


Please cite the Published Version

Zhao, KJ , Chang, RA and Sun, G (2025) Experiment unlearned: unpacking leadership and learning of key actors in a Hong Kong street experiment. *Journal of Urban Mobility*, 7. 100091
ISSN 2667-0917

DOI: <https://doi.org/10.1016/j.urbmob.2024.100091>

Publisher: Elsevier BV

Version: Published Version

Downloaded from: <https://e-space.mmu.ac.uk/638999/>

Usage rights:  Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

Additional Information: This is an open access article which first appeared in *Journal of Urban Mobility*

Enquiries:

If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from <https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines>)



Contents lists available at ScienceDirect

Journal of Urban Mobility

journal homepage: www.elsevier.com/locate/urbmob

Experiment unlearned: Unpacking leadership and learning of key actors in a Hong Kong street experiment

Kristen J. Zhao ^a, Robin A. Chang ^b, Guibo Sun ^{c,*}

^a Manchester School of Architecture, Manchester Metropolitan University, Manchester, UK

^b Chair of Planning Theory and Urban Development, Faculty of Architecture, RWTH Aachen University, Aachen, Germany

^c Department of Planning, Property and Environmental Management, University of Manchester, Manchester, UK

ARTICLE INFO

Keywords:

Urban experimentation
Co-creation
Transition
Transformative capacity
Hong Kong

ABSTRACT

Street experiments are implemented worldwide, yet they have not achieved notable transformative change in Hong Kong despite numerous initiatives. This study explores the reasons for their limited impact through a case study of the Healthy Street Lab 2.0, a street experiment organised by a civil society group. This initiative involved collaboration between the government and civil society, using a co-creative design approach. Although well-resourced, the experiment did not achieve its goals, with most design prototypes eventually discontinued. Through interviews and surveys, we collected insights from key stakeholders ($n = 13$) regarding their motivations, challenges, and reflections and participants for their feedback ($n = 14$). Our analysis reveals how the dynamics of low willingness to learn and the capacity to lead among key actors led to a reduced vision, scope, and design, ultimately missing initial objectives. We underscore the role of power differentials and institutional barriers in this process. We conclude by offering reflection points for stakeholders to consider in future experiments. This study contributes to understanding learning and leadership dynamics in the evolving literature on the transformative potential of street experiments.

1. Introduction

Tactical urbanism complements urban planning with its flexibility in addressing urban challenges (Sarmiento, Díaz del Castillo & Triana, 2017; Silva, 2016; Vallance & Edwards, 2021). Originating from grassroots initiatives, it addresses governments' slow response to community issues concerned with non-vehicular traffic safety and the lack of quality public spaces. Inspired by tactical urbanism, the street experiment involves intentional, temporary changes in street use, policy, or form to promote people-centric streets (Bertolini, 2020). These experiments serve as testbeds for innovative urban development and have the potential to catalyse broader transformation in the regimes of urban planning (Silva, 2016; Vallance & Edwards, 2021) or for urban mobility (Geels, 2012; Switzer, Bertolini & Grin, 2013). Notable examples include Park(ing) Day (Finn, 2014), Ciclovía (Montero, 2017), and recent tactical street changes in response to the COVID-19 pandemic (Zhao, Sun & Webster, 2024). As street experiment practices grow, scholars suggest they may contribute to more flexible planning systems (Webb, 2018) and people-centric street transitions (Bertolini, 2020; Gregg, Hess & Brody, 2022). However, the effectiveness of street

experiment interventions often remains local and lacks a longer-term impact.

When analysing street experiment capacities, the limited capacities of street experiments are not the only challenges. Less tangible but equally relevant are the limited capacities of stakeholders who deliver the interventions. This lies at the core of this contribution, which focuses on key actors' transformative capacities (Wolfram, 2016) – the ability to initiate path-deviant change – and their influence on urban experiments' outcomes through learning and leadership. Learning serves as the dynamic component of transformative capacity and bridges all levels of agency while remaining essential to core development processes (Wolfram, 2016). Leadership allows stakeholders to unlock embedded knowledge and articulate new visions (Ardoin, Gould & Kelsey, 2015; Wolfram, 2016). Stakeholders with strong learning and leadership capacities drive the transformative forces that enable street experiments to have transitional impacts. Street experiments can possess transformative potential when they are radical, challenge-driven, feasible, strategic, and communicative (Bertolini, 2020; Nevens, Frantzeskaki & Gorissen, 2013; Roorda, Wittmayer & Henneman, 2014). With these characteristics, street experiments can deliver system changes across material,

* Corresponding author at: Humanities Bridgeford Street, Manchester, UK

E-mail addresses: zhao.jianting912@gmail.com (K.J. Zhao), chang@pt.rwth-aachen.de (R.A. Chang), guibo.sun@manchester.ac.uk (G. Sun).

<https://doi.org/10.1016/j.urbmob.2024.100091>

Received 1 March 2023; Received in revised form 7 October 2024; Accepted 8 October 2024

Available online 29 December 2024

2667-0917/© 2024 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

behavioural, organisational, and institutional dimensions (VanHoose, de Gante & Bertolini, 2022).

This study highlights the unique context of street experiments in East Asia, specifically Hong Kong, a region underrepresented in the literature due to the scarcity of successful cases (von Schönfeld, 2024). Hong Kong, a major urban centre, is characterised by technocentric policymaking and governmental risk-aversion, leaving little room for genuine public participation (Cheung, 2011; Tsang, Burnett & Hills, 2009). There have been only a few transition experiments – defined as projects addressing societal challenges by developing alternative practices at a feasible scale (Roorda et al., 2014: 11). The Transport Department (TD) initiated pilot studies to improve walking environments, such as pedestrianisation and signal testing, but most changes have been minor and local; the scope of pedestrianisation has remained consistent for over two decades (HKTD, 2023). Even less space has been made available for grassroots experiments, leading to small-scale and transient transformations. The Des Voeux Road Central Pedestrianisation, one of the major temporary street interventions, had negligible permanent effects. Bottom-up efforts peaked between the late 2000s and late 2010s but stalled due to social unrest and public health restrictions from 2019 to 2020 (Villani & Talamini, 2023). Here, permanent street changes are the norm, and street closures are rarely used to inspire people-centric transitions. Although public consultation is statutory in transport planning, opinions raised by the public are often overlooked, reducing the motivation to provide feedback (Tsang et al., 2009). This combination of policymaking and risk aversion discourages experimentation, resulting in infrequent and small-scale street experiments.

The case study, Healthy Street Lab 2.0 (HSL2.0), was the last collaborative street experiment between the government and grassroots organisations. Conducted in a densely populated school district, HSL2.0 implemented a co-creative process that actively engaged public stakeholders. Similar to approaches described by von Schönfeld et al. (2019), this process aimed to balance the power dynamics among policymakers, planners, and citizens. The resulting designs gained wide acceptance, but the experiment's overall impact was limited. The following sections explore why this seemingly ideal experiment did not achieve its initial intentions. Leveraging insights from interviews, surveys, participatory observations, and document research, we identified the shifting roles in key actors' leadership and learning during the street experiment implementation. This research shows that street experiment impact wilts in the face of power differentials and institutional barriers, hindering stakeholders' learning and leadership capacities. In this article, the *experiment* refers to the three-day street experiment, and the *programme* encompasses the entire co-creative process, including the planning and implementation stages.

2. Context: Motivation and development of Hong Kong's street experiments

Hong Kong aspires to be "Asia's World City" and build a world-class walkable environment (PlanD, 2016). The city prioritises walking environment optimisation to serve the dense population (6740/sq. km) and the high share of public transit use (88%) (Deloitte, 2018). Their primary approach to creating such an environment is to demarcate clear separation between vehicular and pedestrian traffic for peoples' safety and management feasibility. In populated areas, the public administration planned extensive pedestrian footbridge systems (Tan & Xue, 2016; Zacharias & He, 2018) and pedestrianised street segments. Over the years, the city has also removed many obstructions to pedestrian flows on existing sidewalks (GovHK, 2022b). However, these efforts have not addressed the city's vision of curating interesting, vibrant, and mixed-use streets (Development Bureau Planning Department, 2016; Walk in HK & HKTD, 2019). The local government relies on non-governmental sectors to curate creative urban designs.

