

Public Engagement Tactics in COVID-19 Pandemic-Related Street Experiments

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Platial information can reflect through public engagement. Cities worldwide temporarily reallocated street space to serve as public space and active mobility during the COVID-19 Pandemic, known as the pop-up bike lanes, shared streets, and outdoor dining, some of which are still running today. Despite its popularity, few articles have discussed how the government consulted with citizens to convert short-term actions into long-term transformations. We investigated the tactics of the governments to engage with the public through a phenomenological study. Using Mergel's (2013) push-pull-networking tactics framework, we analysed the public engagement practices of the governments in 24 interventions. The data sources include social media data, webpages, official documents, and supplemented with interviews. Despite the lack of public consultation due to the pandemic, government agencies engaged with the public in subsequent development phases. The street intervention locations contribute to the explanation of different public engagement structures and the varied importance of different stakeholders.

Keywords: tactical urbanism; street experiment; platial information; public engagement; people-centric street

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1 Introduction

Street experiment is an intentional and temporary change of street use, regulation, or forms, aimed at transforming streets towards people-centric streets (Bertolini, 2020). Unlike conventional designs that deliver permanent changes, street experiments, a practice of tactical urbanism (Lydon and Garcia, 2015), are meant to be communicative, iterative, and adjustable (Bertolini, 2020; Landgrave-Serrano et al., 2021; Silva, 2016). A known example of street transformation is New York City's Times Square Pedestrianization, in which case the transformation started as a temporary treatment and became permanent upon receiving desirable outcomes (Sadik-Khan and Solomonow, 2017). Through ongoing data and feedback collection, implementers learn and adjust the interventions as they become permanent (Hahn and te Brömmelstroet, 2021).

Tactical urbanism projects are advocated for place-based solutions, but few studies have discussed how this is achieved through ongoing public engagement. The COVID-19 Pandemic-related street experiments are timely for such studies. These temporary interventions took place around the same time, many of which started without public consultation due to emergency and continued to evolve afterwards. Depending on the types (Gregg et al., 2022), these interventions tend to take place in different built environments, ranging from neighbourhood streets to commercial main streets (NACTO, 2020). These interventions may provide insight into varied public engagement processes.

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We studied 24 interventions from 19 cities to understand the public engagement approaches of their government agencies. Three goals and their corresponding tactics were identified in a public sector social media interaction framework: transparency (push), participation (pull), and collaboration (networking; Mergel, 2013). The push tactic means government agencies use public engagement tools for representation and information dissemination. The pull tactic means inviting citizens to provide feedback in order to form a bidirectional communication. The networking tactic means empowering citizen talent and government-citizen collaboration. Although this framework was used to analyse social media interactions, its principles also apply to other forms of public engagements, as it is a contemporary reframing of the *ladder of citizen participation* (Arnstein, 1969). Using document analysis and interviews, we categorized the engagement approaches and tactics of the implementers following the push–pull–networking framework. The result is discussed in relation to place and the continued developments of the interventions.

2 Method

2.1 Case Selection

We selected cases from the Shifting Streets COVID-19 Mobility Dataset (Combs and Pardo, 2021) that satisfy three criteria: (1) they were initiated in major world cities, which term is defined according to the Globalization and World Cities (GaWC) rankings (GaWC, 2020); (2) they were implemented in extensive sizes; and (3) they started during the COVID-19 Pandemic. We included 24 qualified cases that were located in 19 cities and four world regions (Table 1). The emergency responses cover three main types: outdoor patios, shared streets, and bike accommodations (Gregg et al., 2022).

2.2 Data Collection of Platial Information

We conducted desktop research and semi-structured interviews to identify the public engagement approaches of government agencies. The desktop research included API data collection and document collection. To study the social media interactions of an agency, we collected its tweets that included programme keywords and their replies in conversation threads. Twitter was chosen because of its widespread use as an official account. Besides social media, we collected the relevant information of the programme through their websites, meeting recordings, and existing study reports. We traced the programme websites of agencies to evaluate engagement tactics and development trajectories. Finally, we asked key initiators how they communicated with the public regarding the street reallocations.

