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Planned Neighborhoods, Planned Cities and Strategic Digital City: Cases around the World with Posthumanism Approaches

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Abstract

The objective is to analyze the relationships between planned neighborhoods, and planned cities in the strategic digital city context, considering city posthumanism approaches. Through case studies' method of British New Towns, Songdo, Shiraz, Manaus, Konstanz, Cairo, and Lagos, the research methodology employs qualitative and quantitative techniques to analyze planning strategies, socio-economic and environmental impacts. Results show that planned neighborhoods and cities successfully foster social cohesion and economic resilience. However, they face challenges in inclusivity and adapting to rapidly changing technologies. Strategic digital cities offer significant potential by integrating technology to improve urban management but must address inequities and governance gaps. The conclusion emphasizes that adaptive governance and participatory frameworks are essential for achieving equitable and sustainable urban development. By combining traditional urban planning principles with digital innovations, these approaches can shape resilient, inclusive, and technologically integrated cities with posthumanism, because in digital cities, human beings do not effectively exist.

Keywords: *Planned Neighborhoods, Planned Cities, Strategic Digital City, Urban Management, City Posthumanism.*

Introduction

Planned neighborhoods and cities, whether posthumanism in approach or not, emerged during the European industrial revolution to address urban crises, focusing on advanced infrastructure, efficient mobility, and sustainability (Rohe, 2009; Rodriguez, 2016). Over the past 150 years, these communities have been promoted by governments and private entities to tackle urbanization challenges, such as decentralization, regional development, and worker housing (Rohe, 2009; Amiryar & Asano, 2022; Wakeman, 2016; Forsyth & Peiser, 2021; Talen, 2019).

Meanwhile, strategic digital cities integrate digital technologies to improve governance, citizen engagement, and public services (Rezende, 2023; Fumagalli, Rezende & Guimarães, 2022; Rezende, Almeida & Fumagalli, 2024). As urban practices evolve, the role of neighborhoods continues to shift in response to changing societal contexts (Abrams et al., 2018).

The research problems are represented through the challenges that planned neighborhoods and planned cities face, which complicate their implementation. Rapid urban expansion worsens social detachment, strains housing and infrastructure, and contributes to inefficient land use and

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environmental degradation (Choay, 2015; Forsyth & Peiser, 2021; Talen, 2019; Wakeman, 2016). Economic constraints also play a role, as high initial costs and long project timelines deter investment, while population relocations disrupt community ties (Abrams et al., 2018; Araújo & Góis, 2021).

Strategic digital cities encounter similar obstacles. Limited citizen participation, unequal technological benefits, policy inconsistencies, and inadequate participatory frameworks hinder implementation (Rezende, 2023; Fumagalli, Rezende & Guimarães, 2022; Rezende, Almeida & Fumagalli, 2024). Rapid technological changes create governance gaps, making it difficult to align policies with innovations (Lee, 2023; Murzakulova, Kuznetsova & Mogilevskii, 2024; Trivellato, Martini & Cavenago, 2021).

Therefore, the research question is: what are the relationships between planned neighborhoods, and planned cities in the strategic digital city context, considering city posthumanism approaches?

The research objective is to analyze the relationships between planned neighborhoods, and planned cities in the strategic digital city context, considering city posthumanism approaches.

Research justifications are exemplified through the transformative potential of planned neighborhoods and strategic digital cities, offering sustainable alternatives to urban sprawl by integrating infrastructure, economic opportunities, and diverse housing options to foster social networks and community resilience (Abrams et al., 2018; Amiryar & Asano, 2022; Forsyth & Peiser, 2021; Castriota, 2024). Human-scale development in these neighborhoods enhances walkability, accessibility, and inclusivity, aligning with global sustainable development goals (Carmellino, 2022; Zhang, Yung & Chan, 2018).

Strategic digital cities complement this vision by leveraging technology to create efficient, participatory, and resilient urban systems. Through collaborative governance, they can bridge societal divides and improve urban life while ensuring technology empowers individuals rather than marginalizing communities (Rezende, 2023; Rezende, Almeida & Fumagalli, 2024). However, from the digital cities point of view, whether strategic or conventional projects, human beings do not effectively exist.

