

# The Disciplined Body: Understanding Smartwatch Use Among Women Through Foucault's Lens

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**Abstract:** *Utilizing Foucault's theoretical framework of discourse and discipline, this research scrutinizes the body-shaping behaviors of female smartwatch users. By examining the social and technological dimensions of wearable technology, particularly smartwatches, the study highlights the pronounced tendency of women to monitor calorie intake and exercise. The analysis underscores the implications of these practices, emphasizing the intricate interplay of representation, power, discourse, and discipline, and how they perpetuate entrenched societal power dynamics.*

**Keywords:** Smartwatches; Female users; Foucault; Discourse; Discipline; Wearable technology.

## 1. INTRODUCTION

As another tear fell from my forehead, I panted heavily with my hands on my hips and glanced down at my Huawei smartwatch. Only two of the three activity rings were illuminated today. Exhausted, I sank to my knees on the yoga mat, feeling dejected despite knowing that the body should not rest immediately after exercise. I reminded myself that persistence would lead to calorie consumption, weight loss, and ultimately achieving an idealized body image.

This scenario, which captures my mental journey between 7:00 and 8:00 p.m. each night, exemplifies a broader trend identified by Eikey and Reddy (2017). Their research indicates that women are significantly more inclined than men to utilize wearable technologies to track daily caloric intake and consumption. This inclination leads to corresponding behaviors such as dietary restrictions or increased exercise aimed at weight loss. Notably, this trend among women is consistent across various demographics, including age, nationality, and educational attainment, illustrating a widespread pattern in the use of wearables for body management.

For instance, a Nielsen market research study (2014) reveals that American women are more likely than their male counterparts to use applications for calorie tracking and dieting. Similarly, in Hong Kong, women are more likely than men to use health apps for body maintenance (Zhenzhen, Ahmet, and Or, 2018). Furthermore, a French survey by Régnier and Chauvel (2018) found that women aged 20 to 50 show a strong interest in adopting wearable technology for self-tracking nutrition and fitness, indicating a widespread enthusiasm for these behaviors across different age groups.

Female users are eager to use wearable technology such as smartwatches to track their calorie intake, detect calorie consumption, pay attention to their body and self-image, and attempt to improve it. The emergence, development, and internalisation of this phenomenon are the embodiment of the interaction of representation, power, discourse, and discipline. This study seeks to understand the implications of these behaviors through the lens of Foucault's theory of discourse and discipline, exploring how wearable technology not only monitors but also shapes practices and norms surrounding female body representation.

## 2. WEARABLES, SMARTWATCHES

### 2.1 Wearables: The Dawn of a Digital Era

Data indicate that in the U.S. around 50% to 75% of the staggering \$2.7 trillion spent annually for medical services goes towards treating the disease of health habits, such as not exercising, overeating, and smoking (Schull, 2016). These illnesses are thought to be self-treatable by highlighting the significance of individual self-care and altering daily routines (Crawford, 1980, p. 365). As a result, ongoing informative physique surveillance is essential (Viseu and Suchman, 2010) since people must constantly be aware of how their daily activities affect their health (Swan, 2012), which provided the societal context for the invention of wearable technology.

Additionally, according to Lupton (2015), the emergence of wearable technology is inextricably linked to the swift advancement of digital technology, which includes smartphones equipped with gyroscopes, microphones, accelerometers, GPS, cameras, and compasses, as well as wireless gadgets with sensor-embedded devices. In this article, wearable devices are defined as gadgets with embedded sensors and algorithmic analysis technology that monitor, interpret, and direct the behavior of the user (Schull, 2016).

## **2.2 Smartwatches: The New Age Companions**

The worldwide wearable technology market is projected to expand with a CAGR of 11.3% between 2019 and 2025, approaching \$62.82 billion at that point, based on a recent analysis from Research and Markets (2019). Among them, the smartwatches segment will occupy the biggest market share and is anticipated to achieve robust growth over the course of the forecast period, which is the main reason why the discussion object will be refined to smartwatches in this article.

The most common and well-liked wearable device right now, as already covered, is the smartwatch. The software mostly consists of digital maps, schedulers and personal organizers, calculators, and numerous dials, while the electronic visual display is the essential component of the hardware (Displaymate, 2016). Even though the design resembles a typical watch, the inner function is different. Early smartwatches served primarily as "companions" for smartphone communication and entertainment features (Medium, 2020). Smartwatches can be swiftly employed as a remote control for mobile phones through Bluetooth to send text messages and emails, receive and make phone calls, etc. According to Rawassizadeh et al. (2015), smartwatches are currently more focused on developing applications for fitness or health, which is also the function mainly discussed in this article. Apple, Huawei, Samsung, iMoo, and Fitbit are some of the popular brands of smartwatches available on the market as of the year 2021; together, these five brands account for over 60 percent of the total consumer market share worldwide (Forbes, 2021).