Piloting innovative urban designs is more common in parks, as they can attract visitors and boost tourism. In one instance, the Leisure and

Cultural Services Department (LCSD) collaborated with the Social Lab, a civil society group, to pilot and scale the pet park prototype to 170 locations (GovHK, 2023). Other examples include several waterfront enhancements with experimental public space concepts conducted by the Development Bureau and Harbour Commission (GovHK, 2022a), and the Tourism Department curated temporary street art to boost tourism (e.g., Vivid Tsuen Wan) (news.gov.hk, 2023). The Planning Department (PlanD) recently commissioned AECOM and ARUP, two infrastructure consultancies, to conduct pilot and active design studies for public space. While these illustrations reflect Hong Kong's consumer-oriented and profit-driven rationale (Tan & Xue, 2016) for public space experiments, local authorities elude piloting creative design on streets. The possible explanations are safety concerns: streets are closer to vehicular traffic and thus should focus on traffic management.

Street experiments in Hong Kong are considered rare and radical (Tieben & Chen, 2019) due to an institutional focus on technocentric planning and neoliberal placemaking, which limits community-oriented initiatives. Government-led pilot projects tend to perpetuate but typically feature limited design elements, transparency, and scale. These projects, primarily by the Transport Department, focus on technical solutions to improve traffic safety through street closures, railing removals, and low-speed zones. While these trials are often sustained, they lack local character and unique designs. The evaluation processes are opaque, with results of public consultations frequently undisclosed, thus not qualifying as actual street experiments.¹ Additionally, these pilots remained limited in both scale and pace, with many pedestrianisation efforts from the early 2000s still confined to the same locations (HKTD, 2023). In contrast, grassroots street experiments offer vibrant designs that are more aligned with the city's vision. Civil society groups have often effectively engaged with the public, resulting in projects with enhanced functionality and aesthetics. Despite widespread praise, these initiatives are short-term and lack significant outcomes. For instance, the Des Voeux Road Central Pedestrianisation, the largest grassroots street experiment, accommodated 14,000 citizens over a weekend (Fung, 2017), yet its vision for pedestrianising the arterial road remained unrealised. Other community initiatives, such as the 'Seat for Socialising' (Rossini, 2019) and the Centre Street community experiment (About Magic Carpet, 2015), ended with minimal transformative impact. Grassroots street experiments have slowed since 2018 (Villani & Talamini, 2023). The next section introduces the key concepts of *leadership* and *learning* to help understand how the impact may have slowed down.

3. Understanding street experiments' transformation logic through leadership and learning

In light of the challenging environment for implementing impactful street experiments, it is essential to explore the internal dynamics of these projects. We examine the transformation logic underpinning street experiments to understand how an experiment can lead to impactful results. The transformation logic is illustrated in Fig. 1.

Stakeholder capacities impact street experiments' characteristics and outcomes. Transformative capacities, discussed in the context of urban sustainable transitions, refer to "the collective ability of the stakeholders involved in urban development to conceive of, prepare for, initiate and perform path-deviant change towards sustainability within and across multiple complex systems that constitute the cities [to which] they relate" (Wolfram, 2016). This concept encompasses ten interdependent components, though not all are relevant to small-scale, community-oriented street experiments. In this context, we focus on leadership and learning, which provide more appropriate lenses for understanding how

¹ Such information was not released on the official website, for example: https://www.td.gov.hk/en/transport_in_hong_kong/pedestrians/w_city/index.html. Accessed 28 March 2024.

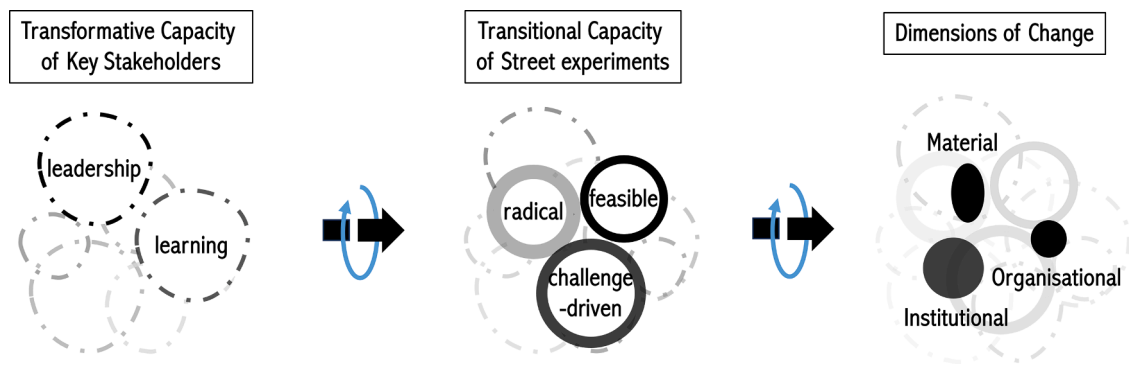


Fig. 1. Street experiment transformation logic on layers of potentially changing system levels.

stakeholders can effectively deliver street experiments.

Leadership is crucial in achieving transition goals (Loorbach & Rotmans, 2006). As a component of transformative capacity, leadership should be polycentric and socially embedded, incorporating political elites and social groups (Chang et al., 2023; Wolfram, 2016). Effective leadership involves developing a vision, sharing it, and sustaining enthusiasm to achieve it (Andersen, Bjørnholt & Bro, 2018). For collective leadership to be effective, direction, alignment, and commitment are essential (Chang, Caramaschi & Castro, 2023). Leaders should be able to articulate visions that foster a strong sense of shared orientation towards collective goals (Ardoin et al., 2015). Additionally, leadership facilitates social learning by reframing the discourse and vision (Ardoin et al., 2015; Wolfram, 2016).

Learning is the dynamic component of the transformative capacity (Wolfram, 2016). Through learning, stakeholders can adjust their workflows to achieve transition goals. Learning processes involve knowledge creation and adaptation to the environment, often reflected in behavioural changes, views, or decision-making (Kolb, 2015). Learning is vital for conducting transition experiments and building the capacity for systemic changes (Sengers, Wiczorek & Raven, 2019). However, it is often overlooked in urban sustainability initiatives, and its absence in the experimentation process has been identified as a limitation (Beukers & Bertolini, 2021; Castán Broto, Trencher & Iwaszuk, 2019). In this context, unlearning refers to the learning that should have taken place but did not, differentiating it from the organisational unlearning concept discussed in psychology and organisational studies (Klammer & Gueldenberg, 2019). Understanding both learned and unlearned experiences can enhance experiments' transformative potential.

Stakeholders with effectively tuned transformative capacities can deliver initiatives with better transitional capacities. Studies outline five transformation-inducing traits: radical, challenge-driven, feasible, strategic, and communicative (Bertolini, 2020; Roorda et al., 2014). They are dynamically developed through the planning process of street experiments, necessitating more learning and leadership from the stakeholders. In particular, radicality, feasibility, and challenge-driven are closely related to the experiment implementation. *Radicality* tends to diminish during the planning and delivery stages, but strong leadership can maintain radicality by communicating distinctively different visions and alternative ways of approaching an issue (Ardoin et al., 2015). If leadership wanes, radicality can be sidelined by feasibility, resulting in more acceptable but less exceptional prototypes that comply with existing regulations and expectations (Bertolini, 2020; VanHoose et al., 2022). Nevertheless, the *feasibility* of radical efforts is enhanced when active learning is present, as it enables individuals and collectives to be more resourceful in leveraging available resources (Kolb, 2015). Moreover, learning and leadership contribute to *challenge-driven* experiments that gear towards potentially long-term change pathways by addressing entrenched and pressing societal issues. For example, Ciclovía was initiated to raise awareness of car-oriented urban development, which helped the city promote biking as a transportation mode (Welch, 2021).

Street experiments with higher transitional capacities can catalyse system-level changes across material, behavioural, organisational, or institutional dimensions (VanHoose et al., 2022). *Material changes* are the most immediate and tangible, manifesting as alterations in street-scape configuration and street settings. These changes create the physical foundation upon which other transformations can occur. *Behavioural changes*, on the other hand, involve shifts in citizens' mobility choices, streetscape uses, and social interactions, all of which are typically induced by material changes. These shifts are reactive and often fall outside the direct control of the initiators, making them less relevant to the transformation logic. *Organisational changes* pertain to the reconfiguration of networks involving various players, organisations, and collaborations among the state, market, and civic sectors. These changes reflect the evolving dynamics within the ecosystem of stakeholders engaged in street experiments. *Institutional changes* involve modifications to city-wide mobility and public space policies, legal and financial frameworks, and cultural or social norms. These changes represent the most profound level of transformation, as they can embed new practices and values into the fabric of urban governance and societal behaviour. Case studies indicate that certain types of changes are more readily achievable than others. Behavioural changes often occur more quickly, followed by material, organisational, and institutional changes (VanHoose et al., 2022). This hierarchy suggests that while immediate physical and behavioural shifts are important, achieving organisational and institutional transformations requires sustained effort and strategic intervention.

