2020 DENTON RODYKS DIALOGUE
GLOBAL SMART CITIES: CHALLENGES AND OPPORTUNITIES
25 September 2020

Keynote Presentation by
Professor Lily Kong, President of Singapore Management University

ASEAN Smart Cities Network:
The Promises And Challenges Of Scaling Smartness

Good morning, Minister Desmond Lee, Global Vice Chair and ASEAN CEO, Dentons Rodyk Philip Jeyaratnem, colleagues, ladies and gentlemen. I am delighted and honoured to join in the 2020 Denton Rodyks Dialogue, which has, as its focus "Global Smart Cities: Challenges and Opportunities".

By way of introduction, I am a social scientist with interests in social and cultural change in Asian cities, and it is in this context that I began about three years ago to conduct research on smart cities, with an interest particularly in the impact of such technologies on how we live our lives. My earlier empirical work was focused on the pilot use of technologies in the homes of elderly persons in Singapore, and the unintended and perhaps unanticipated use of and interactions with technologies intended to better their lives.

In more recent months, my colleague, a fellow social scientist, Orlando Woods, and I, have become interested in the scaling up of smart technologies from Singapore's Smart Nation initiative to the region, in the form of the ASEAN Smart Cities Network (ASCN). This is the focus of my remarks today.

I intend to first introduce the ASCN project, and then to introduce the idea that this is a form of technocratic regionalism. I then intend to share something of the challenges of scaling smartness and technocratic regionalism, and then move on to humbly suggest some ideas that offer the ASCN a chance of success.

First, some remarks about Southeast Asia. This is a region of diversity and complexity, historically, socially, culturally, economically and politically. The geographer Charles Fisher, had once called it the "Balkans of the Orient" for this reason.

Amidst this diversity, two megatrends serve as potential points of alignment: urbanization and digital disruption. Urbanisation presents a fundamental challenge in the region: by 2025, two-thirds of the region's population will live in cities, with its attendant challenges. But digital disruption represents a potential solution: here, you will find 141% of mobile connectivity, which is believed to be the highest in the world. Western Europe is 119%; North America and East Asia are 103% each.

It is in this context that I introduce the ASCN, a network established in 2018 under Singapore's leadership as Chair of ASEAN. It was established with the aim of pre-empting and mitigating the potentially negative effects of rapid urbanization. It has identified three high level strategic desired outcomes: high quality of life, competitive economy, and sustainable environment. It involves 26 pilot cities, ranging from provincial cities to global and regional urban hubs, as you see from this map.

Orlando and I posit that the ASCN seeks to develop a form of regionalism that we label "technocratic regionalism". What does that mean? We begin with the concept of technocratic nationalism, an idea that other scholars have used to refer to a way of understanding how technology affects a nation for the better, promoting growth, sustainability, prosperity, providing a better life, greater connectedness and a stronger national identity.

Technocratic regionalism extends (or scales) the idea / Ideal to a regional level. This is evident in the ASCN's three stated (economic and political) aims:

1) To promote cooperation (on smart city development)
2) To develop commercially viable projects together with private-sector solution providers
3) To facilitate collaboration with ASEAN's external partners

Now, there can be little quarrel with the theory, or the vision of ASCN supporting the social goals for ASEAN, to be people-oriented, to develop people-centred solutions and to enhance liveability.

The critical question is: what is the empirical evidence of success? Granted that ASCN is relatively new, so it would be unrealistic to expect too much, but it bears examining some of the empirical evidence to guide future developments.

So, what are the challenges of scaling smartness and technocratic regionalism? We draw attention to six challenges. They relate variously to the management of space, society and institutions. They are, as follows:

1) Antecedent challenge
2) Divergent infrastructural developments
3) Privatization and formalization of city spaces,
4) Power and inequality
5) Vertical and horizontal (non-)integration,
6) Speed and efficacy.

We anticipate these challenges based on past smart city experiments in other parts of the world, as well as drawing on nascent empirical insights into ASCN's implementation, so we suggest that these challenges are neither speculative nor unpredictable.

Let me elaborate on each of these challenges in turn.

First, antecedent challenge. (Nearly) all cities have antecedents. The challenge of scaling up smart cities is that antecedents – or, the pre-existing city formations, are ignored, or at least, insufficiently taken into consideration.

Smart cities are about envisioning the future; they are aspirational, and in being aspirational, are implicated in transnational and global networks and ideas.

Whilst globality is based on the homogenizing logics of inter-city comparison, competitiveness and conformity, an understanding of locality reveals the heterogeneous complexity of urban formations. Locality is historical; it is about understanding how past processes have come to shape the ways in which cities are defined in the present.

Critiques of 'techno-utopian' smart city solutions argue that they present a distraction from actually addressing the longstanding urban inequalities these policies are intended to fix. In this sense, we have an antecedent challenge.

A second, and related, challenge. This is about divergent infrastructural developments – in particular, divergence between digital and material infrastructure of a city.

To put it briefly, material infrastructures need to develop in tandem with their digital augmentations, otherwise the potential of the latter will be undermined, if not negated, by the former.

