

Urban Parks: Ambivalences of Digital Connectivity in Urban Leisure

Parques urbanos: ambivalencias de la conectividad digital en el ocio urbano

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Abstract: Internet connectivity in urban parks is transforming contemporary leisure, yet its social and subjective impacts require deeper analysis. This study explores whether digitalisation enhances or undermines recreational experiences, through a review of literature, documented cases and expert insights. Findings reveal that, while the internet facilitates access to information and new spatial uses, it may also fragment attention, weaken social interaction, and reduce the restorative role of parks. The challenge lies in balancing technology with sensorial engagement, while ensuring that these spaces continue to foster well-being, social encounters and democratisation. The work contributes key insights for inclusive urban policy in digital cities.

Keywords: Urban parks. Access to information. Leisure. Technology. SDG 11.7: Sustainable Cities and Communities.

Resumen: La conectividad a internet en parques urbanos transforma el ocio contemporáneo, pero sus impactos sociales y subjetivos requieren mayor análisis. Este estudio explora si la digitalización mejora o perjudica la experiencia recreativa, mediante revisión bibliográfica, casos documentados y conocimiento de expertos. Se halló que, aunque internet facilita acceso a información y nuevos usos del espacio, también puede dispersar la atención, debilitar interacciones sociales y reducir la función restauradora de

los parques. El desafío es equilibrar tecnología y sensorialidad, asegurando que estos espacios sigan promoviendo bienestar, encuentro y democratización. El trabajo aporta claves para políticas urbanas inclusivas en ciudades digitales.

Palabras clave: Parques urbanos. Acceso a la información. Ocio. Tecnología. ODS 11.7: Ciudades y Comunidades Sostenibles

1. Introduction

In recent decades, urban parks have consolidated as strategic spaces for leisure, socialising and valuing nature within cities. These areas, which combine multiple ecological, cultural and social functions, have become central to debates on the right to the city, quality of life and democratisation of access to public spaces (Westerheide & Michel, 2024). However, the advance of digital technologies and the expansion of wireless internet access in these environments have reshaped the contemporary leisure experience, establishing new dynamics of use, appropriation and meanings attributed to parks (Chu et al., 2021). This scenario gives rise to new tasks and needs for the public and/or private administration of these spaces (Ramos & Teles, 2025).

As digital connectivity has become an essential part of urban infrastructure, urban, peri-urban and peripheric parks now operate within a new socio-technical regime, where the ability to stay connected is intertwined with the pursuit of relaxation, nature and sociability. In many cases, the provision of public internet in these spaces is presented as a policy for digital inclusion and urban management modernisation -e.g. São Paulo (Brazil)-. However, this phenomenon produces a series of ambivalences: while it enhances experiences and broadens access to information, it can also generate distraction, technological dependence, a superficial relationship with the environment and symbolic exclusions (Luo et al., 2022; Cui et al., 2024, Teles et al., 2025).

The aim of this paper is to critically reflect on the impact of internet connectivity on leisure experiences in urban parks, bringing into tension perspectives that regard this presence as either enabling or detracting from enjoyment and well-being. The analysis departs from an understanding of leisure as a social right and a form of cultural expression, which goes beyond reductionist approaches that consider it merely recreation or entertainment. However, it should be acknowledged that in many national contexts leisure is not widely recognised as a right in its own terms; this normative gap can shape policy priorities and the public and/or private administration of parks, with implications on how access, inclusion, and resource allocation are governed. The discussion focuses primarily on urban parks, rather than peri-urban or peripheral parks, even where their lived realities may appear comparable. The guiding question is: how does internet access in urban parks influence leisure practices and meanings as understood by its users?

Along the way, theoretical references on urban leisure, appropriation of public space, digitalisation of everyday life and connectivity policies will be mobilised. The manuscript will also discuss access inequalities, tensions between contemplation and connection, transformations in social bonds and strategies for balancing technology and nature in public spaces. The methodology adopted combines systematic review and interpretative analysis, with critical support from experts and documented cases of connected parks.

The choice of topic responds to the urgent need to think about public leisure policies that keep pace with technological innovations, but are also sensitive to socio-territorial diversity and the multiple ways of living and experiencing urban space. Thus, it aims to contribute to the debate on fairer, more inclusive and better-balanced cities - in which technology is the means to, and not the end of, democratic coexistence in leisure territories.

