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Livable Cities: A Conference on Issues Affecting Life in Cities



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TECHNOSCIENCE, "HOMO INNOVANS", EDUCATION, AND THE CULTIVATION OF CRITICAL AND CREATIVE MINDS: A PROPOSAL FOR LEARNING CITIES.¹

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INTRODUCTION

At the heart of both learning and liveable cities lies the principle of sustainable development. This ethos seamlessly weaves the aspirations of the present generation with the prospects of future ones. Such an intergenerational pledge demands a careful balance between developmental ambitions and the guardianship of our ecology. Within these cities, the integration of economic, social, and environmental goals ensures the promotion of environmentally-friendly practices, a deliberate move to reduce carbon emissions, and a continuous effort to enhance urban biodiversity.²

The shift towards a society centered on knowledge has brought to the limelight the essential role of social innovation in the frameworks of learning and liveable cities. Both city types ardently advocate for the birth of solutions that are both creative and practical, designed to address the diverse socio-environmental challenges we face. This innovative environment requires the collaboration of a wide spectrum of social actors, from businesses and non-profit organizations to the general citizenry.³ Through such synergistic collaborations, cities strive to craft a mosaic of sustainable solutions, directing urban regions from often short-sighted traditional models to more forward-thinking paths.

A foundational tenet intrinsic to both learning cities and liveable cities is participatory governance. Rather than being mere symbolic gestures, civic engagements are actively pursued and cherished in these urban locales. These cities foster spaces that encourage dialogue and interaction, ensuring that residents are not just bystanders but active contributors to the urban development discourse. Policy formulations in these contexts are characterized not by top-down directives but by collaborative efforts, echoing the combined hopes and concerns of the city's inhabitants.⁴

Education is the bedrock on which learning cities are built, viewed as a channel for both individual growth and social transformation. In tandem, liveable cities emphasize the importance of environmental education and awareness of related challenges. The merging of these viewpoints highlights the paramount importance of education, positioning it as the pivotal force driving sustainable progress and nurturing a culture of active civic involvement.

The complex interplay of modern urban dynamics, anchored by knowledge-driven economies, calls for a reevaluation of conventional urban models.⁵ Within this nuanced interrelation, although learning cities and liveable cities may differ in their foundational ethos, they emerge as mutually reinforcing concepts. Collectively, they sketch a vision of urban spaces that transcend mere habitability, evolving into thriving centers of knowledge, innovation, and inclusive engagement.⁶

BETWEEN TECHNOSCIENCE AND HUMANISM: AN ANTHROPOLOGICAL REALM FOR INHABITATION IN THE KNOWLEDGE SOCIETY.

The contemporary anthropological discourse has evolved to encompass human nature within the framework of a knowledge-driven society, wherein technoscience assumes a pivotal role. Both technology and science have revolutionized our worldview and reshaped our interactions with the environment and self.

There's a growing acknowledgment of technoscience's profound impact on our perception of human nature. Technological strides have augmented our cognitive, communicative, and physical capacities, affording us unparalleled access to information and knowledge.⁷ Yet, these advancements have ushered in ethical conundrums and dilemmas, compelling us to introspect about our intrinsic essence and *raison d'être*. Within this milieu, the characterization of the human as "homo innovans" emerges.⁸ This notion accentuates that, in the knowledge-centric society, there's a push to revalorize human intelligence and harmonize it with technological and scientific evolution. Mere knowledge acquisition and technological application fall short of actualizing genuine cosmopolitanism and human emancipation. A profound exploration of the confluence between sciences and humanities is imperative to truly fathom human intricacy.

Such an integrative perspective invites contemplation on technoscience's imprint on our notion of human essence. How does technology's ubiquity shape our cognition, relationships, and lifestyles? To what degree does technoscience sculpt our individual and collective identities? What ethical and social repercussions emanate from these breakthroughs? These quintessential queries underscore the pertinence of the "homo innovans" construct in contemporary self-understanding.