Unfortunately, an emphasis on digital infrastructural development could distract attention from material infrastructural development.

This can result in stress exerted on existing infrastructure systems that were designed for smaller and less technologically advanced populations. A clear illustration of this is captured in slide 13: “Efficient bus timetables and smart traffic lights are no substitute for wider roads and fewer potholes!”

Pushing ahead with major digital infrastructural development to the neglect of older material infrastructure will likely result in an exacerbation of inequalities when new privately run infrastructures and services are separated from old parts of the city which are not ready for the new technologies.

Let me turn to a third challenge, this time, related to the privatization and formalization of city spaces. What is meant by Privatisation of cities and how does it happen? Privatization takes place because smart urbanism depends on corporates bringing their technologies to effect change, thus privatizing city systems.

Privatisation is associated with speed and homogenization because capital investment desires speed; the faster the adoption, the sooner the returns on investment. The tendency then is towards homogenisation rather than customization. Local context takes a back seat.

Privatisation is also associated with scale and expansion because that is how the business grows.

Often, what happens is that foreign technology companies donate software or sell them at significant discounts, in the hope that their products will then show some outcomes, which will enable the pilot city to become a platform for the company to sell products to the rest of the country.

I should say that smart urbanism also brings about formalisation of city spaces. This is because digitalization turns informal quotidian experiences into formal existences that are identified, tracked, and monitored

Here are some examples of formalization:

- Drones have been used to map the city of Mandalay in Myanmar, producing new data on all the buildings in the city (including informal dwellings). There are several use implications, which change the lives of citizens. I cite one example: citizens, formally under the radar, find themselves subject to taxes, such as property taxes.
- A second example: GPS trackers on fixed on garbage trucks (Mandalay), to ensure they keep to their routes and daily duties, to improve public hygiene. Whereas garbage truck drivers often may hold more than one form of employment, and use their routes through the city to also engage in simultaneous informal economic activities, which may include some detours and delays, formalization changes their permitted routines and livelihoods.

As a result, resistant behaviours emerge:

- In the example of GPS trackers on garbage trucks, truck drivers pour water in the GPS systems so that their routes can't be traced.
- Other examples of resistant behaviours are when further informalization develops….in the form of shadow economies e.g. informal housing, extra-legal connections to water, electricity and other services, the appropriation of streets and public spaces for economic activities (Shatkin, 2011).

If smart technologies are brought in without addressing all these other social and economic issues, it will be difficult to succeed.

A fourth challenge, this time, relating to power and inequality.

Scholars have pointed out how "networked spaces" are unevenly distributed and coincide with elite and middle-class access, leading to still further divisions, what have been termed "splintered urbanism" Datta (2018:407).

Just as there is a digital divide that still exists in many societies, any smart city or smart nation initiative must guard against such "splintering urbanism" ie. widening socio-spatial inequalities that emerge from the inequitable provision of infrastructure (Graham and Marvin, 2001).

A fifth challenge: Is there adequate vertical and horizontal integration? What do I mean?

Vertical integration refers to the need for different layers of government to be aligned (Singapore is an exception because we are essentially one layer).

Horizontal integration refers to the need for different governing bodies within the same layer to align, or for public and private sector stakeholders to align.

Non-integration creates opportunities for profiteering and exploitation.

E.g. Cambodia where regulation is not in place to deal with the large-scale smart city projects financed and managed by private sector companies.

A sixth challenge: There is an absolute need to balance between SPEED of policy transfer and efficacy of such policy implementation. Often, importing policies are perceived to be easier and safer than to create a policy *ex novo.* The logic is this: A policy has worked elsewhere, let's import it, perhaps with some adjustments, but unfortunately, oftentimes tweaks are not what are needed.

A policy challenge arises because local urban policy that is imported speedily is rooted in global discourse and a global network of ideas and expectations concerning city "smartness". Yet they are often not able to address pre-existing socio-spatial divisions and inequalities, indeed could well exacerbate them or even create new ones.

In the last several minutes (or seconds!) left, let me just conclude.

There are many good reasons why we would want to scale up smartness and work collaboratively across countries. This has not been the focus of my talk, but could well take another session. My focus instead has been on the challenges of scaling smartness so that, in being alert to them and targeted in addressing them, we have a chance of success. These challenges are largely rooted in a single danger: that we forget that cities are not passive backdrops for digital technologies.

For a regional smart cities network to have a chance of success, we therefore suggest:

GO SLOW: To minimize the potentially negative effects that come with speed (homogenization, neglect of local conditions, socio-material infrastructure lagging digital infrastructure …)

Smart solutions are not quick fixes to systemic problems; they are a catalyzing glue that is only as effective as the policy regime and material environment within which it is deployed.

GO SMALL: To minimise the potentially negative effects of "transformation", recognizing the value of small, incremental improvements rather than major transformations that are out of sync with the material conditions of the city in question

ASCN is perhaps being attempted at a scale of smartness hitherto unattempted.

The job of the academy, I humbly submit, is to contribute by moderating the positivist underpinnings of many smart city policies and restoring local agency to the analysis (Shatkin, 2008:387)

Thank you!