2. Theoretical framework

2.1 Urban leisure and the appropriation of public space

The relationship between leisure and urban space is a fertile field for analysis, especially given the social, economic and technological transformations that have reconfigured the use and meaning of public spaces in cities along the centuries. Leisure, understood as a cultural experience, is not restricted to moments of rest or decompression (Hindley, 2020). It is inscribed in social dynamics as a right -although not always recognised as such by countries-, a practice of freedom, and at the same time as a reflection of inequalities and disputes of urban life. In this context, urban, peri-urban and peripheric parks emerge as privileged spaces for observing the appropriation of public areas and the contemporary meanings of leisure.

Following the institutional concept used by the Government of the State of São Paulo (2025, para. 1), parks «constitute conservation units, whether terrestrial or aquatic, usually extensive, intended for the protection of representative ecosystem areas. They may also be areas endowed with outstanding natural or landscape attributes, as well as geological sites of scientific, educational, recreational or tourist interest». They aim at both nature conservation, and at the promotion of educational and leisure activities for the population. In this sense, parks serve as multifunctional public facilities that combine environmental protection with collective well-being and citizen education.

However, it is important to differentiate between the concepts of leisure and recreation, which are often used as synonyms but have different nuances. Recreation tends to be associated with programmed activities for fun and entertainment purposes, often promoted by institutional agents or aimed at specific audiences (Hindley, 2020). Leisure, on the other hand, carries a wider range of meanings: it is spontaneous, symbolic and subjective, encompassing aesthetic, emotional, political and cultural experiences. In parks, this distinction materialises, for example, in the difference between the free

practice of walking and participation in scheduled functional gymnastics classes (Kirova & Vo Thanh, 2019).

Approaching parks through a metropolitan gradient rather than as rigid categories—tracing a continuum from the urban core to the urban–rural fringe and beyond—allows for a clearer differentiation between urban, peri-urban, and peripheral parks (Biernacka et al., 2023). Urban parks are embedded within consolidated, high-density fabrics and have a strong role in supporting everyday, near-home leisure activities, through short-distance catchment areas and frequent use. Peri-urban parks, by contrast, sit on the outskirts of cities and tend to operate as larger, semi-natural «destination» landscapes, offering distinct amenities and environmental qualities that can justify longer journeys and different time–distance logics from those associated with city parks. Peripheral parks are located in socio-spatial margins where environmental assets often coexist with infrastructural scarcity and political invisibility (Zhang et al., 2021).

Access to urban leisure is directly affected by working conditions. As Carnicelli and Uvinha (2023) point out, the intensification of working hours, job insecurity and physical and emotional exhaustion of urban workers interfere with their real ability to enjoy leisure time, especially in the global South. Leisure is thus no longer just a matter of free time, but a marker of social inequalities (Tan & Huang, 2020). In a society marked by the imperative of productivity, rest and the autonomous use of time become selective privileges. In addition, economic, gender, class and racial frictions impose symbolic and material barriers to the use of public spaces by certain social groups.

Within this context, debates on public space and its ongoing re-signification become particularly salient. The «public» nature, traditionally associated with state ownership and common accessibility, is increasingly redefined through evolving governance arrangements in which non-state actors assume an expanding role in the management and activation of parks. Beyond civil society organisations, cultural collectives, and social movements, these arrangements frequently include private institutions and specialised management firms hired to operate, maintain, or programme park spaces, often under partnership or concession models. This shift signals a broader transition whereby the state—amidst the erosion of the classic social model—transfers, delegates, or shares responsibilities with third-sector and market-oriented actors, not always accompanied by enforceable guarantees of universal access and equity (Wilcox et al., 2024). In peri-urban and peripheral contexts, moreover, the issue is not only the redistribution of responsibilities but, at times, the effective absence of sustained governmental engagement. Where public provision is intermittent or limited, neighbours and local associations may become *de facto* stewards, organising routine maintenance, establishing informal rules of use, and undertaking community-led management that both sustain access and expose the uneven geographies of state support.

The result is the fragmentation of the notion of the public and the emergence of new arrangements that directly affect the leisure experience. Excessive rules, exclusionary

infrastructure -both symbolic and physical-, inflexible rules of conduct and public-private partnerships that subordinate the use of parks to consumption are examples of how public space can be appropriated in a limited way, if not privatised in essence (Rich & Sharpe, 2024). Even so, people reinvent these spaces: they sit on the grass where there are no benches, improvise picnics, organize meetings, use public Wi-Fi to access social networks and share their experiences instantly.

