

## Editorial Preface

# Urban E-Planning and the COVID-19 Pandemic: Public Health Response and Transformative Recovery

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In the first months of 2020 the world witnessed the quick spread of the ‘Severe Acute Respiratory Syndrome’ (coronavirus SARS-CoV-2 responsible for the COVID-19), first identified in Wuhan, Hubei province, China. According to the timeline on the COVID-19 events<sup>1</sup>, the World Health Organization (WHO) office in China noticed, on 31 December 2019, a media statement issued by the Wuhan Municipal Health Commission referring cases of ‘viral pneumonia’ in Wuhan, People’s Republic of China. Two days afterwards, on 2 January 2020, the WHO informed its partners of the Global Outbreak Alert and Response Network (GOARN)<sup>2</sup> about the cluster of pneumonia cases in the People’s Republic of China, and on 5 January the WHO issued its first Disease Outbreak News report. On 9 January, the Chinese authorities informed the World Health Organization that the outbreak was caused by a novel coronavirus, and on 10 January 2020, the WHO published a package of guidance documents for countries, covering topics related to the management of an outbreak of a new disease. On 11 January, the Chinese media reported the first death from the novel coronavirus and two days later, on 13 January, the Ministry of Public Health in Thailand reported an imported case of the novel coronavirus from Wuhan, the first recorded case outside of the People’s Republic of China.

On 30 January 2020, the World Health Organization declared a Public Health Emergency of International Concern (PHEIC)<sup>3</sup>, and on February 11, 2020 announced an official name for the disease that was causing the new 2019 coronavirus outbreak, COVID-19 in abbreviated form<sup>4</sup>. In the first six weeks of 2020, it had spread from the People’s Republic of China to 20 other countries. On 7 March surpassed 100,000 confirmed cases globally. On 11 March 2020 the WHO informed that the COVID-19 could be characterized as a pandemic. On 4 April 2020 the WHO reported that over 1 million cases of COVID-19 had been confirmed worldwide, an increase of ten times more in less than a month<sup>5</sup>. It spread at a much faster rate, and geographically more extensively, than two previous related coronavirus, the Severe Acute Respiratory Syndrome (SARS), a viral respiratory disease, first identified in China, in February 2003, and which spread to 4 other countries, and the Middle East Respiratory Syndrome (MERS), first reported in Saudi Arabia, in 2012, and which has since then spread to several other countries, or other infectious diseases such as Ebola, first discovered in 1976 in Central Africa.

As we conclude the preparation of this special issue of the IJEPR on ‘Urban e-Planning and the Covid-19 Pandemic: Public Health Response and Transformative Recovery’, there are 18,570,858 confirmed cases of COVID-19 and 701,278 deaths worldwide<sup>6</sup>. It had so far and to a large extent

an overwhelming urban incidence, since urban environments are more favourable to the spread of the virus, and was followed live and online through social media, becoming the first truly 'online' pandemic, the first in this era of widespread and ubiquitous use of information and communication technologies. Without a vaccine, antiviral, or other pharmaceutical options, for prevention or treatment of the infection, the main measures taken in this first wave included social distancing, face mask, confinement at home, except for essential activities, remote work and e-learning when possible, testing, contact tracing, and lockdown of all sorts of non-essential activities<sup>7</sup>. The confinement and lockdown responses taken by national and local governments were perhaps the most extreme attempts to flat the curve of the coronavirus infections, with far reaching economic and social consequences in the coming months and years if the crisis continues for much longer with new and more severe waves and peaks.

The COVID-19 pandemic had, and evidence available at the time of writing do suggest it will continue to have, a huge global impact on public health, in the well-being of citizens, in the economy, on civic life, on the adoption of surveillance technologies in cities, in the provision of public services, in national and local public finance sustainability<sup>8</sup>, and in the governance of cities and other human settlements, although in an uneven form across countries, cities and local communities.

And while the news coverage gave emphasis to the policy measures taken at the national level, the evidence available suggests that cities / local government have been acting decisively to adapt and to apply those measures to the specific local conditions<sup>9</sup>. A global crisis, dealt with by national policies, which have been implemented to a large extent by local / city governments, according to the different local conditions and varying levels of health, social and economic disruption.

The COVID-19 pandemic occurred in a moment when some countries were still recovering from the impacts of the 2007/08 global financial crisis and in that sense it represents an additional tier of difficulties over the already complex economic, social and environmental situation, raising new problems as well as reinforcing some pre-existing ones<sup>10</sup>. And as the previous crisis, it is affecting unevenly countries around the world, as evidence from Africa<sup>11</sup> and other regions of the world<sup>12</sup> shows.

