
Editorial: Post-anthropocentric urbanism – is more-than-human city just a utopia?

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The Anthropocene has become an environmental buzzword since scientists – led by the Nobel laureate Paul Crutzen – proposed it as the new geological epoch in early 2000s. This new epoch is characterised by human activities and impacts on the geology of our planet (Dizdaroglu et al., 2012; Lewis and Maslin, 2015; Yigitcanlar and Dizdaroglu, 2015). Rapid population growth and a net total growth of consumption of natural resources, combined with vigorous industrialisation, urbanisation, mobilisation, globalisation, agricultural intensification and excessive consumption-driven lifestyles are seen to blame for the appearance of this epoch (Goonetilleke et al., 2014; Yigitcanlar et al., 2015; Kamruzzaman et al., 2018). At the Anthropocene, currently urban growth is taking place on an unprecedented scale globally and its externalities on the environment and society are evident (Mahbub et al., 2011; Dizdaroglu and Yigitcanlar, 2014; Arbolino et al., 2018b).

In order to combat externalities of the Anthropocene – in other words addressing the socioeconomic needs within the planetary limits without causing harm to the nature – various urban planning and development approaches are generated and put into practice. These approaches could be grouped under two schools of thoughts.

The first school of thought adopts an envirocentric viewpoint to conceptualise ‘sustainable urbanism’. The origin of sustainable urbanism dates back to the ‘sustainable urban development’ notion of the 1970s and the ‘smart growth’ notion of the 1990s (Yigitcanlar and Dur, 2010; Dizdaroglu and Yigitcanlar, 2016; Arbolino et al., 2018a). Sustainable urbanism is practiced through the new urbanism, eco-city or sustainable city and smart growth approaches (Yigitcanlar 2010a, 2010b; Yigitcanlar and Kamruzzaman, 2014). This movement advocates planning strategies, including sustainable urban development, land use and transport integration, use of appropriate tools and technologies, to address sprawl development and associated environmental externalities (Dur et al., 2014; Dur and Yigitcanlar, 2015; Yigitcanlar and Kamruzzaman, 2015).

The second school of thought adopts a technocentric viewpoint to conceptualise ‘smart urbanism’. The origin of smart urbanism dates back to the digital revolution notion of the 1990s (Yigitcanlar, 2009, 2015; Komminos, 2016). Smart urbanism is practiced through the intelligent city, smart city and responsive city approaches (Lee et al., 2008; Yigitcanlar and Lee, 2014; Yigitcanlar, 2016). This movement – broadly referred to as the ‘smart city movement’ – advocates planning strategies, including enhanced liveability and prosperity in cities, unified experience for citizens to benefit from efficient and effective city services, environmental sustainability through the implementation of

relevant digital technologies, to address various problems of our cities (Lara et al., 2016; Trindade et al., 2017; Chang et al., 2018).

The recently conducted research, however, indicates that due to conceptualisation and practice limitations both school of thoughts have not been managed to address the problems of Anthropocene adequately. For instance, a study on 15 UK smart cities found no evidence that urban smartness contributes to sustainable outcomes (Yigitcanlar and Kamruzzaman, 2018a). Another research on Australian cities revealed the smartness of cities does not lead to sustainable commuting patterns (Yigitcanlar and Kamruzzaman, 2018b). Additionally, a study by Yigitcanlar and Bulu (2015) revealed that smart urbanism that creates Dubaization is not a way to bring sustainability to cities. Furthermore, despite basing the development on the local and regional endogenous assets in a sustainable way, studies have shown that smart city wannabees are fascinated by the exogenous assets – such as imported goods and technology solutions that have high carbon footprint (Metaxiotis et al., 2010; Yigitcanlar et al., 2012; Lönnqvist et al., 2014).

These studies are among the many alerting us the false hope so-called smart urbanism creates – the current smart city practice, at its best, is a zero-sum game for sustainability. Furthermore, unfortunately popularity of the smart agenda has already made policymakers and urban administrators to turn their heads mostly away from the sustainable urbanism practices. Perhaps the main issue behind the failure of both sustainable and smart urbanism attempts is that they are still being performed within the boundaries of the unhealthy Anthropocene practice.

An out-of-the-box thinking, or in other words post-Anthropocentric thinking, thus is needed for us to be able to address the problems faced adequately. Following the adoption of such thinking, a healthy marriage of both school of thoughts could be another good step forward – perhaps in the form of ‘smart and sustainable urbanism’ (Yigitcanlar et al., 2018a). In this perspective, smart and sustainable city can be defined as an urban locality functioning as a healthy system of systems with sustainable and balanced practices of economic, societal, environmental and governance activities generating desired outcomes for all humans and non-humans (Yigitcanlar et al., 2018b). This is to say we need to seek ways to develop a post-Anthropocentric urbanism approach widely practiced all across the globe to transform our cities into and create new ones that are truly ‘smart and sustainable’ and also ‘more-than-human cities’.

