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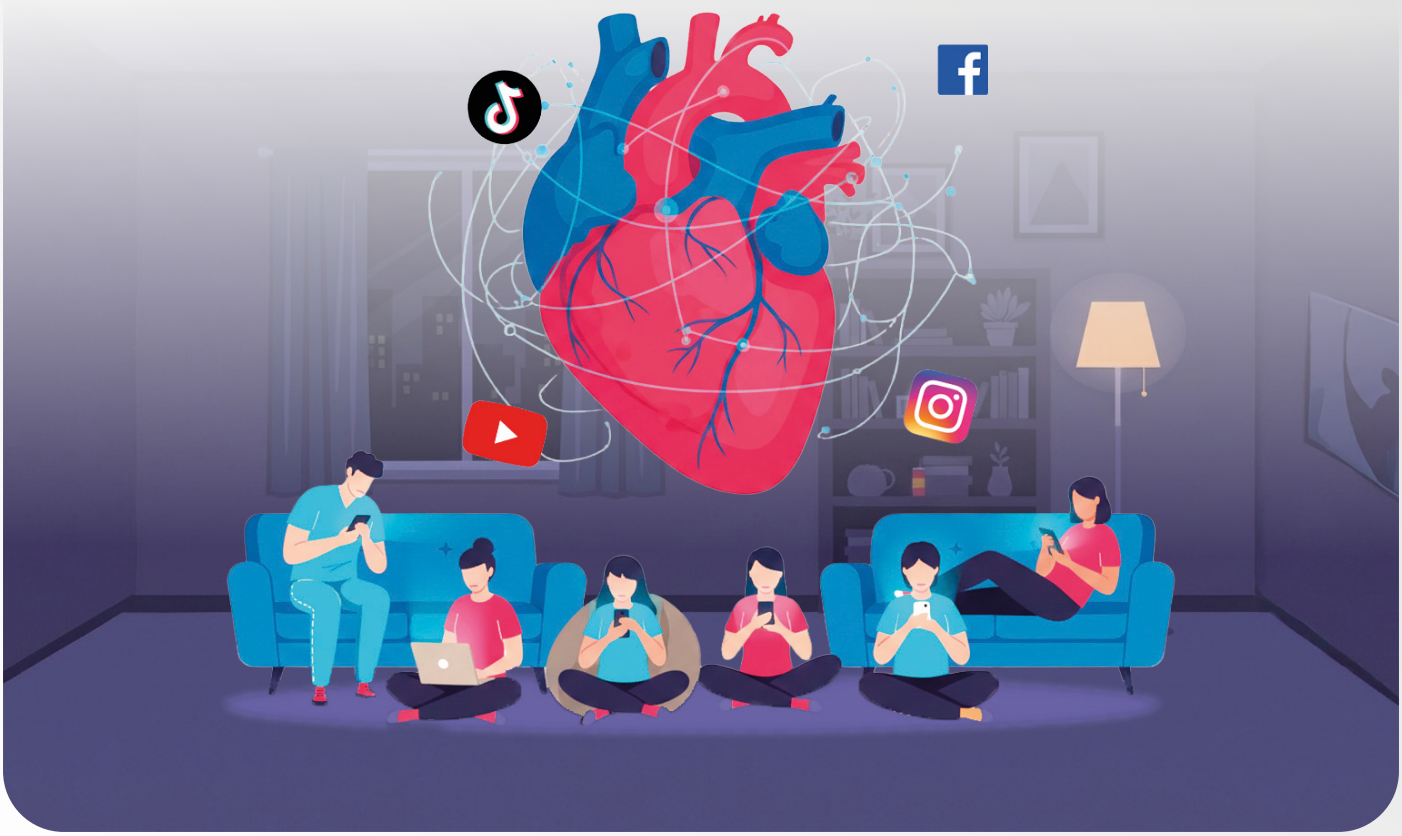
ULTRA-SCROLLING SOCIAL DIGITAL ENVIRONMENTS, ENERGY BALANCE, AND CARDIOVASCULAR PREVENTION