The responses in each country and city tended to follow broadly the guidelines set by the WHO for health issues<sup>13</sup>, but the evidence available do suggest the existence of diversity in the containment and mitigation responses<sup>14</sup>, in part due to local political cultures, economic, social and cultural contextual factors, as well as also due to strict political options taken by those in power, as illustrated by the cases examined in the following articles included in this special issue. Countries differ not only along their different political cultures, for instance in the importance assigned to privacy and human rights issues, but also on their capacity to deal with crisis such as this one, exacerbating in some cases pre-existent digital divides and social exclusion mechanisms.

In this context, the use of information and communication technologies for problem solving emerged as a decisive instrument for central and local governments and for citizens. It was through these technologies that people could continue connected, in remote work mode, sharing information and maintaining minimum levels of civic life, when most urban infrastructures were shut down. The new or emergent digital platforms experienced an exponential use and numerous aspects of our professional and social lives seem to have changed in ways that no one had predicted before. For particularly vulnerable social groups, as is the case of people with disabilities, the use of the available technologies allowed a more easy civic engagement during these first months of the pandemic in a myriad of activities, from work to leisure. All reasons to admit that Urban e-Planning will most probably resume after the pandemic with marked differences, namely due to the need to incorporate changes in the mobility of people, in the organization of work, in the use of public spaces, in the provision of services, among a myriad of other aspects that make up life in the city.

Besides the impact in the health systems, the COVID-19 pandemic acted also in these first months as a determinant or as an accelerator of changes that have been observed in the work place<sup>15</sup>, in the level of economic activity, as reported by the World Bank and the International Monetary Fund<sup>16</sup>, in air travel<sup>17</sup>, in the urban transport system and in the spatial and mobility behaviour of citizens in

response to policies aimed at combating COVID-19<sup>18</sup>, in education and in the cultural sectors, and in the adoption of surveillance technologies in cities, among many other aspects of the community life.

Part of these changes, witnessed since March 2020, such as the widespread use of remote work and distant learning, was made possible by the extensive use of information and communication technologies, which were already available in the community, but whose use was accelerated by the restrictions imposed by the health authorities. Reports also show that these changes in the last five months impacted in the reduction of air pollution and emissions in the most heavily urbanized areas<sup>19</sup>, while at the same time the evidence available also shows highly uneven impacts across communities, with the pandemic affecting more negatively the elderly, the ill, people with disabilities<sup>20</sup>, those economically deprived, members of marginalised ethnic groups, indigenous peoples, refugees, internally displaced persons, migrants, displaced children<sup>21</sup>, and other social disadvantaged groups<sup>22</sup>.

Some of these efforts, namely those associated with the surveillance, tracking and contact tracing, both manual and digital, and monitoring of virus transmission, seen now as necessary, due to public health reasons, risk to set precedents for other forms of undesirable and highly intrusive urban surveillance in the future, as already seen in part in previous debates around Big Data and the City, which the community ought to be aware now, before they are employed later in other dimensions of urban e-governance, namely for the ethical, human rights, confidentiality, privacy and security issues they raise.

As pandemics in the past have shown, besides the short term changes observed while the pandemic is active, an extreme event such as this, which is medical but also largely social, carries with it structural changes, in the economy, in the society, and in cities. The evidence available so far do suggest that the same may occur this time and thus Urban e-Panning will have to adjust to new emerging circumstances. In fact, the social, economic and environmental changes that have been observed and monitored in these first five months since the COVID-19 was characterized as a pandemic by the WHO on 11 March 2020, show that transformational change in the actual circumstances is possible. A number of policy guidance for cities have already been published by renowned international institutions as the WHO, OECD, UN-Habitat, among others<sup>23</sup>. However, a post-COVID Urban e-Planning should not be just a return to business as usual but ought instead to be sustainable and inclusive and for that it needs to be human centred, with information and communication technologies as instruments of innovations and not as the magic solution for all new and old challenges. But whatever the role played by technology in the post-pandemic future, the evidence and actual perceptions do suggest we are on the eve of an acceleration of new technology adoption in the governance and planning of cities, from Internet of Things (IoT), to Artificial Intelligence (AI), Virtual Reality, Big Data Analytics, among other digital technologies whose extensive use the pandemic made necessary.

