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Placebo urban interventions: Observing Smart City narratives in Santiago de Chile

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Abstract

The implementation of the Smart City (SC) model in Santiago, Chile has not heralded any significant interventions in terms of scale, urban impact, amount invested, technological innovation or architectural design. Instead, material interventions have been small and have had little more than a superficial impact upon the perceptions of citizens. The significance of observing 'Smart' interventions in Santiago involves analysing their implementation under a provincialising lens in order to observe the way local experience transforms monist ways of thinking about SCs. Based on ethnographic observation of an SC intervention (in Paseo Bandera, Santiago de Chile), four principles of intervention were identified: democratisation of the city, spatial appropriation by citizens, social and technological innovation and local and territorialised interventions. These principles help to identify the intervention as an urban placebo, which the article argues works through the fictions of effective interventions and urban image improvement that seek to participate in worlding practices whilst, in reality, very little is being improved or effectively addressed in the city. Paseo Bandera SC intervention presents a narrative of modern, sustainable and technologically advanced urban planning in the form of specific material interventions, when in fact it involves very little modernity, sustainability or technology, and is little more than a continuation and evolution of the neoliberal urban model that exists in Chile.

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planning, public space, smart cities, social justice, technology, theory, urban knowledge

摘要

智慧城市模式在智利圣地亚哥的实施,在规模、城市影响、投资额、技术创新或建筑设计方面并未带来任何重大干预。相反,物质干预一直很小,对市民的感知只产生了表面的影响。在圣地亚哥观察"智慧"干预措施的意义在于,从一个地方性的视角分析它们的实施情况,以观察当地经验如何改变看待智慧城市的一元论思维方式。基于对智利圣地亚哥的帕索班德拉 (Paseo Bandera) 的一个智慧城市干预的人种学观察,我们确定了四项干预原则:城市民主化、市民对空间的占有、社会和技术创新以及当地和属地干预。这些原则有助于明确干预作为城市安慰剂的功能。本文认为,这种做法通过虚构有效干预和城市形象改善(从而寻求参与世界实践)发挥作用,但在现实中,改善乏善可陈、城市问题也没有得到有效解决。帕索班德拉的智慧城市干预呈现了一个现代、可持续和技术先进的城市规划的叙事,其以具体的物质干预为表现形式,但在事实上几乎不涉及现代性、可持续性或高科技,只不过是智利现有的新自由主义城市模式的延续和演变。

关键词

规划、公共空间、智慧城市、社会正义、高科技、理论、城市知识

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Introduction

Implementation of the Smart City (SC) model in Santiago, Chile has not heralded any significant interventions in terms of scale, urban impact, amount invested, technological innovation or architectural design. Instead, material interventions have been limited in terms of size and scope and have had little more than a superficial impact upon the perceptions of citizens. What, then, is the significance of such limited 'Smart' interventions in the Chilean context? The answer lies precisely in the low-key nature of intervention, which offers some understanding of the real impact of the SC concept in Chile, explored in terms of the specific narratives through which the model is communicated. Application of global parameters in analysis of the SC concept as it has been applied in Santiago would be futile, since the model has been implemented only on a small, localised scale. However, analysis of SC implementation according to the notion

of provincialisation (Leitner and Sheppard, 2016) helps to reveal the way in which local experience transforms monist conceptions of SCs.

In response to a call for a provincialisation of urban theory (Leitner and Sheppard, 2016) with a focus on worlding practices in the Global South (Roy, 2011), the present article observes the SC model as a monist core theory and discusses its particular interpretation and implementation in Santiago, Chile. Through a critical observation of the ways in which the SC model has been developed in one specific urban intervention in Santiago, Paseo Peatonal Bandera (Bandera Pedestrian Streetway), we suggest the concept of placebo urban interventions. This notion refers to a form of worlding (Roy, 2011) and inter-referencing (Roy and Ong, 2011) in which some of the more superficial elements of dominant urban models deemed successful elsewhere – such as aesthetics – are adopted, whilst other more meaningful

aspects are either ignored or applied in contexts whose social, economic, cultural, material and territorial characteristics are very different to those found where the model originated. The idea behind placebo urban interventions is to portray a certain image or narrative of alleviating perceived symptoms of inequality and other key social problems, along with their most visible urban expressions, such as socio-economic segregation, crime or perceived crime and urban decay. In the case of Santiago, the strategy generates a placebo effect, highlighting certain urban principles whilst either disguising the intentions behind those principles or offering false substitutes which, in the end, serve only to camouflage the perpetuation of the neoliberal urbanisation model that dominates urban planning in Chile.

The present work is based on a broader research project currently taking place in Santiago that attempts to explain how situated knowledges (Haraway, 1989) could transform contemporary urban planning and interventions in Latin America, and in Chile in particular. The research is framed within the context of neoliberal urbanism in Chile, where urban planning is starkly technocratic, centralist and vertical in terms of decision-making. Discourses and practices are sustained by expert technical and traditional knowledge based on universal urban norms that seldom acknowledge the multiplicity of forms of dwelling in urban territories, hence fragmenting the spatial and temporal experience of urban dwellers (Jirón and Mansilla, 2014). Contemporary debates concerning decolonial theories have placed greater focus on the way in which cities are conceived and intervened (Robinson, 2016; Roy, 2016); however, less attention has been paid to the way urban dwellers – in relation to other humans and non-humans – use their knowledges to collaborate with, oppose, resist or subvert expert knowledge on a daily basis. In this context, researchers have

developed the idea of *situated urbanism* (Jirón, 2019) as a practice to help with recognition of the many and diverse forms of territorial knowledges that exist. As such, situated urbanism is able to spark a dialogue of knowledges (Escobar, 2017) in which urbanists play the role of mediators rather than experts, thus contributing to a more situated form of urbanism. The fieldwork undertaken for the present project involved a multidisciplinary research team who adopted mainly ethnographic approaches to observe the implementation and execution of certain urban interventions in Santiago, Chile, including SC projects.

In the first section of the article, we discuss the key aspects of the notion of provincialisation, along with the concept of worlding practices, defining the exercise that we seek to conduct. Secondly, we discuss the SC model in terms of its local origins and global outreach and impact, challenging its universal or global nature and analysing how well it has travelled to other places (Leitner and Sheppard, 2016). Then, we explore the SC model with regard to its interpretation and application in Chile, with the country's political, socio-economic and territorial particularities. In doing so, we describe the political/urban context and provide some examples of interventions involved in a local-level SC model. The notion of placebo urban interventions is then introduced and further discussed in relation to the Paseo Bandera project. We analyse the way in which this public space intervention appeals to the notion that concepts such as democratisation of the city, spatial appropriation by citizens, social and technological innovation and local and territorialised interventions are mere fictions or promises of something more to come. The appeal of the SC narrative conceals what is essentially a very basic intervention, presenting it as something bigger and better whilst deflecting attention away from the perpetuation and pervasiveness of the

neoliberal urban planning model applied in Chile; in other words, yielding little more than a placebo effect. The discussion leads us to suggest the need for *situated urbanism* (Jirón, 2019), a notion that we develop throughout the article in relation to the idea of provincialisation – as an approach to urban planning by which it is not only 'peripheral' perspectives that are made visible, but also the experiences and knowledges of urban inhabitants in both central and peripheral contexts.