The conceptual framework here on transformation logic emphasises that leadership and learning capacities are pivotal in increasing street experiments' transitional capacities. Properties of being radical, feasible, and challenge-driven can subsequently lead to material, organisational, and institutional changes. What is key to note, however, is that the logic cannot effectively unfold, if one of the qualities or components is not present or if the changes are shared unequally by key decision-making stakeholders. For instance, limited learning may affect the extent of organisational change required for institutional change. Or, if learning is present, but leadership is weak, this may undermine how efforts are challenge-driven or radical, thus only demonstrating unimpressive material change. The transformation process is conceived as conjunctive - a continuous and iterative process of interaction that generates change across various system levels (Chang & Förster, 2023). This framework is applied to elucidate the street experiment in Hong Kong, demonstrating how the interplay in the capacities can affect the dimensions of changes.

4. Case study - 'Healthy Street Lab 2.0'

HSL2.0 is a co-creative street experiment aimed at transforming a school precinct into a safe, healthy, and interactive environment (Social Lab, 2023). It is a collaborative effort between TD and the Social Lab, designed to implement the plan outlined by the "Study on Enhancing

Walkability in Hong Kong” 《提升香港易行度研究》 (Walk in HK & HKTD, 2019). In this study, TD mainly refers to the Walkability Task Force, a division in the department involved with HSL2.0. TD proposed testing innovative pedestrian planning and design concepts in Sham Shui Po (深水埗), an old and densely populated district in the Kowloon Peninsula. Sham Shui Po was selected as a pilot area to showcase walkable urban districts (Walk in HK & HKTD, 2019). The plan focused on the school precinct around Pratas Street and Fuk Wing Street, encompassing six schools (Fig. 2). Its goal was to create safe, interactive, and enjoyable streets for students and residents.

HSL2.0 embodies a hybrid street experiment (Andres & Kraftl, 2021), enabled by the municipality and led by a civil society group. The local government acted as an *Enabler*, one of three municipality roles in urban experimentation (Kronsell & Mukhtar-Landgren, 2018). Civil society groups are more adept at engaging with community members and can thus deliver more user-oriented designs (Seyfang & Haxeltine, 2012). In addition to its hybrid nature, HSL2.0 is a co-creative process, contrasting with the conventional and often ineffective engagement approaches conducted by governmental sectors (Villani & Talamini, 2023). The co-creation process included co-design during the planning stage and co-delivery during the implementation stage. Moreover, it took place during a period of declining civil society participation. The programme endured the 2019–2020 Social Movement,² suppression, and the Covid-19 pandemic. Initially planned to take six months (September 2019 – March 2020), the project was delayed by eight months due to the Covid-19 social gathering restrictions. While the social movement did not directly impact this specific programme, overall civil society participation decreased. The Civil Society Participation Index for Hong Kong fell from 0.84 (2003) to 0.78 (2019) and then to 0.46 (2022) (Our World in Data, 2023). With street experiments halted since 2020 (Villani & Talamini, 2023), HSL2.0 is considered the last grassroots-led street experiment in Hong Kong.

The HSL2.0 initiative comprised four stages: preparation, co-creation, experimentation, and long-term development (Fig. 3). In the *preparation* stage (before September 2019), the Social Lab recruited contributors from the district council, public, senior centres, and adjacent schools. They formed a team with lab fellows, district councillors, students, and seniors (Social Lab, 2023). Specific stakeholders took on particular roles during the *co-creation stage* (September 2019 – October 2020). The Social Lab core members became programme leaders and managers, while lab fellows served as designers and facilitators. Other contributors provided inspiration and feedback, and TD acted as gatekeepers to validate designs. Interactive workshops and walk-along interviews were conducted to generate design prototypes (Lab 1). During the *experimentation* stage (November 2020), four designs were approved for onsite testing over three days (Fig. 2). The street experiment featured a redesign of the crosswalk surface, school zone road signs, and various interactive elements such as road drawings, a badminton court, and artificial turf. Two additional prototypes were not approved for physical testing and had to be tested virtually. The experiment accumulated over 100 visitors, including students, parents, residents, and guests from public institutions (Fig. 4 Left). In the *long-term development* stage (December 2020 – Summer 2022), TD converted one of the prototypes into a permanent installation, with input from Social Lab staff and lab fellows. Social Lab also published an action guide for co-creative road

design in the school precinct, providing open-access educational material for the public (Fig. 4 Right).

This co-creative street experiment had several significant impacts. It produced educational resources such as a design guide and public sharing sessions, constructed a customised road sign based on one of the prototypes, and fostered a new social group focused on street advocacy, comprising core members of the Social Lab. Despite the palpable effects, the adopted prototype was eventually neglected, and the experiment was terminated. This case study exemplifies the common challenges grassroots initiatives face: while thoroughly planned, deeply engaged, and well-conducted, they are short-lived.

5. Method

We employed qualitative analysis approaches to understand HSL2.0's ineffective long-term impact. Our methods included semi-structured interviews, surveys, field observation, and document search for triangulation. The study involved reflexive thematic analysis of the interviews and content analysis of documents to examine the motivations, challenges, and achievements of HSL2.0, as well as key concepts such as transitional capacity, key actors' learning and leadership, and decision-making rationales.

The interviews with key actors were conducted in two phases. The first round took place during and shortly after the experiment, and the second round occurred two years later. The first set of interviews (November–December 2020) aimed to understand stakeholders' motivation, vision, general experiences, and learning participating in the programme. We interviewed the Social Lab core members ($n = 2$), Lab fellows ($n = 6$), a TD engineer ($n = 1$), and school officials ($n = 4$). The interview included questions about motivation, focusing on the informants' goals and incentives. Questions on expectations explored the conceptualisation of the co-creation and experiment process before the experience, as it was new for all actors involved. Questions about general experiences revolved around evaluating the outcomes, encountered challenges, and solutions. A deeper analysis of the responses identified learning embodied in newly obtained information and newly formed concepts. Questions on future projections served to understand the evolving views after the co-creation experience. The second set of interviews (November–December 2022) captured the programme's longer-term impact and reflections from the Social Lab and TD. Questions in this phase pertained to the deployment process of the permanent structure and views on the programme adaptations and curtailed scale. Interviewees were recruited through a snowball approach, starting with an initial interview with the initiators. Each interview lasted 45–60 min and involved one or two informants from the same role. Interview questions and scripts were translated from the local language to English. Interview questions and related attributes are shown in Appendix II.

We administered exploratory surveys and conducted field observations during the experiment days. The interviewer-administered surveys aimed to collect information on user demographics, satisfaction with the temporary changes, perceptions of longer-term change, and awareness of community matters such as perceived traffic safety, personal safety, and demand for community gatherings. These survey questions were derived from literature on motivations to support tactical urbanism, which argues that demands for a safe community space and traffic environment are the main motivations (Lydon & Garcia, 2015; Pfeifer, 2013). The survey subjects were recruited through random intercepts with adults who visited, passed through, and those whose regular business may have been impacted by the experiment. Each interview lasted for approximately 20 min. Children were excluded from the interview due to ethical approval limitations; however, their satisfaction was inferred through their activities, expressions, and feedback from their guardians.

To complement our analysis, we cross-referenced the data with publicly available multimedia documents from 2019 to 2022. We also observed public input sessions in December 2019 and co-creation

² The Government of the Special Administrative Region, P.R.C. introduced the Fugitive Offenders and Mutual Legal Assistance in Criminal Matters Legislation (Amendment) Bill 2019 (Legislative Council 2019) in February 2019, commonly known as the “Extradition Bill”. The proposed Bill sparked widespread reactions in Hong Kong, leading to numerous demonstrations, incidents of vandalism, and the occupation of universities. These social unrests persisted from June 2019 until February 2020. With the emergence of COVID-19 epidemic in mid-late January 2020, public attention shifted to this health crisis (Shek, 2020).