Literature Review

Planned Neighborhoods

Planned neighborhoods, influenced by New Urbanism, emerged in the U.S. during the 1980s and 1990s as a response to conventional urban design flaws. Emphasizing mixed-use spaces, contextualized architecture, green areas, and balanced work-residence relationships, they aim to integrate housing, employment, and recreation, revitalizing peripheral areas facing population growth (Carmellino, 2022; Hino, Field & Mach, 2017; Sarwari & Ono, 2023; Zhang, Yung & Chan, 2018). These neighborhoods follow master plans to promote pedestrian-friendly layouts, social interaction, and balanced natural and built environments (Sarwari & Ono, 2023; Buys, Newton & Walker, 2021).

Planned neighborhoods also offer scalable solutions for climate-induced displacement, functioning as urban extensions or standalone settlements near metropolitan centers, ensuring access to services and employment (Caramellino, 2022; Forsyth & Peiser, 2021). As foundational urban units, neighborhoods foster physical and socio-cultural cohesion, acting as

interfaces between individual households and broader urban systems (Carmellino, 2022; Zhang, Yung & Chan, 2018).

Planned Cities

New towns have historically served various functions, such as housing workers in resource-extraction industries, supporting military research, decongesting metropolitan areas, and rebuilding communities post-war. This trend persists into the 21st century, now focusing on metropolitan deconcentration (Amiryar & Asano, 2022; Hino, Field & Mach, 2017).

Planned communities, often synonymous with "new towns," integrate residential areas, businesses, green spaces, and public facilities, emphasizing economic and social diversity through varied housing and comprehensive infrastructure. These developments promote resident engagement via governance systems and shared public spaces (Forsyth & Peiser, 2021).

A significant application of planned cities is in resettlement efforts, particularly for climate-induced displacement. Planned resettlement addresses climate sprawl (unregulated urban fringe development) and climate gentrification (rising housing costs in established areas). Two primary models are whole community retreats — relocating entire communities to new sites, preserving social ties — and new community retreats — resettling people from various locations into newly planned areas, fostering new collective identities (Hino, Field & Mach, 2017).

Strategic Digital City

The strategic digital city concept, developed by Rezende (2023), represents an innovative urban management approach that utilizes information technology (IT) and participatory governance to address urban challenges. It extends beyond basic internet connectivity to provide a comprehensive suite of systems and services designed to optimize urban governance, improve public services, facilitate information sharing, and foster community integration globally.

At its core, the strategic digital city consists of four interconnected components: city strategies, information systems, public services, and IT resources. These elements work together to enhance urban management, optimize citizen services, improve security, and encourage collaboration among stakeholders (Rezende, 2023; Rezende, Almeida & Fumagalli, 2024). This integration highlights the vital role of digital infrastructure in enhancing municipal efficiency and effectiveness, positioning the model as a recognized approach to urban planning and management (Fumagalli, Rezende & Guimarães, 2022; Flores & Rezende, 2022).

Municipal information is key to empowering communities by enabling informed decisions on issues like the environment, traffic, and health crises (Rezende, 2023). City strategies in strategic digital cities foster public dialogue, secure funding, and promote citizen participation in governance (Lee, 2023; Chou, Erkkilä & Mölsä, 2023; Brady, Chaskin & McGregor, 2020), with local leadership essential for leveraging digital tools and promoting inclusive policies (Lindgren et al., 2019). The digitization of public services enhances government-citizen interactions, offering remote access to resources and reducing administrative burdens (Safarov, 2021). However, successful implementation relies on trust, digital literacy, and strong capabilities within government institutions (Lindgren et al., 2019). By integrating digital tools and strategies, strategic digital cities foster inclusive urban development, strengthening social ties and empowering communities to shape their future (Schammann, 2021).

Posthumanism

Posthumanism challenges anthropocentric paradigms by emphasizing the complex interconnections between humans, technology, and non-human entities in shaping urban environments. This shift advocates for more inclusive urban planning, moving away from hierarchical approaches to embrace diverse conceptualizations of subjectivity, agency, and relationality in planned neighborhoods and strategic digital cities (Wilde & Sylvia IV, 2024) promoting urban identify Ferrando (2020).

In strategic digital cities, posthumanism explores the integration of digital technologies, destabilizing the distinction between human and machine, and raising ethical questions about identity, community, and governance (Vanderbeke, 2024). Posthumanism views technology not merely as a tool but as an active participant in shaping urban experiences, challenging dualistic thinking between subject/object and human/machine (Wilde & Sylvia IV, 2024).