The articles assembled in this special issue of the International Journal of E-Planning Research (IJEPR) shed new light on some of these occurrences and on the possibilities of further societal changes derived from the impacts of the COVID-19 pandemic, opening at the same time windows on how some of these aspects may be managed in a more cooperative mode. The future of Urban e-Planning will be certainly also different from what could be admitted in early 2020. It is our purpose in the IJEPR to follow and monitor these changes and to shed light and critical insights on the multiple alternatives for action in the field of Urban e-Planning.

This second issue of the 2021 volume of the International Journal of E-Planning Research (IJEPR) is an extraordinary special issue, organized during the first months of the COVID-19 pandemic, between March and July 2020. It comprises, besides this introductory text, eleven invited essays - view point papers or short research notes - subjected to the journal internal review process and evaluation, which considered the appropriateness for the journal and special issue, adequacy of the literature review, contribution to the literature on the response to the COVID-19 pandemic and urban e-planning, and the legitimacy of conclusions, besides the usual formal criteria. I'm deeply grateful to all colleagues that contributed to this special issue, during this complex and challenging period, and also grateful to IGI Global, the publisher of the IJEPR, for allowing free access to this

set of initial reflections on the impacts and challenges of the COVID-19 Pandemic in the broad field of Urban e-Planning.

In the first article - 'Successful government responses to the pandemic: Contextualizing national and urban responses to the COVID-19 outbreak in East and West' - Ari-Veikko Anttiroiko, from Tampere University, Finland, discusses national and local strategies for confronting COVID-19 pandemic, since the management of COVID-19 crisis is essentially a multi-level governance issue, and shows how societal context, institutional arrangements, knowledge culture and technology deployment manifested in the national responses to the Covid-19 pandemic in different regions of the world, namely in East and South East Asia, on the one hand, and in Europe and Asia-Pacific, on the other. Due to those contextual differences, the article shows how countries in Asia reacted differently from Western countries, with the first revealing perhaps more successful results in a number of parameters. The article also deals with the role of cities in these different groups of countries, and shows how COVID-19-related urban challenges in these first months of the pandemic revolved around an increased interest in urban safety issues, on the development of creative approaches on how to use the urban space, on the rise in the use of digital urban platforms, and on citizen participation in urban affairs. With the first article offering a broad view of differences between countries and cities in the reaction to the COVID-19 outbreak, the second article - 'Building Resilient, Smart Communities in a Post-COVID Era – Insights from Ireland' - by Aoife Doyle, William Hynes, and Stephen M. Purcell, from Future Analytics Consulting, in Ireland, sheds new insights on how to build more resilient societies and on the role of Urban e-Planning in the promotion of a more equitable and sustainable recovery after the health crisis associated with the COVID-19 pandemic is over, by analysing the case of Ireland, namely focusing on the impact on town centres and regional growth in the country, and on the kind of policy actions that can address the local challenges associated with the impacts of the pandemic.

The three following articles deal with issues of surveillance in the context of the COVID-19 pandemic and the correlated ethical issues. In 'Surveillance in the COVID-19 Normal - Tracking, Tracing and Snooping: Trade-offs in Safety and Autonomy in the e-City', Michael K. McCall, and Margaret M. Skutsch, from the National Autonomous University of Mexico, and Jordi Honey-Roses, from the University of British Columbia, in Canada, offer a brief overview of the new surveillance systems that have been put in place in response to the fears of COVID-19 as part of the strategy to mitigate the spread of the virus, although with little or no discussion about long-term consequences or implications. The article focuses in particular in the case of the close-circuit television and tracking apps, describing the technologies, how they are used, what they are capable of, pointing out reasons why citizens should be concerned, and how they may respond, offering at the same time some clues on how this sort of surveillance could be managed in a more cooperative social future. Teresa Scassa, from the University of Ottawa, in Canada, in the second of these articles on surveillance - 'COVID-19 Contact Tracing: From Local to Global and Back Again' - surveys the rise of contact-tracing technologies during the COVID-19 pandemic and some of the privacy, ethical and human rights issues they raise, in particular in the relationship of these technologies to local public health initiatives, and questions whether more local / urban contexts where privacy, ethical and human rights issues are important have been overshadowed by the attention given in the first months of the pandemic to national contact tracing apps. And as countries around the world enter the return to normal phase in the coming months, Teresa Scassa argues that more invasive contact-tracing and disease surveillance technologies will more likely be deployed at the local / city level in the context of employment, urban transport, retail services, and other social and cultural activities. In this scenario, the smart-city tools may be included in the array of COVID-19 surveillance tools, and citizens will most probably in such circumstances experience tracking and monitoring as they commute, go to work, shop, and do all the other social activities. All these prospects raise new issues and challenges for city local governance and for urban e-planning. Pamela Robinson, from Ryerson University, and Peter Johnson, from Waterloo University, in Canada, explore in 'Pandemic-driven Technology Adoption: Public decision-makers need to tread cautiously' the unevenness of impacts