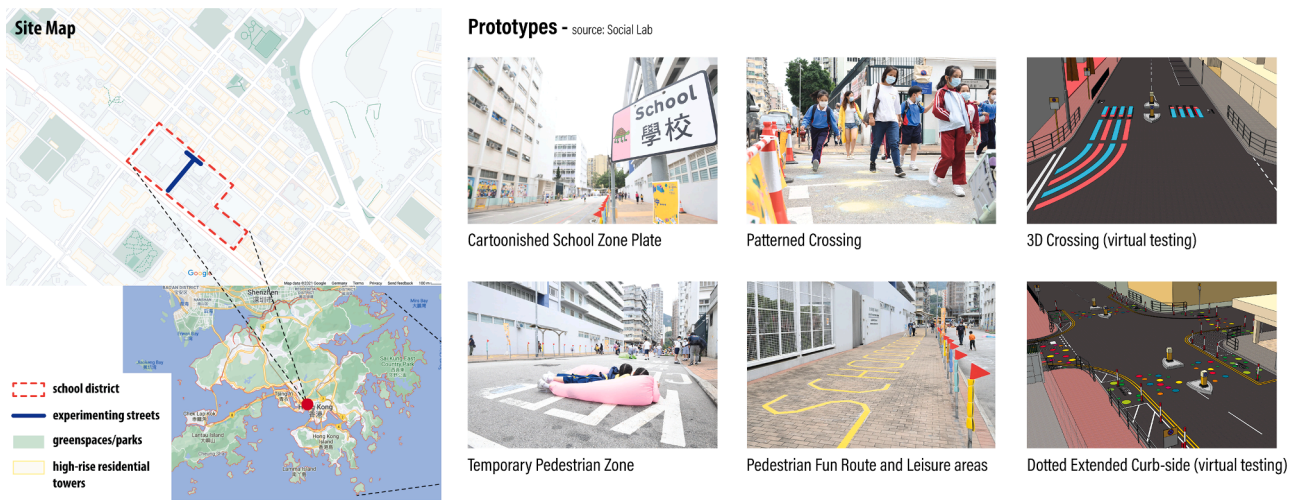


Fig. 2. Site map and prototypes (source: author and Social Lab).

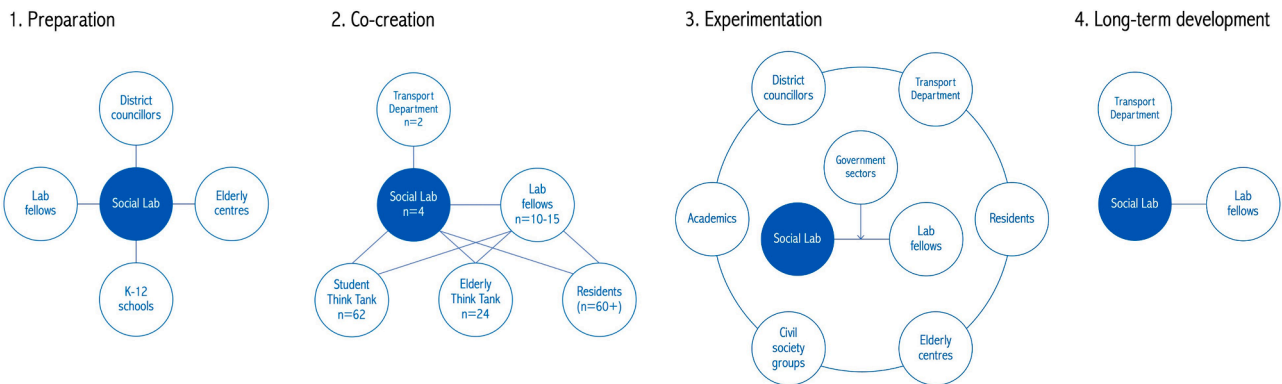


Fig. 3. Stakeholder involvement in each stage.

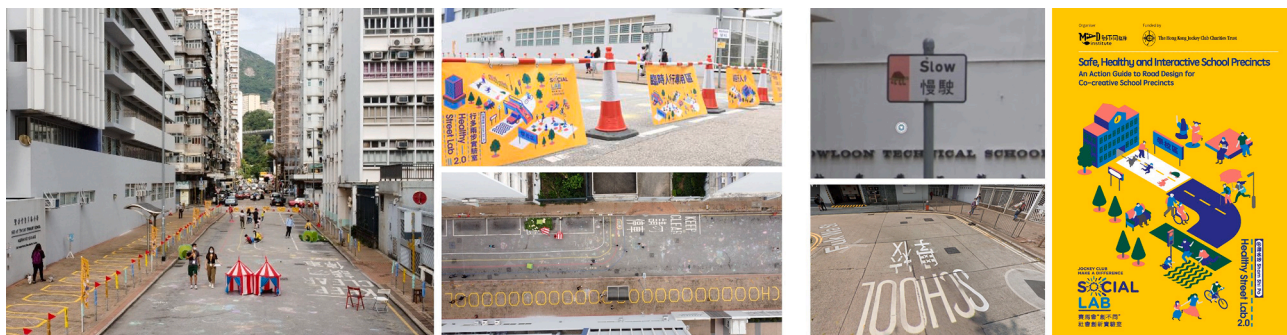


Fig. 4. (Three Left) Three-day Street Experiment, (Three Right) Long-term deliverables (Source: author, Google Street View, Social Lab).

workshops in May 2020. Additionally, we received regular programme updates from the Social Lab representative between May and November 2020.

6. Results

6.1. Leadership dynamics

During HSL2.0’s preparation stage, the Social Lab assumed leadership in coordinating stakeholders and advancing the programme. This leadership was warranted due to the program’s alignment with the city’s goal of enhancing walkability. The city aspired to “create safe, vibrant

and enjoyable school zones to encourage community interaction” and “provide public art, streetscape enhancement, and well-designed street furniture” (Walk in HK & HKTD, 2019: 13–14). This objective resonated with existing governmental plans to improve street design (PlanD, 2003). The Transport Department (TD) sought to explore the co-creative design paradigm, recognising that civil society groups, like the Social Lab, offered unique creative solutions (TD 1–2). The Social Lab’s leadership was further legitimised by its proven track record in co-creative projects, some of which, such as the pet park prototype and the Healthy Street Lab (HSL), were adopted and expanded by government agencies, setting a precedent for HSL2.0 (Lab 1).

The government’s endorsement empowered the programme. The

Social Lab garnered wide societal support from local political offices, social institutions, and the public. Stakeholders contributed not only experience and ideas but also resources. Social institutions such as schools, senior centres, and district councils supported the programme by providing event spaces, coordinating activities, and recruiting participants. Schools allocated staff to coordinate co-design sessions for students, viewing the programme as an opportunity to enrich extra-curricular experiences (School rep 3). With the Social Lab leading, HSL2.0 aimed to deliver creative street designs that addressed community issues in radical and challenge-driven ways. They introduced innovative designs inspired by overseas examples, envisioning interventions that could last for months.

However, the Social Lab's leadership diminished due to TD's rigid requirement regarding safety concerns and public acceptance. TD took a more dominant role in later stages due to their power over design approvals. Constrained by limitations to creativity, the Social Lab adopted a reactive approach to navigate regulatory and institutional restrictions. In addition, coordinating with multiple government departments demanded more involvement from TD. Unlike in cities such as San Francisco and New York, where street experiment applications are streamlined, grassroots organisations in Hong Kong had to apply for street closure permits separately from different governmental branches (e.g., Highway, Fire, and Police). Although TD facilitated interdepartmental communication, the outcome was limited. The Social Lab's ambitions were constrained by the uncoordinated decisions from various departments. During the coordination process, the TD took the leading role in decision-making and interdepartmental coordination.

TD's strengthened leadership limited the street experiment's transitional capacities. Their rigid and opaque design evaluation standards constrained prototype approval. Design rejections were often attributed to safety concerns, yet TD did not provide clear criteria for evaluating non-standard designs. Approval was handled on a "case by case" basis, depending on specific traffic conditions (TD 1–2). *"Apart from the data, we also need to consider the conditions of the specific location where the implementation takes place. Sham Shui Po district is busy, crowded, and complex...its roads are narrow, leaving little room for change"* (TD 1–2). Although the Social Lab chose a street with a wide sidewalk free from traffic and justified feasibility using overseas examples and public consultation results, TD maintained that the prototypes were unsafe for the local environment. Several prototypes were deemed unsuitable for reasons including being *"too innovative"* (TD 1–2), the public *"needs time to adapt"* (TD 1–2), and potentially causing street blockage (TD 1–1). There was a lack of effective communication regarding the standards Social Lab should meet. Moreover, risk aversion prevented the government from trying new designs, even within protected environments. Other failed street experiments in Hong Kong have also shown a lack of interdepartmental collaboration and a tendency towards risk aversion (Villani & Talamini, 2023).