Understanding parks as spaces of appropriation and resistance, therefore, requires recognising their complexity. They are both the setting and stage for disputes between environmental, cultural, political and economic interests. They also bear witness to the ways in which citizens - especially young people – (re)construct meanings around leisure, freedom and the use of time. These tensions call for a reconsideration on the right to the city in its fullest sense, one that guarantees leisure, access to common goods and the possibility of authentically experiencing public spaces.

2.2 Digital connectivity and its implications for contemporary leisure

Urban digital transformation has profoundly altered forms of sociability and appropriation of urban spaces (Ramos et al., 2026). In leisure contexts, especially in environments such as parks, internet connectivity - whether through public or private networks - has become a structuring element of contemporary experience. This connectivity not only reshapes the use of space, but also redefines the boundaries and intersections between connected time and free time, between being present and being online, leading to new reflections on what leisure means in the digital age (Benevides et al., 2021).

Public internet in parks—typically provided by municipal or state governments, or by private operators through partnerships with public authorities—is commonly framed as an instrument of digital inclusion. Illustrative initiatives include *WiFi Livre SP* in São Paulo (Brazil) and *Líneas de Fomento 2.0* (Colombia), which aim to expand access to information, encourage the everyday use of public space, and enhance the recreational and educational affordances of parks (Cui et al., 2024). However, the meanings and effects of such connectivity are uneven across urban, peri-urban, and peripheral parks, and are mediated by the scale of the city and the socio-demographic composition of its population (including age profiles, class positions, racialised inequalities, and educational attainment). In central urban parks—often better serviced and more symbolically visible—connectivity may be experienced as a routine amenity that amplifies leisure practices (communication, learning, wayfinding, and cultural participation). In peri-urban and peripheral settings, by contrast, internet provision may serve a more explicitly compensatory or infrastructural purpose, but its benefits can be curtailed by weaker maintenance regimes, patchy coverage, and the practical constraints of mobility and time scarcity. Moreover, arguments supporting «citizen connectivity» do not automatically translate into inclusive practices: access may be shaped by content filters and technical

restrictions, while also require the use of appropriate devices and a minimum threshold of digital literacy—thereby introducing a further layer of inequality in how leisure is accessed, enacted, and valued.

In addition, connectivity creates tensions between the sensory and contemplative enjoyment of the space and the technological mediation of the experience. On the one hand, internet connection allows visitors to share records, access music and information, chat to friends remotely or search for content that complements their visit (Chen et al., 2020). On the other hand, it can lead to a fragmented, distracted, anxious experience - characterised by the logic of performance and visibility on social networks (Kirova & Vo Thanh, 2019; Teles et al., 2025). Thus, connectivity can act as both a facilitator and a detractor of leisure in public spaces, depending on the user's intentions and the context of use.

Specialised literature has pointed out that an analysis of leisure digitalisation should consider both the provision of infrastructure, as well as its impacts on attention regimes, social bonds and subjectivity of users. Online leisure practices, such as online video consumption, use of meditation apps, virtual games or even browsing social networks, end up shifting the users' focus away from their relationship with their physical surroundings and other park-goers. The result can be an experience that is silent, individualised and disconnected from the community that traditionally marks leisure in public spaces.

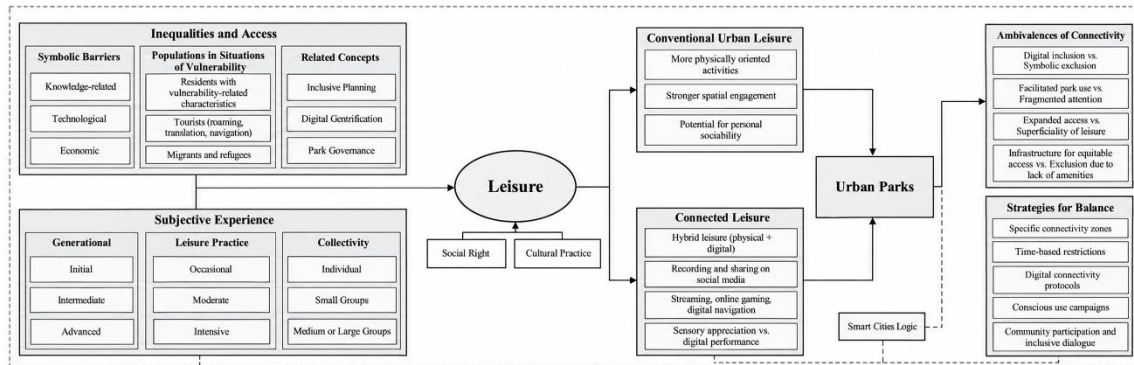
However, it would be reductionist to consider that using the internet in parks only leads to a negative or impoverished experience. Connectivity also allows for new forms of civic engagement, access to cultural activities, participation in virtual events and even the organisation of social mobilisations in defence of the parks themselves. A connected environment can serve as a bridge between the local and the global, broadening the horizons of urban experience and enabling creative and critical appropriation of technological resources (Chen et al., 2020).