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POSITION PAPER

Ultra-Scrolling Social Digital Environments, Energy Balance and Cardiovascular Prevention

Ultra-Scrolling Social (USS) reframes digital environments as determinants of energy balance and cardiovascular risk. While obesity policies focus predominantly on food composition and taxation, they overlook the expansion of algorithmically driven sedentary behaviors that reduce movement and alter sleep patterns. Drawing on emerging evidence, USS offers a classificatory lens, analogous to the category of Ultra-Processed Foods (UPFs), to describe prolonged, structurally designed patterns of digital exposure. The paper argues for integrating digital determinants into cardiovascular prevention frameworks without resorting to simplistic prohibitions.

About Competere

We are an independent advocacy group that develops and promotes public policies to advance innovation, free trade, and real opportunities for individuals.

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We advocate for balanced, actionable policies that foster peaceful coexistence, economic growth, and individual freedom of choice.

We collaborate with international institutions, large and small businesses, the media, and civil society to transform ideas into tangible change.

About the author

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In recent years, his work has focused in particular on public health, obesity, and nutrition policies. He is the author of "IFood: How to Overcome Food Ideology", "In Lucy's Footsteps: An Evolutionary Journey" and co-author with Prof. Michele Carruba of "Obesity: Instruction to Rebel. The Mediterranean Way to Balance, Longevity and Freedom of Choice".

Ultra-Scrolling Social – Policy Snapshot

Public health policy has narrowed obesity and cardiovascular risk to one dominant narrative: food. This paper argues that a structurally neglected driver is the collapse of daily movement - and the digital environments that increasingly replace it.

Excessive screen time and social platform use are associated with:

- Reduced energy expenditure
- Sleep disruption
- Distracted eating
- Metabolic and cardiovascular risk

If food and nutrition are regulated to prevent obesity and cardiovascular disease why are digital environments that displace movement and restructure daily behavior largely absent from the same prevention framework?

If food can be classified and targeted under evolving and debated frameworks such as Ultra-Processed Foods (UPFs), then digital environments can likewise be classified and analyzed as Ultra-Scrolling Social (USS). USS is a provocation. A coherence test. But the point is not to extend blunt tools.

Extending taxes, warning labels or restrictive tools from food policy to digital platforms would likely reproduce the same limited — and often insignificant — effects observed in nutrition policy. The point is not to multiply blunt instruments, but to question selective logic.

What This Paper Proposes

- Recognize digital environments as structural health determinants
- Move beyond monocausal food narratives
- Restore focus on energy expenditure, movement, sleep and time use
- Promote responsible design, not prohibition
- Strengthen individual competence, not paternalistic control

Bottom Line

The problem is not only what we eat.
It is how we live – and how much of our day is captured by scrolling.

Executive Summary

Policies addressing obesity, cardiovascular diseases (CVDs), and non-communicable diseases (NCDs) continue to focus almost exclusively on nutrition: food composition, labeling, taxation, and marketing. While legitimate, this approach is increasingly incomplete and often ineffective, producing unintended consequences. It overlooks one of the most profound environmental transformations of the past two decades: the conversion of leisure time into sedentary digital time, driven by platforms designed to maximize attention and online engagement.

Public policies concentrate on caloric intake in the context of food abundance, yet largely neglect the sharp decline in energy expenditure that has accompanied the rise of the information society. The increase in metabolic and cardiovascular risk cannot be fully understood without accounting for this structural imbalance between energy intake and energy expenditure.

Scientific evidence consistently shows an association between intensive use of digital devices and social media platforms and weight gain, worsening metabolic profiles, and elevated cardiovascular risk. The effects of screen time extend beyond sedentariness: they include sleep disruption, distracted eating, intermittent dopaminergic stimulation, and reduced self-regulation.

This position paper proposes complementing the concept of the obesogenic food environment with that of a digital obesogenic environment. It introduces, deliberately provocatively, a structural analogy with the debate on Ultra-Processed Foods (UPFs), proposing the category of Ultra-Scrolling Social (USS) to describe patterns of digital consumption characterized by continuous exposure, loss of temporal control, and systematic displacement of movement, rest, and real-world interaction.

