change in her approach to managing her body and her well-being:

> [...] among other things, I decided to change my approach to personal care that I had never considered before. I started running on my own, but I needed to have a coach that I found in the Apple smartwatch. I simply wanted to know how long I run, manage music and things like that. My smartwatch quickly became a coach enabling me to track my progress and be aware of it. Since I had never run, and I did not do sports with a personal trainer (actually, I hated running because it is the classic thing that causes breathlessness and you die), I started to search for information online to learn how to run without hurting yourself. I looked it up and realised that I had to run for a while, i.e., I had to run for a few kilometres and then walk a few metres. So, I needed an instrument to measure when I was

running and to warn me when I should walk and when I should run. There are faster intervals and slower laps, and so it was necessary for me to understand what… how much I was running… the smartwatch was useful to quantify my run and my improvement. (Teresa, age 33)

Teresa bought the Apple Watch in order to complete her collection of Apple devices that she used both for work — she was an architect and used graphics programs that ran better on Apple devices — but also because she could no longer do without the interconnection between various everyday technological tools that Apple ensured:

> […] I bought the smartwatch, the Apple Watch, which I've never had before, first of all because I'm quite orthodox about everything that is Apple, from the computer to the phone to the tablet — I've always been very loyal to the Apple family. For my work, it is quite necessary to use Apple because of the performance. I place trust and loyalty in Apple, and it's quite natural to have all the other devices to have everything connected and interconnected. On every device you have pretty much all the devices put together like that. And the smartwatch has also become a duplicate of my phone, so apart from being a smartwatch I also use it a lot as a replacement for my phone: messages, calendar, and things like that. But of course, I downloaded all the running and sport apps that I use depending on the physical activity I do. (Teresa, age 33)

Teresa collected Apple devices, and the Apple Watch completed her technologically dense daily space. The Apple technologies were a symbol of her productive work, and the smartwatch became an instrument that, in addition to incorporating the typical functions of the analogue clock — indicating the time and measuring the passage of time — supported the human in the ability to perform work and self-care practices in times that must meet the imperatives of speed and efficiency (Gasparini, 2000).

Observing the concept of time embedded in digital watches and self-monitoring, temporal practices emerge in which time is broken down into an objective one, given by the passing of minutes and hours, and a subjective one, consisting of a feeling of wasting time that affects how self-tracking devices are used. For some interviewees, the use of these technologies, as prescribed by the developers, required too high an investment in terms of time, which had the effect of under-utilisation of the self-monitoring technologies. This is how the smartwatch becomes a substitute for a mechanical watch or a miniature smartphone on the arm to manage notifications and calls.

5.2 Quantification of Time and Wellness Towards Conciliation Practices

Time for oneself was an issue that emerged in the stories of some of the interviewees, who told of how difficult it is to find time for physical activity, especially when you are also a mother. The smartwatch not only measures time but also quantifies the time spent on physical exercise and daily well-being. Working out requires time for self-care, and particularly constancy, and this often clashes with the demands of reconciling life time, family time, and work time. In this regard, the story of Elena, a researcher and mother of two children, is an interesting testimony. Going to the gym was one of her favourite activities, but after the birth of her children, it became increasingly difficult to combine the gym with all her other family responsibilities:

> I used to go to the gym a lot… but I don't have the time to go to the gym anymore with two children. However, I feel the need to exercise, so I got organised and do it at home. I couldn't wait for the kids to grow up to start doing sports again, so I found a way to train at home by following training programmes, some of which I pay for, that let me work out when I have time. My smartwatch helps me monitor my progress in calories consumed, as well as quantifying the time I spend exercising. (Elena, age 43)

In this context, the emergence of the smartwatch affects the subjective experience of time, contributing to shaping self-tracking practices to claim forms of reclamation of time in order to build a subjective and flexible self (Leccardi, 1996 & 2009). Learning to use a smartwatch coincides with learning to quantify time spent on personal care. Time emerges in its digital ubiquity, providing time for different activities in multiple spaces: you can train at home, avoiding going to the gym. It is important to emphasise that learning to use a technological object requires time to be invested in tinkering practices aimed at discovering and customising the different functions and options. This also allows one to learn how to interpret the data produced, how to process and manage them to create greater awareness. As Elena told us, the smartwatch needs time to be used well in order to gain awareness from data and statistical reports, and she "loves" to tinker with the knowledge inscribed in it with the aim to set it up according to the information she was interested in keeping track of:

> So, it's got a thousand useless functions, including a whole play aspect that I hardly use, I use so much the function for physical activity monitoring. You have the ability to set… I mean, I don't care… it is simply that I wear it and if you leave it with more or less original settings, without it being too… because it's very customisable, you know? So you can set it according to what you like and don't like. I've been testing it for a few months now, so I've left it more or less with the original settings because I think it's a good way to understand everything that it offers and then maybe make a selection and take out some features. Really, healthy living is based on these three rings and theoretically the aim is to close these circles, that is, advancing the bars of these three rings which have three different colours and are concentric. […] I essentially use the circle that shows the time in minutes spent exercising. This is the function I use when I run. That is, I start the timer and it counts my kilometres, the average pace. […] If I forget it at home, I get a shock because then I don't fill in the circles for that day, and I find the calendar empty and I say to myself: "Eh! I didn't do anything!" It also has another aspect. If you wear it for six months, at some point you get a trend report. Let's say, a history report for your healthy life. So, it tells you what goals you've achieved, what you need to improve on, what aspects you've been good at. (Elena, age 43)