Furthermore, TD lacked the capacity to develop the experiments further. For approved prototypes, Social Lab hoped TD could continue to explore long-term implementation feasibility with the potential to scale up (Lab 2–1). This proposed trajectory aligned with the programme's original ambition (TD 1–1). However, in the second interview, TD reframed the collaboration as a one-time service limited to the current experiment (TD 1–2). Although they were satisfied with the three-day street experiment – calling it *"a very good demonstration to let citizens know these prototypes exist"* (TD 1–2), TD had no plan for long-term implementation: *"there needs more time, or more discussion and more design consideration before it can be done. Such efforts haven't been made at TD."* (TD 1–2). The loss of momentum for experimentation resulted from multiple factors. Beyond unclear safety evaluations, liability concerns, and fear of public disputes, there was limited internal consensus. The approval process needed to address both intra- and interdepartmental inquiries (Lab 2–2), leading to increased bureaucratic resistance. Additionally, TD prioritised technocentric changes, lacking the urgency and expertise to pursue design-oriented experiments. Apart from this

collaboration, TD conducted several technical trials, including piloting a real-time adaptive traffic signal system and LED ground traffic light.³

6.2. Learning dynamics

During the co-creative design process, the lack of flexibility in approving innovative designs indicated TD's low motivation to learn. Although the co-creative process was new, TD reported no learning (adjustments to their workflow or risk tolerance), indicating a lack of organisational change. *"Even if we collaborate with Social Lab, we still follow our usual working approach...The only difference is that in the initial step, we may receive some interesting suggestions."* (TD 1–2). This notable and narrow sense of discretion limited TD's capacity to learn from Social Lab's expertise. Their aversion to potentially unsafe decisions created a power differential in what could have been deep learning to sustain transitional capacity for change. TD was reluctant to risk new designs outside the Transport Planning & Design Manual (TPDM) despite initially expressing a desire to explore creative pedestrian planning and design concepts, as shared at the beginning: *"We propose to test out innovative pedestrian planning and design concepts for the school precinct"* (Walk in HK & HKTD, 2019: 48). Towards the end of the programme, safety concerns overshadowed the intention to learn.

In response to TD's rigid stance, Social Lab adopted a reactive role and accumulated more knowledge to navigate institutional barriers. But this, too, wore out with each iteration of prototype rejection and programme delays. Towards the programme's conclusion, Social Lab struggled with its leadership and rushed to complete the project, compromising design and scope for feasibility. Design became derivative, conventional, and unsurprisingly conformed to existing standards. Lab fellows expressed disappointment towards the outcome: *"Many of our ideas were banned by the government... While we understand where those concerns come from, I still wished they could have been more open-minded and allowed us to try because if you don't, you will only be following the convention."* (Lab fellow 3 and 4). The programme became less challenge-driven, as the protected setting of the pedestrianisation did not reflect real-world public reactions. For instance, intersection designs that were meant to alert drivers were placed on a traffic-free street, turning a realistic test into merely a showcase. While wishing to see their prototypes scaled up, Social Lab stepped back from a leading role upon encountering institutional limitations. The programme leader emphasised the group's facilitator role: *"We are not a pressure group or a government consultant. We conduct the experiment, hoping to leave the government with some recommendations. They can choose according to their policies - they may or may not adopt in the future when appropriate."* (Lab 2–1). The learning for the group was to understand their limited capacity to change. However, this learning subsequently limited the street experiment's transitional capacities.

6.3. Diminishing transitional capacities

The leadership and learning dynamics affected the street experiment process and outcomes (Fig. 5). The co-creative process, led by the Social Lab, succeeded as an inclusive that was accepted by the community. Lab fellows with interdisciplinary backgrounds, including urban planning, architecture, design, social work, education, and research provided or deliberated inputs from various user groups (Fig. 3- Stages 2 and 3). Through workshops, field observations, and interviews, the team consulted over 100 citizens across diverse age groups and occupations (Social Lab, 2023). TD was involved through design review and approvals (TD 1–1). This broad engagement demonstrated the co-design and co-delivery components (Loeffler & Bovaird, 2018), representing a

³ Retrieved from official website: https://www.td.gov.hk/en/transport_in_hong_kong/pedestrians/pedestrian_crossing_facilities/tadep/index.html. Accessed on 29 March 2024.

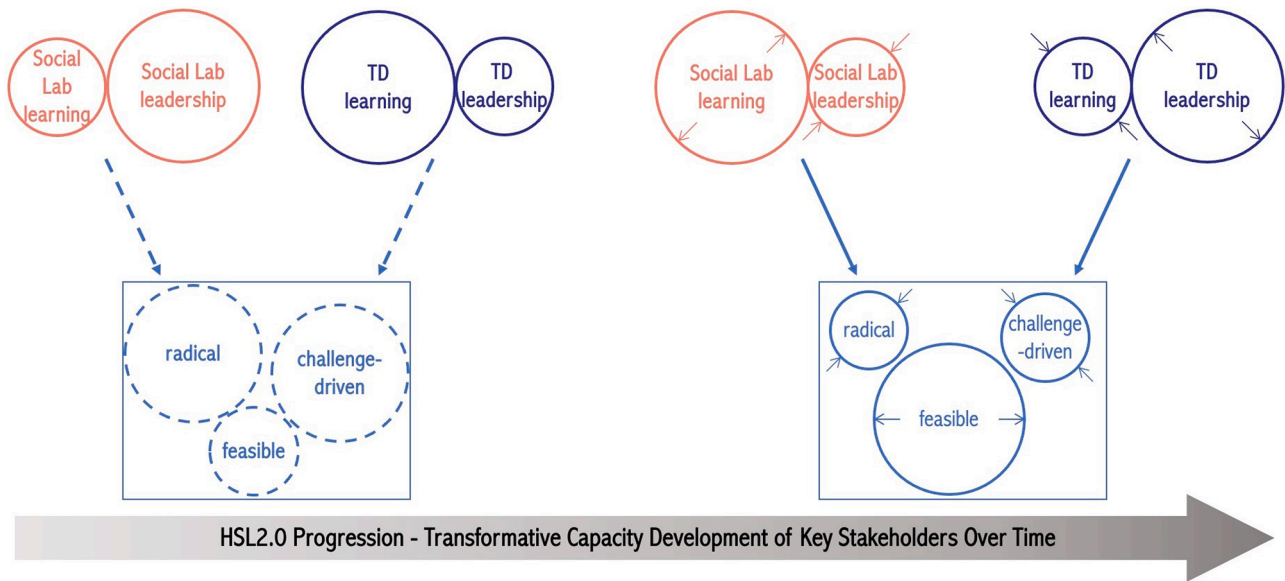


Fig. 5. Changing transformative and transitional capacities during HSL2.0.

more advanced public engagement approach than conventional public participation, which often relies on formal meetings with questions and answers. More crucially, the programme was well-received by community members. Most interviewed participants (12 out of 14) supported the street closure, quoting, “[It was a] great hangout space for children, as having large open space in Sham Shui Po is rare” (Participant 2) and “it is beneficial to the greater good in the neighbourhood, although it may cause inconvenience to some street users” (Participant 4). These findings aligned with Social Lab’s study (Social Lab, 2023). The experience allowed participants to conceptualise alternative street designs and discuss the possibility of change. Participants remarked, “Streets in Hong Kong are quite boring... I think it’s good to have new ideas.” (Participant 6) and “... kids wouldn’t be allowed to draw on the ground freely in school, and so they are very happy ... It’s a precious opportunity.” (Participant 10). The programme was co-productively successful, particularly in terms of its immediate impact.

However, the overall programme did not achieve its systemic goals

in terms of experiment scale and policy innovation. The evolving dynamics between the Social Lab and TD diminished the street experiment’s potential. HSL2.0 endured a significant reduction in space and capacity over time (Fig. 6). The testing area decreased from seven street sections circumscribing the entire precinct to one street with a wide sidewalk free of vehicular traffic. The number of prototype testing sites was reduced from ten to four (excluding virtual tests) due to safety concerns (TD 1–1). In addition, the testing duration was shortened from the proposed months-long implementation to just three days because of the lengthy permit application process (Lab 1, Lab 2–2). Physically, the single permitted prototype largely conformed to existing standards, emphasising feasibility over innovation. Design customisation was minimised, reflecting an apparent reduction in radicality (Fig. 7). Spatially, the prototype was implemented at only one location near the experiment site (Fig. 6), with no plan for scaling up. The underwhelming outcome of HSL2.0 resulted from the shifting roles in learning and leadership between TD and the Social Lab. Without leadership to convey



Fig. 6. Site plan evolution (source: adapted from Social Lab).