Posthumanism is a multidisciplinary framework that redefines the interrelations among humans, technology, and the environment, criticizing human exceptionalism and emphasizing non-human agency (Andersson, 2024; Liu, 2023; Serra-Undurraga & Wyatt, 2024). It includes critical posthumanism, which examines colonial and dualistic legacies (Serra-Undurraga & Wyatt, 2024; Osborne & Rose, 2024), and technological posthumanism, which explores the transformative impact of AI, bioengineering, and cybernetics on human identity (Yoon, 2023; Falcon, 2023).

Recent scholarship highlights the ethical, epistemological, and political implications of posthumanism in urban and digital contexts, addressing how cities mediate human-nonhuman interactions (Krishna & Kumar, 2024; Yoon, 2023). Despite growing academic interest, incorporating more-than-human perspectives remains challenging due to limitations in current methodologies (Falcon, 2023; Greenhough, 2024). Posthumanism is categorized into philosophical, ecological, and technological dimensions, with philosophical posthumanism critiquing enlightenment rationalism (Osborne & Rose, 2024; Delanty, 2024), ecological posthumanism focusing on human-non-human interdependence (Greenhough, 2024; Falcon, 2023), and technological posthumanism analyzing the impacts of digital and biotechnological transformations (Yoon, 2023; Andersson, 2024).

Research Methodology

This research employs a case study methodology (Frankfort-Nachmias, Nachmias & Dewaard, 2014; Nichols & Edlund, 2023; Morin, Olsson & Atikcan, 2021), which is widely recognized for its utility in exploring complex phenomena in specific real-world contexts.

The research adopts both quantitative and qualitative research techniques, ensuring a comprehensive analysis of the interplay between planned neighborhoods, planned cities, and strategic digital cities. The methodology is structured to systematically explore how these concepts interact and contribute to urban planning, governance, and sustainability. Furthermore, it integrates a mixed-methods approach to provide a holistic understanding of the research problem. Quantitative techniques involve the numerical analysis of planned neighborhoods and cities in relation to the themes underpinning the concept of the strategic digital city. This includes statistical mapping and frequency analysis to identify trends and distribution patterns. On the other hand, qualitative techniques delve deeper into the contextual and relational aspects. This involves analyzing names, characteristics, and interconnections among strategies and municipal

public services to draw nuanced insights (Morin, Olsson & Atikcan, 2021; Nichols & Edlund, 2023; Yin, 2017).

The research process is divided into four structured phases to ensure logical progression and thoroughness (Morin, Olsson & Atikcan, 2021): (1) data preparation (developing the theoretical framework through a comprehensive review of existing literature; defining the research methods and establishing the sampling criteria for case studies; designing the research protocol to align with the objectives of the study); (2) data collection (gathering data from official and reliable sources, such as city hall strategic plans, government plans, and websites maintained by governmental or municipal authorities; employing document analysis to extract relevant information regarding urban planning, public services, and technology integration in the selected case studies); (3) data analysis (conducting thematic and content analysis to identify patterns and relationships within the data; applying the similarities and differences analytical framework to systematically evaluate the primary constructs: planned neighborhoods, planned cities, and strategic digital cities; performing comparative analysis across case studies to assess similarities, differences, and contextual peculiarities based on multiple dimensions - e.g., urban planning styles, environmental policies, technological integration); (4) documentation and interpretation (synthesizing the results to articulate meaningful conclusions and contributions).

The research examines seven cities: England, Songdo, Shiraz, Manaus, Konstanz, Cairo, and Lagos (Nichols & Edlund, 2023; Yin, 2017). These cities were purposefully selected based on their significance as economic, legal, tourism, educational, and cultural hubs and relations with city posthumanism approaches. The diversity of these cities ensures a robust exploration of how geographic, cultural, and governance differences influence the integration of planning and digital technologies.

The observation unit consists of digital government and city hall documents made available on official websites. Examples of such documents include strategic development plans and other relevant materials (Nichols & Edlund, 2023; Yin, 2017).

The research protocol encompasses three primary constructs: planned neighborhoods, planned cities, and the strategic digital city. The analysis technique is employed to measure and analyze the variables associated with each construct, focusing on strengths, weaknesses, opportunities, and threats. Additionally, the research compares similarities and differences between the case studies across various dimensions, including origins and objectives, scale of implementation, focus, urban planning styles, green and open spaces, social dynamics, economic impact, adaptability, resilience and sustainability, cultural reflection, technology integration, environmental policies, information and public service dissemination.

The research started in September 2023 and follows the outlined phases, with an expected completion date of January 2025 (action research). This timeline ensures sufficient depth and breadth in exploring each research phase, allowing for accurate data collection, rigorous analysis, and impactful conclusions.