Based on these terminological foundations, this study will explain why female users are currently more prevalent and eager to use smartwatches for managing their bodies and self-image and why it is difficult to be optimistic about this situation, even though many academics (Andrejevic & Burdon, 2015; Neff & Nafus, 2016) and governments (LeBesco, 2010; Kirkland, 2011) actively encourage people to use wearable technology to improve their lives, lead more reasonable lives, and feel better about themselves. That is not exactly the case, though.

## **3. PESSIMISMS, BODY, REPRESENTATION**

During the pandemic's strict lockdowns, I initially found solace in my smartwatch. It encouraged me to disconnect from my mobile phone, reduce screen time, and focus on achieving a healthier physique. As a result, my reliance on the smartwatch grew, inspiring me to maintain a consistent exercise routine.

But as time passed on, things began to go south, and I started to diminish my enjoyment and perception of working out. My athletic experience is meticulously recorded and quantified by the smartwatch, which also intuitively displays my physiological data in the form of graphs and tables. This device continually promoted a simplified and impersonal definition of "good performance" (Lupton, 2015, p. 447). By focusing on limited indicators—such as exercise duration, frequency, and heart rate—the smartwatch emphasized a narrow subset of athletic behaviors. Users were compelled to align their activities with the norms dictated by the smartwatch algorithm to achieve so-called "excellence" on social media platforms. This raises critical questions: why must one conform to such standards to be deemed successful, and why is it essential for female users to meticulously monitor their calorie intake and consumption?

The rationale for using a smartwatch to regulate calorie intake is ostensibly to enhance overall health. However, equating overall health with specific data detected by smartwatch sensors is problematic. While smartwatches and sensors have made individuals aware of hidden bodily conditions (Lupton, 2013, p. 394), they also impose an anti-spectacle logic (Mirzoeff, 2009), dictating what bodily information can be visualized. Thus, the body's cognition and perception are dominated by the smartwatch, which visualizes physiological data and constructs, disciplines, and reshapes people's bodies and cognition.

Wearable technologies offer limited genuine health benefits for women tracking their bodies and self-image. This raises the question of whether these devices truly enhance physical appeal. For instance, while using a smartwatch to monitor calorie consumption may lead to weight loss and a more attractive body, the qualities that define an

appealing body are culturally constructed. Mainstream society and popular culture often suggest that a slender physique is the epitome of attractiveness (Bordo, 2003). This concept resembles an assembly-line aesthetic rooted in Western conventions that prize a slim, white female body. As a woman of color, I have unwittingly participated in this power dynamic. According to Balsamo (1996), for white women, the idealized "other" is the powerful male form, whereas for women of color, the idealized "other" is the white female body. Thus, while feminist bodybuilding aims to transform and enhance the female body, it also reveals the persistent influence of race and gender hierarchies on technological practices (p. 55).

Representation theory is essential in understanding this phenomenon. Hall (1997) argues that representation involves using language to construct meaning, which can manifest through images, sounds, or written words. This concept applies to body representation, as visual culture shapes societal norms and ideals. In contemporary popular culture, fitness is highly regarded, and "thin" is often equated with beauty. Social media and cultural representations standardize and stereotype this notion, creating a loop that explains why women are more likely to use smartwatches for self-discipline and body modification. "Thin" has become a modern body representation, culturally mediated through media (Bartky, 1997).

In conclusion, the use of smartwatches by women for body management reflects a complex interplay of physical health, body beautification, and cultural representation. While these devices may facilitate weight loss and improved body appearance, they perpetuate a narrow, stereotypical standard of attractiveness rooted in significant power imbalances.

## **4. FEMALE BODY, DISCOURSE, POWER**

### **4.1 Constructing Reality: The Power of Discourse**

Discourse in sociology refers to the practices through which individuals give meaning to reality (Ruiz, 2009). As Foucault (1972) explains, discourse is not merely a linguistic phenomenon but a system of thought encompassing concepts, behaviors, and practices that shape our understanding of topics and realities. This understanding negates the binary opposition between language and speech, emphasizing that discourse is a crucial element in the production of meaning. Events only gain significance within specific historical contexts, and discourse is a dynamic force influenced by sociocultural factors, requiring specific methods and strategies to be effective.

In this analysis, discourse serves as a framework for constructing knowledge, often presented as "objective truth" in social life. The regulation of discourse involves principles such as the division of madness and the will to truth, which are foundational to understanding the power dynamics at play.