Elena did not have a lot of time to train, and the interconnection between her iPhone and Apple Watch helped her lead a healthy lifestyle. The Apple Watch not only becomes a device that can handle message, email, and call notifications faster, but also measures the time spent managing a healthy and balanced lifestyle, which becomes visible in the production of graphs and statistical reports. This separation between the practices suggested by technological devices and the incorporation of these practices in everyday life shows the ways in which the body learns to be influenced by matter (Gherardi, 2019; Haraway, 2016), that is, the hardware and all the digital infrastructure that allows it to operate (software, servers, cables, electricity, internet

connection, etc.). It is an analytical division between the tracking practices suggested by technological devices and the embodiment of these practices in everyday life to focus on how the body learns to be affected by the biomedical knowledge inscribed in technoscientific objects (Clarke, 2014; Gherardi, 2019).

The analysis of the interviews underlines that the wearables were used to approach the world of fitness, without going to the gym. The gym is expensive, but it is also a commitment that implies time and organisation for Simona, for whom it was very difficult to reconcile family, work, and even the gym. She said:

> [...] Running is the only sport I could do, because it can be done in even the smallest time. You don't need a lot of organisation. Actually, at the end of the day, anyone can open the door, go running. You don't have to take courses, follow schedules, move around to go to the gym, and then it's quite cheap. There are my daughter's commitments, my work and my husband's work, and the household care. So, you understand that it's really something you have to want... (Simona, age 41)

For Simona, the smartwatch was the symbol of her voyage towards running and a healthy lifestyle:

> My husband gave it [the Garmin] to me because I wanted it so much, and I care more about it than all the jewels I have. The fact that I told my husband that I wanted the Garmin is because I was aware that sport had come into my life definitively. It's a small symbol of my decision to become a sporty woman. It's cute because it's very practical, it has a series of features for running. For example, it has a very precise GPS, it synchs with my smartphone, and then I see the messages on the display. It's useful, because, for example, when I'm with my daughter, I don't hold my phone. That is, I leave it in my bag, and I reserve myself for her, and take out the phone just in case I get an important message. (Simona, age 41)

Simona had a degree in economics, worked in a betting company in Rome, and was the mother of a 7-year-old girl. The smartwatch was a symbol of her healthy lifestyle, sometimes becoming a smartphone replacement. This was the case, for example, when she wanted to carve out time just for her daughter. In this case, she left her smartphone behind, as she could keep an eye on any important calls and messages that needed to be answered urgently via her digital watch. The conversation with Simona was interesting because she talked about how her smartwatch could affect her time management but also her understanding of how running influences lifestyle quality, turned into data and targets achieved (Crawford et al., 2015). To this extent, Simona says:

> Here is an example of something very trivial... See here? There is a graph. This is the graph of the activities I do, okay? For example, this is yesterday's activity, yesterday I ran here, but all last week I didn't do anything, because I was still fresh from a marathon. This stupid graph showing me that I didn't do anything somehow stimulates me to do something else because I like to see the full graph bars. I see the days go by and I say to myself: "Oh! Damn, I haven't trained, I haven't done anything." So, it's a triviality, but all day I see what I'm doing, and so somehow it pushes me to want to do better, it's silly but it has a big impact on me [...] I've personalised it, and there's a whole series of things here, like daily steps, calories,

and here's the time. [...] But there's a graph that I look at. It's really stupid. It's called VO$_2$ max. It's the volume of oxygen in your blood, this shit here tells you how much oxygen you have in your blood depending on how much training you do. And if you reach a certain range, it will mark it here with the colour pink... when you get to pink you're really... you're younger! You know? You have a level of, let's say, oxygen, like you're younger than you are. And us 40-year-old losers look at it a lot, because you feel younger. (Simona, 41)

Simona engaged her time in knowing her level of wellness, as measured on the basis of training captured by her smartwatch, which was always with her. From this last excerpt arises another question, which is that of the flow of personal time that the current society tries to slow down to prevent the onset of visible signs on the body in different ways, among which we find sport and taking care of one's psychophysical well-being. Simona was aware that the graph acted as a motivator that quantified her level of youth. Particularly, the graph of VO$_2$ max was a way to gamify her physical activity level, comparing her graph with those of her husband and friends. However, she did not think that the graph was really reliable, supported by the fact that she repeated several times that it was a "stupid thing to consider". In this sense, her engagement aimed to question the knowledge suggested by the wearable. She trusted the data directly produced by her training, but she questioned the graph that was supposed to show the oxygen in her blood: it is not clear how this index could be calculated only through the level of physical activity achieved, as it is usually calculated with specific devices that consider haemoglobin and other biological elements.