The objective is not to advocate for new bans or taxes, but to highlight a structural inconsistency: we increasingly regulate what we eat, while leaving largely unregulated what captures our time, immobilizes the body, and shapes behavior. A credible cardiovascular prevention strategy can no longer afford to ignore the algorithm. Expanding the scope of public policy to recognize the crisis of energy expenditure and the responsibility of the digital environment is essential to restoring coherence to health policy.

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1. The Problem: The Monoculture of Nutrition

In recent years, obesity, cardiovascular diseases (CVDs), and non-communicable diseases (NCDs) have increasingly been reduced to a question of food. The dominant narrative identifies the problem primarily in what we eat — sugar, fat, salt, "unhealthy" products — inadequate labels, and imperfect individual choices. The resulting policy response has focused almost exclusively on the food supply: reformulation, classification systems, advertising restrictions, selective taxation, and, only marginally, nutritional education. The deterioration of physical movement, energy expenditure, and active lifestyles is occasionally invoked as a preventive factor, yet it is rarely translated into structured analysis, coherent policies, or adequate investment. Rather than a strategic pillar, it often appears as a declaratory principle, symbolically reassuring but lacking transformative capacity.

This approach presents three structural limitations.

The first is scientific. Obesity and cardiovascular risk do not stem from a single cause, but from a complex ecosystem of determinants: diet, physical activity, sleep, stress, social and urban context, genetics, and metabolism, among others. Isolating food as the dominant driver oversimplifies a phenomenon that is, by definition, multifactorial and dynamic.

The second limitation is cultural. Focusing on the plate allows us to avoid a more uncomfortable reflection: how we have transformed human time. In little more than a generation:

- free play has been replaced by the screen;
- spontaneous movement by high-stimulation immobility;
- creative boredom by continuous streams of digital micro-rewards;
- physical relationships by mediated interactions.

We have medicalized food, while leaving physical movement and attention largely unregulated. Today, the digital environment constitutes one of the primary living environments, especially for children and adolescents. Yet it is rarely treated as a determinant of health on par with nutrition. No cardiovascular plan and no structured obesity strategy considers it a systemic factor capable of shaping behavior, movement, and metabolism over the long term.

The third limitation is epistemological and institutional. Over time, a significant portion of the scientific and professional community has come to occupy a dominant position in the debate and research agenda, narrowing both the analytical framework and the range of solutions to a predominantly nutritional approach. Without polemical intent, it is evident that other disciplines, ranging from behavioral and movement sciences to urban planning, from the economics of attention to developmental psychology, have remained largely peripheral in both academic discourse and policy design (Wu, 2016). The predominance of publications, conferences, and working groups focused almost exclusively on nutrition reflects and reinforces this reductionist orientation.

Responsibility also lies with public decision-makers, who are tasked with evidence-based policymaking but often reluctant to broaden the debate to interdisciplinary contributions that might challenge established paradigms.

The result is a clear conceptual distortion:

- we combat caloric excess, yet neglect the decline in movement and energy expenditure;
- we fear sugar addiction, yet normalize dependence on scrolling and continuous stimulation;
- we regulate what enters the body, but not what consumes time, immobilizes the body, and reduces energy expenditure.

This asymmetry is politically convenient. Food is a visible, regulatable, and already moralized target. The digital ecosystem, by contrast, is economically powerful, culturally legitimized, and frequently perceived as neutral or inevitable. From a public health perspective, however, it is anything but neutral.

If we accept that environments shape behavior, then we must recognize that today one of the most influential environments is not the supermarket or the refrigerator, but the screen.

2. Scientific Evidence: Screen Time, Obesity and Cardiovascular Risk

2.1 Screen Time and Weight Gain

Over the past decade, numerous systematic reviews and meta-analyses, drawing on dozens of primary studies, have consistently reported a positive association between screen time and overweight/obesity, particularly among children and adolescents. Available evidence indicates that high levels of screen exposure are associated with a greater prevalence of overweight and obesity, even after adjustment for socioeconomic and behavioral factors (Stiglic & Viner, 2019; Fang et al., 2019).