### **4.2 Division and Rejection: The Dichotomy of Discourse**

One principle of exclusion in discourse is division and rejection (Foucault, 1972). This dichotomy labels one side of the discourse as irrational and unlawful. In the tech industry, where women comprise less than 30% of the workforce (Chalabi & Silver, 2014), the majority of smartwatch designers and programmers are men. Consequently, smartwatches do not critique body standards, ethnicity, or provide gender-diverse options. They treat all bodies as if they were the same, aiming for identical outcomes, implicitly employing white males as the standard. This reinforces the notion that slimness is synonymous with health and attractiveness, pressuring female users to conform to these behavioral and moral norms.

As smartwatches collect increasing amounts of body data, new behavioral standards emerge. Behaviors that deviate from these standards are judged abnormal, perpetuating a false binary opposition (Andrejevic, 2013). Stuart Hall (1997) argues that stereotypes reflect significant power imbalances, allowing dominant groups to legitimize and naturalize their ideologies.

Foucault's (1965) discussion of the cultural history of insanity is relevant here. In the Renaissance, insanity was seen as a representation of cosmic tragedy and knowledge. In modern society, with the rise of psychiatric science, lunatics are treated as patients, silenced, and interrogated. Similarly, smartwatches represent a new form of mental institution, providing material support while the gender binary system under patriarchal hegemony acts as psychiatric knowledge. Women are reduced to "madmen," appearing attractive yet deprived of bodily autonomy.

### **4.3 The Will to Truth: Legitimizing Power**

The will to truth (Foucault, 1972) is a powerful exclusionary system that controls discourse, continually gaining strength and legitimacy. Large-scale changes in scientific or scholarly notions reflect new forms of the will to truth. What was once considered false can become accepted truth over time. For example, the guillotine was once seen as a pursuit of justice but is now viewed as inhumane. Similarly, the slim female figure is currently considered a health and beauty ideal, driven by medical standards and male-dominated aesthetics, but this may change in the future.

The will to truth relies on institutional backing to legitimize and rationalize itself, imposing restrictions on other discourses (Foucault, 1972). For instance, the combination of public health and beauty discourses defines slenderness as healthy and beautiful femininity, stigmatizing those who do not conform (Kirkland, 2011; LeBesco, 2003). This forces women to rigidly manage their bodies to meet an ever-changing will to truth.

Neoliberal politics emphasize self-management and self-quantification (Lupton, 2015), transferring health management from the state to individuals (Lupton, 2016). This shift often coincides with reductions in state healthcare funding (Mooney, 2012; Ayo, 2012). Thus, the primary motivation behind encouraging women to use smartwatches for body modification is not health or truth but the interests of dominant subjects in a specific historical era. Women lose the ability to distinguish between discourse and covert power as power creates restrictions through institutions and knowledge. These thresholds regulate discourse, concealing its most perilous elements. Power produces and reinforces these structures, encoding the female body as an attractive cultural icon and social symbol.

## **5. FEMALE BODY, DISCIPLINE, POWER**

The power explored in this study (Foucault, 1990, p. 92) is not merely an oppressive structure or a method of repression. According to Foucault (1990, p. 93), modern power is a positive force relation, continuously practiced and evolving in society.

Since the seventeenth century, the pre-modern idea of "sovereign power" has given way to the contemporary concepts of "disciplinary power" and "life power" (Foucault 1990, p. 139). Due to the transformation of power, the punishment method in modern society is no longer the torture of the classical period. Instead, it seeks more efficient and practical forms of control, producing and disciplining many obedient and productive bodies through various fine-grained disciplines and punishments (Foucault, 1979). The object of power is always located in the body (Foucault, 2004, p. 75), referred to as the subjected subject.

Given that power is always accompanied by resistance (Foucault, 1982), this study focuses on how disciplinary power counteracts this resistance and produces a "docile female body." The discussion centers on the three methods of discipline-hierarchical surveillance, standardized rulings, and inspection procedures-and how they achieve body discipline for female users through smartwatches.

### **5.1 Hierarchical Surveillance: The Panopticon Revisited**

The first method of discipline is hierarchical surveillance (Foucault, 1979), a reconstruction of individual and spatial relationships. Clear and in-depth monitoring is accomplished with an unequal dual monitoring technology or system of observing without being observed. Power is not possessed nor a movable property; rather, it is an integral component of the system that permits self-sustaining relational power to function. The classic example of the panopticon (Foucault, 1979) illustrates this concept, where inmates are confined to separate cells, and the central tower gives the impression of constant monitoring. In contemporary culture, the panopticon is a power structure and political technology. Smartwatches function similarly, particularly for female users. Each user has her wristwatch and wears it constantly, akin to an isolated cell in a jail. To acquire precise body data, female users always wear smartwatches, making it difficult to avoid this form of monitoring. Smartwatches enable the calculation of calorie intake and step tracking, enhancing women's capacity to track and analyze body data, reducing barriers to body management, and elevating body discipline to a new degree of strictness and self-control. Consequently, women voluntarily initiate self-regulation and self-control.