To conclude, it is important to emphasise how engagement in the use of digital self-tracking clocks is composed of temporal practices in which time is broken down into an objective one, given by the passing of minutes and hours, and a subjective one that is reflected in self-care that incorporates learning about one's own body.

6   Conclusions

The conclusions aim to discuss how the times of smartwatches embed practices of domestication, which range from practices of underuse to practices of appropriation of the knowledge suggested by the technologies (Akrich, 1992; Zampino, 2019; Kline & Pinch, 1996).

From the analysis of the interviews emerges an ongoing and overlapping feeling of "wasted time" that results in under-utilisation of technology. The smartwatch is understood as an object that steals time from face-to-face relationships. For example, Giuseppina bought it out of curiosity, since it is now very popular and aesthetically pleasing, but it disappointed her after a few months of experimentation because it was a bit intrusive: it collected too much information and took too long to use properly. For this reason, Giuseppina stopped using it as a self-tracking technology and started using it as a watch to manage time and notifications. After all, she has always liked watches and used to collect them before the advent of the smartphone.

However, a smartwatch is not just a watch that measures time but is also an extension of the smartphone, which can incorporate the biomedical knowledge whereby we take care of bodies. The reliability of the data visualising our bodies is constructed through the time spent on self-care practices mediated by smartwatches. Digital time is defined to include plural meanings: measuring the flow of objective and subjective time (Leccardi, 2009; Mazur, 2020). This can be used to reflect on how digital time contributes to the implementation of temporal practices (Leccardi, 2009) capable of reconciling free time for self-care with work and family

commitments: conciliation principles continue to be an issue for women who need to be high-performing and multitasking.

An example may be the story of Simona, who explained that the time that she spent on her smartwatch and wellness apps also became time she spent on herself. Her Garmin — the watch brand she used — allowed her to open the door and run without any additional organisational constraints. It calculated her race times and all the technical specifications that are important to quantify when running. The smartwatch was embedded in the practices to know how fit her body was and how much she had improved over time. It is an ongoing movement that affects the bodily experience, going beyond corporeal boundaries to embrace the incorporeal: sensations, emotions, and relationships (Algera, 2023; Åsberg & Lykke, 2010; Haraway, 2016). An illustrative example is summarised in Simona's story when the smartwatch was adapted to support care practices, becoming a useful tool for spending time with her daughter without using her smartphone. Simona read notifications directly from her wrist, choosing to pick up the phone or ignore messages and calls to continue playing with her child.

This last-mentioned aspect introduces a further issue to be taken into account: the conciliation between self-care and care responsibilities. These technologies offer new possibilities for managing family and professional tasks to find time for oneself. This was the case of Elena, for whom the appropriation of technology coincided with taking care of herself. With the arrival of children and a professional career to look after, it became increasingly difficult to go to the gym until she discovered that it was also possible to work out at home. So, she started taking online courses and downloading fitness apps, which, combined with her smartwatch, gave her the ability to balance work, kids, and exercise. In the digital society, self-tracking technologies outline a time, which we have seen to be an expression of the historical context (Adam, 1992; Elias, 1984), flexible enough to construct subjective trajectories in which women claim time for self-care. Particularly, through her smartwatch, Elena could be ubiquitous, optimising the time she spent walking, exercising, and counting calories, visualised in the form of graphs and statistical analysis (Lupton, 2019).

The quantification of the practices that contribute to managing one's daily well-being is a way to see how the machine can become a thief of time, immersed in the digital and its ubiquity, i.e., in being able to live simultaneously in several places between the real and the virtual because you can be at home with your family but be disturbed by a bracelet that vibrates to notify you of calls or messages. But it can also be a resource for managing time to the maximum. In the latter case, the ubiquity of digital time — i.e., being at home or in the office, but attending a remote conference, a streaming fitness course, and at the same time monitoring your sedentary level — becomes a way to carve out free time. In both cases, we find a flexible temporality that allows us to experience the times of life and to make visible its social and political dimensions (Leccardi, 1996). This analytical division is not meant to be dichotomous; on the contrary, it is useful to question the time required for self-monitoring biotechnologies to function reliably. Analytically, the domestication process can lead on the one hand to an underuse of the digital watch, which is set to replace the mechanical watch. In this case, the smartwatch is described as an aesthetically beautiful object, not least because of its potential for personalisation — such as the graphical user interface of the watch face as well as the model and colour of the strap. On the other hand, it can have the effect of adapting to the script imagined by the developers and thus inscribed in practices of quantifying one's daily well-being with the aim of speeding up the possibility of taking care of one's body. Bringing back women's personal experience and temporal practices by passing through smartwatches allows us to see the ambivalence of the incorporation of digital technologies within conciliation strategies aimed at balancing self-care

time with time for work and family in a patriarchal society where family welfare continues to be a female responsibility.

The proposed analysis looks at a flexible temporality in which we find emotional and experiential codes (Kristeva, 1981; Leccardi, 1996). If the industrial machine deprives time of its natural element (Hassard, 1990), the digital machine emphasises bodies that become visible through data. In digital time, the circadian flow is replaced by the flow of data (in the form of surveillance and biomedical information) that definitively overcomes the dichotomy between culture and nature.

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