across communities in the first six months of the COVID-19 pandemic, namely the use of new tools such as contact tracing apps, as they accentuate the already existent digital divide and social exclusion, and propose a citizen participation framework that may be useful and instructive for decision-makers responsible for the adoption of pandemic-driven technology tools, as those related to surveillance.

The next article - 'Changing Mobility Lifestyle - A Case Study on the Impact of COVID-19 Using Personal Google Locations Data' - by V. Pászto, J. Burian, and K. Macků, all from Palacký University in Olomouc, in Czechia, offers a first account of the impact of the pandemic in the life of common citizens. It is focused on a detailed micro-study, based on data from Google Location Service, describing changes in the behaviour of the authors during the first months of the COVID-19 pandemic. The study shows how the detailed data collected by Google can be useful, highlighting at the same time ethical issues its use may raise if certain research conditions are not considered.

Teresa Graziano, from the University of Catania, in Italy, addresses in the following article 'Smart Technologies, Back-to-the-Village Rhetoric, and Tactical Urbanism: Post-COVID Planning Scenarios in Italy' - both institutional and bottom-up narratives about post-COVID-19 planning scenarios in Italy, deconstructing the most recurring narratives about the future of cities, particularly those that associate smart city rhetoric with alternative models of settlements and 'soft' spatial planning. By doing this, Teresa Graziano highlight the conflicting nature of these perspectives and at the same time points new potential paths to follow for a more inclusive tech-led sustainable urban development in the post-COVID-19 period in Italy.

The COVID-19 pandemic affected differently the various social groups, being particularly severe for the more socially disadvantaged and vulnerable. Older adults and people with disabilities are among those more negatively affected by the restrictions and constraints imposed by the fight against the virus as well as by the disease itself considering the additional health vulnerabilities associated with their physical conditions. John Bricout, from the University of Minnesota-Twin Cities, Paul M.A. Baker and Nathan W. Moon from Georgia Institute of Technology, and Bonita Sharma, from University of Texas at San Antonio, in the United States, critically review in the article 'Exploring the smart future of participation: Community, inclusivity and people with disabilities' how technology use influences the civic engagement potential, in particular for people with disabilities. The article proposes a framework for a smart participation future that make use of universal design, blended bottom-up, and virtual community of practice approaches to planning in order to better connect citizens with disabilities.

As referred before, the COVID-19 pandemic affected differently countries, cities and social groups. Countries in the Global South experienced difficulties that more developed countries were apparently able to address more easily in these first five months after COVID-19 was considered a pandemic by the WHO, namely due to a deeper digitalization of the society and economy, and to a somehow less severe internal digital divide. This special issue of the IJEPR includes three articles that address the impacts of the pandemic in this group of countries, namely in India and in South Africa. The case of India is explored in two articles. First, in 'Technology use by urban local bodies in India to combat the COVID-19 pandemic', Falguni Mukherjee, from the Sam Houston State University, in the United States, offers a comprehensive review of the use of information and communication technologies by urban local bodies in India in their actions against the COVID-19 pandemic, based on a detailed survey conducted during the first months of the pandemic. Local, state and central government agencies used abundantly geospatial, surveillance and information and communication technologies as part of a strategy to monitor and track movement, manage individuals and enforce quarantine norms, raising questions on privacy, civil liberties, and suitability and viability of their use in the fight against the effects of the pandemic. The second article on India - 'Communicative Governance to Mitigate the COVID-19 Pandemic - A Case Study of Delhi, India', by Nidhi Vij, from the University of Mississippi, Srinivas Yerramsetti, from Rutgers-University, Newark, and Aroon P Manoharan, from the University of Massachusetts Boston, in the United States, deals with the structural limitations experienced by governments, namely in emerging democracies, and shows

through the case of Delhi, in India, how the tools of government were employed to govern during the public health crisis associated with the spread of the COVID-19, highlighting key aspects of the response to the COVID-19 pandemic in countries in the Global South.