### **5.2 Normative Judgement: The Reward and Punishment Mechanism**

The second method of discipline is normative judgement (Foucault, 1979), a reward and punishment mechanism to educate or punish those who do not meet the criteria. This dual system incorporates individual acts into the whole,

standardizing and normalizing variances. The smartwatch assists users in establishing a routine for physical activity. Users cannot check in to the community and earn points unless they complete the workout plan. This creates a trap of monitoring the program (Foucault, 1979), combining hierarchical observation with the "normative gaze" of normative judgment. This gaze is a method of objectification involving observation, recording, and measuring, referred to as the "ritual of objectification" (Foucault, 1979, p. 187). Initially, smartwatches direct users to specific workouts to achieve fat consumption, which eventually become segmented into precise phases. Users must perform each step closely to the standard action to achieve fat reduction and weight loss goals. The current scale of force working on the body has become granular, with training focusing on practicing individual elements and merging them into a cohesive whole. Physiological data and activity information are recorded by smartwatches, but due to technological limits, not all information can be measured or captured. Thus, part of the information becomes associated codes, digitizing and knowledge into a specific code. The subject is trapped in the grid of writing, divided into the human body and human awareness. The body remains unchanged, but power begins to remove consciousness generated by the body, a concerning development.

### **5.3 Inspection Procedures: The Continuous Feedback Loop**

The third method of discipline is inspection procedures, further extending surveillance and normative judgment. Smartwatches constantly inspect users' adherence to prescribed routines, reinforcing discipline through continuous feedback. This inspection process ensures users align their behaviors with the smartwatch's standards, maintaining a disciplined body.

Through these three fundamental technical methods, disciplinary power controls bodily activities, making the body the bearer of a specific relationship between utility and obedience (Hoffman, 2010). This disciplinary stance has become progressively stricter with technological advancement. Smartwatches, like the panopticon, mold subjects or create new objects (Winokur, 2003). In the hardware space, the sensor acts as centralized monitoring, coordinating and managing female users. The software space, such as forums and communities, extends this space technology, developing standardized network discipline discourse.

Female users perceive themselves as subjects executing absolute authority, however, they become slaves of technological rationality, governed by smartwatches. Heidegger (1977) describes *Gestell* as the essence of contemporary technology, which cannot rightfully belong to humans, much less to women. Female users believe scientific smartwatch technology objectively assesses personal body data for body management, yet they are concerned with accomplishing goals, leading to technology consuming human subjectivity. Increased reliance on technology and societal criteria makes identifying problems challenging, losing opportunities for an autonomous relationship with smartwatches.

The above analysis demonstrates how female users' bodies cannot escape the fate of being disciplined and restrained due to the combined effects of discourse, power, and knowledge, and how this trend is accelerated by smartwatches. Notably, existing female consumers of smartwatches continue to use them effectively and satisfactorily, remaining unconcerned about the implications for their body image and frequently sharing images on social media that attract considerable attention and feedback. Although power relations have historically given rise to novel cultures and forms of subjectivity, providing opportunities for potential resistance (Foucault, 1983), this study suggests that such resistance is unlikely in this context. Smartwatches represent only one of many potential new instruments of control, with future technologies potentially imposing similar restrictions, akin to those seen in the cosmetic and plastic surgery industries. This study does not aim to eliminate smartwatches, recognizing their embeddedness in contemporary society. Instead, it advocates for a balanced approach where technology serves its intended purpose without negatively impacting individuals' inner selves. As Heidegger (1977) asserted, technologies should be utilized in a way that maintains their independence from us and does not undermine our core humanity. While achieving this balance is challenging, it is crucial for female users to recognize and address the marked and repressed body that can result from excessive reliance on smartwatches.

## **6. CONCLUSION**

This study demonstrates that the emergence, evolution, and internalization of the phenomena-female users eager to use smartwatches to enhance their bodies and self-image-are the outcomes of the interaction between power, discourse, and discipline. Two primary arguments support this viewpoint. Firstly, the construction and transmission of knowledge-based discourse in society rely on the management of discourse from outside the discourse, with the division of lunacy and the will to truth ensuring that the power relationship behind the discourse



governs the standard female figure. Secondly, the discipline of women's bodies is further reinforced by hierarchical monitoring, uniform rulings, and inspection processes, eventually being internalized through women's self-discipline and self-surveillance. The article concludes by proposing a potential solution to this increasingly demanding issue and expresses the hope that it will receive further attention and study. It is important to note that everything is risky, but not everything is evil.

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