Provincialising the Smart City model in Santiago, Chile

Provincialising worlding practices

In the field of critical urban studies, Leitner and Sheppard (2016) argue for the need to move away from a dualistic global versus local understanding of urbanism and geographical scale. They also call for the discontinuation of the dichotomic emphasis on the 'peripheral', subaltern, indigenous theories emerging from postcolonial urban studies, and the all-embracing concepts emerging from 'core' or 'central' urban theory which lead to monist understandings of urban phenomena elsewhere. The authors' notion of provincialisation aims to overcome this dichotomic approach, emphasising the idea that knowledge production is necessarily situated. However, within a context of global inequalities of scale in the realm of knowledge production, some theories emerge as 'dominant species' and acquire the status of 'monist knowledge', ultimately coming to shape other less dominant species. For Leitner and Sheppard (2016: 230), the call to provincialise urban studies means 'disrupting norms about what we think we know: challenging monist accounts by highlighting how they remain shaped by their "local" origins and raising questions about how well they travel'. In the evaluation of how monist accounts 'travel', the concepts of worlding practices (Roy, 2011) and inter-referencing (Roy and Ong, 2011) help us to think from the point of view of peripheral accounts. The concept of worlding suggests recovering and restoring 'the vast array of global strategies that are being staged at the urban scale around the world' (Roy, 2011: 10), whilst also highlighting the ways in which the production of urban space often:

takes place through reference to models of urbanism [...] But increasingly, forms of worlding cannot be understood merely as a globalization imposed by the West on the Rest. Instead, in the Global South they are often examples of a homegrown neoliberalization, one produced to consolidate postcolonial sovereignty and territory. (Roy, 2011: 10)

With regard to these worlding practices, Leitner and Sheppard (2016: 231) suggest the need to provincialise – a dialogical process in which, from the position of peripheral situated knowledges, we challenge perspectives that originate at the core and at other peripheral positions, eventually committing to revising or abandoning 'hardcore' beliefs in the light of critical scrutiny.

Provincialisation appears to be an ideal approach with which to explore the SC model in Chile. Whilst the theoretical background and interests of the model originate elsewhere, the impact of its implementation is local and situated. Thus, the dialogical nature of the provincialisation approach comparing core and peripheral theories, ideas and interventions - lends itself well to the study of these interrelated aspects. As such, we must first examine the SC model as a core perspective before analysing how it has travelled to and been implemented in Santiago, challenging this particular version of the model from the perspective of the core and reviewing the original sense from a peripheral perspective.

Smart City as a monist core urban model

There is no generally accepted definition of the SC concept, and the extensive literature published on the subject in recent years – mostly in English and originating in Anglo-Saxon countries (Rose and Willis, 2019; Taylor Buck and While, 2017; Valdez et al., 2018), with the exception of limited work in India (Chakrabarty, 2019; Datta, 2016) and elsewhere (Batista and Fribiuk, 2017; Cai et al., 2020; Chen, 2016; Flórez, 2016; Watson, 2015) – proposes various definitions (Angelidou, 2015). However, despite this conceptual vagueness and the difficulty of isolating it as an object of study (Duque, 2016), the clearest consensus interprets SC as a technology-driven form of urbanisation.

SC discourses tend to take two forms. On one side are those, including international consultants and organisations (Bouskela et al., 2016; Cohen, 2015), who propose the SC concept as a viable – or indeed the only – approach (Anthopoulos, 2017; Anthopoulos and Reddick, 2015; Peris-Ortiz et al., 2016) to the reconciliation of sustainability and urban growth (Hayat, 2016), supported by the use of information and ICT. An example of this is the Indian government's '100 Cities' initiative, which suggests that 'There is a need for the cities to get smarter through the application of innovative solutions to address largescale urbanisation challenges and find new ways for creating liveable, competitive and self-reliant cities' (Hayat, 2016: 177). On the other hand, there are the detractors – mostly within academia – who maintain that the SC concept promotes a neoliberally-orientated entrepreneurial vision of global capital and constitutes a basis for private investment. This critique has two parts: one that appeals to the entrepreneurial and neoliberal genealogy, and another that focuses on its rhetoric as a utopian perspective of the construction of the city.

Regarding the entrepreneurial dimension of the critique, the SC concept has evolved considerably since its initial discussion in the mid-1990s (Wang, 2017), being adopted by IBM in 2009 (Wang, 2017; Wiig, 2015; Söderström et al., 2014) and eventually taking the form of Smart Urbanism (Kong and Woods, 2018; Luque-Ayala and Marvin, 2015). The main driving force behind SC is the desire to increase the competitiveness of cities at a global or regional level, reinforcing global trends of capitalist restructuring that originated in the 1990s and positioned cities as command and control centres of accumulation (Brenner and Theodore, 2005). These trends emphasise management and governance of the urban and generate social and economic tensions (Smitha, 2017) that are closely linked to neoliberal urbanism and the Entrepreneurial State (Datta, 2016). The latter notion refers to the role of the State in economic success based on investment in innovation, technology and the birth stages of private enterprises (Mazzucato, 2013). The entrepreneurial orientation of SC is expressed through strong links between corporate policies and interests formed through entrepreneurial governance strategies designed to increase business opportunities (Goldman, 2011; Hollands, 2008; Söderström et al., 2014).

The second dimension of the neoliberal critique of the SC approach focuses on the notion that SC propels outdated cities towards innovation and development, building on a transformation-based utopia similar to the urban utopias of the 19th and 20th centuries, currently promoted by corporations in their efforts to create new markets (Marvin et al., 2016). In contrast to the classic modern utopian image described by Hall (2014), contemporary Smart Urbanism does not make reference to the performative strength implied by modernist planning ideals, presenting instead a concrete utopia involving neoliberal values (Grossi and Pianezzi, 2017; Townsend, 2013; Vanolo, 2014) achieved by means of a type of

urbanism that takes shape within a 'technoutopian discursive construct [that] promotes neoliberal rationalities and specific private interests' (Marvin et al., 2016: 5).

Wiig (2015) explains that the SC discourse may serve as a distraction from structural or complex urban problems, an effect referred to in the present article as an urban placebo. It constitutes a narrative of modern, sustainable and technologically advanced urban planning in the form of specific material interventions, when in reality the phenomenon involves very little that is modern, sustainable or technological, and is in fact a mere continuation and evolution of the neoliberal urban model that exists in Chile. We shall discuss this model further in the next section.