Meta-analyses also suggest a dose–response relationship: as daily hours of exposure to screens, including television, smartphones, tablets, and computers, increase, so does the risk of excess weight. This association appears particularly pronounced in younger age groups, where screen time tends to displace spontaneous physical activity and free play, potentially producing cumulative effects over time (Fang et al., 2019; Saunders et al., 2020). While causality cannot yet be fully established, and further longitudinal research is needed to clarify mechanisms and magnitude, the consistency of associations across populations and study designs strengthens the plausibility of a structural link.

Beyond duration alone, the literature highlights a significant association between weight gain and

forms of problematic or compulsive internet and social media use. Studies among adolescents and young adults show that problematic internet use correlates with higher levels of sedentary behavior, lower physical activity, and increased prevalence of overweight and obesity (Kim et al., 2018; Vandelanotte et al., 2019). In such cases, elevated risk is not explained solely by reduced movement, but also by diminished temporal self-control, attentional fragmentation, and interaction with other risk behaviors, including distracted eating and reduced sleep duration and quality (Chaput et al., 2020).

Taken together, these findings suggest that screen time is not merely a passive behavior, but a meaningful environmental factor capable of influencing long-term energy balance. Reducing weight gain to the nutritional quality or quantity of consumed food ignores the context in which consumption occurs and the progressive displacement of movement in everyday life.

The emerging message is clear: the issue is not only what we eat, but how long we remain still while living.

2.2 Screen Time and Cardiovascular Risk: Physically Active but Metabolically Sedentary

Beyond its association with weight gain, a growing body of research indicates that excessive screen time is linked to increased cardiovascular and cardiometabolic risk. Available evidence suggests that time spent in front of screens is not merely a proxy for sedentary behavior, but a complex exposure that simultaneously affects multiple cardiovascular risk factors.

Meta-analyses and longitudinal studies conducted in adult populations show that high levels of sedentary time and screen exposure are significantly associated with an increased risk of cardiovascular disease, type 2 diabetes, and all-cause mortality. Notably, cardiovascular risk appears to rise beyond specific daily exposure thresholds, often between five and six hours of screen time per day, even after adjustment for leisure-time physical activity (Ekelund et al., 2016; Patterson et al., 2018). These findings suggest that while physical activity remains a fundamental protective factor, it may not fully offset the metabolic and cardiovascular effects of prolonged daily immobility. In other words, individuals can be physically active and yet metabolically sedentary if most of their waking hours are spent in screen-mediated sedentary behaviors. More recent evidence reinforces this pattern. Prospective studies indicate that elevated screen time is associated with adverse changes in key cardiometabolic markers, including blood pressure, lipid profile, insulin resistance, and systemic inflammation, collectively contributing to heightened cardiovascular risk (Dempsey et al., 2020; Lavie et al., 2019). These associations appear particularly concerning among younger populations, suggesting the possibility of cumulative lifetime effects.

Overall, the literature indicates that screen time is not merely a surrogate for physical inactivity, but a behavioral determinant with both independent and synergistic effects on cardiovascular risk. Although full causal inference remains incomplete across all populations and contexts, the consistency and convergence of observational and longitudinal findings suggest that the digital environment cannot be considered marginal in contemporary prevention strategies.

2.3 Biological and Behavioral Mechanisms

Available evidence indicates that the impact of screen time on obesity and cardiovascular risk cannot be reduced to a single mechanism, but rather reflects the interaction of multiple biological and behavioral pathways acting synergistically. Three dimensions appear particularly central: energy expenditure, sleep, and food intake.

Reduced Energy Expenditure

Increased time spent in front of screens is associated with a systematic reduction in non-structured movement, that is, the spontaneous, intermittent physical activities that historically contributed substantially to daily energy expenditure. Unlike "classical" inactivity, screen time often concentrates in prolonged, uninterrupted sessions, limiting not only formal exercise but also everyday micro-activities such as standing, walking, playing, and exploring. Over time, this cumulative decline in incidental movement contributes to an imbalance between energy intake and energy expenditure, even in the absence of significant dietary changes.