"Homo innovans" typifies humans in a society that necessitates rigorous scientific and technological literacy. This literacy entails the honing of abilities to critically appraise scientific and technological trajectories, while cognizing their ethical, social, and political ramifications. The knowledge-oriented society advocates for a discerning and contemplative citizenry adept at engaging in discourses and determinations pertaining to science and technology. Studies in Science, Technology, and Society (STS) can equip individuals with the requisite intellectual arsenal for this analytical literacy.⁹

Modern humanistic endeavors in societies should emphasize social innovation, which revolves around crafting ingenious, sustainable solutions to social and ecological predicaments. While technoscience can be instrumental, it's imperative it be anchored in ethical tenets and democratic ideals. This focus on social innovation posits that scientific and technological advancements ought not to solely chase economic enhancement or technical prowess. Instead, they should cater to the genuine requisites of individuals and communities, fostering a just, egalitarian, and human-rights-respecting civilization. This ethos finds embodiment in the conceptualization of urban landscapes conducive for 21st-century habitation.

Although the knowledge society heralds expansive access to information, it concurrently unveils socio-economic disparities. Equal access to education and growth opportunities remains elusive for many. Thus, knowledge hubs within urban landscapes are of paramount significance. These realms should champion inclusivity, diversity, and civic involvement, and remain universally accessible, irrespective of socio-economic stratifications. By fostering a milieu ripe for perpetual learning and knowledge reciprocity, they lay the groundwork for social innovation and equitable development.

The ethos of lifelong learning is intrinsically aligned with UNESCO's Learning Cities concept.¹⁰ This model contends that educational engagements shouldn't be circumscribed to structured academic timelines but should permeate an individual's lifespan. Learning Cities manifest as sanctuaries facilitating unfettered access to continuous learning, both within formal settings and informal realms. Lifelong learning underscores that knowledge acquisition isn't confined to conventional academic phases. While formal education instills foundational knowledge, continual learning becomes

imperative in navigating the dynamic social landscape. Lifelong learning empowers individuals to acclimatize to evolving circumstances, refresh their skill sets, and continually expand their intellectual boundaries.

Lifelong learning stands as an inalienable right and responsibility for all, irrespective of age or academic stature. Every individual possesses an irrevocable entitlement to avenues that bolster personal and professional growth.¹¹ This commitment to unending learning enriches society by fostering civic involvement and honing individual potential.

Lifelong learning is a multifaceted endeavor, spanning varied modes and milieus. While institutionalized education is pivotal, learning also transpires informally within occupational, communal, and quotidian settings. Learning Cities acknowledge and venerate this learning heterogeneity, endorsing policies and stratagems that buttress both formal and informal learning, thereby endorsing a holistic approach to cerebral enhancement.

Learning Cities are envisioned as urban precincts championing lifelong learning and social innovation. Such cities exemplify unwavering dedication to comprehensive human development, creating nurturing ecosystems for lifelong learning.¹² They galvanize communities towards relentless knowledge acquisition, skill development, and professional growth. Furthermore, Learning Cities amplify social innovation by endorsing multidisciplinary collaborations.

Social innovation in Learning Cities is amplified via architectural spaces that intertwine education with social innovation.¹³ These spaces materialize as collaborative crucibles where pedagogy and innovation meld to tackle social challenges, spawning innovative and sustainable outcomes. By nurturing symbiotic relationships among educators, researchers, entrepreneurs, and citizens, Learning Cities stimulate ideation and initiatives that augment quality of life and engender equitable social progression.

Learning Cities occupy a pivotal niche in fostering social, economic, and ecological advancements. By championing lifelong learning and social innovation, these urban landscapes enhance the prosperity and well-being of their denizens.¹⁴ On a social front, perpetual learning augments inclusivity and civic participation, thereby weaving a cohesive social fabric. Economically, providing learning opportunities and nurturing innovation stimulates entrepreneurship and job genesis, propelling localized and regional economic buoyancy. Ecologically, by addressing challenges through social innovation, Learning Cities pave the way for a sustainable tomorrow, advocating eco-friendly practices and enhancing community life quality.

In this regard, the urban landscape of the 21st century hinges on striking a harmonious balance between technoscience and humanism. A city striving to embrace an anthropological conception of "homo innovans" becomes more livable and evolves alongside its inhabitants.