2.3 Content Analysis

We categorized public engagement tactics in terms of communication channels and interaction intensity. The push tactic is presented in forms of information dissemination through the official webpage, social media platforms, flyers, and signages. The pull tactic is identified when there are surveys, commenting platforms, virtual community meetings, and correspondence by councillors. The networking tactic is reflected in one-on-one neighbour engagements, community events, and community collaborations. Additionally, we used Y(yes)/N(no) to denote whether an approach was established specifically for the intervention. For instance, channels such as social media accounts are pre-existing and thus not designated, whereas online commenting platforms are often set up for the programme. The number of designated approaches reflects the programme's speciality. Programmes that are more intended for experimentation are assumed to have more designated communication channels and are thus more path-deviating and longer-lasting than those that serve only as emergency responses.

3 Result

We identified three public engagement structures: rich push–pull–networking, lean push–pull–networking, and push–pull (Table 1). The rich push–pull–networking structure refers to the use of multiple channels (usually more than three) to cover all three purposes. The lean push–pull–networking structure

Table 1: Case studies and public engagement structures

Case	Main operating agency	Programme types	Status 1 Jan 2023	Tactics struct.*
EU01	Department of Traffic Organization and Technical Traffic Matters, City of Vienna	bike accom.	removed	PP
EU02	Mobility, Public Works and Road Safety, Government of the Brussels-Capital Region	bike accom.	permanent	PP
EU03	Transportation Section, Dublin City Council	bike accom.	ongoing	LPPN
EU04	Municipality of Milan, Agency Mobility Environment and Territory (AMAT)	bike accom.	ongoing	PP
EU05	Municipality of Milan, Agency Mobility Environment and Territory (AMAT)	shared street	ongoing	LPPN
EU06	Department of Roads and Travel, Paris City Hall	bike accom.	permanent	LPPN
EU07	Senate Department for Mobility, Traffic, Climate Protection and the Environment, City of Berlin	bike accom.	ongoing	PP
EU08	Office Area of Urban Ecology, Barcelona City Council	bike accom., shared street	permanent	PP
NA01	Transportation Planning, City of Vancouver	shared street	ongoing	RPPN
NA02	Transportation Planning, City of Vancouver	outdoor patios	ongoing	RPPN
NA03	Chicago Department of Transportation (CDOT)	shared street	ended	LPPN
NA04	Chicago Department of Transportation (CDOT)	outdoor patios	permanent	LPPN
NA05	Denver Department of Transportation & Infrastructure (DOTI)	shared street	permanent	RPPN
NA06	Denver Department of Transportation & Infrastructure (DOTI)	outdoor patios	permanent	RPPN
NA07	Los Angeles Department of Transportation (LADOT)	shared street	ongoing	RPPN
NA08	New York City Department of Transportation (NYCDOT)	shared street	ongoing	RPPN
NA09	New York City Department of Transportation (NYCDOT)	outdoor patios	ongoing	RPPN
NA10	City of Oakland Department of Transportation (OakDOT)	shared street	permanent	RPPN
LA01	District Mobility Secretariat, City of Bogota	bike accom.	permanent	PP
LA02	Ministry of Mobility, Government of Mexico City	bike accom.	permanent	LPPN
EAP01	Department of Transport and Planning, Victoria State Government	bike accom.	ongoing	RPPN
EAP02	Strategy, Planning and Climate Change, Melbourne City Council	bike accom.	paused	RPPN
EAP03	City Sustainability and Strategy, Yarra City Council	bike accom.	ongoing	RPPN
EAP04	Department of Transportation (DOTr), Philippines	bike accom.	permanent	LPPN

*Push-pull (PP), Lean push-pull-networking (LPPN), Rich push-pull-networking (RPPN)

refers to the use of essential channels (usually one or two). The push-pull structure refers to the use of channels to achieve only representation and engagement.