Sleep Disruption

A second relevant pathway concerns sleep. Numerous studies show that evening use of digital devices is associated with shorter sleep duration and greater sleep fragmentation. Artificial light exposure and cognitive stimulation from digital content interfere with circadian rhythms, delaying sleep onset and reducing sleep quality (Chaput et al., 2020). Chronic sleep deprivation is, in turn, linked to hormonal alterations, particularly involving leptin and ghrelin, which regulate hunger and satiety, thereby promoting increased appetite and a preference for energy-dense foods. This mechanism creates a direct physiological bridge between screen time, weight gain, and cardiometabolic risk.

Increased Food Intake

The third pathway relates to eating behavior. Consuming food while using screens, often described as "eating while scrolling", is associated with reduced awareness of satiety signals and higher overall caloric intake. Fragmented attention limits self-regulation, leading to larger portion sizes and less mindful eating. In addition, digital environments continuously expose individuals to explicit and implicit food cues that may stimulate desire and influence dietary choices independe\ntly of physiological hunger (Chaput et al., 2020; Saunders et al., 2020).

Taken together, these three mechanisms form a coherent pattern: screen time functions as a risk multiplier, simultaneously affecting energy expenditure, appetite regulation, and sleep quality. The outcome is not merely reduced movement, but a systemic alteration of energy and metabolic balance.

In this sense, the message can be expressed clearly: screens do not simply make us move less. They also shape how we eat and how we sleep.

3. The Role of Design: Why the Digital Environment Is Not Neutral

The associations between screen time, weight gain, and cardiovascular risk cannot be fully understood without considering the architecture of the digital environments in which these behaviors develop. Digital platforms and social media do not constitute neutral spaces: they are systems intentionally designed to capture attention, prolong interaction, and maximize user time-on-platform.

Features such as infinite scrolling, personalized algorithmic feeds, push notifications, and intermittent reward mechanisms are not incidental by-products of technological development. They are deliberate design choices aligned with clearly defined economic objectives and informational influence strategies. Research in behavioral design and human–computer interaction demonstrates how such architectures draw on established principles from the behavioral sciences, particularly those related to reward anticipation, stimulus variability, and the difficulty of disengaging once an activity has begun (Schultz, 2016; Alter, 2017; Montag & Hegelich, 2020; Bavel et al., 2021).

In this context, the expansion of time spent online is not merely the outcome of individual preference but the result of a systematic interaction between human behavior and intentionally persuasive digital environments. The loss of temporal control frequently reported by users is not an anomaly; it is a predictable consequence of systems designed to minimize natural stopping cues within the experience (Alter, 2017).

From a public health perspective, this dynamic is relevant for two reasons.

First, platform design encourages prolonged sessions of physical immobility, contributing to the displacement of spontaneous movement.

In addition, repeated and sustained adoption of non-ergonomic postures, typically associated with smartphone and mobile device use, further contributes to the health implications of prolonged screen exposure. These include sustained neck flexion, increased thoracic kyphosis, and overuse of the upper limbs in constrained positions. A growing body of research associates intensive digital device use with musculoskeletal disorders, particularly affecting the neck, shoulders, wrists, and hands. The posture commonly referred to as forward head posture, frequently observed during smartphone use, has been linked to a significant increase in biomechanical load on the cervical spine, with potential cumulative effects over time (Kim & Kim, 2015; Xie et al., 2018; Neupane et al., 2017).

Similarly, repetitive thumb movements associated with scrolling and typing have been connected to functional overload of the trapeziometacarpal joint and flexor tendons, a phenomenon often described as “texting thumb” (Inal et al., 2015; Gustafsson et al., 2017).

These effects should not be viewed merely as isolated ergonomic or orthopedic concerns. Chronic pain, muscular stiffness, and postural fatigue may indirectly contribute to further reductions in physical activity, reinforcing a feedback loop between sedentariness, prolonged

immobility, and deterioration in overall health status. In this sense, the impact of screen time extends beyond metabolism and eating behavior, affecting the functional integrity of the musculoskeletal system and the everyday propensity for movement.