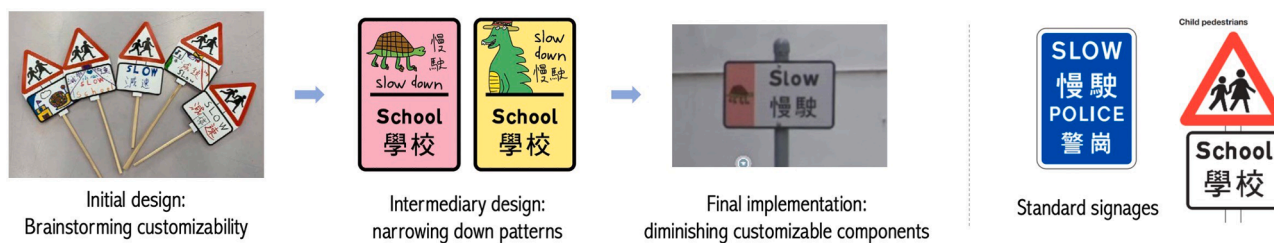


Fig. 7. Evolution of signage design and comparison with standard signages (adapted from Social Lab, TD).

a vision for change (Wolfram, 2016), institutional patterns persist, and innovations risk becoming mere tokenism.

7. Discussion

Street experiments are idealised as platforms for design and planning innovation. However, our study on HSL2.0 reveals a failed policy innovation pathway, highlighting broader patterns of hybrid and bottom-up street experiments in Hong Kong. The limited transformative capacity observed in this case underscores shifting motivations in learning and leadership. Supporting previous work that shows how learning is influenced by stakeholder power dynamics (von Schönfeld, Tan & Wiekens, 2019), the bureaucratic constraints faced by the TD may have reduced the government's willingness to learn from civil society groups. Studies indicate that experiments often fail to monitor learning processes (van Mierlo & Beers, 2018), and learning tends to give way to more immediate concerns when problems arise (Majoor, Morel & Straathof, 2017). Similarly, leadership requires processual reflection and negotiation or re-negotiation as circumstances change. Failure to follow leadership developments and moments to convene and re-shape leadership strategies also results in disorientation and weakened commitments to the vision (Chang et al., 2023).

While our findings align with the existing literature, this study highlights challenges unique to Hong Kong. Reflecting on this, we identified several areas for consideration and proposed improvements. There are disparities between the local government's vision to create engaging street environments and their formalised, standardised developments. Hong Kong's government could benefit from aligning leadership to enable shared learning within the administration, enhancing the effectiveness of street experiments. The planning system exercises full control over walkability improvements, necessitating systematic and comprehensive planning (PlanD, 2016). While these developments improve efficiency and comfort, they fall short in fostering unique street character. The government recognises the creativity and improved design from grassroots street experiments but struggles to integrate these ideas into their organisational and institutional frameworks. A growing consequence is a lack of trust in managing the uncertainties of co-created street experiments. To overcome this barrier, the government could explore defined areas safe for experimentation and clarify which criteria are considered in evaluations. While cities overseas have embraced non-standard street designs, such as colourful crosswalks and street paintings (von Schönfeld, 2024), Hong Kong's TPD is criticised for its outdatedness (Civic Exchange, 2019) and inflexibility in incorporating innovative designs. Having a protected sphere with a certain degree of risk tolerance is the first step to nurturing transformations (Sengers et al., 2019).

Moreover, the government can learn from the public engagement in HSL2.0 and modernise its government-led public engagement processes. Currently, government-led public engagement is conducted only for major urban development projects (TD 1–2). Despite the considerable efforts in public engagement, planners perceive these activities as ineffective (Villani & Talamini, 2023), while the public deplores the unproductively late stages at which they can provide feedback (Tsang et al., 2009). In contrast, small-scale trials, where the public can engage

more closely, were only passively consulted through complaint channels. HSL2.0 demonstrated a more interactive and effective consultation process, delivering concrete design solutions at the street level, even if for a short while. Internationally, street transformation initiatives are increasingly formalised and streamlined, often incorporating broad public input. Cities like New York, San Francisco, and Milan have established Open Street⁴ or Slow Street⁵ programs to enable co-management of streetscapes. The Hong Kong government should not cosmetically recreate street experiment aesthetics, but it could adopt the co-creative approach used in other cities or work more closely with civil society groups. This collaboration would demonstrate knowledge learning and indexing through street experiments (von Schönfeld, Tan & Wiekens, 2020).

The civil society group should reflect on how to lead more strategically. Effective leadership can contribute to reframing discourses and facilitate mutual learning (Ardoin et al., 2015; Wolfram, 2016). This requires thorough policy study, experiment monitoring, and assessment. Without leveraging the existing planning culture, Social Lab showed limited transformative leadership to articulate alternative pathways. When the TD deemed designs unsafe, Social Lab ineffectively justified the feasibility using overseas examples. This approach was already instrumentalised as negative precedents in previous government addresses: "Overseas cases were found to be hardly suitable for Hong Kong's context" (PlanD, 2003). This notion reflected the Hong Kong government sector's lack of willingness to learn from overseas examples. To be better prepared for the responses, civil society groups could benefit from past experiences – both documented and anecdotal – to anticipate the government's shifting positions. Additionally, rigorous field research could have strengthened their street experiment to appeal to government transport engineers. Instead of treating the street experiment as a real-world experiment, organisers used it as a design showcase. The lack of evaluation has been noted as a major limitation in previous street experiments (Bertolini, 2020; Eyer, Hipp & Lokuta, 2015; Hipp, Bird & van Bakergem, 2017). Although user perceptions were collected, quantitative data such as pedestrian flow and clustering time were omitted, failing to address safety concerns. What was missing from Social Lab were the rigorous studies of onsite human behaviour and the knowledge of local planning culture, informed by historical decisions, to meet the demands of a technocentric planning system.

Furthermore, organisers should consider how future street experiments can enhance transformative potential. Studies suggest that ongoing collaboration among the same stakeholders can increase transformative capacity through positive feedback loops (Wolfram, 2016). Social Lab had the opportunity to deepen its street experiment, progressing from HSL to HSL2.0. Compared to its predecessor, HSL2.0 was more focused, had a longer duration, and resulted in permanent outcomes. Additionally, the core members of the HSL2.0 team formed a new alliance to address street-related issues, indicating potential for

⁴ Open Streets Webpage: <https://www.nyc.gov/html/dot/html/pedestrians/openstreets.shtml>, accessed on 29 March 2024.

⁵ Slow Streets Webpage: <https://www.slowstreets.us/>, accessed on 29 March 2024.

future transformation. However, there was no plan for ongoing street-focused experimentation. Discontinued street experiments can serve as memories and inspirations, building momentum for future developments (Savini & Bertolini, 2019; Stevens, Morley & Dovey, 2022). Achieving change beyond the superficial aspects of temporary street design requires sustained learning and leadership to continue deepening street experiments. Leadership enables future experimentation, and learning enhances the resilience of innovative designs, hopefully pushing boundaries further.

8. Conclusion

This study investigated a government-grassroots collaborative street experiment in Hong Kong to understand barriers to longer-term urban design effectiveness and social impact. Street experiments are used as tools and are gaining scholarly attention. This work contributes to the debate on street transformations by offering insights from an often-overlooked Asian context. It complements broader discussions on urban experimentation and helps readers understand the barriers proffered through urban planning norms that influence stakeholder-experiment dynamics. Probing in this direction provides insight into the potential of well-planned street experiments and the transformative momentum lost due to misjudgements of planning conventions.

This study highlights the importance of key actors' capacity and willingness to learn and lead amid institutional barriers. Compared to European-American cases, which focus on post-implementation governance issues related to street experiments (Verlinghieri, Brovarone, & Staricco, 2023; Vitale Brovarone, Staricco & Verlinghieri, 2023), this study identified greater barriers from governmental institutions during the pre-implementation phase. While this may reflect a developmental stage difference, it also suggests an alternative path toward people-centric street transformations, emphasising a distinct government-citizen dynamic and learning pathway in an Asian context.

