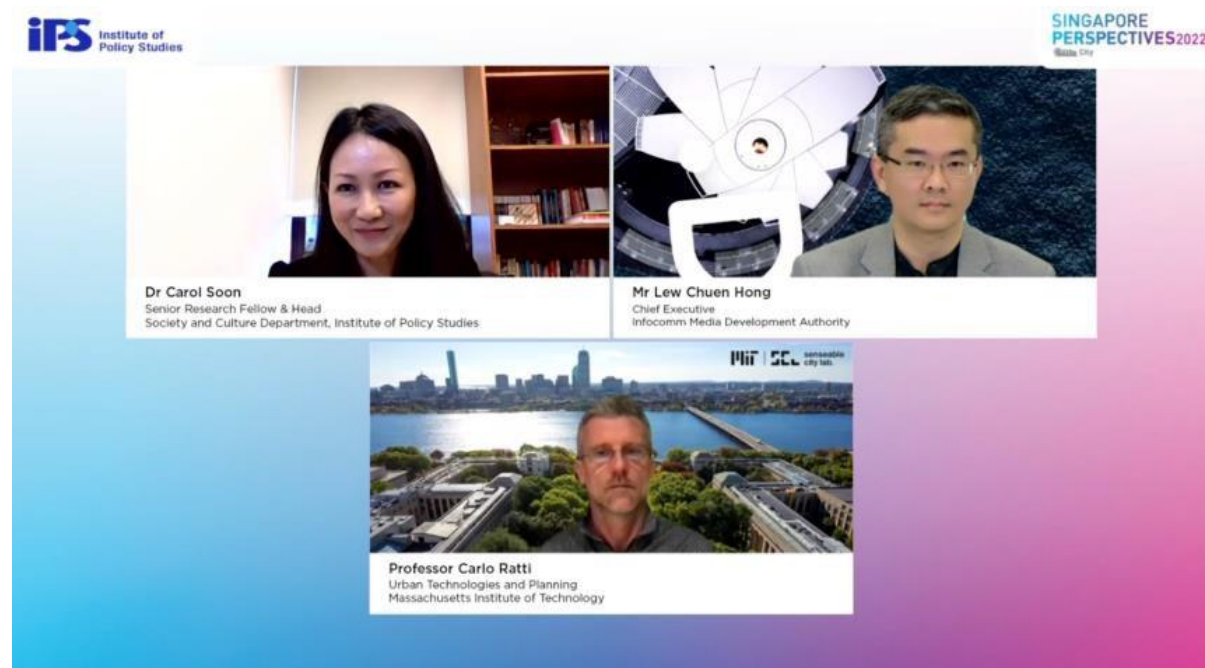


Singapore Perspectives Conference 2022: City Forum 7: Cities in the Digital Space

By Ruby Thiagarajan

The seventh forum of Singapore Perspectives 2022 was titled “Cities in the Digital Space”. It was moderated by Dr Carol Soon, Senior Research Fellow at the Institute of Policy Studies, and featured Mr Lew Chuen Hong, Chief Executive of the Infocomm Media Development Authority, and Professor Carlo Ratti of Urban Technologies and Planning at the Massachusetts Institute of Technology.



Caption for photo: Panellists at the seventh forum of Singapore Perspectives 2022, moderated by Dr Carol Soon

Opening Remarks

Mr Lew Chen Hong began by asking why cities exist. For him, there are two main factors: the accumulation of specialisation and the ability to gather a critical mass of people. Specialisation introduces an exchange of goods and ideas. The ability to trade makes the general ecosystem of the city better off and leads to innovation. This trend towards specialisation needs to be supported by a broader critical mass of people. Throughout history, the real units of progress are not countries but cities. This explains the continual drive for people to congregate in cities.

When discussing the role of the digital sphere in cities, Mr Lew explained that it opens up an entirely new commons where people can gather. Traditional cities were the original commons, but the digital sphere can replicate these conditions in bigger and quicker ways. Digital spaces are more able to generate a critical mass of people who are not limited by physical space or time; they can gather as and when needed. Similarly, when talking about cities as sites of exchange, digital platforms are increasingly able to fill those roles. E-commerce platforms are democratising the arbitration between latent supply and latent demand and can function across transnational boundaries.

Mr Lew advocated upping the “reality premium” in order for cities to remain relevant in the digital age. The complex human endeavour that is difficult to replace digitally is the act of creation and innovation. Richness of experience and engineered serendipity are the reality premium that must be created in cities for them to remain relevant. This must take place both in “hard” infrastructure and the “soft” elements of the city. Cities also need to add a digital experience that is safe, secure, and conducive to living and working digitally. This complementary digital space that is both vibrant and efficient is essential for the contemporary city. It then becomes a useful metaphor to think of the city as a platform itself.

What are the implications for Singapore? The digital space allows Singapore to transcend its space constraint because of its expansive nature. Mr Lew ended his remarks by asking if Singapore would be able to harness its ambition to transform from a “little red dot” to a “big red dot”.

Prof Carlo Ratti’s remarks centred on the question of the city in an evolving culture of work. The changing nature of work has not only moved workers away from the cities, but has also fundamentally changed the purpose of city spaces such as central business districts. Quoting famed architect Le Corbusier, Prof Ratti listed the four functions of the city: dwelling, work, recreation and transportation. Initial global city designs separated different regions according to these four functions. As time passes, mixed-use developments have gained popularity. Now, with the digital revolution, many different activities can take place within the same physical space.