Study Cases

British New Towns - England

The development of British new towns began in the 19th century with company towns like Saltaire, Port Sunlight, and Bourneville, aiming to alleviate urban issues such as overcrowding and inadequate infrastructure while fostering economic growth (Abrams et al., 2018; Forsyth,

2019). After World War II, a government program expanded this concept to address housing shortages and decentralize populations, easing urban congestion and promoting regional development (Amiryar & Asano, 2022; Forsyth, 2019; Castriota, 2024; Clapson, 2017). These towns not only provided housing but also tested urban planning strategies to improve mobility and safety for the working class (Clapson, 2017). However, rapid population growth outpaced infrastructure development, leading to social challenges, economic reliance on single industries, transportation issues, and governance complexities (Clapson, 2017; Forsyth, 2019).

Regarding posthumanism approaches, these towns represent infrastructural systems where human and non-human interactions, such as transportation and digital networks, shape urban life. This mirrors smart city concepts, where urban spaces evolve through technological mediation, creating interdependence between inhabitants and digital frameworks. These developments lay the groundwork for future urban models integrating governance, mobility, and socio-spatial organization.

Songdo – South Korea

Songdo, an artificial island near Seoul's largest airport, was designed as a "smart city" to set global urban standards, emphasizing high-tech features and security, symbolized by its panoptic tower and extensive surveillance network (Bartmanski et al., 2023). However, despite its international appeal, Songdo struggled to attract expected investors and residents, especially after the 2008 financial crisis, revealing socio-spatial inequalities and gaps between its promises and outcomes (Bartmanski et al., 2023; Mullins, 2017). Rooted in South Korea's entrepreneurial urbanization since the 1970s, Songdo embodies the nation's strategy of using technology to enhance real estate value in large-scale housing complexes. While its global recognition is significant, corporate-driven priorities often overshadow social equity and sustainability (Bartmanski et al., 2023; Mullins, 2017).

Regarding posthumanism approaches, Songdo exemplifies a socio-technical assemblage where digital technologies shape urban life, governance, and space. Surveillance and automation integrate technological agency into daily life, reflecting the tension between corporate-led technological progress and the social needs of urban residents.

Shiraz – Iran

The urban form of Shiraz reflects a complex interplay between traditional, semi-planned, and planned neighborhoods, each offering distinct advantages and challenges. Traditional neighborhoods, located in the historical core, feature intricate lot configurations, narrow streets, and close-knit communities, providing accessible green spaces and fostering social cohesion. However, they struggle with modern accessibility and resilience to contemporary stressors (Sharifi, Roosta & Javadpoor, 2021). Planned neighborhoods, situated in the outer city, prioritize modern infrastructure, broader streets, and disaster resilience, enhancing safety against floods and seismic events. Yet, they often lack the cultural richness and communal bonds found in traditional areas. Semi-planned neighborhoods, acting as transitional zones, blend traditional urban fabrics with modern infrastructure, creating diverse land-use mixes and balancing development with cultural preservation (Sharifi, Roosta & Javadpoor, 2021). In terms of building structure, planned neighborhoods outperform others due to adherence to contemporary codes. Semi-planned areas exhibit a broader land-use mix, integrating residential and commercial spaces, while traditional neighborhoods intertwine homes with small-scale retail (Sharifi, Roosta & Javadpoor, 2021).

Regarding posthumanism approaches, Shiraz's urban evolution highlights cities as dynamic assemblages of human, technological, and environmental elements. Planned neighborhoods embody technological mediation for resilience, while traditional areas preserve socio-cultural entanglements. Semi-planned neighborhoods represent a hybrid urbanism, embracing relationality and pluralism to foster inclusivity and resilience.

Manaus – Brazil

The urban development of Manaus, Brazil, and nearby municipalities like Iranduba has been reshaped by infrastructure projects such as the Rio Negro Bridge and the Manoel Urbano Highway, sparking real estate activity and new residential projects. Nova Bairros Planejados, a collaboration between the Nova Carajás Group and the São Francisco de Assis Group, plays a key role in this transformation, exemplified by developments like Nova Amazonas 1 and 2, which prioritize green space and modern amenities (Andrade, 2021; Rodriguez, 2016). Another notable project is the Tropical Planned Neighborhood, launched in 2017 along Manaus's main highway, which integrates recreational spaces and fitness facilities into its urban design. However, these projects raise concerns about inclusivity, as subtle access controls and rising land values contribute to social segregation and spatial inequality, with marginalized communities forming on the periphery (Andrade, 2021; Rodriguez, 2016).