It is worth noting that internet availability in parks is part of a broader logic of smart cities, in which the integration of nature, technology and urban management is valued as a development prospect. For this model, connected parks are much more than just spaces for leisure and contemplation, they become data platforms, monitoring points and instruments for collecting information on citizen behaviour and circulation patterns. This connectivity aspect raises ethical and political questions about privacy, surveillance and the commodification of urban experience, which also need to be considered in any analysis of digital leisure.

Figure 1 below summarises the main dimensions discussed in this essay. The diagram seeks to represent the ambivalences, mediations and tensions of connected urban leisure, with an emphasis on parks as hybrid spaces linking nature, culture and technology

together. The model was drawn up based on the articulation of key concepts mobilised in the theoretical framework with empirical data discussed throughout the paper.

Figure 1 - Analytical diagram of the ambivalences of connectivity in urban leisure in parks.



3. Methodological processes

This essay uses a qualitative, interpretive methodological approach based on theoretical and documentary analysis. The methodological choice aimed to provide a critical and structured reflection on the transformations in the urban leisure experience that results from a growing digital connectivity in public parks.

Initially, a multimodal, exploratory and systematic review was carried out covering academic publications indexed in the fields of urban studies, sociology of leisure, technology and public space. Scientific articles, books, institutional reports and national and international public policy documents were consulted, with an emphasis on authors who discuss the social and subjective impacts of the internet on urban daily life (Paul et al., 2023; Iacob et al., 2024).

In addition, a case analysis was conducted to address the digitalisation of leisure spaces in different metropolitan contexts. It aimed at identifying patterns and contrasts in the way in which internet connection interferes with the practices of sociability, contemplation, well-being and appropriation of parks by park-goers.

Aiming at ensuring argumentative coherence and improving the conceptual density of the discussion, an advisory panel was consulted. It was comprised by three experts on urban planning, leisure and digital culture in the South American context. These professionals, with recognised expertise on issues connecting technology and public space, contributed insights to the research approach.

As a result a reflective methodology was used, emphasizing the ambivalences of digital connectivity in spaces traditionally associated with rest, disconnection and spending time in nature. The aim is to encourage a debate that goes beyond technical limits and moves

towards an understanding of urban leisure in its socio-technical, symbolic and political dimensions.

4. Discussion and results

4.1 Green areas through leisure: the park

Analysing urban leisure in green areas requires taking into account both the recreational function of these spaces, as well as their symbolic, political, ecological and socio-territorial dimensions. In this regard, early planning imaginaries—most notably Ebenezer Howard’s vision of integrating settlement, social well-being, and nature through deliberately organised green infrastructures—remain a useful reference point for understanding why «green» in the city has long been treated as a matter of governance and social reform, rather than mere decoration (Howard, 1902). It is therefore essential to distinguish between the concepts of urban park and green area. While green areas encompass a wide range of vegetated spaces within the urban fabric—such as squares, riverbanks, gardens, and woodlands—urban parks constitute a more specific category, typically associated with planned infrastructure for public use, diverse leisure practices, and ongoing management arrangements (Taylor & Hochuli, 2017; Loughran, 2018).

These multifunctional spaces serve belonging, contemplation and sociability purposes, articulating elements of nature with contemporary urban dynamics —we recommend exploring the activities of Vila-Lobos Park and Ibirapuera Park in São Paulo, Brazil—. In cities marked by social fragmentation and the acceleration of everyday life, urban parks emerge as «urban oases», providing rest, reunion with the essential and subjective regeneration (Binka et al., 2022). Furthermore, there is research on their psychosocial and physiological benefits, especially for vulnerable populations with difficulties to access wellbeing and quality of life (Mullenbach et al., 2021; Kim et al., 2025).

However, leisure is not experienced homogeneously in these spaces. Factors such as accessibility, safety, infrastructure, cultural programming, product availability and nature directly interfere with the users’ experience, producing inequalities in the appropriation and enjoyment of these territories. Although geographical proximity is an important element, studies show that it is not enough to guarantee a frequent use of parks, especially among socially vulnerable groups (Abdul et al., 2018; Kim et al., 2025). Accessibility needs to be understood broadly, including the perception of belonging, safe routes, efficient public transport and the absence of symbolic barriers, such as fear of discrimination or territorial stigmas, as explained by Uvinha et al. (2017).