The implementation of the Smart City in Chile

Private companies and policymakers operating within cities in the Global South have openly embraced the SC model. This is in spite of the criticisms described above and the often basic nature of projects intended to improve and encourage innovation in aspects of urban management, such as transportation, waste disposal, public space and systems for gathering and processing data.

In Latin America, the idea of the SC has been attractive to small, medium and large metropolises, based mostly on the alluring possibility of improving urban management through the technologisation of the city, without the need to involve many actors. A prominent ongoing initiative is the implementation of e-government as a means of informing citizens of public initiatives and eventually minimising in-person administrative procedures (Patiño, 2014). Over the years, the need for collaboration has become increasingly apparent (Tironi and Muñoz, 2016). However, execution of SC interventions also requires coordination, funding

and a situating of its implementation. This has been the case in Buzios (Brazil), which has recognised the need to coordinate the various sectors involved (Batista and Fribiuk, 2017), or the internationally recognised Medellin (Colombia) project based on technological but primarily social innovation (Freedman, 2019).

In the field of urban studies, theoretical research concerning SC implementation in Latin America has been limited, but has increased over the years due mainly to the contribution of the policy mobility approach, which studies the circulation of models and ideas using a variety of activities, including conferences, awards, rankings and fora. However, the recent emergence of the SC model within the region has not been free from criticism. Firstly, from a critical perspective, Contreras (2016) claims that these SC activities are part of a contemporary techno-scientific narrative present in the region and led by global technology corporations that offer the use of big data to solve problems of governance, whilst depoliticising urban life as a means of rendering the city free from conflict.

Secondly, Parada (2017) highlights the difficulties of applying 'Smartness' to Latin American cities in the context of inadequate institutional matrices, precarious local democracies and corruption. The limited capacity of the concept to deal with problems derived from inequality and social exclusion also calls into question the claimed improvements to quality of life and access to services, which in reality are orientated primarily towards high-income citizens.

A third critique is that the materialisation of the SC as a technological urban utopia requires highly specialised knowledge and complex interventions which must stem from or be led by large technology companies. Furthermore, the utopian concept of sustainable or competitive cities is currently positioned as a dominant and even

obligatory trend (Duque, 2016; Parada, 2017). A fourth critique maintains that, in the SC era, what tends to be important is that which 'appears' Smart rather than what 'is' Smart, and this can be seen in the majority of SC promotional and marketing mechanisms. Linked to the previous point, a final critique is that the SC concept is part of the policy mobility circuit in which cities present themselves as points of interest on a worldwide tour (Duque, 2016), and SC advocates function as mere 'tourists' along the 'SC trail'.

In the case of Chile, the city of Santiago has embraced the SC trend in the context of a local urban debate that has traditionally been dominated by two broad themes: transport (Olavarría, 2013; Ureta, 2014; Yáñez et al., 2010) and housing (Imilan et al., 2016). SC implementation in Santiago is generally disassociated from local debates on urban issues. Perhaps the most salient characteristic of Santiago's SC trend when compared to other cities around the world is its limited scope, essentially as a result of high levels of inequality and precarious citywide infrastructure and material conditions.

Thus, the SC model in Santiago has two main focuses: increased use of new information and communications technologies (ICT), and the constant training and specialisation of human resources that leads to the emergence of a new type of worker that we call the 'urban cognitarian' (defined below).

As to the first focus, over the past few years there has been a progressive increase in access to ICT in Chile. In 2017, 89.1% of households had some form of access to the internet (SUBTEL, 2017), enabling widespread participation in social networks. However, limited educational opportunities have made it difficult to fulfil the political potential of these technologies for urban management. The use of digital technologies in urban management requires a significant level of trust on the part of inhabitants

before it can be incorporated into collaborative and creative processes.

The second focus is the emergence of diverse organisations that encapsulate both private enterprises and citizens who seek to influence and participate in the implementation of urban projects (Lange et al., 2017). They represent a 'new urban cognitarian'knowledge workers characterised by their labour flexibility and precarity (Berardi, 2017; Sequera, 2017). Represented by private foundations, NGOs and professional collectives, the new urban cognitarians operate with differing levels of formality and institutionalisation, developing proposals and actions that have been externalised by the State. For the most part young, highly trained individuals with degrees from foreign universities, the new urban cognitarians are usually employed in creative areas of urban planning, design, intervention and urban activism.

The two focuses primarily constitute highly localised, low-cost and temporary interventions in public spaces involving some degree of technology and/or collaboration. Most initiatives are related to mobility, risk and disaster prevention, waste disposal, recycling and reuse and security/safety issues, generally with some sort of technological component. Over the years, the most widereaching Smart interventions have involved the installation of sensors, including security cameras and Smart lighting systems, in higher-income areas where there is a greater concentration of infrastructure.

The idea behind these urban interventions is to 'activate' other processes along the way. Such initiatives do succeed in mobilising multiple actors and spaces, and new opportunities often arise. However, interventions are not materially permanent, nor are they intended to be. Their recent popularity is essentially due to their ease of implementation, temporary presence, location and political attractiveness. Temporary initiatives

(mostly based on tactical urbanism; see Lydon and Garcia, 2015) presented as Smart projects in Santiago are the authorities' way of creatively promoting smartness in a space of scarcity by means of low-budget action, global aesthetics and high public impact that contribute to the construction of a local Smart narrative that we consider to be an urban placebo. Through collaborative methods and temporary/simple/visible initiatives, the urban cognitarian is a major partner in Santiago's SC model.

The trends described not only help us to understand the installation of the SC model in Chile and its connection to the worlding SC discussion; they also serve to explain the high-profile status of interventions considered Smart in Chile – although which perhaps would not be regarded as such elsewhere – such as Paseo Bandera.

Based on this discussion, we suggest that SC interventions, along with city marketing and publicity aimed at global audiences, may in fact constitute an *urban placebo*— a means of disguising a broader intention or simply presenting a very basic intervention as more than it effectively is, namely a colourful urban intervention. We argue that this *urban placebo* works through fictions of effective interventions and urban image improvement that seek participation in worlding practices (Roy and Ong, 2011) whilst, in reality, very little is being improved or effectively addressed in the city.

Methods: Observing the Smart City concept in Santiago

As part of a broader research project, during 2018 and 2019, a research team of 10 anthropologists, geographers, sociologists and urbanists adopted an ethnographic approach to observe the implementation and local public perception of four urban interventions in Santiago de Chile (neighbourhood renewal, public transport system, cultural

centres and SC interventions).² In order to gain experience of the SC urban intervention model as it is applied in Chile, two methodologies were used. The first involved participation in and attendance of various SC events, meetings and seminars, and the second entailed onsite observation of different SC interventions, including Paseo Bandera.