Second, continuous cognitive stimulation and sustained attentional activation increase the likelihood of associated behaviors such as distracted eating, reduced sleep duration, and diminished self-regulation (Chaput et al., 2020; Saunders et al., 2020).

In recent years, some public health authorities have begun to acknowledge this dimension, emphasizing the need to integrate safe-by-design principles into digital platforms, particularly to protect minors. This approach does not imply censorship or prohibition, but rather recognition that the architecture of an environment shapes the behaviors that emerge within it (ANSES, 2023).

The Dopaminergic Reward System: Why Scrolling Differs from Play or Study

The dopaminergic system is not primarily responsible for pleasure itself, but for reward anticipation, motivation, and learning through reward prediction error. It is an evolutionary mechanism that drives exploration, persistence, and adaptive learning (Schultz, 2016).

Traditional activities such as:

- physical play,
- studying,
- reading a book,
- completing a complex task, activate the dopaminergic system gradually and cumulatively.

The reward is:

- delayed,
- proportional to effort,
- linked to competence, progression, and meaning.

These activities naturally include pauses, frustration, boredom, and stopping points that allow the brain to self-regulate and recalibrate.

By contrast, many digital platforms and social media environments are structured around intermittent and unpredictable rewards: a new post, a like, a comment, a refreshed feed. This reinforcement pattern is known to generate stronger and more persistent dopaminergic activation, similar to variable reinforcement schedules studied in behavioral psychology and gambling research (Montag et al., 2019; Alter, 2017).

Infinite scrolling removes natural cues that signal completion, making voluntary disengagement more difficult. The outcome is not deeper satisfaction, but increased difficulty in stopping, with direct consequences for time allocation, attention, and self-regulation.

USS describes precisely this transition: from slow, cumulative rewards tied to effort and progression to rapid, intermittent, and potentially endless stimuli embedded within the architecture of the digital experience.

4. Binary Simplification, Attention, and Critical Thinking

An additional and often overlooked dimension concerns the type of cognitive experience promoted by social media environments. Content is frequently structured according to binary and cognitively low-complexity logics: right/wrong, like/dislike, pro/against, viral/irrelevant. This format privileges speed of reaction over reflection, emotion over argumentation, and confirmation over doubt.

A growing body of research suggests that prolonged exposure to rapid and highly reductive information streams may diminish sustained attention and weaken the disposition toward critical thinking, encouraging more passive content consumption and greater cognitive polarization (Carr, 2020; Firth et al., 2019). In this sense, the digital environment influences not only the body but also the cognitive processes that regulate decision-making, self-control, and health-related behaviors.

If time spent online reduces movement, disrupts sleep, shapes eating behavior, and simplifies cognitive processing, then the issue is not technology per se, but the way in which it structures everyday experience. For this reason, treating screen time as a neutral or purely individual variable represents a systemic underestimation of its impact on public health.

5. Ultra-Scrolling Social (USS)

This position paper introduces, deliberately and provocatively, the concept of Ultra-Scrolling Social (USS). USS is not proposed as a clinical or diagnostic category, but as an analytical and classificatory framework designed to identify and describe patterns of digital consumption characterized by continuous exposure, loss of temporal control, and the systematic displacement of movement, rest, and real-world interaction. The concept builds upon established evidence related to persuasive design, variable reward systems, prolonged sedentary behavior, and the economics of attention.

USS refers to a model of digital experience characterized by:

- continuous and prolonged exposure to digital content;
- diminished control over time spent online;
- systematic reduction of spontaneous movement;
- disruption of sleep and circadian rhythms;
- intermittent and persistent dopaminergic stimulation;
- displacement of physical interaction and cognitively demanding activities.

The analogy with the debate surrounding UPFs is intentional, though not literal. Just as such foods are not defined solely by their nutritional composition, but by the way they are engineered, combined, and rendered easily consumable, digital experiences cannot be assessed solely on the basis of content. What matters is the architecture of the experience: infinite scrolling,

absence of natural stopping cues, rapid and variable rewards, cognitive simplification, and reduced decision-making effort.