Prof Ratti introduced his research on the use of space and networks on the MIT campus. Using data from Wi-Fi signals on campus, researchers were able to understand the usage fingerprint of each building. This allowed them to measure how physical space was being used in a precise way. They were able to look into different factors such as the productivity or heterogeneity of various buildings on campus. The COVID-19 lockdown provided the opportunity to examine how networks had changed when they had to move completely onto the digital space. The team examined the email communication network on the MIT campus and used that data to cluster and identify the different communities in the university. During the lockdown, communities became more tightly knit and there was less heterogenous communication in the networks. The one key parameter that changed significantly with working from home was that the presence of weak ties, the connections made between acquaintances or strangers, decreased greatly. These weak ties reappeared when campus reopened, albeit gradually. Moving entirely onto the digital sphere hindered the ability to create new ties and make new connections.

Question & Answer

When asked about the use of the digital in governance, Mr Lew noted that, if used well, digital platforms build a deeper sense of participation, community, and engagement with the process. However, the digital space can also facilitate mob behaviour and contribute to the production of echo chambers. Mr Lew gave the example of the 6 January US Capitol building riot, and cautioned against over-reliance on the digital sphere. Technology is therefore a tool that must be used wisely. Prof Ratti agreed that technology did contribute to fragmentation, as backed up by his research — people lose weak ties when they only interact with others digitally, and their ability to engage with diversity suffers. In his view, physical space serves as an antidote to that. Physical space is a space of inevitability, where people needed to confront diversity. On the topic of collaborative policymaking and governance, Prof Ratti said it was important to define the areas in which collaboration was desirable. For example, citizens would not be needed to consult on technical aspects of a slated building but would be able to give their feedback on which architectural design they liked better.

In response to Prof Ratti's comments that physical spaces were essential for avoiding fragmentation, there was a question from the audience about how to engineer physical spaces and infrastructure to encourage digitalisation. Prof Ratti replied it was important to examine the "new type of lifestyle" that is generated by new technologies and to translate that into physical infrastructure. This is especially pertinent now that COVID-19 has fundamentally changed cities' approach to work with the rise of remote working.

The panellists were also asked about the ownership of the city's digital space. Mr Lew brought up the idea of "the commons" and differentiated it from traditional ideas of property ownership. Instead, the digital space consists of mostly shared spaces. Shared spaces come with huge advantages for small countries like Singapore because they are able to expand beyond their physical geography. Shared spaces also come with transnational shared problems like questions about digital trade and regulations. Mr Lew advocated the implementation of regulatory frameworks within the digital space. He gave the example of the Protection from Online Falsehoods and Manipulation Act (POFMA) as the government's right to reply to statements online. He also underscored the importance of protective legal frameworks to ensure that the digital space remains safe and efficient. However, because digital spaces transverse national borders, there will be continued challenges in law enforcement and mitigation measures.

Following up on Mr Lew's thread about regulatory frameworks, audience members asked about the legal frameworks for digital crimes. He replied that digital safety was a top concern for Singapore. Many digital threats are international and that accentuates the risk. However, within the local environment, the government is moving to put in place mitigation measures like public education campaigns and technical defences like firewalls.

A question from the audience raised the issue that the digital economy and digitalised work processes have benefitted firms and employees but workers who are less-skilled may be left out of this digital revolution. Prof Ratti responded by talking about the "liminal ghettos" that used to be physical but are now moving into the digital space. He suggested the use of digital information such as geolocated data from cell phones to study the city and to identify invisible fault lines. Equipped with that knowledge, policymakers will then be able to ameliorate issues like exclusion from the digital economy amongst residents of the city. Mr Lew promoted the

idea of upskilling in order for the labour force to keep up in the digital revolution. He mentioned that Singapore needs to continue being the country that welcomes the best minds in order to remain competitive.

Prof Ratti spoke about both national and international regulation as a key way to rein in big business and curb inequality in the digital sphere. He also described cities as some of the main actors on the global stage and that the process of devolution to big cities has had a big impact on decision making in the global economy. These actors are able to create their own digital standards and to form coalitions (such as C40) to create critical mass and influence business that way. Mr Lew agreed with Prof Ratti and brought up the EU's Digital Markets and Digital Standards Acts as good examples of regulation. He also mentioned, however, that was important for Singapore to work together with tech platforms and to adopt a more calibrated approach to regulation.

Ruby Thiagarajan is a Research Assistant at IPS.

IPS is grateful to the following organisations for their support of IPS and Singapore Perspectives 2022:



BlackRock
CapitaLand
Centurion Corporation Ltd
Citi Singapore
City Developments Limited
DBS Bank Limited
EnGro Corporation Limited
Enterprise Singapore
EY
GLP Pte Ltd
Goh Foundation

Housing & Development Board
Institute of Technical Education
Keppel Corporation
Khong Guan Biscuit Factory (S) Pte Ltd
Maritime and Port Authority of Singapore
Nanyang Polytechnic
National University of Singapore
Ngee Ann Polytechnic
PSA
Raffles Hospital
Republic Polytechnic

Singapore Institute of Technology
Singapore Polytechnic
Singapore Pools (Private) Limited
Singapore University of Social Sciences
Singtel
Temasek Polytechnic
Thakral Group
UOB
Urban Redevelopment Authority
Wilmar International Limited

If you have comments or feedback, please email ips.update@nus.edu.sg



© Copyright 2022 National University of Singapore. All Rights Reserved.
You are welcome to reproduce this material for non-commercial purposes and please ensure you cite the source when doing so.