Regarding posthumanism approaches, Manaus's planned neighborhoods embody a push towards harmonizing human settlements with ecological processes and smart urban design. Yet, the socio-spatial inequalities they produce align with critiques of neoliberal urbanism, where corporate interests and digital planning mediate access to space, potentially reinforcing socio-economic disparities.

Konstanz - Germany

The urban development of Konstanz, Germany, reflects the challenge of balancing population growth with environmental preservation, particularly in maintaining green spaces amid rising residential demand (Artmann et al., 2017). National initiatives like the "Future Urban Green" program promote sustainable urban growth by protecting urban ecosystems while encouraging densification. However, this creates tensions between expanding infrastructure and preserving interconnected green spaces, which are crucial for biodiversity, air quality, and residents' well-being. The compact city model aims for sustainable growth, yet requires strategies to safeguard green areas, enhancing urban livability and environmental health. Germany's broader sustainability goals sometimes clash with biodiversity efforts, highlighting the complexity of urban planning (Artmann et al., 2017).

Regarding posthumanism approaches, the interplay between urbanization and nature in Konstanz challenges anthropocentric development models, emphasizing the interdependence of human and non-human life. This perspective advocates for urban environments where ecological health and human well-being are seen as mutually reinforcing, guiding more inclusive and resilient urban futures.

Cairo – Egypt

The urban evolution of the Greater Cairo Region (GCR) reflects a transition from traditional neighborhoods with compact, communal spaces to modern planned developments influenced by Western urban models (Khalil et al., 2024). Traditional neighborhoods, characterized by organic layouts and multifunctional streets, have long fostered social interactions. However, rising

vehicular traffic has degraded public spaces, posing safety risks and disrupting community cohesion. In response, urban planners have introduced new planned neighborhoods, prioritizing green spaces and structured layouts to enhance livability. These developments fall into distinct categories: early Developed (Traditional) Neighborhoods: Organic layouts where streets serve as vibrant public spaces for social and economic activities; early Planned Neighborhoods: More structured but often segregated, featuring gated designs; new Planned Neighborhoods: Integrated with internal gardens but requiring street crossings to access shared spaces; contemporary Private Neighborhoods: Superblock designs where open spaces are internalized within residential complexes. While modern developments aim to improve social well-being, gaps in empirical research highlight the need for deeper analysis of how urban design affects community interactions (Khalil et al., 2024).

Regarding posthumanism approaches, Cairo's urban expansion illustrates tensions between human-centric planning and ecological sustainability. The dominance of vehicles and infrastructure over natural landscapes disrupts pedestrian-friendly environments and weakens the social and ecological functions of public spaces. A more integrated approach recognizing cities as interdependent ecosystems—where human and non-human elements shape urban life—can help create resilient and inclusive environments.

Lagos – Nigeria

Lagos, Nigeria's largest and most economically significant city, is experiencing rapid urban growth, which has led to unplanned urbanization and strained infrastructure (Auwalu et al., 2021; Ndidi & Nduka, 2014). With a population of approximately 22 million, Lagos' expansion is driven by industrialization, but it also has significant consequences, especially in terms of informal settlements that lack access to public services and information (Gbenga, 2023; National Bureau of Statistics, 2019). The city's planned neighborhoods offer better access to organized systems of living, including healthcare, security, and transportation, while those in informal areas struggle to access these essential services. In response, urban planning in Lagos must address the inclusivity of its growing population, particularly those in informal settlements. Providing city services, information, and infrastructure to these areas is critical to ensuring a better quality of life for all residents. The study underscores the importance of bridging the divide between formal and informal urban spaces to foster more equitable urban development.

Regarding posthumanism approaches, Lagos' urbanization highlights the complex interplay of human and non-human elements, such as local knowledge, social networks, and the physical environment. Informal settlements, despite being overlooked in formal planning, are resilient and adaptive, demonstrating the agency of non-human forces in shaping the city's growth. In this context, Lagos' urban planning must embrace both human and non-human actors, recognizing their interdependence and ensuring that urban development fosters inclusivity and sustainability for all.

Results and Discussions

Planned neighborhoods and planned cities stand as two distinctive paradigms, each offering its own set of advantages and challenges. To gain a comprehensive understanding of these urban planning models, their significance and characteristics could be examined through the lens of various case studies, also considering posthumanism approaches.