For the first, four members of the research team participated in over a dozen major SC events held in Santiago over the course of two years, as well as various SC meetings with public authorities.³ The majority of attendees were representatives of public and private companies and foundations, local and regional government officials and academics. Interviews were held with public and private actors responsible for implementation of interventions.⁴ Based on careful observation of the discourse that circulated during these interviews and meetings, the team identified and analysed the way in which key concepts were referred to, as well as the messages that each was intended to convey. The main concepts identified at each meeting were documented and tabulated during monthly team meetings, and descriptions of the ways in which the notion of SC is referenced by practitioners in Santiago allowed the team to identify those most commonly used. Some of these concepts and terms have only recently found their way into the local urban planning vernacular, and include innovation, collaboration, ecosystem, business opportunity, citizen/ user/client, enabling infrastructures, sensitisation and big data. They also include new verbs, anglicisms, nouns and other references to forms of urban intervention. This analysis became the basis for the definition of the four fictions that are developed later in the present article.

The second methodology involved three ethnographers who observed various intervention examples and participated in associated initiatives and SC events. Four different

sites were observed over a period of two years, and the team monitored practices and use of specific SC interventions, including bicycle sharing systems, neighbourhood smart lighting and security cameras, 'pocketsquares'5 and Paseo Bandera. Ethnographic methods included formal and informal interviews with and participant observation of daily passers-by, including around their use of the 'Smart' systems implemented. Observations were recorded in fieldnotes, which were then complemented with broader data concerning the material interventions themselves. Paseo Bandera was selected based on its strong promotion by the local authorities as an SC intervention. Observation included weekly visits to the site, informal interviews with users, photography, interviews with those in charge of the intervention and monitoring of the project's social media presence (#PaseoBandera on Instagram, in particular) over the twoyear period. These observations enabled the team to closely document the intervention, discern its reception by its various users and compare the way in which Paseo Bandera as an SC project contrasts with the broader ideas of SC being discussed in Santiago.

As stated by the United Nations (2016) in the context of the Habitat III Conference. public spaces constitute a fundamental component in the construction of SCs, provided that their high-quality design sustains the local economy, connectivity, culture, creativity and future urban projects. There follows an account of Paseo Peatonal Bandera (Bandera Pedestrian Streetway), a material public space intervention portrayed by local authorities as part of the SC model being implemented across Santiago. The initiative has generated increasing national and international interest and has become fairly representative of the potential future of SC interventions in Santiago. As an SC strategy, it differs from what might be considered Smart in Zurich, Copenhagen or Bilbao, cities which have led the way with large-scale infrastructure and technology implementation. However, as argued here, despite its limited size and scope, it allows us to observe the way in which SC ideas are provincialised, and provides an illustration of what is considered Smart in cities in the Global South.

Paseo Bandera as a placebo urban intervention

International notions of SC tend to focus on smart buildings, infrastructure, mobility, healthcare, energy, governance and citizens, and for the most part involve innovation and technology. Whilst Paseo Peatonal Bandera may not be seen as Smart by comparison, in Santiago the project is branded as such, featuring prominently at local SC events.

Paseo Bandera is a street located within the historic centre of Santiago close to political and urban landmarks including government offices and numerous other buildings of cultural and commercial significance (see Figure 1). It was initially conceived as a temporary, low-budget initiative for the revitalisation of an abandoned space and involved the installation of transitory urban furniture and equipment. The project brings together public actors (the Ministry of Transport, Regional Government and the Municipality of Santiago); public resources (mainly land); urban designers as tactical urbanists; private actors (large multinationals and small commercial businesses) as activators; and citizens who, although beneficiaries of the scheme, are not involved in its management.

The intervention, an example of tactical urbanism, was launched on 20 December 2017 and consists of a 343-metre-long pedestrian route through a high-traffic area of downtown Santiago, covering a total area of 3300 m². The street had been closed to vehicles in 2013 during construction works for a nearby Metro station, and parts of the

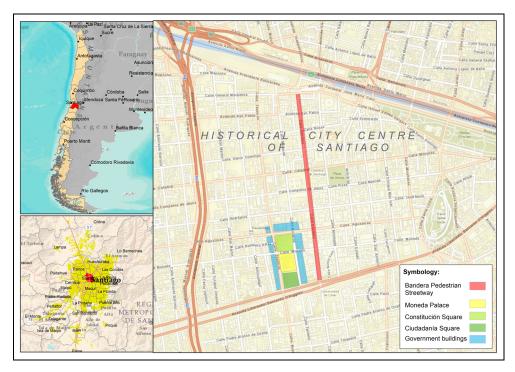


Figure 1. Santiago historic centre.

thoroughfare served as a car park for four years prior to its transformation into a pedestrian zone.

The initiative was led by the Municipality of Santiago and designed by Estudio Victoria, an architecture, art and design studio specialising in public space interventions. The project was sponsored by Banco Santander and Carlsberg, who financed different sections of the route. The Street is divided into three sections, each with a theme defined by the municipality. The first section, between Moneda and Agustinas streets, was conceived as a Social Connection Space and financed by Banco Santander. The section provides a meeting point for people, hence the availability of street furniture including benches, high tables and plant stands. A branch of Banco Santander's 'Work Café'- a model developed in Chile -

is also located on this section of the street, offering a co-working space for use by customers of Santander and other banks, and promoting the remote workspace concept.

The second section of the pedestrian thoroughfare is between Agustinas and Huérfanos streets and was conceived as an artistic space inspired by sustainability. It was financed by Carlsberg and contains plant stands, bicycle parks and a nine-metre-high sustainable artistic structure that is illuminated at night using photovoltaic energy. The section seeks to promote natural energy resources and environmental awareness.

The third section runs between Huérfanos and Compañía streets and is currently still in development. The section lies adjacent to the Pre-Columbian Art Museum and the theme is national heritage, featuring artistic installations and benches for pedestrians.

Along the complete length of the intervention, colourful paint has been used to decorate the street surface, creating what has been called a 'floor mural', and on top of this, different sets of street furniture have been installed in each section. The convergence between architecture and design that characterises the space produces a geometric texture that orientates the movement and permanence of its users, be they shoppers, tourists, workers or other pedestrians. The space has become highly valued by the Municipality of Santiago and a model of reference for other public actors seeking to promote and implement a new type pedestrian zone.

Paseo Bandera has achieved considerable media success. It was awarded the 'Premio de la Ciudad 2018' (City Award) for its contribution to a more kind and just city. It has also been highly visible on social media and received significant public attention from locals and tourists alike, who post innumerable images and stories on platforms such as Instagram (see #PaseoBandera) and Facebook (see *National Geographic* review: Bernhardson, 2018).