Safety appears to be one of the main factors considered for using green areas. Spaces that are poorly lit or associated with crime tend to be avoided by women, elderly and children, while environments with community surveillance, appropriate environmental design and the presence of diverse users favour permanence and collective use (Binka et al., 2022;

Mullenbach, 2022). However, care must be taken to ensure that security strategies do not lead to exclusion or gentrification, thereby contributing to elitism in public spaces.

Another fundamental factor is infrastructure, which ranges from basic items - such as benches, toilets, drinking fountains, children's toys and shaded areas - to elements that enable inclusive and varied practices, such as running tracks, cycle paths and accessible signage. The absence or scarcity of this infrastructure jeopardises the leisure experience, especially for people with disabilities or reduced mobility. The availability of products and services, such as food, drink and local micro-businesses, also contributes to creating more dynamic, welcoming and economically integrated spaces, as long as their management is aligned with principles of spatial justice and sustainability (Oliveira & Carvalho, 2024), an example of which would be Kennedy Park in Lima, Peru.

In addition to the structural aspects, the programme and activities play a strategic role in attracting and maintaining diverse audiences. Walks, reading sessions, yoga classes, sports activities, cultural fairs and environmental education activities make up a range of possibilities that transform the park into a multifaceted cultural arena. Initiatives such as the Ecofolia project in the *Mata do Limoeiro* State Park in Minas Gerais, Brazil, exemplify how leisure can be used as a tool for community engagement, environmental education and territorial improvement, strengthening the pedagogical and inclusive nature of these spaces.

In this context, it is necessary to reflect on the attractiveness of parks, not only determined by their landscape or location, but also by their symbolic value and their presence on social networks. A park's public image can be vital to make it popular, while its media invisibility can condemn it to oblivion. Though the massification of leisure –driven by events, festivals and urban marketing actions– democratises access, it can also produce side effects such as the overloading of space, the loss of natural features and the strengthening of symbolic exclusion dynamics (Loughran, 2018; Picco, 2019).

We also need to recognise the structuring role of nature in the urban leisure experience. Flora, fauna, natural sounds and microclimates provide restorative effects that act on the body and mind. Nature in urban environments helps mitigating stress effects, strengthening mental health and promoting feelings of belonging and spirituality, acting as a catalyst for profound experiences of reconnection with the world and with oneself (Chiesura, 2004; Mao et al., 2020).

However, as Salvadeo (2022) emphasises, access to these benefits cannot depend on chance or isolated actions. The management and governance of urban parks must be thought out in an integrated, participatory way that is sensitive to socio territorial diversity. Parks are not neutral spaces: they are disputed territories in which power relations, collective memories and city projects are inscribed. Understanding them as democratic spaces for leisure and well-being requires a critical, interdisciplinary approach committed to the right to the city.

4.2 Leisure experience in generational issues

The experience of leisure in urban parks is shaped by multiple cultural, symbolic, technological and social factors, among which generational differences constitute a key analytical perspective. The way in which different age groups relate to green spaces, their motivations for visiting them and the practices they develop in these environments are influenced by social constructions, life expectations, family dynamics and, more recently, by technological mediation. Parks are, therefore, no longer homogenous settings for relaxation or contemplation, but rather territories of generationally situated appropriation.

Recent studies show that visitor density and the spatial diversity of visitors not only reflect the physical structure and attributes of the park, but also the interests and repertoires of different age groups. Chuang et al. (2022) show, using georeferenced social network data, that parks with a greater diversity of facilities, especially those aimed at leisure with average or higher participation and a collective perspective (such as cycle paths and picnic areas), attract a more heterogeneous visitor population, including young adults and teenagers. According to the same authors, this age group tends to value spaces that offer dynamic, shareable and multifunctional experiences - characteristics often mediated by the possibility of digital connection.

The centennial generation, for example, has hybrid expectations from parks: while they value nature and the sensory experience of the outdoors, they expect the space to be connected, whether through internet access, or integration with mobility and consumer networks (Taylor et al., 2020; Liu & Xiao, 2021). Free internet access or and availability of charging points for mobile devices can positively influence the decision to visit a park and how long users stay there. However, the continuous use of devices can also reconfigure leisure experiences, affecting direct engagement with space and nature, which raises debates about the quality of the experience and its superficialisation.