The origins and objectives of planned neighborhoods and planned cities serve as a crucial context for understanding their roles in urban development. Planned neighborhoods are smaller-

scale developments integrated into larger urban areas, typically focusing on housing solutions and localized amenities. In contrast, planned cities encompass comprehensive urban developments designed to accommodate substantial populations, businesses, and infrastructure on a city-wide scale.

Planned neighborhoods often prioritize housing solutions tailored to specific demographics or income groups, addressing the immediate needs of residents within a localized context. Conversely, planned cities aim to accommodate diverse populations, attract businesses, and foster economic development on a broader scale. Planned neighborhoods may exhibit a variety of urban planning styles, from traditional to modern, influenced by historical context and development goals. On the other hand, planned cities frequently adopt innovative urban planning concepts, emphasizing sustainability, smart technology, and comprehensive infrastructure development to address future challenges. Moreover, the inclusion of green and open spaces is vital for enhancing residents' quality of life. While planned neighborhoods offer varying degrees of green spaces to promote accessibility and well-being, planned cities prioritize substantial green areas as integral components of urban design. These spaces help mitigate urban heat island effects and contribute to a higher quality of life.

Social dynamics are another critical consideration in urban planning. Planned neighborhoods may foster social inclusion or inadvertently contribute to social segregation, depending on their design and target demographics. In contrast, the larger scale and diversity of planned cities present unique challenges in promoting social inclusion and addressing potential inequalities. Furthermore, the economic implications of planned developments vary significantly. Planned neighborhoods can stimulate local economies by attracting investment and businesses. However, planned cities tend to have a broader economic impact, drawing multinational corporations and promoting regional and national economic growth.

Urban developments must adapt to evolving demographics, economic conditions, and planning trends. Planned neighborhoods may need to modify their designs and approaches to remain relevant. Planned cities, due to their size and complexity, face distinct challenges in maintaining global relevance and adaptability. Sustainability and resilience are critical components of modern urban planning. While the resilience of planned neighborhoods depends on factors like design, infrastructure, and community dynamics, planned cities often integrate sustainability into their core planning, addressing climate change and resource management as fundamental priorities.

Both planned neighborhoods and planned cities can reflect local culture and history, but the degree of cultural integration varies. Traditional planned neighborhoods may be deeply rooted in local culture, while planned cities often exhibit a blend of global influences, reflecting a more cosmopolitan character.

Planned neighborhoods typically provide public services and information on demand, meaning residents access these resources only when they explicitly seek them. This approach can leave residents unaware of available services that could improve their lives or mitigate informal livelihood challenges. In contrast, planned cities proactively organize, refine, digitize, and make public services readily accessible, even in anticipation of residents' needs. This ensures a more organized, formal, and planned lifestyle for residents. Public services in planned cities are meticulously arranged, automated, and easily accessible, reflecting the class differences between planned neighborhood and planned city dwellers, as exemplified in Lagos.

Planned neighborhoods and planned cities each play essential roles in urban development, offering distinct solutions to housing, economic growth, and sustainability challenges. By understanding their differences and leveraging their strengths, urban planners can create environments that cater to diverse needs, enhance quality of life, and promote sustainable development.

The distinction between planned neighborhoods and planned cities according to posthumanism approaches, can be seen as a reflection of the broader interrelations between human and non-human forces within urban environments. Posthumanism challenges the human-centered approach to urban planning by emphasizing that cities are not merely shaped by human desires and goals but are dynamic ecosystems in which human and non-human elements - such as infrastructure, technology, green spaces, and even the climate -coexist and mutually influence one another.

Planned neighborhoods and cities are not isolated constructs but are part of a larger, interconnected urban network where the agency of non-human entities like natural resources, digital technologies, and even artificial intelligence in smart cities plays a critical role in shaping the urban experience. For example, while planned neighborhoods may focus on addressing the immediate needs of residents, they often fail to integrate the broader ecological and technological forces that posthumanism thinking would argue are essential to creating sustainable, resilient environments. In contrast, planned cities, with their emphasis on sustainability and smart technologies, are more attuned to these non-human forces, seeking to design urban spaces, that human and non-human elements work in harmony. By incorporating posthumanism into urban planning, cities can move beyond a purely human-centered model to one that respects and includes the agency of the non-human world, fostering a more inclusive, ecological, and technologically integrated urban landscape.