Evidence on persuasive design shows that such architectures are highly effective in prolonging user engagement and reducing the likelihood of disengagement, leveraging well-established mechanisms of the dopaminergic reward system and reward prediction error learning (Oulasvirta et al., 2012; Alter, 2017; Montag & Hegelich, 2020). When embedded within lifestyles already characterized by high levels of sedentariness, this model contributes to a chronic imbalance between stimulation and recovery, between immobility and movement, and between immediate reaction and reflective thought.

The utility of the USS category is twofold. First, it shifts the debate away from a moralistic interpretation of individual behavior toward a structural analysis of the digital environment. Second, it exposes an inconsistency in public policy: while the food environment is increasingly subject to classification systems, restrictions, and corrective interventions, the digital environment, despite exerting comparable influence on behavior, energy expenditure, sleep, and attention, remains largely unregulated.

If one were to apply to the digital sphere the same logic currently used in nutrition policy, one might argue that, should USS be treated as an environmental risk factor, warning labels, usage limits, or containment tools analogous to those proposed for food would be warranted. This conclusion, deliberately provocative, does not constitute a policy proposal. Rather, it serves to highlight a conceptual asymmetry: we regulate what enters the body, but not what captures time, immobilizes the body, and structures everyday behavior.

The thesis of this paper is not that new bans or additional taxes are required, but that a methodological shift is necessary. Digital platforms can reflect on design models that do not systematically incentivize excess; public institutions should recognize the digital environment as a determinant of health; and prevention strategies must return to addressing energy expenditure, movement, and human time, not only the composition of the plate.

In the absence of such rebalancing, the risk is that obesity and cardiovascular disease will continue to be addressed through partial and prescriptive instruments, targeting what is visible and easily regulatable while overlooking one of the most powerful forces structuring contemporary daily life: infinite scrolling.

6. Policy Implications: Extending the Logic, Revealing Its Limits

If the declared objective of public policy is to address obesity and cardiovascular disease by intervening on environmental factors that shape behavior, then coherence requires extending the analysis beyond food. Any instrument that systematically reduces movement, constrains energy expenditure, disrupts sleep, or increases food intake should, in principle, be subject to attention comparable to that currently directed at HFSS (High in Fat, Sugar and Salt) products

and sugar-sweetened beverages.

Applying the nutritional policy logic symmetrically to the digital environment yields regulatory hypotheses that, while politically and culturally difficult to sustain, function as tests of coherence.

A first example concerns attention labeling systems, analogous to front-of-pack labels such as Nutri-Score or traffic-light schemes. Platforms could, in theory, be required to display synthetic indicators of prolonged-use risk, visible throughout the user experience. Taken to its logical extreme, one might imagine a model similar to Chile's black warning octagons, with alerts such as "high risk of prolonged use" or "may interfere with sleep" superimposed on content. The radical nature of this hypothesis highlights a fundamental question: why do we consider it acceptable to label food in invasive ways, yet unthinkable to apply similar visibility to what consumes time and attention?

A second area concerns earmarked taxation. If sugar taxes are justified as instruments to finance prevention and education, a coherent extension of that logic would be to consider levies proportional to the economic value generated by user time-on-platform, with revenues earmarked for programs promoting physical activity, digital literacy, and movement in schools. Again, the objective is not to advance an operational proposal, but to expose an asymmetry: if we tax caloric consumption, why not sedentary time consumption?

A third strand concerns the protection of minors. Just as restrictions are advocated for food marketing directed at children, a symmetrical logic would imply limiting algorithmic feeds, push notifications, and persuasive reward mechanisms for younger users, introducing default usage limits and digital architectures less oriented toward attention capture.

Finally, one could envision a form of algorithmic transparency as the digital equivalent of an ingredient list: clearly disclosing which objectives are being optimized — time-on-platform, interactions, engagement — and which foreseeable side effects may be associated with those optimization choices in terms of sleep, sedentariness, and well-being.