On the other hand, leisure experiences of older and middle-aged people tend to be guided by values such as tranquillity, safety, physical accessibility and opportunities for structured social interaction (Gatti et al., 2022). The search for peace and quiet, for example, can come into conflict with the noise or crowding practices typical of younger groups. In addition, older people tend to prefer parks with good support infrastructure, clear signage, accessible toilets, plenty of shade and no obstacles, which is not always prioritised in urban projects more focused on aesthetics or technological innovation.

Seasonal factors can also radically transform the leisure experience, extending beyond changes in weather, to encompass the reorganisation of social expectations at different times of the year. Gatti et al. (2022) reveal that, in winter contexts, «seasonal personas» emerge that re-signify the natural space through sensory, aesthetic and material dimensions -we recommend exploring *Parque Bustamante* and *Parque Araucano* in Santiago de Chile-. The presence of snow, the amplified silence, the absence of crowds and

the change in urban fauna and flora produce a distinctive environment, which can be seen either as adverse (by young people seeking stimulation) or as contemplative (by adults seeking introspection). This ambivalence demonstrates how the same physical space can generate multiple experiences based on generational and seasonal expectations.

In addition, intergenerational diversity in parks can be both an enriching factor and a source of tension. The coexistence of children playing, young people taking photographs, adults doing sports and elderly slowly strolling reveals the multifaceted nature of parks as leisure centres. However, infrastructures often fail to simultaneously meet the demands of these publics, generating zones of symbolic exclusion or competition for use of space (Taylor et al., 2020).

It should be noted that the literature has shown that urban design and the presence of symbolic elements (such as public art, memorials or cultural-historical festivals) can generate greater intergenerational attraction, promoting encounters and dialogue between age groups - especially when combined with cultural, educational or ecological activities (Ye et al., 2024; Liu & Xiao, 2021). The cherry blossom festival in *Parque do Carmo*, São Paulo, Brazil, is a case in point, bringing families together in an ecological, educational moment that recognises Japanese migration in the region. These elements act as «belonging triggers» and can partially offset the lack of digital connections or the absence of specific equipment for each group

4.3 Internet in leisure activities in urban parks

The advancement of digital connectivity and growing presence of wireless networks in urban public spaces have introduced substantial transformations in how citizens experience leisure in parks. Public internet expands possibilities for engagement, expression and information, but also sparks discussions about its effects on experience quality, disconnection from nature and traditional social dynamics.

From a leisure perspective, the internet has enabled hybrid practices where physical activities—such as hiking or contemplating nature—intertwine with digital leisure—like streaming music, recording selfies and videos, or participating in online social platform challenges (Teles et al., 2025). Studies by Sim and Miller (2019) reveal that social media use in parks indicates relevant patterns of space appropriation whilst suggesting changes in traditional forms of environmental interaction that previously prioritised silence, introspection or face-to-face communication. The data from these platforms becomes valuable for urban planning, although it cannot replace actively listening to local communities.

Analysing digital experiences in public spaces involves assessing how connectivity affects social bond formation. Hampton et al. (2010) note that internet in parks can both reinforce pre-existing bonds by facilitating communication with family and friends, and contribute to the symbolic privatisation of space, reducing opportunities for spontaneous

interaction with strangers. This can promote an «absent presence» where individuals are physically present but cognitively disconnected from their surroundings.

Another significant aspect is the relationship between digital uses and emotional content attributed to urban parks. Ge et al. (2025) analysed Weibo data in China and found that digital popularity of certain parks correlates with more positive emotions, particularly when combined with physical elements like abundant vegetation, and green visibility. Connectivity functions not merely as infrastructure but as a mediator of affective states and symbolic evaluations of space. Parks that achieve greater digital popularity tend to be perceived more positively, reinforcing social media's role in shaping collective imaginaries of urban leisure.

However, we must consider the environmental impact and limits of leisure digitalisation. Rojas Sánchez et al. (2021) discuss the adoption of virtual reality in protected areas, noting that an eco-friendly perception might influence visitor acceptance of these technologies. This raises ethical questions about responsible connectivity use in ecological leisure contexts. In urban parks functioning as natural refuges amidst concrete environments, constant screen use may compromise the restorative function described by Chiesura (2004) as fundamental to urban well-being.

