

When high-rise living gets a lift

Data tracking vertical movement can help guide decisions on where to place amenities in high-rise buildings to foster interaction.

Lim Sun Sun and Roland Bouffanais

Singapore's very own Kampung Admiralty has earned the premiere accolade for architectural design – named Building of the Year at this year's World Architecture Festival. The winning design team at Woha Architects made creative use of the modest 0.9ha site with a 45m height limit, combining a sheltered plaza for community events with commercial spaces, a medical centre, and a community rooftop farm, along with childcare facilities and studio apartments for the elderly, all in a 12-storey complex.

This win gives a resounding stamp of endorsement to the idea that high-rise complexes can provide a comprehensive suite of synergistic amenities while offering good quality of living. More importantly, it is a strong signal of promising trends in the future evolution of Singapore's urban landscape.

As the city-state has always been land scarce, building vertically was an unavoidable necessity in the early years of nation building. Housing Board (HDB) flats and skyscrapers dot the island, along with the more recent emergence of vertical farms.

Although the Singapore skyline is often depicted with a few iconic skyscrapers, there are approximately 5,000 tall buildings (defined as being at least 35m or 12 storeys high), according to government figures.

This number significantly increases if one includes buildings that extend underground into basements. Verticality thus truly pervades Singapore's built environment and one could argue that it even percolates down to landed houses, which have only gained height in recent decades.

Whereas life in a vertical cityscape is second nature to residents here, high-rise urban living is associated with various ills in many parts of the world.

In some countries, high-rise low-cost residences are denigrated as anonymous spaces with uncomfortably large population densities that are devoid of a sense of community, where crime and disease run rampant, and isolation threatens individual well-being. This is best exemplified by the deprived "banlieues" encountered at the periphery of many cities in France. Singapore's HDB flats have been

largely successful in avoiding these pitfalls through constant refurbishment and enhancement of communal services and amenities that add vibrancy to neighbourhoods.

Yet high-rise living in Singapore can also be atomised. When the lifts did not previously stop at every floor of old HDB blocks, the landings of the floors on which they did stop became natural venues for neighbours to converge and exchange greetings.

With progress comes convenience and HDB residents can now simply take the lift to and from the level on which they live, with a diminished chance of encountering or socialising with their neighbours. Indeed, in the unfortunate instance of reported crimes, it is not uncommon to read of neighbouring households not having known or interacted with the victims.

There is therefore considerable room for design interventions that can help foster greater interaction in the urban environment, so as to engender a livelier sense of community and nourish bonds between co-existing households.

The Kampung Admiralty approach of interweaving essential services with commercial offerings that cater to a diversity of people therefore deserves closer study to identify how particular design decisions can have particular ramifications, felicitous or otherwise. It is a worthy venture in urban planning that allows us to reimagine urban living so that it is not only more satisfactory, but uplifting as well.

Besides such design innovations, we can give urban planning a further shot in the arm by astutely harnessing Big Data. The growing ubiquity of smartphones has enabled scientists to track human movements at high degrees of accuracy and granularity. Such information has uncovered the phenomenon of "burstiness" in human dynamics where long lulls of slow activity are punctuated by brief windows of intense activity.

These "wicked bursts" explain why the best planners are systematically challenged when new infrastructures are inaugurated. In some instances, these challenges persist and grow over time due to an amplification of the bursts. For example, anyone alighting at Kent Ridge MRT station during school and office hours is bound to be engulfed in such a burst.

Complexity scientists have started to analyse such trends to better inform the planning of built environments, crowd management, traffic flows and emergency procedures. Hitherto though, such research has focused more on horizontal mobility patterns – having been primarily conducted in North America and Europe, regions that are



The ground-level open courtyard at Kampung Admiralty, which was named Building of the Year at this year's World Architecture Festival. This win is a strong signal of promising trends in the future evolution of Singapore's urban landscape, say the writers. ST PHOTO: GAVIN FOO

characterised by a horizontal urban sprawl as compared to Asia's mega cities that favour vertical expansion.

Our understanding of vertical mobility patterns is thus nascent but can now be considerably enriched with the already existing sensors embedded in our smartphones and smart watches. We are therefore capable of tracking in great detail how people move up, down and across our urban landscape.

A complete appreciation of vertical mobility patterns can more effectively unlock the potential of vertical urban landscapes. Specifically, in integrated high-rise complexes such as Kampung Admiralty, how does the relative placement of essential services, communal spaces and individual abodes facilitate or hinder

particular forms of mobility and social interaction?

How can the linkage of such diverse spaces via staircases, escalators, lifts, travellers and ramps smoothen the path for residents, enabling them to seamlessly transit through the different levels of the complex as they go about their daily routines? How does interspersing communal spaces with commercial amenities encourage inter-generational mingling?

Singapore's push for a smart nation must therefore be boosted on all fronts. Not only must we strive for positive outcomes that raise the quality of life for all residents, we need to fortify the pool of urban planners, architects and engineers who can marshal urban analytics to make more enlightened design decisions

for positive impact.