Cities evolving in tandem with anthropological perspectives will likely be more resilient and adaptable to future challenges. The knowledge society demands not only the dissemination of information but also its assimilation and application for the common good. Within this context, the confluence of technoscience and humanism in urbanism underscores the role of cities as hubs for learning, innovation, and most crucially, as centers for human connection and growth.

We are perhaps on the cusp of redefining what it means to be urbanized in the knowledge society. Future blueprints should not solely hinge on high-tech solutions but must equally ground themselves in human values, ethics, and collective welfare; it's insufficient for cities to merely be 'smart'; they ought to be humane, inclusive, and adaptive. Thus, the intersection of technoscience and humanism emerges as the central ethos in reshaping the aesthetics and ethos of urban living.

Consequently, Learning Cities, as conceptualized, offer a robust framework to actualize this vision. They emphasize the significance of education, innovation, and collaboration in advancing urban development that is holistic, sustainable, and beneficial for all. Meanwhile, to achieve a world where

cities serve as true bastions of 'livability', a deliberate synthesis of technoscience and humanism is essential. Such cities will not merely be living spaces but also zones of growth, learning, and evolution, crafting an apt environment for innovation and societal collaboration in this knowledge era.

APPLYING INNOVATION IN URBAN PLANNING AND DESIGN: THE EMERGENCE OF THE LEARNING CITY AS A PARADIGM FOR SOCIAL INNOVATION.

In the contemporary urban context, social innovation stands as a vital avenue towards achieving the vision of a thriving, livable city for the 21st century. This vision aligns with the transformation of urban spaces into 'learning cities'. At its core, social innovation emphasizes developing creative and sustainable solutions to social and environmental challenges, while centering the needs and aspirations of communities. While technoscience holds significant potential in aiding this endeavor, it's imperative that it operates under ethical tenets, prioritizing the holistic well-being of humanity—or homo innovans—above mere economic or technical pursuits.¹⁵

Democracy, as a cornerstone, is increasingly recognized as the most apt governance system for contemporary societies. It offers an institutional scaffolding that encourages citizen engagement and collective decision-making. This ensures that the trajectory and implications of scientific and technological advances undergo democratic scrutiny. Moreover, a democratic ethos nurtures inclusivity and a multiplicity of viewpoints, thereby deterring power monopolies and championing equitable opportunities for all.

As societies further into the knowledge era, the anthropological discourse increasingly intersects with Science and Technology Studies (STS). STS shoulders the duty of cultivating a discerning perspective towards scientific and technological strides, emphasizing a harmonious coexistence between technology and humanity.¹⁶ Embracing democracy and fostering social innovation are indispensable in realizing this vision. A profound, humanistic, and democratic ethos will guarantee that technological advancements uplift homo innovans, laying the groundwork for a just, egalitarian, and rights-respecting society. A pivotal strategy to this end is the championing of lifelong learning and the cultivation of learning cities. These urban hubs can facilitate the dissemination and communal assimilation of knowledge, nurturing an informed citizenry capable of making cities truly livable in the 21st century.¹⁷

Within this landscape, social innovation, underpinned by the principles of learning cities, emerges as a potent catalyst for social transformation. This paradigm is rooted in the generation of novel ideas, products, or services that comprehensively tackle intricate, enduring social challenges. Through intimate understanding and multi-stakeholder collaboration, social innovation holds promise as an agent of social evolution.¹⁸

Integral to social innovation is community-driven participation. As social challenges are multifaceted, it's imperative that solutions draw from collective intelligence. This entails synergies between varied entities—enterprises, non-profits, local governance, and most vitally, the communities in focus. Such inclusive endeavors not only ensure contextual relevancy but also enrich solutions through a tapestry of perspectives.

Another quintessential facet of social innovation is its forward-thinking stance. Moving beyond mere reactions to challenges, it advocates for foresighted, proactive interventions.¹⁹ This ethos fosters innovative, scalable, and sustainable solutions that are adept at navigating future complexities, pivoting from a traditionally reactive mindset to proactive change-agency.