Public internet in parks should be understood not as a neutral presence but as infrastructure actively shaping the leisure experience. Stewart et al. (2004) suggest that internet can be viewed as a hybrid public good, similar to urban parks themselves. Although, its meanings and consequences are not spatially uniform: in urban parks, connectivity is often framed as a service enhancement within already dense networks of amenities and oversight; in peri-urban parks, it may function as a facilitative layer for longer stays and destination-based visits; and in peripheral parks, it can be positioned as compensatory infrastructure amid broader deficits in public services and accessibility. Like these multifunctional spaces, internet provision in parks should therefore be planned and governed through principles of equity, accessibility, and coexistence, ensuring that it complements rather than replaces sensory, social, and environmental experiences.

Beyond public internet, personal connectivity—especially mobile data and international roaming—significantly influences leisure practices in urban parks. Users with unlimited data plans spontaneously exploit digital resources during their visits, whilst tourists with restricted plans face limitations affecting their experience. The absence of public Wi-Fi often forces visitors to ration internet use, potentially negatively impacting site perception.

Regional tourists typically access the internet for utilitarian purposes such as checking event schedules or sharing images on local networks. International tourists, however, depend more heavily on connectivity for translation, digital payments, geolocation and even medical assistance. This technological dependence makes public internet availability a differentiator in park evaluation as a tourist destination, particularly among short-stay

visitors needing to optimise time and resources (Ye et al., 2024). Connection absence may not only restrict leisure experiences but also compromise feelings of safety and autonomy.

Connectivity thus becomes a structural factor in park attractiveness for diverse visitor profiles, shaping integration into urban tourist circuits whilst potentially accentuating inequalities in information and leisure access. Table 1 synthesises these ambivalences by mapping key dimensions in which digital connectivity may operate as both a facilitator and a detractor of urban leisure in public parks—ranging from sensory experience and social interaction to infrastructural saturation, unequal access, and sustainability trade-offs. Therefore, policies aimed at increasing connectivity in urban parks should be understood not merely as technological innovation, but as a tool for social inclusion, hospitality, and territorial justice.

Table 1. Ambivalences of digital connectivity in urban leisure in public parks

Dimension	Potential (Connectivity as a facilitator)	Risk (Connectivity as a detractor)
Sensory and contemplative experience	Increases access to environmental and cultural information during the tour	Distraction, loss of attention to surroundings, disconnection from nature
Social interactions in the public space	Encourages contact with personal networks, organization of meetings	Symbolic privatization of experience, reduction of spontaneous interaction
Digital and emotional appropriation	Reinforces positive perceptions of the park, stimulates appreciation of the place	Dependence on online visibility, anxiety about engagement
Technological infrastructure and connectivity	Allows multifunctional use of space, integrates digital platforms	Saturation of the space with equipment, loss of natural ambience
Inequalities in internet access	Enables digital inclusion, especially among local users	Exclusion of people without devices, data or digital literacy
Tourist attraction and digital hospitality	Supports tourists with translation, maps, digital payments, calls	Inequality of access between international and local tourists
Ecology and sustainability in leisure	Facilitates environmental campaigns, educational QR codes, green sensors	Increased technological footprint, de-characterization of natural areas
Modes of use between generations	Allows hybrid practices (e.g. trails with apps, photos, videos)	Generational conflicts over noise, overuse and safety

In view of the ambivalences mapped out, it is imperative to reflect on strategies to balance the presence of technology with the sensory and collective essence of urban leisure. The next section presents possible paths for this balance, based on recent studies, international practices and expert recommendations, with special attention to participatory management, spatial planning and digital inclusion in public parks.

4.4 Balancing strategies

The growing presence of the internet in urban parks introduces a paradox into the contemporary leisure experience: while it facilitates digital inclusion and expands forms

of interaction, it can jeopardise the restorative and contemplative value of these spaces. Thus, developing strategies that balance technological connectivity with the sensory, social and environmental experience in parks becomes a fundamental challenge for urban managers and public policy makers.

A recurring strategy identified in empirical studies is the creation of specific zones for internet use in parks with simple instructions (Xiong & Li, 2022; Geng et al., 2021). By demarcating areas intended for the intensive use of mobile devices - such as spaces with public Wi-Fi, sockets and appropriate signage - parks can allow visitors to consciously decide when and where they want to connect. This spatial segmentation helps to preserve other areas of the park as territories for silence, rest or contemplation, respecting the plurality of leisure profiles and practices. Along these lines, the Costa Rican Superintendence of Telecommunications (2024) suggests limiting connected time.

In addition, educational and informational campaigns aimed at the conscious use of the internet in parks could play a central role. As suggested by young centennials interviewed in previous research by the authors of this paper, these campaigns could inform about the benefits of temporary disconnection, encourage practices such as offline walks, photography without instant posting, or simply moments of digital silence. Such actions are not intended to ban the use of devices, but to encourage a culture of balance and intentionality.