Following the success of Paseo Bandera, the Ministry of Transport and the Municipality of Santiago jointly decided to keep the street closed to traffic and to extend the permanent pedestrian zone by two blocks. The extension adds a 4000m² 'floor mural' and 3000m² of wall paintings, hosts temporary markets and exhibitions and has a food truck section.

Paseo Bandera has become an icon of SC intervention in Santiago. In June 2018, the Municipality of Santiago and the Chilean Economic Development Agency's (CORFO) Smart Cities Programme (SE Santiago) launched the 'Smart Cities Digital Laboratory', a 'multipurpose network for the Internet of Things that captures and manages data in order to develop applications such as Smart parking, environmental

monitoring, automatic watering of green spaces, safety applications, people counters, etc' (Rehbein, 2018; translation ours).

The Laboratory operates four interactive information points (provided by TOMI⁶) along Paseo Bandera, allowing users to access useful information such as street addresses, a monthly local activity agenda, points of interest within the Metropolitan Region and transport options to various points around the city. These information points also employ QR codes to enable users to take photographs of themselves with Paseo Bandera in the background.

The information points are complemented by a network of streetlight-mounted sensors, which gather information to support decision-making by both local authorities and urban dwellers. The sensors provide remote data upon which to base the operation of public lighting, including switching lights on and off, regulating brightness and monitoring energy consumption. Smart parking systems can also be found around the city, using sensors and LEDs to indicate parking space availability.

According to SE Santiago's website, 'a Smart City is one that places people at the centre of development, incorporating technology into urban management'. This message positions Paseo Bandera as a Smart City initiative (see sesantiago.cl). It has featured in a variety of media publications, institutional websites and urban marketing events (Figure 2), and its relevance stems directly from the fact that it is a pedestrianonly public space. The message is clear: the position of people is of greater importance than that of technological innovation within the SC model.

According to the SC narrative, these new information and communication technologies promote citizen empowerment, actively involving people in the construction of an ecosystem of innovation that features new, safe, inclusive and accessible public spaces,

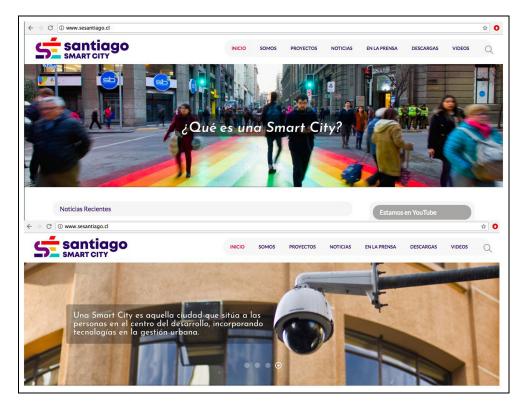


Figure 2. SE Santiago website. (See: http://www.sesantiago.cl)

and positioning citizens as protagonists in efforts to improve the equity and quality of urban life.

Situating the Smart City: Provincialising central and peripheral urban theory

In the present article, we offer an ethnographic interpretation of the narrative surrounding Paseo Bandera as a set of fictions in the sense proposed by Geertz (1977); that is, as an exercise on the part of a group of actors to justify narratives concerning their own practices. Based on our methodology of attending meetings, events, seminars and workshops, reviewing promotional material relating to Paseo Bandera and Smart City

(SC) in general and analysing the narratives that emerge from each of these, we succeeded in identifying the main ideas or principles that, from an urban planning point of view, are presented as crucial to SC interventions. In the case of Paseo Bandera, four principles were identified as guiding the intervention and its potential: democratisation of the city, spatial appropriation by citizens, social and technological innovation and local and territorialised interventions.

The democratisation fiction involves the belief that social participation in the construction of public space will lead to greater democracy. The citizen appropriation fiction seeks to make urban dwellers believe that social capital and sense of place can be strengthened through the initiatives implemented. The technological and social

innovation fiction promotes creativity or risk-taking through technological innovation and adaptation. The local and territorialised intervention fiction involves recognition of a local context that responds to local territorial needs.

Paseo Bandera's positioning as the new Smart face of Santiago is revealed to be no more than a placebo based on the four observed fictions that feature strongly in the SC narrative. First, the narrative appears to involve a *democratisation fiction* that supposes the participation of citizens in the creation of these public spaces. This is not the case in reality; neither the original ideas nor the design and implementation of such initiatives have been achieved through open and flexible citizen participation, and opportunities for collaboration and co-creation on the part of local inhabitants have been non-existent.

Despite Paseo Bandera's apparent orientation towards a diversity of urban dwellers, uses and social practices, local tenants and regular users of the space express a lack of knowledge regarding the processing and use of the data generated. In the early hours, office workers and commercial staff pass along and across the streetway on their way from Metro stations and bus stops towards their places of work. Throughout the day, flows of pedestrians can be seen moving between public buildings, financial institutions and a multiplicity of other workplaces. Shoppers, couriers and people going about their everyday business pass informal street vendors and goods delivery personnel pushing laden carts, as cyclists cut their way through the crowds to avoid the traffic. In this sense, the lack of participative design and useful data production in Paseo Bandera has failed to take advantage of the information already available regarding existing flows and interactions between these various groups – information which could

usefully be applied to consolidate situated urban intelligence.

A second fiction of the SC narrative is that of *citizen appropriation*, an effect which supposedly strengthens the social capital of urban inhabitants and provides them with a sense of place within these new spaces. In reality, such interventions give rise instead to appropriation relating to the consumption of goods, services and advertising supplied by companies of all sizes. The advertising put in place by Banco Santander and Carlsberg yields minimal revenue that finances upkeep of the intervention. The possibility of placemaking thus rests on alternative, often subversive uses of such spaces.

Examples of these alternative uses can be seen in the children who play on the urban furniture and the office workers who descend from their buildings and relax during their cigarette breaks. The street furniture also serves as an assembly point for tour groups whose guides lead visits to nearby attractions - whilst they wait, the tourists pose for selfies with Paseo Bandera in the background. However, it is unclear how the ephemeral nature of such instances can serve to generate data on the use of such spaces or strengthen social capital among urban dwellers. Instead, the space is used circumstantially for brand advertising, cultural exhibitions or the installation of municipal services stands, all of which respond to conjectural aims.

A third fiction is that of the technological and social innovation that supposedly takes place in association with the initiative. In reality, initiatives or procedures that embrace collaboration and co-creation in the design, implementation or development of the initiative simply do not exist, and as such there are no opportunities for creativity or risk-taking on the part of citizens. Moreover, there is limited evidence of creativity and innovation in the incorporation of technology, which is applied to nothing

more than automated lighting and interactive information points.

The information totems are a good illustration. They generate considerable interest and enthusiasm among tourists who wander Paseo Bandera, who often approach them in order to explore the services they offer. The sight of groups of tourists taking pictures of themselves with Paseo Bandera in the background is commonplace (see for example #PaseoBandera on Instagram).