Finally, Nancy Odendaal, from the University of Cape Town, in South Africa examines in the last chapter included in this special issue - 'Recombining Place: COVID-19 and Community Action Networks in South Africa' - the role played by the state in South Africa and the reactions from the community. As Nancy Odendaal argues, the state has taken in South Africa a phased but stronghold approach to the pandemic, which had adverse impacts on livelihoods and food security, especially those in the informal economy and those with part-time or insecure employment. In the article, Nancy Odendaal explores the Community Action Network (CAN) initiative, which started as a means to enable neighbourhood assistance through WhatsApp groups in Cape Town, South Africa, as an example of the potential that these informational spaces can have for being democratic interfaces of connection.

In sum, the nature of a global risk society, in which we now live, became plainly clear with the COVID-19 pandemic. With this special issue, in Open Access, the International Journal of E-Planning Research offers a first contribution for the study of the effects of the COVID-19 Pandemic in the field of Urban e-Planning, and urban governance more broadly, and highlights prospects for the role of Urban e-Planning in the post-COVID recovery, in the management of extreme events and in the promotion of resilience. The evidence available seems to suggest that we are in a turning point in the field of Urban e-Planning too. Not only inter-governmental relations, between central and local government, will incorporate the lessons from this crisis, but also the priorities assigned by urban planning to its traditional dimensions will have to be reassessed. It seems reasonable to admit that urban safety, the use of public space, urban mobility, the role of urban online platforms, among other smart city components, as well as new ways and degrees of citizen engagement in the 'ladder of citizen participation' in urban governance, in the sense given by Arnstein<sup>24</sup>, will emerge from the COVID-19 pandemic.

The IJEPR is particularly interested to look at issues related to epidemics or pandemics, in which Urban e-Planning can make a significant contribution to public health, by offering its specific competences, namely its capacity to provide a full-size view of the events, and of its multiple interrelationships with other dimensions of the society, or the ability to provide a long-term horizon during which the problem needs to be addressed, contrary to the short term perspective of the medical response, whose aim is to interrupt the transmission of the disease, and also its capacity to engage large sections of the population in the public decision-making process.

The IJEPR is thus a suitable forum for discussion of how to promote medium and long-term recovery, and at the same time to discuss how to take hold of this event as an opportunity to transform pre-existent conditions in cities and in other human settlements, which have been responsible in part for the uneven social impacts of the current pandemic, (re-)creating the urban structures that can prevent and help containing outbreaks of infectious diseases as the COVID-19. The high density in working class housing, the need to use public transport with a high number of travellers, the inexistence or scarcity of parks and other urban public spaces in the neighbourhood, create a much higher risk of exposure to the coronavirus for certain social groups. These conditions, and their local variations, ought to be considered by urban planners as they engage with other members of multidisciplinary teams in the development of post-pandemic recovery plans. And with outbreaks of infectious diseases expected to occur more frequently, this should turn standard practice in the field of Urban e-Planning, as already happens with the extreme events associated with climate change.

The IJEPR will do this in close cooperation with the Urban e-Planning Research Network (UEP-NET), the International Conference on Urban e-Planning (IC-UeP), now in its 5th edition, and in partnership with the collaborative research project on 'Local Government Response Towards COVID-19 Pandemic' developed by the International Geographical Union Commission on Geography of Governance since March 2020.

The IJEPR is open to publish more articles focused on the impacts of the COVID-19 Pandemic in the field of Urban e-Planning, and in the broad area of Urban Governance, in particular on the responses for a transformative recovery, when countries enter the return to normal phase.

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## ENDNOTES

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- <sup>2</sup> GOARN: <https://extranet.who.int/goarn/>
- <sup>3</sup> World Health Organization: [https://www.who.int/publications/m/item/covid-19-public-health-emergency-of-international-concern-\(pheic\)-global-research-and-innovation-forum](https://www.who.int/publications/m/item/covid-19-public-health-emergency-of-international-concern-(pheic)-global-research-and-innovation-forum)
- <sup>4</sup> Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization: <https://twitter.com/DrTedros/status/1227297754499764230>. Abbreviated as COVID-19. In COVID-19, ‘CO’ stands for ‘corona,’ ‘VI’ for ‘virus,’ and ‘D’ for disease. Before that date, the disease was referred to as “2019 novel coronavirus” or “2019-nCoV”. A ‘novel coronavirus’ is a new coronavirus that has not been previously identified and not previously seen in humans. This coronavirus is different from the other coronaviruses that commonly circulate among humans and cause mild illness, according to the World Health Organization. On 7 March this figure had reached 100,000 as referred before.
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