From a public management point of view, it is essential that parks adopt sustainable connectivity protocols, incorporating criteria for the installation and maintenance of internet networks that respect the environment and natural surroundings. This means, for example, avoiding excessive digital signalling, installing equipment with minimal visual impact and providing for signal deactivation times in sensitive areas such as rest areas or ecological trails. This proposal, aligned with the perspective of smart cities, reinforces the idea that technology should serve quality of life, not replace it (Stewart et al., 2004; Parra-Saldívar et al., 2020). In addition, the Costa Rican Superintendence of Telecommunications (2024) reminds us to think about security issues for digital users.

Another possible avenue is cross-sector partnerships with telecommunication companies, universities and NGOs to develop pilot projects that integrate connectivity, citizenship and leisure in urban parks. These collaborations could promote activities, such as workshops on digital security, connected walks with interpretive QR code trails, or even listening labs with visitors about the impact of the internet on their experience of the space. Community participation is essential in these processes, as it allows adjusting solutions to local realities and valuing users' knowledge.

In addition, it is necessary to consider how tourists - regional, national and international - use Internet in urban parks. Many of them depend on internet connection to access maps, translate content, register their visit or keep in touch with family members. For these visitors, the lack of connectivity can lead to insecurity and frustration. It is therefore

recommended that parks offer multilingual information, physical signposts with offline alternatives and Wi-Fi points in strategic areas, facilitating access without compromising the experience of other visitors. The proposal, therefore, is not to restrict the internet, but to distribute it with spatial intelligence and social sensitivity.

It should be remembered that a good balance between leisure and connectivity requires constant monitoring through satisfaction surveys, public listening and impact studies. Only with up-to-date data on how users experience internet connection in parks, will it be possible to adjust policies and promote urban environments that favour both digital inclusion and environmental and psychological well-being.

Thus, balancing strategies are not limited to technical or spatial solutions. They also involve cultural changes, institutional commitments and active listening to the diversity of users. In the midst of digital transformations, preserving parks as spaces for breathing, meeting and regeneration - even if they are connected - is an ethical and urban imperative.

5. Final considerations

This essay has revealed the complexity surrounding the integration of digital connectivity in urban parks, spaces traditionally associated with rest, contemplation and social interaction. Considering leisure as a social right and a cultural practice, and not just as recreation or entertainment, has allowed us to emphasise the impacts of the public and private internet on the contemporary experience of these areas.

The theoretical and documentary analysis showed that, although connectivity carries a discourse of inclusion and modernisation, it introduces important ambivalences into the leisure experience. While, on the one hand, it expands access, promotes multifunctional uses and integrates different user profiles, on the other it can accentuate symbolic and material inequalities, fragment face-to-face interactions and jeopardise the restorative function of urban parks. These dilemmas should not be overlooked when formulating public policies that are sensitive to socio-territorial dynamics and the multiple ways of experiencing public space.

The methodological approaches adopted allowed us to reflect on how different generational groups, territorial contexts and modes of internet use shape specific leisure experiences, revealing a heterogeneous and constantly changing panorama. This diversity requires public authorities, urban managers and social agents to listen in a way that goes beyond digital metrics and considers the subjectivities and everyday practices of park-goers.

Recognising parks as hybrid urban facilities - simultaneously natural, cultural and technological - requires balancing strategies that respect the plurality of users and the variety of demands. The spatial segmentation of internet access, implementation of educational campaigns, and the strengthening of ecological infrastructure and community

listening emerge as promising ways for technology to be at the service of the human experience, and not the other way round.

It is therefore essential that connected parks are not reduced to innovation showcases, but are understood as democratic arenas where wellbeing, digital inclusion, sustainability and urban justice policies are articulated. Preserving the symbolic, sensory and collective dimensions of leisure is essential in the face of the increasing mediation of digital technologies. Without a critical approach, they risk producing more noise than encounter, and more dispersion than a sense of belonging.

Finally, this essay has sought to contribute to the debate on contemporary public space management, proposing a multidisciplinary approach that combines leisure, technology and urban policies. In times of hyper-connection, where an accelerated urban life prevails, defining parks as spaces for breathing and regeneration - including digital regeneration - is an essential step towards building fairer, more balanced and humane cities.

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- **Edgar Romario Aranibar Ramos:** Conceptualization, data curation, formal analysis, research, methodology, project management, validation, visualization; writing: drafting, revision, and editing.
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