However, the totems are of little interest to local people, for whom Paseo Bandera is simply part of their everyday lives. They walk past the totems paying no attention to them, making their services invisible and transforming them into ordinary urban furniture. Some people consider the totems as intended only for tourists, as they do not offer information relevant to their daily activities. Furthermore, they are unaware that these artefacts, along with the recently installed luminaires, collect potentially useful data.

Lastly, the notion of *local and territoria-lised intervention* is also proven to be a fiction, as the initiative has become a replicable model that may be extrapolated to anywhere. It denies the possibility of broader learning and adaptation processes to do with the particular nature of the context in which the project is implemented and, as such, the learning and adaptive processes developed by inhabitants of Paseo Bandera are reproduced in their practices, strategies and informal knowledges, which are neither visualised nor acknowledged by the authorities.

It is interesting to observe, for example, the way in which informal sellers adapt their products and selling strategies to the constant flux of pedestrians, or how cyclists adapt the urban furniture for bicycle parking whilst office workers use it as meeting points to smoke and chat. However, the design of infrastructure along Paseo Bandera demonstrates minimal adaptation to these uses and

practices, and produces limited data and information concerning the development of new patterns in the use of these pedestrian public spaces.

As a corollary, since 18 October 2019, Chile has experienced profound social unrest through which the population has been calling for greater justice, equality and dignity. These demands have been expressed mainly in the form of street protests and demonstrations, and there has been a critical questioning of the neoliberal model that has prevailed in Chile since the mid-1970s. Street protests have led to serious deterioration of Paseo Bandera, resulting in the closure of one section where debris from the demonstrations has collected. Floor and wall murals have been covered with graffiti and propaganda, and the pedestrian presence has become very limited. The rest of Paseo Bandera has been opened to traffic during certain hours of the day. This has greatly affected people's use of street furniture, and the totems no longer function. The floor murals have deteriorated, and the street looks generally unkempt, strewn with rubbish and broken glass. Moreover, areas adjacent to the streetway became major focuses of the demonstrations. which included the appearance of a campsite set up by various social movements. However, Paseo Bandera itself was not adopted as a democratic space. This situation leads us to question the degree of care and appropriation that dwellers exercise towards spaces like these. The level of maintenance afforded to Paseo Bandera contrasts with that of other pedestrian zones in downtown Santiago, which, despite similar proximity to daily protests, have been taken care of to the same degree as always, becoming major identity hubs for contemporary urban dwellers.

This additional point can be included alongside the four fictions mentioned previously, as it drives us to question the

relevance of temporary interventions applied under the guise of an SC strategy to recuperate public spaces. Independently of its potential to provide and manage data, it is evident that this intervention neither considers existing situated urban knowledge nor generates new knowledge that could ensure its sustainability over time. Unless urban interventions are appropriately situated and the diversity of existing knowledge is recognised and incorporated into the dialogue, their future as sustainable, democratic, participative, technologically advanced initiatives is finite.

In summary, these four fictions work together to create a placebo effect focused on the recuperation of public spaces for urban communities. This placebo effect both distracts attention away from other initiatives and makes the intervention appear smarter – and more positive in terms of democracy, sustainability and participation – than it really is. In reality, this supposedly futuristic intervention is little more than a colourful painting on the ground with no potential to bring about meaningful solutions to the more divisive issues, such as that of inequality.

The notion of situated urbanism importantly implies recognition of the fact that knowledges are situated. As such, they are necessarily multiple, incomplete and strongly attached to place, and no single knowledge can be considered more expert than others. This epistemic change in urban theory promotes recognition of the urban knowledge production that is taking place, particularly in the Global South, and helps to rethink the social production of cities and the meaning of democracy, a particularly important part of which is ascribing greater significance to everyday life and social practices. Hence, situated urbanism aims to explore the way in which urban phenomena and interventions are experienced and perceived by the inhabitants themselves, and to use these accounts to challenge the core or monist ideas that often lie at the heart of the urban interventions that people ultimately experience and appropriate (or not). This applies not only to peripheral contexts, but also to those from which monist or core models originate.

Conclusion

In the present article, we argue that some of the SC interventions executed in Santiago are intended to have a placebo effect. Whilst some SC interventions are portrayed as addressing key social problems, such as inequality, along with their most visible urban expressions, such as socio-economic segregation, crime or perceived crime and urban decay, they are not in fact intended to solve these problems in any way. Rather, they seek to alleviate the perception of symptoms on the part of urban inhabitants by emulating the effects of a 'world-class city' narrative through reproduction of the aesthetics associated with global SC narratives at a local level.

In this sense, the SC model is a relevant focus of attention within the broader context of the issues at stake in the urban planning process in Chile, and in Santiago in particular. From the perspective of provincialisation, the SC narrative in Santiago proposes to redefine concepts such as democratisation of public space, participation, sustainability or technological intelligence and to assimilate them into new opportunities for public private investment, thus extending further the pattern of urban privatisation and entrepreneurialism that has shaped neoliberal urban planning over the past four decades. The SC narrative is both exciting and effective, as it deflects attention away from the perpetuation and pervasiveness of the neoliberal urban planning model in Chile. It is also deceitful, presenting its fictions as tangible possibilities when, in reality, the interventions are temporary, precarious and do nothing to address existing problems that

require urgent attention. As such, the SC concept as applied in Chile is no more than a placebo within urban planning.

The positivity of SC ideals - collaboration, creativity and sustainability - cannot be denied. Cities must strive to integrate all of these features and provide the best possible quality of life for their residents, and the arguments put forward in the present article should not be interpreted as a denial of the benefits that can be achieved through improvement of our cities. However, the way in which we situate urban interventions is central to this discussion and to the provincialising and worlding debate. There is no doubt that we can learn from what is happening around the world, and many examples of policy transfer and policy mobility have not only been beneficial but have contributed to richness in urban theory.

The issue here is not the acknowledgement of the learning possibilities provided by international urban trends; rather, and more specifically, it is the need to understand the knowledges that emerge from within the places where the interventions are made. Perhaps, rather than concentrating on the 'Smartness' or 'intelligence' of these trends, serious focus should be placed on situating policies and interventions, and on understanding local needs and expectations, articulating existing know-how and seeking creative ways in which local knowledge can help to improve urban living.

The nature of SC assemblages perpetuates existing power relations and gives new meaning to principles that resonate with urban inhabitants, such as sustainability, democracy and participation; however, these principles continue to be articulated from positions of power and through dominant forms of urban knowledge creation. Other forms of knowledge, including those held by the very people affected by SC interventions, are disregarded, particularly those of local

informal workers, communities and public servants. In order to bring about real change, the mask must be pulled away from what is, underneath, only a continuation of neoliberal urbanism and of dominant hegemonic forms of city-making in Chile, thus paving the way for existing knowledges to produce new forms of urbanism.