However, the knowledge-driven society, despite its promises, can inadvertently amplify existing socio-economic disparities. As knowledge ascends as a pivotal asset, it's crucial to recognize and bridge the educational access chasm.²⁰ In response, curating urban landscapes around networks of 'knowledge spaces' presents an insightful strategy. These arenas, both tangible and digital, are geared

towards lifelong learning and fostering knowledge symbiosis amongst diverse stakeholders. By amplifying social innovation and fostering participative citizenship, these nodes hold the potential to bridge socio-economic divides and champion equitable growth.²¹

In summation, social innovation pursues holistic, systemic solutions to social issues. Eschewing traditional, siloed approaches, it invites transformative methodologies. By fostering interdisciplinary collaborations, it crafts an ecosystem conducive for pioneering, impactful solutions.²² And central to this transformative journey is the active involvement of communities, ensuring the solutions resonate with, and are shaped by, those at the heart of the challenges.

CONCLUDING OBSERVATIONS

- Learning cities encapsulate a comprehensive, dynamic model of education, emphasizing the universality of lifelong learning as both a fundamental right and an inherent responsibility of every individual. These urban hubs cultivate varied learning modalities, champion social innovation, and further socio-economic and environmental progression. Through fostering an ambiance conducive to perpetual learning and fostering civic participation, learning cities provide a fertile ground where the capabilities of homo innovans can thrive, leading to the inception of creative and enduring solutions for current and impending challenges.
- Such cities are pivotal in nurturing an innovative ethos, which in turn propels sustainable technological advancements. These urban settings become crucibles for ideation and groundbreaking solutions that respond to modern-day challenges. They facilitate synergetic endeavors between a myriad of stakeholders, including government bodies, commercial sectors, and the broader community.²³ Such collaborations birth initiatives that underscore sustainability and social welfare. The intrinsic innovative ethos within these urban landscapes acts as a transformative agent, endorsing the uptake of eco-friendly technologies, forging sustainable policy frameworks, and pioneering initiatives aimed at elevating the life quality of its denizens.
- Within the framework of learning cities, social innovation stands as a central pillar in orchestrating social evolution. This innovation paradigm, which emphasizes ingenious yet pragmatic solutions, holistic collaboration, and foresight for impending 21st-century challenges, positions itself as an instrumental mechanism for navigating contemporary social intricacies. Moreover, the conceptualization of cities around "knowledge spaces" augments social innovation and civic engagement. This strategy is instrumental in bridging socio-economic disparities, steering communities towards equitable and sustainable growth trajectories.²⁴ These designated knowledge domains serve as platforms promoting idea exchange, collaborative ventures, and the germination of innovative resolutions to social challenges.
- Social innovation, intertwined with the ethos of learning cities, emerges as a linchpin for social transformation. This perspective, underscored by its pursuit of inventive solutions, multi-stakeholder collaborations, foresight, and the development of knowledge hubs, offers a holistic approach to addressing social challenges.²⁵ Social innovation prompts a reevaluation of conventional methodologies, urging the adoption of transformative strategies to sculpt more inclusive, engaged, and resilient learning cities.
- A noteworthy characteristic of learning cities is their inherent potential to metamorphose into sustainable urban environments. As prospective sustainable hubs, learning cities are adept at responding to challenges linked with urban resilience, particularly against natural catastrophes or extreme events.²⁶ These cities emphasize prudent urban planning complemented by robust infrastructure. Moreover, they ensure swift and effective responses during emergencies, factors which are quintessential in the blueprint of a resilient metropolis.