Taken to their logical conclusion, these hypotheses outline a scenario that neither digital platforms nor the author consider desirable. Their function is illustrative: to demonstrate that a selective and monocausal regulatory approach inevitably generates inconsistencies.

The purpose of this paper is not to advocate for new prohibitions or taxes, but to reveal the limitations of a model that seeks a single, easily regulatable culprit. Social media, like food, can be used in moderation within a balanced lifestyle.

A credible public policy framework should therefore shift its focus from punishing individual products to building competencies and fostering individual responsibility, recognizing that energy balance depends as much on expenditure as on intake.

In this perspective, a credible European strategy should:

At the Level of European Public Policy

- Explicitly recognize the digital environment as a determinant of health, alongside nutrition, the urban environment, and lifestyle factors, and integrate it into EU action plans on obesity, CVDs, and NCDs.
- Move beyond a monocausal framework by systematically incorporating energy expenditure, physical movement, sleep, and technology use into prevention strategies.
- Invest in structured programs promoting education on time use, attention management, and movement, particularly for children and adolescents, ensuring that nutrition education does not remain the sole publicly funded behavioral intervention.
- Promote a European framework for responsible design and safe-by-design principles, especially with regard to minors, without resorting to generalized prohibitions, but instead fostering shared, measurable standards.
- Integrate these measures within existing digital regulatory frameworks, including the Digital Services Act (DSA) and the Digital Markets Act (DMA), avoiding the artificial separation between digital policy and health policy.

At the Level of Digital Platform Responsibility

- Ensure greater transparency regarding platform use, providing aggregated and accessible data on scrolling time and user engagement patterns, particularly among minors and young adults.
- Support and co-finance independent scientific research on the impact of scrolling and social media use on physical activity, free play, body weight, sleep, and mental health.
- Promote public education and awareness campaigns encouraging moderate and responsible platform use, in a manner comparable to initiatives undertaken in the food sector.
- Establish, in cooperation with European institutions, a framework agreement for moderate social media use, inspired by self-regulatory models developed in other sectors. Just as the food industry has worked on portion sizes, ingredient reformulation, and consumer information, digital platforms could commit to usage limits, built-in pauses, protective default settings, and less intrusive design architectures.
- Develop intelligent guidance tools, including AI-based systems, capable of supporting users, especially minors, toward more conscious, moderate use that is compatible with an active lifestyle, rather than exclusively optimized for time-on-platform.

If cardiovascular prevention is to be credible and effective, it must abandon monocausal narratives and recognize that health behaviors are shaped by interconnected environments. The question is not only what we eat, but how we live, how we move, and how much of our daily time is structured by scrolling.

Conclusions

Health is not built through bans and taxes. It is built through individual responsibility:

- of businesses,
- of institutions,
- of individuals.

Reducing obesity and cardiovascular disease to a problem of individual foods, ingredients, or nutrients has produced policies that are easy to communicate but insignificant in their results. Taxing, labeling, or prohibiting may create the appearance of action, yet they do not address the deeper dynamics that structure everyday behavior.

This paper has argued that attention must shift from objects to contexts, from products to environments. In particular, the digital environment, and foremost social media and mobile devices, is now an integral part of the equation linking sedentariness, reduced energy expenditure, sleep disruption, and weight gain. To ignore it is to accept an incomplete and distorted understanding of the determinants of health.

Recognizing the role of social media and digital technologies does not mean demonizing them or advocating new forms of prohibition. Like food, digital platforms can be used with moderation, awareness, and critical judgment. The answer does not lie in mechanically extending to these tools the logic of taxes and warning labels, an approach readily applied to the agri-food sector, but in building competencies, strengthening freedom of choice, and fostering environments that make balanced behavior easier.

A credible strategy for cardiovascular prevention must therefore invest in education on time use, movement, and attention; encourage greater responsibility in the design of digital experiences; and acknowledge that well-being arises from balance, between what we consume and what we expend in terms of energy, time, and attention. As long as we continue to look only at the plate, we will continue to overlook one of the most powerful obesogenic environments of our time: the digital one.

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