The lens of provincialisation contributes to this analysis, as it involves recognition of the importance of local experiences in the way that urban interventions are implemented. The SC model, as it has been applied in Santiago, constitutes no more than an urban placebo as a result of failure to understand the particular characteristics of the city and its residents. Dealing with this challenge must involve a profound questioning of the principles of accumulation and competition within neoliberal urbanism, as these restrict the socialisation of experiences and knowledges among different actors. The validity of expert knowledge on the part of public and private actors should also be called into question, and greater attention must be paid to the knowledge held by urban citizens based on their daily experiences. A major part of the challenge is this move towards a situated form of urbanism.

The aim of situated urbanism (Jirón, 2019) is to understand the complex ways in which knowledges are lived on a daily basis, and how these interact with and mediate diverse other forms of knowledge. The notion of dwelling is conceptually relevant to this process, not just in order to optimise interventions but, above all, because situated knowledges are dwelled-in knowledges. This means that daily living is inextricably linked to territories of being and thinking, hence any urban intervention that ignores or is unaware of these knowledges raises questions concerning the political interests behind them. The aim is not to romanticise the local scale (Katz, 2001); rather, it is

hoped that the various knowledges that emerge may together serve to explain the reiterative ways in which urban interventions undermine situated dwelling knowledges and the consequences for specific territories. Above all, and on a broader level, *situated urbanism* seeks to explain the ways in which multiple knowledges are repeatedly discarded by the various forms of intervention seen today.

A situated approach to urbanism aims to establish ongoing dialogues between various knowledges present within urban thought in order to critically discuss urban theory in Latin America with its colonised, patriarchal and poorly situated modes of territorial theorisation and intervention. Provincialisation of urban models, as demonstrated by the SC model in Santiago, Chile, is a means of achieving this.

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Notes

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- . These events have included: De Smart Cities a Smart Citizens, 2nd Congreso Internacional de Gobiernos Locales y Ciudades Inteligentes, Congreso América Digital, 6th Summit País Digital, Do! Smart City, Salón de Urbanismo Táctico / Ciudades Compartidas, Transport Hackaton Meetup 1 & 2, Simposio Tendencias Digitales: Ciudades e Industrias 4.0, LatAm IoT & Tech Forum, Reenfoque Urbano: De la Ciudad al Ciudadano, Lanzamiento Programa SSAF Desafío, Industria y Ciudad Inteligente, Conversatorio Plazas Públicas de Bolsillo and SE Santiago Board Meetings.
- Specific research was conducted on the architectural uses of colour in Paseo Bandera (see Perez, 2018), and included interviews with the designers, the public servants in charge of the project and other participants.
- A temporary tactical intervention involving empty plots of urban land which, with minimal investment, are transformed into highly utilised public spaces.
- TOMI is an interactive urban communication and technology solution providing up-to-date, accessible information. The private company behind the solution is TOMI World, present in Chile, the UK, China and Brazil.

References

Angelidou M (2015) Smart cities: A conjuncture of four forces. *Cities* 47: 95–106.

Anthopoulos L (2017) Smart utopia vs smart reality: Learning by experience from 10 smart city cases. *Cities* 63: 128–148.

Anthopoulos L and Reddick C (2015) Understanding electronic government research and smart city. *Information Polity* 21(1): 99–117.

Batista M and Fribiuk T (2017) Mechanisms of the smart city: A case study of smart city Buzios, Brazil. *plaNext - Next Generation Planning* 4: 27–40.

Berardi F (2017) Fenomenologías del Fin. Buenos Aires: Caja Negra.

Bernhardson W (2018) Smart Cities: Santiago, Chile. *National Geographic*, 15 March. Available at: https://www.nationalgeographic.com/

travel/features/smart-cities/santiago-chile/ (accessed 27 January 2019).

- Bouskela M, Casseb M, Bassi S, et al. (2016) La ruta hacia las smart cities: Migrando de una gestión tradicional a la ciudad inteligente. Banco Interamericano de Desarrollo (BID). Available at: https://publications.iadb.org/publications/spanish/document/La-ruta-hacia-las-smart-cities-Migrando-de-una-gesti%C3%B3n-tradicional-a-la-ciudad-inteligente.pdf (accessed 30 March 2020).
- Brenner N and Theodore N (2005) Neoliberalism and the urban condition. *City* 9(1): 101–107.
- Cai Z, Cvetkovic V and Page J (2020) How does ICT expansion drive 'Smart' urban growth? A case study of Nanjing, China. *Urban Planning* 5(1): 129–139.
- Chakrabarty A (2019) Smart mischief: An attempt to demystify the Smart Cities craze in India. *Environment and Urbanization* 31(1): 193–208.
- Chen M (2016) Technology, informal workers and cities: Insights from Ahmedabad (India), Durban (South Africa) and Lima (Peru). Environment and Urbanization 28(2): 405–422.
- Cohen B (2015) *The 3 Generations of Smart Cities*. Available at: http://www.fastcoexist.com/3047795/the-3-generationsof-smart-cities (accessed 30 March 2020).
- Datta A (2016) The smart entrepreneurial city: Dholera and other 100 utopias in India. In: Marvin S, Luque-Ayala A and McFarlane C (eds) *Smart Urbanism: Utopian Vision or False Dawn?* London: Routledge, pp. 51–70.
- Duque I (2016) Políticas urbanas en Movimiento: Bogotá y Medellín en la era de las Smart Cities. In: XIV Coloquio Internacional de Geocrítica: Las utopías y la construcción de la sociedad del futuro. Barcelona, Spain, 2–7 May.
- Escandón CHC (2016) Hacia una nueva epistemología de la teoría urbana y arquitectónica. *Estoa* 5(9): 91–97.
- Escobar A (2017) Autonomía y Diseño: La Realización de lo Comunal. Buenos Aires: Tinta Limón.
- Flórez DA (2016) International Case Studies of Smart Cities. Discussion Paper IDB-DP-443. Medellin, Colombia Institutions for Development Sector, Fiscal and Municipal Management Division, Inter-American Development Bank.