At the same time, we should deploy the latest scientific advancements in data gathering and analysis to distil deep insights about human mobility, traffic flows, energy use, waste generation and environmental pollution to build a more sustainable and liveable urban environment. With this strategic confluence of efforts, we can lift urban planning in our vertical cityscape to the next level.

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Facebook channels people's rage into organised protests

Leonid Bershidsky

The liberating role social networks played during the Arab Spring and the Russian protests of 2011 and 2012 was widely lauded. Little of that enthusiasm is on display today amid the violent "yellow vest" protests in France – even though Facebook is still doing what it does best: let people channel their rage. In a 2011 paean to the "Facebook revolution", Mr Chris Taylor of tech news website Mashable wrote that Facebook was "democracy in action". Dr Philip Howard of the University of Washington, who researched the social network's role in the Arab Spring, said the same year that social media "carried a cascade of messages about freedom and democracy across North Africa and the Middle East and helped raise expectations for the success of political uprising".

At the end of 2011, I took part in the Russian protests following a rigged parliamentary election. Facebook played a central role in organising them. The emerging pattern – leaderless protest networks developing on US-owned

platforms; meme-like narratives fuelling popular indignation; nebulous, quickly radicalising, demands fuelled by lots of underlying anger – led Russian President Vladimir Putin to suspect the United States of organising action in different parts of the world according to the same playbook. He was as naive as the observers who thought Facebook's role in these popular uprisings had anything to do with freedom or democracy.

Soon after the countries that underwent Arab Spring revolutions began reverting to authoritarianism or plunging into chaos, concerns emerged about the ability of social networks to shape democratic transitions.

But Facebook and other platforms were never any good at that: What they did was help get people more and more excited about things that bothered them. By amplifying messages and inflating opinion bubbles, they whipped up a frenzy where there had been mere grumbling.

It's happening again in France, a country impossible to describe as an autocracy and one where the US has no reason to foment a

revolution. It all started with the government's decision to raise taxes by 7.6 euro cents per litre on diesel and 3.9 euro cents per litre on petrol. This isn't a major outrage. For someone filling a 50-litre tank with diesel every week, the hike means €15.20 (\$23.50) a month in extra costs, less than two McDonald's meals. But the protests, set off in mid-October by a viral Facebook rant by accordion player Jaeline Mouraud about the government's anti-car policy, have escalated until they produced the country's worst urban riot in more than a decade. Over the weekend, 133 people were injured, including 23 police officers.

As in previous protests, these disturbances are largely leaderless; they don't need France's political or media infrastructure to develop. They have, however, thrown up some unlikely opinion leaders, whom protesters follow and whose views get endlessly amplified through "yellow vest" Facebook groups.

One of them is Mr Maxime Nicolle, also known as Fly Rider, a 31-year-old Brittany native who has regularly done Facebook Live webcasts from the increasingly

violent protests. He has emerged as one of the amorphous movement's eight spokesmen empowered to negotiate with the government.

"Self-appointed thinkers became national figures, thanks to popular pages and a flurry of Facebook Live," Stanford researcher Frederic Filloux, formerly a journalism professor at Sciences Po in Paris, wrote on Medium. Mr Nicolle's "gospel is a hodgepodge of incoherent demands but he's now a national voice".

French President Emmanuel Macron has described the "yellow vest" manifesto as "a little of everything and no matter what". And indeed, the original demands – the repeal of the fuel tax for cars, a minimal value-added tax on food, lower fines for traffic violations, pay cuts for elected officials, and more efficient government spending – have now been muddled by added calls for better public services, the dissolution of Parliament and Mr Macron's resignation.

This is now about anger that flows freely in all directions. As Mr Filloux puts it: "As the absolute amplifier and radicaliser of the popular anger, Facebook has

demonstrated its toxicity to the democratic process."

There's nothing democratic about the emergence of Facebook group administrators as spokesmen for what passes for a popular movement. Unlike Mr Macron and French legislators, they are unelected. In a column for Liberation, journalist Vincent Glad suggested that recent changes to the Facebook algorithm – which have prioritised content created by groups over that of pages, including those of traditional media outlets – have provided the mechanism to promote these people.

Facebook chief executive Mark Zuckerberg thought he was depoliticising his platform and focusing on connecting people. That is not what happened. "Facebook group admins, whose prerogatives are constantly being increased by Zuckerberg, are the new intermediaries, thriving on the ruins of labour unions, associations or political parties," Mr Glad wrote.

Whether the anger unleashed by France's tiny tax hike is real or at least partially induced by Facebook echo chambers is by now difficult to figure out without exact scientific methods. Nevertheless,

it's time to cast away any remaining illusions that social networks can play a positive role in promoting democracy and freedom.

A free society can't ban Facebook, or even completely regulate away its hate-enhancing function; but it should be aware of the risk Facebook and similar platforms pose to democratic institutions. Ironically, the threat to authoritarian regimes is less: They have learnt to manipulate opinion on the platforms with propaganda, trolling, bullying and real-life scare tactics against activists.

A country like France can't resort to such techniques. That means more work for police and more tough decisions for politicians unwilling to submit to mob rule – until populists, bolstered by the social networks, start winning elections. Averting that result will require people to realise what the platforms really do, and start quitting them in droves. BLOOMBERG

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