Post-Anthropocentric urbanism might sound just like a utopia for the time being. Nevertheless, as argued by Yigitcanlar et al. (2018b), it might be our last chance to avoid an urban ecocide and secure existence of human kind and other species on our planet for the millenniums to come. We need to, hence, urgently develop sound actions before it is too late; after all, future generations’ lives are seriously at stake.

Following the above commentary on the urgent necessity of adopting post-Anthropocentric urbanism practices, this editorial piece introduces the articles of the issue. This fourth issue of the *International Journal of Knowledge-Based Development* for 2018 (Volume 9) contains five papers. These papers investigate the knowledge-based urban and economic development phenomenon from various angles (i.e., zero-energy housing, knowledge-based development, creativity-based development, clustering of firms, knowledge sharing) – in order to provide further understanding of the opportunities and complexities involved in developing and adopting post-Anthropocentric urbanism practices.

The issue commences with a paper (paper 1: ‘A review of zero energy housing regulations for low-income households’) by Jung Hoon Han, Sumin Kim,

Jun-Hyung Kim and Sang-Young Lee. This study explores zero energy building programs and regulations in the USA, Europe, Australia and South Korea contexts. The paper highlights that low-income households particularly are the most vulnerable ones to energy poverty due to ever increasing energy costs such as electricity and gas services. This study suggests the implication of zero energy housing policy for low-income households to allow for better access, management and modification of their homes. The findings reveal three barriers in promoting zero energy housing for low-income households, its affordability, accessibility and occupants' behaviours. The paper suggests that both provision of financial incentives and assistance for zero energy housing retrofit is required as a regulatory practice.

Paper 2 of the issue by Simón Sánchez-Moral, Marco Bontje and Sako Musterd ('Understanding knowledge and creativity-based development in well-established cities and urban regions') indicates that developing creative and knowledge-intensive economic activities is an objective for many well-established cities and urban regions. The paper aims to enhance the understanding of that process by focusing on the institutional and local and regional contexts in which the activities take place. The study places regions of Madrid and Amsterdam under the microscope. The study reveals that Madrid's political and economic ruptures seem decisive in its development, while in Amsterdam it is self-reinforcing paths that appear crucial. The paper suggests developing tailored context-sensitive urban policies that will not only be effective, but also reduce the risk of losing local characteristics that may offer a unique competitive advantage.

Next, in paper 3, Paul G.C. Hector, Jean-Louis Ermine, Vincent Ribiere and Alex Bennet ('A knowledge-based development model for primate cities of the developing world') present the conceptual development and piloting of a knowledge-based development model for primate cities. Using UNESCO's knowledge societies conceptual framework, the study extends this framework substantiating relationships between the framework's components, intellectual capital, knowledge processes and macro-level sustainable development goals. Empirical field work conducted in primate cities of Ethiopia and Thailand assesses the relevance of the model and explores what insights and guidance it could provide for policymakers. The paper offers a K-SWOT policy dialogue to demonstrate the model's potential for supporting decision-making processes.

The next contribution of the issue, paper 4, by Iffat Batool Naqvi and Zahid Ali Memon ('Upgrading of developing countries industrial clusters' firms: conceptual-theoretical framework'), focuses on industrial clusters in developing countries that exhibit the properties of labour intensive, low-tech and low-cost manufacturing hubs in the global production networks. The paper argues that institutional architecture of global production networks provides an opportunity to these industrial clusters of developing countries to create value through knowledge links between the firms and non-firms' actors of global production networks and innovation systems in which the clustered firms are embedded. This paper proposes a conceptual framework by connecting the cluster theory, innovation system framework and global production networks theory for an assessment of the upgrading of developing countries industrial clusters within global production networks.

The final contribution of the issue, paper 5, by Sari Mansour and Diane-Gabrielle Tremblay ('Blended work and opportunities for knowledge sharing: human resource management practices to increase innovative work behaviour and life satisfaction of

bridge workers’) focuses on the knowledge sharing topic. This paper aims to verify in a sample of bridge workers the mediating role of occupational self-efficacy on the relationship between availability of blended work and opportunity for knowledge-sharing with younger workers, as well as life satisfaction and innovative work behaviour. The results of the study reveal that the availability of blended work has an indirect effect on life satisfaction and innovative work behaviour via occupational self-efficacy. The findings disclose that the opportunity for knowledge transfer to younger workers, or generativity, impacts the life satisfaction and innovative work behaviour via occupational self-efficacy.

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