- Freedman D (2019) How Medellín, Colombia, became the world's smartest city. *Newsweek Magazine*, 18 November. Available at: https://www.newsweek.com/2019/11/22/medellin-colombia-worlds-smartest-city-1471521.html (accessed 30 March 2020).
- Geertz C (1977) The Interpretation of Cultures. New York: Basic Books.
- Goldman M (2011) Speculative urbanism and the making of the next world city. *International Journal of Urban and Regional Research* 35(3): 555–581.
- Grossi G and Pianezzi D (2017) Smart cities: Utopia or neoliberal ideology? *Cities* 69: 79–85.
- Hall P (2014) Cities of Tomorrow: An Intellectual History of Urban Planning and Design since 1880. 4th edn. Chichester: Blackwell Publishing Ltd.
- Haraway D (1989) Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies* 14(3): 575–599.
- Hayat P (2016) Smart cities: A global perspective. *India Quarterly* 72(2): 177–191.
- Hollands RG (2008) Will the real smart city please stand up? *City* 12(3): 303–320.
- Imilan W, Olivera P and Beswick J (2016) Acceso a la vivienda en tiempos neoliberales: Un análisis comparativo de los efectos e impactos de la neoliberalización en las ciudades de Santiago, México y Londres. Revista INVI 31(88): 163–190.
- Jirón P (2019) Ignoring everyday dwelling in Santiago de Chile or how situated knowledges unveil the crisis in contemporary urbanism.
 Paper presented at: Encuentros con Donna Haraway: Enredando ecologías, conocimientos, parentescos, Bogota, Colombia, 8 August.
- Jirón P and Mansilla P (2014) Las consecuencias del urbanismo fragmentador en la vida cotidiana de habitantes de la ciudad de Santiago de Chile. *EURE* (*Santiago*) 40(121): 5–28.
- Katz C (2001) On the grounds of globalization: A topography for feminist political engagement. *Signs* 26(4): 1213–1234.
- Kong L and Woods O (2018) The ideological alignment of smart urbanism in Singapore: Critical reflections on a political paradox. *Urban Studies* 55(4): 679–701.

- Lange C, Larenas J and Rivas A (2017) Temas emergentes para la política pública urbanohabitacional en Chile. Report, Instituto de la Vivienda, Facultad de Arquitectura y Urbanismo, Universidad de Chile.
- Leitner H and Sheppard E (2016) Provincializing critical urban theory: Extending the ecosystem of possibilities. *International Journal of Urban and Regional Research* 40(1): 228–235.
- Luque-Ayala A and Marvin S (2015) Developing a critical understanding of smart urbanism? *Urban Studies* 52(12): 2105–2116.
- Lydon M and Garcia A (2015) *Tactical Urbanism*. Washington, DC: Island Press.
- Marvin S, Luque-Ayala A and McFarlane C (2016) Smart Urbanism: Utopian Vision or False Dawn? London: Routledge.
- Mazzucato M (2013) The Entrepreneurial State: Debunking Public vs. Private Sector Myths in Risk and Innovation. London: Anthem.
- Olavarría M (2013) De la formulación a la implementación del Transantiago: Análisis del proceso político de una política pública. *Gestión y política pública* 22(2): 355–400.
- Parada J (2017) Innovaciones sociales para territorios "inteligentes": ¿Ficción o realidad? *Problemas Del Desarrollo* 48(190): 11–35.
- Patiño J (2014) Datos abiertos y ciudades inteligentes en America Latina. Estudio de casos. Santiago de Chile: CEPAL, p. 52.
- Perez V (2018) La atmósfera cromática del entorno urbano. Una exploración al estudio de color en el espacio público en la intervención de Paseo Bandera. Research Seminar, Architecture Degree Programme, Faculty of Architecture and Urbanism, Universidad de Chile. Supervisor: Paola Jirón.
- Peris-Ortiz M, Bennett DR and Pérez-Bustamante D (2016) Sustainable Smart Cities: Creating Spaces for Technological, Social and Business Development. Berlin: Springer.
- Rehbein C (2018) Corfo y Municipalidad de Santiago lanzaron un 'laboratorio' para avanzar como ciudad inteligente. *Publimetro*, 15 June. Available at: https://www.publimetro.cl/cl/noticias/2018/06/15/inteligente-ciudad-santiago.html (accessed 27 October 2019).
- Robinson J (2016) Thinking cities through elsewhere: Comparative tactics for a more global

- urban study. *Progress in Human Geography* 40(1): 3–29.
- Rose G and Willis A (2019) Seeing the smart city on Twitter: Colour and the affective territories of becoming smart. *Environment and Planning* D: Society and Space 37(3): 411–427.
- Roy A (2011) Urbanisms, worlding practices and the theory of planning. *Planning Theory* 10(1): 6–15.
- Roy A (2016) What is urban about critical urban theory? *Urban Geography* 37(6): 810–823.
- Roy A and Ong A (2011) Worlding Cities: Asian Experiments and the Art of Being Global. London: Wiley-Blackwell.
- Sequera J (2017) Ante una nueva civilidad urbana: Capitalismo cognitivo, habitus y gentrificación. Revista Internacional de Sociología 75(1): 15–31.
- Smitha KC (2017) The Entrepreneurial Urbanism in India: The Politics of Spatial Restructuring and Local Contestation. Heidelberg: Springer.
- Söderström O, Paasche T and Klauser F (2014) Smart cities as corporate storytelling. *City* 18(3): 307–320.
- SUBTEL (2017) IX Encuesta Accessos y Usos de Internet. Subsecretaría de Telecomunicaciones. Available at: https://www.subtel.gob.cl/wp-content/uploads/2018/05/ppt_usos_-may2018.pdf (accessed 30 August 2018).
- Taylor Buck N and While A (2017) Competitive urbanism and the limits to smart city innovation: The UK future cities initiative. *Urban Studies* 54(2): 501–519.
- Tironi M and Muñoz D (2016) Situando la noción de Smart City en el contexto chileno: Circulación y usos de un concepto en devenir.
 In: Tironi M (ed.) Ciudades en beta: De las smartcities a los smartcitizens. Santiago: Pontificia Universidad Católica de Chile, pp. 38–44.
- Townsend A (2013) Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia. New York: Norton & Co.
- United Nations (2016) New Urban Agenda. Quito Declaration on Sustainable Cities and Human Settlements for All. UN-General Assembly Resolution A/RES/71/256. Available at: http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_71_256.pdf (accessed 30 March 2020).

Ureta S (2014) Normalizing Transantiago: On the challenges (and limits) of repairing infrastructures. *Social Studies of Science* 44(3): 368–392.

- Valdez A-M, Cook M and Potter S (2018) Roadmaps to utopia: Tales of the smart city. *Urban Studies* 55(15): 3385–3403.
- Vanolo A (2014) Smartmentality: The smart city as disciplinary strategy. *Urban Studies* 51(5): 883–898.
- Wang D (2017) Foucault and the smart city. *The Design Journal* 20(S1): S4378–S4386.
- Watson V (2015) The allure of 'smart city' rhetoric: India and Africa. *Dialogues in Human Geography* 5(1): 36–39.
- Wiig A (2015) IBM's smart city as techno-utopian policy mobility. *City* 19(2–3): 258–273.
- Yáñez MF, Mansilla P and Ortúzar JD (2010) The Santiago Panel: Measuring the effects of implementing Transantiago. *Transportation* 37(1): 125–149.