In summary, planned neighborhoods and planned cities represent two distinct approaches to urban development, each with its own merits and challenges. The case studies provide a wealth of examples, illustrating diverse approaches to urban planning and highlighting the need to balance innovation, sustainability, social inclusion, and economic development in various urban contexts. Understanding these models is crucial for creating vibrant, resilient, and livable cities for the future.

As digital technology takes center stage in urban development, effective integration becomes increasingly important. Technology should not function as an isolated element within the urban landscape but should instead be seamlessly woven into the city's fabric. The case of Songdo, a city designed as a smart entity from its inception, highlights the significance of such integration. Strategic Digital City Projects, including municipal strategies and services, can ensure that digital technology becomes a natural and integral part of urban life. In contemporary cities, technology has the potential to either exacerbate social divides or bridge them.

Strategies and public policies are essential to ensure that urban planning and development incorporate sustainable and environmentally friendly practices. Such approaches are vital for creating future cities and neighborhoods that are not only digitally advanced but also environmentally conscious. These cases emphasize the importance of prioritizing green practices and adopting a holistic approach to urban planning. By integrating sustainability, inclusivity, and technological advancements, urban environments can become more equitable and cohesive.

Ultimately, the shift toward sustainable, inclusive, and technologically integrated urban planning will define the cities of tomorrow. By learning from the successes and challenges of these case studies, planners and policymakers can create environments that promote equality, resilience, and a high quality of life for all residents.

Table 1 represents all key aspects of both planned neighborhoods and planned cities in which they share similarities and differences.

Aspect	Planned neighborhoods	Planned cities
Origins and Objectives	Address specific local housing shortages, population congestion, and urban design (e.g., British New Towns)	Developed for comprehensive urban development with economic and strategic goals (e.g., Songdo)
Scale of Implementation	Smaller scale, integrated into larger urban areas	Large-scale, designed as comprehensive urban environments
Focus	Immediate housing solutions for specific demographics or income groups	Accommodating diverse populations, attracting businesses, and fostering economic growth
Urban Planning Styles	Wide array from traditional to modern, shaped by historical context	Innovative concepts, incorporating sustainability and smart technology
Green and Open Spaces	Varying degrees, enhancing local accessibility and well-being	Ample green spaces, integral for mitigating urban heat and enhancing quality of life
Social Dynamics	Can foster social inclusion or segregation based on design and demographics	Challenges in ensuring social inclusion and addressing inequalities
Economic Impact	Stimulates local economies by attracting investment and businesses	Significant regional and national economic impact, drawing multinational corporations
Adaptability	Needs to adjust approaches to changing demographics and trends	Faces unique challenges in maintaining relevance and adaptability on a global scale
Resilience and Sustainability	Dependent on design, infrastructure, and community dynamics	Prioritizes sustainability and resilience, addressing climate change and resource management
Cultural Reflection	May be deeply rooted in local culture, especially with traditional character	Often showcases a blend of global influences, reflecting a cosmopolitan character
Integration of Technology	Varies, not always central to planning	Seamless integration of smart technology as a fundamental aspect (e.g., Songdo)
Environmental Policies	Emphasis on incorporating sustainable practices in development	Strategies and public policies for environmentally friendly urban planning
Information and public service Dissemination	Use of traditional style of dissemination and providing neighborhood public services,	Application of digital and multimedia system of public services and information dissemination and

	records and information on demand (that is only when the planned neighborhood dwellers ask or look for the information)	providing city information in anticipation (that is ensuring basic, required, useful and necessary city public services and information gets to the city dwellers long before they need or ask for it)

Table 1. Similarities and Differences Shared in Key Aspects of Planned Neighborhoods and Planned Cities.

Planned neighborhoods and planned cities offer complementary approaches to addressing the multifaceted challenges of urbanization, each with distinct strengths and limitations. Planned neighborhoods, with their localized scale, focus on meeting the immediate housing needs of specific demographics and fostering community cohesion. They emphasize cultural integration, walkability, and accessibility to green spaces, making them adaptable to evolving urban demands. However, their smaller scale can lead to limitations in economic diversification, access to advanced public services, and integration into larger urban systems, potentially creating pockets of socio-economic disparity.

Planned cities, on the other hand, are large-scale developments designed with comprehensive objectives, integrating economic, social, and environmental strategies. Their expansive infrastructure accommodates diverse populations and fosters broader economic growth, leveraging advanced technologies to enhance governance and public service delivery. These cities excel in implementing sustainability and resilience measures but face challenges in adaptability, inclusivity, and reliance on costly technologies. While planned cities reflect a blend of global influences, they can struggle to maintain a balance between innovation and addressing local cultural and social contexts.