CRedit authorship contribution statement

Kristen J. Zhao: Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Robin A. Chang:** Writing – review & editing, Visualization, Conceptualization. **Guibo Sun:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We thank the reviewers for their invaluable feedback that significantly enhanced the paper quality. Our gratitude also goes to the informants for their time and insights that enriched this study.

We acknowledge the funding support by NSFC 52078446 and Germany/Hong Kong Joint Research Scheme G-HKU703/20.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.urbmob.2024.100091](https://doi.org/10.1016/j.urbmob.2024.100091).

References

- About Magic Carpet. (2015). <http://www.magiccarpet.hk/about.php> (accessed 01 March 2023).
- Andersen, L. B., Bjørnholt, B., Bro, L. L., et al. (2018). Leadership and motivation: A qualitative study of transformational leadership and public service motivation.

- International Review of Administrative Sciences*, 84(4), 675–691. <https://doi.org/10.1177/0020852316654747>
- Andres, L., & Kraftl, P. (2021). New directions in the theorisation of temporary urbanisms: Adaptability, activation and trajectory. *Progress in Human Geography*, 45(5), 1237–1253. <https://doi.org/10.1177/0309132520985321>. UCL, Bartlett Sch Planning, London WC1H 0NN, England.
- Ardoin, N. M., Gould, R. K., Kelsey, E., et al. (2015). Collaborative and Transformational Leadership in the Environmental Realm. *Journal of Environmental Policy and Planning*, 17(3), 360–380. <https://doi.org/10.1080/1523908X.2014.954075>. Taylor & Francis.
- Bertolini, L. (2020). From “streets for traffic” to “streets for people”: Can street experiments transform urban mobility? *Transport Reviews*, 0(0), 1–20. <https://doi.org/10.1080/01441647.2020.1761907>. Taylor & Francis.
- Beukers, E., & Bertolini, L. (2021). Learning for transitions: An experiential learning strategy for urban experiments. *Environmental Innovation and Societal Transitions*, 40 (September), 395–407. <https://doi.org/10.1016/j.eist.2021.09.004>. Amsterdam: Elsevier B.V.
- Castán Broto, V., Trencher, G., Iwaszuk, E., et al. (2019). Transformative capacity and local action for urban sustainability. *Ambio*, 48(5), 449–462. <https://doi.org/10.1007/s13280-018-1086-z>
- Chang, R. A., & Förster, A. (2023). Productive Processes Pushing Beyond the Urban Production Baseline. *pNd-rethinking Planning*, 1, 112–126. <https://doi.org/10.18154/RWTH-2023-04109>
- Chang, R. A., Caramaschi, S., & Castro, A. (2023). Leadership–collectively oriented: Insights from trajectories of temporary urbanism. *disP*, 59(3), 50–65. <https://doi.org/10.1080/02513625.2023.2288449>
- Cheung, C. Y. (2011). How political accountability undermines public service ethics: The case of Hong Kong. *Journal of Contemporary China*, 20(70), 499–515. <https://doi.org/10.1080/10670564.2011.565180>
- Civic Exchange (2019). *Submission to the Transport Department on Public Engagement of “Study on Enhancing Walkability in Hong Kong” by Civic Exchange*.
- Deloitte (2018). *Deloitte City Mobility Index: Hong Kong. Deloitte Insights*.
- Development Bureau Planning Department. (2016). Country and Marine Parks Board Hong Kong 2030+—Towards a Planning Vision and Strategy Transcending 2030. https://www.afcd.gov.hk/english/aboutus/abt_adv/files/WP_CMPB_122016_Eng.pdf. Hong Kong.
- Eyler, A. A., Hipp, J. A., & Lokuta, J. (2015). Moving the barricades to physical activity: A qualitative analysis of open streets initiatives across the United States. *American Journal of Health Promotion*, 30(1), E50–e58. <https://doi.org/10.4278/ajhp.131212-QUAL-633>
- Finn, D. (2014). DIY urbanism: Implications for cities. *Journal of Urbanism*, 7(4), 381–398. <https://doi.org/10.1080/17549175.2014.891149>. Routledge.
- Fung, P. (2017). Clean Air Network x Des Voeux Road Central. Available at: <https://www.admcf.org/hong-kong-clean-air-network-x-des-voeux-road-central/> (accessed 28 February 2023).
- Geels, F. W. (2012). A socio-technical analysis of low-carbon transitions: Introducing the multi-level perspective into transport studies. *Journal of Transport Geography*, 24, 471–482. <https://doi.org/10.1016/j.jtrangeo.2012.01.021>. Elsevier Ltd.
- GovHK. (2022a). LQ08 : Taking forward harbourfront development. *GovHK*, 4 May. Hong Kong. Available at: <https://www.info.gov.hk/gia/general/202205/04/P2022050400344.htm>.
- GovHK. (2022b). *Walk in HK' initiative*. Hong Kong: Hong Kong SAR: Hong Kong SAR. Available at: <https://www.info.gov.hk/gia/general/202206/01/P2022060100423p.htm>.
- GovHK. (2023). LCSD to provide over 50 more Inclusive Parks for Pets. *Press Releases*, 8 June. Available at: <https://www.info.gov.hk/gia/general/202306/08/P2023060700206p.htm>.
- Gregg, K., Hess, P., Brody, J., et al. (2022). North American street design for the coronavirus pandemic: A typology of emerging interventions. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 00(00), 1–19. <https://doi.org/10.1080/17549175.2022.2071970>. Routledge.
- Hipp, J. A., Bird, A., van Bakergem, M., et al. (2017). Moving targets: Promoting physical activity in public spaces via open streets in the US. *Preventive Medicine*, 103, S15–S20. <https://doi.org/10.1016/j.ypmed.2016.10.014>. North Carolina State Univ, Dept Pk Recreat & Tourism Management, Raleigh, NC 27695 USA: Elsevier Inc.
- HKTD (2023). Pedestrianisation. Available at: https://www.td.gov.hk/en/transport_in_hong_kong/pedestrians/pedestrianisation/index.html (accessed 10 March 2024).
- Klammer, A., & Gueldenberg, S. (2019). Unlearning and forgetting in organisations: A systematic review of literature. *Journal of Knowledge Management*, 23(5), 860–888. <https://doi.org/10.1108/JKM-05-2018-0277>
- Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development*. New Jersey: Pearson Education, Inc.
- Kronsell, A., & Mukhtar-Landgren, D. (2018). Experimental governance: The role of municipalities in urban living labs. *European Planning Studies*, 26(5), 988–1007. <https://doi.org/10.1080/09654313.2018.1435631>. Taylor & Francis.
- Loeffler, E., & Bovaird, T. (2018). From participation to co-production: Widening and deepening the contributions of citizens to public services and outcomes. In E. Ongaro, & S. Van Thiel (Eds.), *The Palgrave Handbook of Public Administration and Management in Europe* (pp. 403–423). London: Palgrave Macmillan. https://doi.org/10.1057/978-1-137-55269-3_21.
- Loorbach, D., & Rotmans, J. (2006). Managing Transitions for Sustainable Development. In X. Olshoorn, & A. J. Wiczorek (Eds.), *Understanding industrial transformation: Views from different disciplines* (pp. 187–206). Dordrecht, Netherlands: Springer. https://doi.org/10.1007/1-4020-4418-6_10.