3.1 Rich Push-Pull-Networking Structure

Government agencies adopting the rich push-pull-networking structure treated the interventions as experiments, with room for growth or changes. They maximized channels to reach the public, many of which were designated for the interventions (Table 2). Public feedback collection was an inseparable part of the continuation of their street experiments. For instance, cities deployed designated pushing channels. Webpages were deployed as soon as programmes launched and updated frequently to reflect changes in the intervention locations and policies (NA06, NA08, NA10). While websites can reach a wider audience, place-based notices were still needed to provide more targeted instructions. Flyers and signages were distributed to provide on-site clarifications regarding the traffic arrangements – *‘(at the beginning of the project) We basically went and spoke with the businesses, let them know it was coming, and sent people letters and information about the project’* (EAP01).

Common ‘pulling’ tactics were commenting platforms, online surveys, social media, contact forms, and email. Online portals were suited for feedback collection. In terms of response volumes, the online survey and comments could accommodate up to thousands of replies, reaching a significantly larger number of respondents compared to other means. Online surveys were used for two purposes: the *a*

Table 2: Typical approaches for each tactics structure

Tactics Structure	Exempl. Case	Push	Pull	Networking
Rich push–pull-networking	NA01	Webpage (Y) Flyer and signages (Y)	Social media (N) Mobile Phone App (N) Email (Y) Phone (N) Online commenting platform (N) Online surveys (Y)	Stakeholder and advisory group support (Y)
Lean push–pull-networking	LA02	Webpage (N)	Social media (N) Engagement of business owners (Y)	Civil society groups (N)
Push–pull	EU07	Webpage (N)	Social media (N) Email (N) Phone (N)	

priori survey inviting for collaboration, and the *post hoc* survey for receiving programme feedback (NA07, NA09). To accommodate wide intelligibility, agencies used visual or map surveys to provide richer context and greater clarity (EAP01, EAP02, NA05). A few agencies enhanced transparency by making online comments publicly available, enabling further discussion among citizens (NA09, EAP03). Social media accounts were used to post updates and observe public feedback. Agencies occasionally replied to public responses when they found it necessary.

The networking tactic relied more on communications with targeted groups, such as community leaders, business partners, and local elected officials. Shared streets programmes tended to be collaborations with communities. Taking New York City’s *Open Street* as an example, agencies invited interested groups to apply through an online application form, which is a pulling tactic, and then collaborated closely to deliver street experiment programmes. Community partners shared half of the responsibilities in these interventions, including gathering the consent of neighbours as well as the establishing, programming, and maintaining street experiments. In outdoor dining programmes, agencies worked closely with business owners, since its main purpose was economic recovery. The collaboration facilitated the programme to mature and formalize. City staff provided guidance to small business owners, from design drawings to checking for compliances (NA02). The staff also inspected sites to help accommodate special situations (NA09). As the programmes developed, the rules became more stabilized.

The rich push–pull-networking structure helped shaping how the interventions evolve. The agencies were more responsive to public feedback, in forms of policy refinement, design guidelines updates, design changes, or, if the feedback was not satisfactory, the termination of the intervention.

3.2 Lean Push–Pull-Networking Structure

Agencies using a lean push–pull-networking structure adopted fewer and less designated channels (Table 2). For pushing approaches, webpages were used in the form of press releases, usually issued at the beginning of the interventions and major programme updates. The updates were less flexible or frequent compared to those done by rich push–pull-networking agencies. For the pulling tactic, these agencies used fewer channels compared to rich push–pull-networking structure agencies. This would inevitably limit the respondent sources. Online surveys were the common approach (EU03, EAP04), but they have not always been conducted by the agencies directly. Civil society groups helped with *post hoc* surveys and provided policy suggestions (EU06, LA02). Agencies responded to the concerns of citizens through community or stakeholder meetings, but they were held to resolve issues rather than encourage collaboration (EU06, LA02, EAP04). For the networking tactic, agencies consulted targeted groups, such as civil society groups and local elected officials. Instead of intensely engaging with the public directly, they relied on summarized feedback passed through the targeted groups.

Interventions using the Lean push–pull-networking structure were less experimental. They invited feedback but did not sufficiently support development iterations that could lead to adjustments, policy refinement, and innovations. The focus of their engagement tactics was to reassure programme support

and resolve issues. Interventions in this category mostly continued to run beyond the pandemic situation, but few possess potentials for greater impacts.