NOTES

- ¹ This article is the result of the author's research as a senior researcher in the Department of the University of Cantabria, under a contract funded by the "Beatriz Galindo" Program of the Ministry of Universities of Spain.
- ² Venelin Terziev, "Lifelong Learning: The New Educational Paradigm for Sustainable Development," *IJASOS-International E-Journal of Advances in Social Sciences* 5 (2019): 84-85.
- ³ Katarzyna Borkowska and Michael Osborne, "Locating the Fourth Helix: Rethinking the Role of Civil Society in Developing Smart Learning Cities," *International Review of Education* 64 (2018): 360.
- ⁴ Dariusz Jemielniak and Aleksandra Przegalinska, *Collaborative Society* (Cambridge, Massachusetts: The MIT Press, 2020).
- ⁵ Catalina Ortiz and Gynna Millan, "Critical urban pedagogy: Convites as Sites of Southern Urbanism, Solidarity Construction and Urban Learning," *International Journal of Urban and Regional Research* 46 (2022): 825.
- ⁶ Shirley Walters, "Building a learning region: Whose framework of lifelong learning matters?," in *Philosophical Perspectives on Lifelong Learning*, ed. David Aspin (Dordrecht: Springer Netherlands, 2007), 280.
- ⁷ Eusebio Medina García, "Límites y retos de la globalización: frontera-horizonte y gobierno de la tecnosfera," *Revista mexicana de ciencias políticas y sociales* 68 (2023): 18-20.
- ⁸ Jose Hernanz, "Homo innovans e innovación social en las ciudades del aprendizaje de la cuarta revolución industrial," in *Creatividad e innovación en ciencia y tecnología*, ed. Ana Rosa Pérez Ransanz, Ana Luisa Ponce Miotti (Ciudad de México: UNAM, 2017), 291.
- ⁹ Hernanz, "Homo innovans", 293.
- ¹⁰ "UNESCO Global Network of Learning Cities", UNESCO, accessed July 23, 2023.
<https://uil.unesco.org/fileadmin/keydocuments/LifelongLearning/learning-cities/en-unesco-global-network-of-learning-cities-guiding-documents.pdf>
- ¹¹ Snejana Slantcheva, "Mechanisms of Lifelong Learning: The Spread of Innovative Short-Cycle Higher Education Qualifications within National Systems," *Higher Education* 68 (2014): 100.
- ¹² Fazal Rizvi, "Lifelong learning: Beyond neo-liberal imaginary", in *Philosophical perspectives on lifelong learning*, ed. David Aspin (Dordrecht: Springer Netherlands, 2007): 116-17.
- ¹³ Antonius Schröder and Daniel Krüger, "Social Innovation as a Driver for New Educational Practices: Modernising, Repairing and Transforming the Education System," *Sustainability* 11 (2019): 1070.
- ¹⁴ Norman Longworth, *Learning cities, learning regions, learning communities: Lifelong learning and local government* (London: Routledge, 2006), 82.
- ¹⁵ Rizvi, "Lifelong learning: Beyond neo-liberal imaginary," 117.
- ¹⁶ Borkowska and Osborne, "Locating the Fourth Helix," 363.
- ¹⁷ Christopher Haines, "Live-Long Learning as a Sustainability Strategy", in *Lifelong Learning and Education in Healthy and Sustainable Cities*, ed. Ulisses Miranda Azeteiro et al. (Cham: Springer International Publishing, 2018), 412.
- ¹⁸ Schröder and Krüger, "Social Innovation as a Driver for New Educational Practices," 1070.
- ¹⁹ Borkowska and Osborne, "Locating the Fourth Helix," 369.
- ²⁰ Slantcheva, "Mechanisms of Lifelong Learning, 95.
- ²¹ Kenneth Wain, "Lifelong learning and the politics of the learning society", in *Philosophical perspectives on lifelong learning*, ed. David Aspin (Dordrecht: Springer Netherlands, 2007), 40-41.
- ²² Jemielniak and Przegalinska, *Collaborative Society*, 94.
- ²³ Terziev, "Lifelong learning," 93.
- ²⁴ Hiroshi Komiyama and Koichi Yamada, *New Vision 2050: A Platinum Society* (Cham: Springer Open, 2018). doi:10.1007/978-4-431-56623-6, 15.
- ²⁵ Schröder and Krüger, "Social Innovation as a Driver for New Educational Practices," 1070.
- ²⁶ Petra Kuenkel and Alina Gruen, "Co-creation for sustainability as a societal learning journey", in *Lifelong Learning and Education in Healthy and Sustainable Cities*, ed. Ulisses Miranda Azeteiro et al. (Cham: Springer International Publishing, 2018), 388.

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