Thus, considering mainly that posthumanism is a multidisciplinary framework that takes into account the interrelations between humans, technology, and the environment, criticizing human exceptionalism, it is observed that in all the cities researched, the approaches of posthumanism are somehow related to the non-human or digital possibilities in these spaces.

Conclusion

The historical organization of cities into distinct neighborhoods has evolved to address the challenges of urbanization, leading to the development of meticulously planned neighborhoods that emphasize superior infrastructure and enhanced quality of life, considering posthumanism approaches. These planned communities, often adopted in response to housing demand or urban degradation, exemplify efforts to harmonize comfort, security, and organization. Initiatives in the United States and Brazil showcase this trend. The evolution of planned neighborhoods intersects with the concept of strategic digital cities, which leverage information technology for urban development. Urban philosophies highlight the delicate balance between meticulous planning and organic growth, challenging the intrinsic validity of neighborhood-based planning. Despite challenges in digital city initiatives, the overarching goal remains to improve the quality of life for urban inhabitants through genuine socio-spatial development and sustainable neighborhood planning, fostering communal amenities and collaborative innovation. This thematic exploration underscores the intricate dynamics of planned neighborhoods and their pivotal role in shaping the future of cities.

The research objectives were achieved, enabling the conceptual analysis of planned neighborhoods while emphasizing their relationship with strategic digital city concepts and city posthumanism approaches. Planned neighborhoods and planned cities represent distinct urban development paradigms, each with unique advantages and challenges, as explored through case studies such as British New Towns, Songdo in South Korea, Shiraz in Iran, planned neighborhoods in Manaus, Konstanz in Germany, the Greater Cairo Region in Egypt, and Lagos in Nigeria. all cities researched have direct or indirect relationships with posthumanism approaches. These models differ in scale, objectives, and design styles, with neighborhoods often focusing on localized housing solutions and cities encompassing comprehensive developments for larger populations.

The provision of green spaces and their impact on social dynamics also vary, with neighborhoods catering to immediate needs and cities prioritizing broader sustainability goals. Challenges include social inclusion, economic impact, adaptability, and resilience. Strategic digital city projects offer the potential to bridge social divides and enhance overall quality of life. Furthermore, a shift towards environmentally friendly practices in urban planning is essential for creating sustainable and inclusive future cities and neighborhoods. These case studies underscore the importance of balanced approaches that integrate innovation, sustainability, social inclusion, and economic development in diverse urban contexts.

The research contributions are valuable for managers and researchers of the studied cases. Analyzing each case within the context of strategic digital city concepts demonstrates a focus on citizens' quality of life and environmental concerns, offering efficient and sustainable strategies and services. For the scientific community, this research expands the understanding of planned neighborhoods and strategic digital city concepts, referencing diverse authors and sources across various contexts. For the investigated cities, the analysis highlights a commitment to sustainability and integration across discussed themes. Contributions to citizens are evident in the promotion of integration and active participation in public management, as well as addressing socio-economic exclusion resulting from planned neighborhoods or cities. Contributions to the journal are reflected in the discussion of topics such as social and economic development, science and technology, environmental sustainability, and city management, considering posthumanism approaches.

The research limitations include the scope being restricted to cases documented in articles and journals, excluding unregistered cases. Future research should broaden the scope to include other cities to deepen the understanding of municipal strategies and public services. Another limitation is the lack of continuous field monitoring throughout the research period.

In conclusion, the association between planned neighborhoods, strategic digital city and posthumanism concepts represents diverse approaches to urban planning and the challenges of creating integrative and equitable urban development. The case studies highlight the relevance of balancing innovation, sustainability, social inclusion, human aspects and economic development across various urban contexts. As digital technology becomes central to urban development, effective integration emerges as a critical factor. Strategies, information, and public policies that prioritize environmentally friendly practices are essential for advancing urban planning and development. This emphasizes a shift toward creating digitally advanced, environmentally conscious, and socially inclusive future cities and neighborhoods. The overarching goal is to develop vibrant, resilient, and livable urban spaces for all, considering all the scientific learnings from the urban studies of the cases researched. Finally, this study can

essentially realize that in digital cities projects, human beings do not effectively exist, but they are essential parts of the challenge of this approach.

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