



A Hong Kong street sleeper holding a smartphone, Kelly Ho/ HKFP
Exhibition visitors scan a QR code for the government-developed contact-tracing app, Kelly Ho/ HKFP
Social workers have expressed concerns that elderly residents will be left behind if the government updates the "Leave Home Safe" app, Sam Tsang/ SCMP

Evaluating smart city transition and social injustice

Vulnerabilities of digital infrastructures as the achievement of inclusive smart city

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Content

While smart city planning is on the near future schedule, the issue related to social and spatial inequalities is emerging. How has the issue related to social/spatial inequalities been considered while transforming into a smart city? How would the development of digital infrastructures impact marginalized groups such as older adults, minorities, households with low incomes and persons with disabilities? This PhD project is inspired by the rapid digitalization ignited by the COVID19 pandemic. While the digital divide is a permanent social injustice in Hong Kong due to unequal access to technologies, this vulnerability is worsened especially within the marginalized groups during the pandemic. Hong Kong is intensively using the mandatory contact-tracing app to control the infection. Still, this technology turns out to exclude citizens who have difficulties using technologies, not to mention citizens who refuse to use technologies due to undisclosed reasons.

In this regard, this PhD project aims to study the vulnerabilities of digital infrastructures especially manifested as social injustice during the smart city transition, and thus to develop countermeasures to enhance inclusiveness. Using Hong Kong as the central case study and several Western cities as comparative studies, the design and planning of commu-

nication (e.g. broadband coverage, usage of mobile applications) and mobility systems (e.g. modes of transport, payment methods) regarding smart city transition are the entry points of the research. Both systems are selected not only because they are proven to be critical during the pandemic, but also represent the circulation of critical infrastructures (KRITIS, 2020). In addition to the marginalized group, the reverse marginalized group, defined as the citizens with resistance to the usage of technologies/ smart city transition, is also the focus.

Objectives

1. To study how the digital divide/ other forms of social injustice are viewed in the smart city transition
2. To specify the attributes of citizens which are considered as (reverse) marginalized groups
3. To suggest measures e.g. design of infrastructures and strategies to achieve an inclusive smart city

Methodologies

Hong Kong and 2-3 Western cities as case and comparative studies; Expert interviews; Territory-wide survey; Focus group studies; Desktop research

Duration

Oct 2022 to Sep 2025

Supervision

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Comments