- Majoor, S., Morel, M., & Straathof, A. et al. (2017). *Lab Amsterdam: Working, learning, and reflections*. Available at: https://research.hva.nl/files/5004016/ENG_Lab_Amsterdam_216pp_Schermversie.pdf.
- Lydon, M., & Garcia, A. (2015). *Tactical urbanism: Short-term action for long-term change*. Washington, DC: Island Press. <https://doi.org/10.5822/978-1-61091-567-0>
- Montero, S. (2017). Worlding Bogota's Ciclovía From Urban Experiment to International 'Best Practice'. *Latin American Perspectives*, 44(2), 111–131. <https://doi.org/10.1177/0094582X16668310>
- Nevens, F., Frantzeskaki, N., Gorissen, L., et al. (2013). Urban Transition Labs: Co-creating transformative action for sustainable cities. *Journal of Cleaner Production*, 50, 111–122. <https://doi.org/10.1016/j.jclepro.2012.12.001>. Elsevier Ltd.
- news.gov.hk (2023). Exploring Tsuen Wan through art. 22 August. Hong Kong. Available at: https://www.news.gov.hk/eng/2023/08/20230821/20230821_193233_762.html.
- Our World in Data (2023). Civil society participation index, Hong Kong, 2002 to 2022. Available at: <https://ourworldindata.org/grapher/civil-society-participation-index?tab=chart&time=2002..latest®ion=Asia&showSelectionOnlyInTable=1&country=-HKG>.
- Pfeifer, L. (2013). *Tactical Urbanism and the Role of Planners*. Available at: <https://re.ginaurbanecology.files.wordpress.com/2013/10/pfeifersrp.pdf>.
- PlanD (2003). *Study on Planning for Pedestrians Stage 1 Public Consultation Report*. Available at: http://www.info.gov.hk/planning/p_study/.../pedestrian/con_report/english/index.htm.
- PlanD (2016). *Planning and Urban Design for a Liveable High-Density City*. Hong Kong. Available at: http://www.hk2030plus.hk/document/PlanningandUrbanDesignforaLiveableHigh-DensityCity_Eng.pdf.
- Roorda, C., Wittmayer, J., & Henneman, P. et al. (2014). *Transition Management in the Urban Context. DRIFT for transition*.
- Rossini, F. (2019). Temporary urban intervention in the vertical city: a place-making project to re-activate the public spaces in Hong Kong. *Journal of Urban Design*, 24(2), 305–323. <https://doi.org/10.1080/13574809.2018.1507674>
- Sarmiento, O. L., Díaz del Castillo, A., Triana, C. A., et al. (2017). Reclaiming the streets for people: Insights from Ciclovías Recreativas in Latin America. *Preventive Medicine*, 103, S34–S40. <https://doi.org/10.1016/j.ypmed.2016.07.028>. Univ Los Andes, Sch Med, Cra 7 116-05, Bogota, Colombia: Elsevier Inc.
- Savini, F., & Bertolini, L. (2019). Urban experimentation as a politics of niches. *Environment and Planning A*, 51(4), 831–848. <https://doi.org/10.1177/0308518X19826085>. Amsterdam.
- Sengers, F., Wiczorek, A. J., & Raven, R. (2019). Experimenting for sustainability transitions: A systematic literature review. *Technological Forecasting and Social Change*, 145, 153–164. <https://doi.org/10.1016/j.techfore.2016.08.031>. Elsevier Inc.
- Seyfang, G., & Haxeltine, A. (2012). Growing grassroots innovations: Exploring the role of community-based initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy*, 30(3), 381–400. <https://doi.org/10.1068/c10222>
- Shek DTL. (2020). Protests in Hong Kong (2019–2020): A Perspective Based on Quality of Life and Well-Being. *Applied Research in Quality of Life*, 15(3), 619–635. <https://doi.org/10.1007/s11482-020-09825-2>. Applied Research in Quality of Life.
- Silva, P. (2016). Tactical urbanism: Towards an evolutionary cities' approach? *Environment and Planning B: Planning and Design*, 43(6), 1040–1051. <https://doi.org/10.1177/0265813516657340>
- Social Lab (2023). *Safe, Healthy and Interactive School Precincts - An Action Guide to Road Design for Co-creative School Precincts*. Hong Kong. Available at: <https://www.mad.asia/programmes/mad-social-lab/1024>.
- Stevens, Q., Morley, M., & Dovey, K. (2022). Understanding the capacities of urban street spaces by mapping Melbourne's parklets. *Journal of Urbanism*, 00(00), 1–24. <https://doi.org/10.1080/17549175.2022.2150268>. Routledge.
- Switzer, A., Bertolini, L., & Grin, J. (2013). Transitions of Mobility Systems in Urban Regions: A Heuristic Framework. *Journal of Environmental Policy and Planning*, 15(2), 141–160. <https://doi.org/10.1080/1523908X.2012.746182>
- Tan, Z., & Xue, C. Q. L. (2016). The Evolution of an Urban Vision: The Multilevel Pedestrian Networks in Hong Kong, 1965–1997. *Journal of Urban History*, 42(4), 688–708. <https://doi.org/10.1177/0096144214566962>. SAGE Publications Inc.
- Tieben, H., & Chen, Y.-F. (2019). *Reflections on emerging public space design approaches in hong kong. Emerging Public Space Design Approaches*.
- Tsang, S., Burnett, M., Hills, P., et al. (2009). Trust, public participation and environmental governance in Hong Kong. *Environmental Policy and Governance*, 19(2), 99–114. <https://doi.org/10.1002/eet.502>
- Vallance, S., & Edwards, S. (2021). Charting new ground: Between tactical urbanism and strategic spatial planning. *Planning Theory & Practice*, 22(5), 707–724. <https://doi.org/10.1080/14649357.2021.1966081>. Routledge.
- van Mierlo, B., & Beers, P. J. (2018). Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34(September 2017), 255–269. <https://doi.org/10.1016/j.eist.2018.08.002>
- VanHoose, K., de Gante, A. R., Bertolini, L., et al. (2022). From temporary arrangements to permanent change: Assessing the transitional capacity of city street experiments. *Journal of Urban Mobility*, 2(February), 1–15. <https://doi.org/10.1016/j.urbmob.2022.100015>
- Verlinghieri, E., Brovarone, E. V., & Staricco, L. (2023). The conflictual governance of street experiments, between austerity and post-politics. *Urban Studies*, 61(5), 878–899. <https://doi.org/10.1177/00420980231193860>
- Villani, C., & Talamini, G. (2023). Failed pedestrian street experiments in high-density urban Asia : A matter of policies ? *Journal of Urban Mobility*, 4(November), 1–11. <https://doi.org/10.1016/j.urbmob.2023.100069>
- Vitale Brovarone, E., Staricco, L., & Verlinghieri, E. (2023). Whose is this street? Actors and conflicts in the governance of pedestrianisation processes. *Journal of Transport Geography*, 107, 1–11. <https://doi.org/10.1016/j.jtrangeo.2022.103528>. Elsevier Ltd.
- von Schönfeld, K. C. (2024). On the 'impertinence of impermanence' and three other critiques: Reflections on the relationship between experimentation and lasting – or significant? – change. *Journal of Urban Mobility*, 5, 1–5. <https://doi.org/10.1016/j.urbmob.2023.100070>
- von Schönfeld, K. C., Tan, W., Wiekens, C., et al. (2019). Social learning as an analytical lens for co-creative planning. *European Planning Studies*, 27(7), 1291–1313. <https://doi.org/10.1080/09654313.2019.1579303>. Taylor & Francis.
- von Schönfeld, K. C., Tan, W., Wiekens, C., et al. (2020). Unpacking social learning in planning: Who learns what from whom? *Urban Research and Practice*, 13(4), 411–433. <https://doi.org/10.1080/17535069.2019.1576216>. Routledge.
- Walk in HK and HKTD (2019). *Study on Enhancing Walkability in Hong Kong: Stage 2 Public Engagement Digest*. Hong Kong. Available at: https://transitjam.com/wp-content/uploads/2021/12/Public_Engagement.pdf.
- Webb, D. (2018). Tactical Urbanism: Delineating a Critical Praxis. *Planning Theory & Practice*, 19(1), 58–73. <https://doi.org/10.1080/14649357.2017.1406130>. Newcastle Univ, Sch Architecture Planning & Landscape, Newcastle Upon Tyne, Tyne & Wear, England FU - Economic and Social Research Council as part of its Impact Acceleration Account programme FX - This work was supported by the Economic and Social Resea: Routledge.
- Welch, B. (2021). When Bogotá belongs to the bicycles : How Ciclovía has shaped Colombia ' s capital city. *VeloNews*. 16 February. Available at <https://bogota.gov.co/asi-vamos/obras/asi-se-prepara-bogota-para-el-ano-2030>.
- Wolfram, M. (2016). Conceptualizing urban transformative capacity: A framework for research and policy. *Cities (London, England)*, 51, 121–130. <https://doi.org/10.1016/j.cities.2015.11.011>. Elsevier B.V.
- Zacharias, J., & He, J. (2018). Hong Kong's urban planning experiment in enhancing pedestrian movement from underground space to the surface. *Tunnelling and Underground Space Technology*, 82, 1–8. <https://doi.org/10.1016/j.tust.2018.07.025>. Pergamon.
- Zhao, J., Sun, G., & Webster, C. (2024). Global street experiment: A geospatial database of pandemic-induced street transitions. *Landscape and Urban Planning*, 242, 1–17. <https://doi.org/10.1016/j.landurbplan.2023.104931>