3.3 Push–Pull Structure

Agencies that adopted the push–pull structure used fewer approaches, some of which do not use designated approaches at all (Table 2). Typically, they made one press release at the beginning of the implementation and lacked continued updates. Some used social media as a source to monitor public feedback (EU08, LA01). Without systematic feedback collection, agencies might obtain biased perceptions, as people may not provide constructive feedback on an online post. More importantly, these agencies did not directly interact with the general public. Some agencies removed interventions after the pandemic period (EU01), while others faced vandalism and difficulties in maintaining the extensive interventions (LA01). These interventions served as one-off installations without intentions for continued testing.

4 Discussion

4.1 Relationship with Place

Public engagement is a process to proactively collect spatial information (Mocnik, 2022), data that reflect the feelings of people when they use the transformed street elements. Lofland (1998) defined the public space, parochial space, and private space. The place attachment of people to their neighbouring streets plays a role in how the governments conduct public engagements, who the key stakeholders are, and what feedback to can be expected. Shared streets were often located on neighbourhood streets that are quiet and localized (NA01, NA03, NA05, NA07, NA08, NA10), closer to the definition of parochial space. Residents have a higher sense of ownership over the streets and hence a higher demand for decision-making. These street locations were collectively decided between the government agencies and residents. This process requires governments to engage with citizens through push–pull-networking tactics to understand preferences and subsequent feedback. Non-commercial outdoor patios served as free seating and maintained by the community. These facilities were engaged similarly as the Shared Streets (NA02). In contrast, outdoor patios that were used for commercial activities tend to be located on commercial streets. These locations are public spaces, in which case the voices of business owners and consumers play a bigger role in shaping public feedback. When deciding the permanent development of temporary outdoor patios, the support of business owners was considered with a heavier weight (NA04, NA06, NA09). Furthermore, bike accommodations were implemented based on strategic bike routes, with an emphasis on building a complete network. There would be less room for the collaborative engagement of residents and they tend to be a more top–down process. Due to this reason, few European cases used push–pull structures (EU01, EU02, EU04, EU07, EU08). The decisions of the governments played a bigger role in bike network expansions.

4.2 How Experimental Are These Street Experiments


Agencies that launched rich push–pull-networking structure enhanced public engagement and enabled iterative developments of street experiments. This kind of intervention is closer to the ideals of street experiments, which is to be iterative, adjustable, and innovative (Hahn and te Brömmelstroet, 2021). This structure also helped building a long-term pathway to combine tactical urban changes with strategic planning (Vallance and Edwards, 2021). Vancouver, e.g., has launched its *Slow Street* design guidelines to support longer-term programme development. The temporary structures are continually being used in post-pandemic time. Agencies that launched the lean push–pull-networking structure used public engagements to justify the intervention continuation (or discontinuation). The experiments were one-off rather than iterative. This structure may have contributed to short-term developments of the street experiments (Glaser and Krizek, 2021). Nevertheless, the input may be inadequate to contribute to policy innovation. Chicago's shared streets were discontinued after the second year's programme for the reduced interest received from the public. There were no noticeable lasting design changes in those temporarily changed streets. The push–pull structure is mostly associated with bike


lane developments. Less experimental features were found. Agencies emphasized implementation and problem resolution rather than experimentation. Lacking community collaboration may harm the perception of bike lane safety and usefulness. This study reveals a high proportion of push–pull engagement structures, which confirms the concerns of researchers with lacking public engagement in government-initiated street experiment projects (Combs and Pardo, 2021; Verhulst et al., 2023).

5 Conclusion

In this study, we investigated tactics adopted by the initiating agencies to evaluate user feedback on pandemic-related street experiments. We coded engagement approaches into push/pull/networking tactics and analysed different tactics combinations and their intervention outcomes. We looked at public engagement tactics and instruments used in the pandemic-induced street experiments. As spatial information, the public feedback has different importance depending on the intervention locations. Further, the public engagement structure reflected the different degrees of experimentation in these street interventions. Our research contributes to understanding how agencies used temporary street interventions to undergo longer-term street transformations.

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