

The impact of technology in citizen engagement. An ongoing case study focused on parklets in Vienna.

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This research note presents ongoing research about the impact of technology in the construction of parklets in Vienna. Parklets are temporary interventions that allow people to bring both human and more than human elements to city, for example green areas or sitting places to work, read or eat in the city. The concept, originally created in San Francisco, has spread to different cities around the world as a strategy to address the lack of urban greenery and improve the quality of public spaces. Parklets work as experiments that demonstrate a better balance between humans and nature in the city in the long term. In line with such developments, Vienna has allowed the construction of parklets in many of the public parking places. This raises an important questions about which use of public spaces has a better impact for society: parking or parklets? This policy is being used as a case study to test the influence of technology in citizen participation and engagement. For this purpose an online toolbox called CityMaking!Wien was developed and launched in February 2018. To measure the impact of the tools three different methods are being used: an online survey, automated data collection and interviews.

Biography

Juan Carlos Carvajal Bermúdez is a PhD fellow at the Austrian Institute of Technology. His doctoral thesis focuses on new methods of citizen participation based on digital technologies. He has also interest decentralized models of creativity and tools for collaborative creation. His master thesis focused on art in public spaces and the participation of communities in the development of their environments.

His projects has been exhibited at the Ars Electronica festival in Austria, the Media Architecture biennale in Denmark and the Media Architecture summit in Beijing. In Vienna he participated in the design and installation of a media facade for the display of video art and interactive installations. With the project "Cicloscopio" he won a Jury-award in the Velo-city cycling visionary awards 2013. He was selected as finalist for the Paseo project (Zaragoza) competitions of 2012 and 2013.

Introduction

Spontaneous and informal interventions in public spaces have shown to be an effective and accessible tool for citizens willing to transform their streets and neighborhoods. Some terms coined to describe this trend are, for example, Tactical, Guerrilla, Pop-up or DIY urbanism^{1,2,3}. While many understand such interventions as a new form of citizen engagement, this tendency can be certainly framed together with the long tradition of citizen involvement established by groups such as Archigram and the Situationist International. Low budget and short term interventions offer citizens the opportunity to address problems created by planning policies that failed to take into account social, human and environmental aspects of urban development. Hence, temporary interventions do not only enable to circumvent bureaucratic hurdles, but can be seen as an exploration of urban paradigms that set human and more-than-human factors such as green areas as the main objectives of urban development. Additionally such constructions, even if provisional, set in place the underpinnings for long term transformations that harmonize the co-existence of humans and nature within the city.

The installation of temporary constructions also create spaces of social interchange and interaction at a local level that allow the inhabitants to recognize and experience the diversity of attitudes and beliefs that coexist in cities. Activating and engaging citizens into urban life is a key step to maintain social cohesion in the city and allow everyone to live in an environment that is respectful of their individual choices. The activation of social life that temporary interventions can trigger is very much in line with the idea of public suggested in *City-Making* by Gerald Frug:

"Two ingredients of a wider definition have already been mentioned: the idea of engagement in public life embodied in the notion of public freedom and the increase in the capacity to accommodate oneself to unfamiliar strangers that I have called community building. Another ingredient can be found in public parks and public streets: only in these kinds of public space do people come into contact with the diversity that characterizes our metropolitan areas in the ordinary course of daily life."⁴

This notion can be extended to accommodate more-than-human factors such as the generation of green areas in cities, and the use of public spaces for activities that benefit both humans and the environment. Parklets, for example, represent a way of transforming public spaces into small parks or sitting places for the neighborhood.

Instead of using public space as a parking lot, parklets let citizens transform their streets and make a use of public space that is friendly both with humans and their environment. The potential of such interventions has been recognized and seized by different cities. The city of San Francisco, for example, promotes the installation of Parklets through the initiative Pavement to parks. According to their website each Pavement to Parks project is a laboratory to test new ideas for public spaces. A study^{5,6} carried out by the city to monitor the impact of parklets showed an increase in pedestrian traffic. Similarly the city of New York allows citizens to create a Street Seat for working, reading, eating, etc. Again, research⁷ conducted by the Department of transport of NYC showed a positive reception of the project both by business and communities.

A recent publication¹³ conceptualized placemaking activities as a form of co-creation that allow citizens to participate in urban development by actually carrying out projects in the city. In this sense, parklets are a form of co-creation that allow citizens to create possible futures for the city that go beyond urban paradigms based on motorized mobility and bring more-than-human elements to the city. While there have been valid critiques⁸ regarding the use of parklets, the adoption and replication^{9,10,11,12} of this method in different cities, speaks volumes for its success as tool for the revitalization of communities, construction of green areas and ultimately support a shift towards sustainable urban development processes.

Parklets in Vienna

In line with the international developments, the city of Vienna has also allowed the construction of parklets in most of the city's parking places. The city wants to raise a fundamental question about the quality of public spaces and which use delivers more benefits for the society as a whole: parking or parklets? This debate earns more importance in a city where the high accessibility to public transport and also an expanding network of bicycle paths makes the ownership of a private car often unnecessary. Nevertheless a large amount of public space has been allocated to parking places. Due to this situation and also to the high population density in the inner districts, some zones show a notable deficiency of green areas.

This policy opens new opportunities for the citizens to create new green areas or sitting places in the city. Hence it is being used as a case study to research into the impact of web technologies in the engagement of citizens. The focus does not lie in community building but rather on barriers that are common to different participation processes such as technical skills, access to regulations or to the authorities. Here, web applications and geographical information systems play an important role as tools that facilitate the access to new understandings about public spaces.



Figure 1: Parklet in Vienna.

Concept: a potential map

The underpinning concept of the project combines open data, geo-information systems and a web application to observe the impact of such technologies in the engagement of the citizens. The key idea is that the increased accessibility of georeferenced and open data can be used to create new methods of citizen engagement and participation. Contrary to neogeography^{14,15}, the aim is not to map shared interests but to visualize through georeferenced data the opportunities of engagement offered by the city.

Thanks to the access to open data it is possible to gather and consolidate diverse sets of layers that should be considered when planning and installing a parklet. Such layers can be then rendered into a web-based map, that presents with simple graphical elements zones where a parklets can be build. The map, called a parklet potential map, contains information about parking spaces, load zones, bicycle parking racks, hydrants, reserved parking spaces, etc. Through the map citizens can spot places where they can potentially build a parklet, a step that generally would demand the manual collection of information coming from various sources. The parklet potential map presents citizens a rather different urban paradigm for the city: instead of showing public spaces as a large parking lot, it presents the city as a potential green area, i.e. a parklet. By enabling individuals to observe urban spaces with new lenses -such as those showing opportunities to create green areas in the city- citizens can be motivated to provoke new dynamics in their neighborhoods and start transformations in their own surroundings.

The potential map can be eventually extended with another layer, namely the social one, to trigger new dynamics in cities. This would facilitate the contact between persons with similar visions about their neighborhoods and facilitate collaborations. Individual agencies can be activated and joined together to turn them into collective action. Hence a potential map (technology) can significantly change the interactions between citizens (people) and their neighbourhoods (place)¹⁶.



Figure 2: Parklet potential map (section). Parking places are drawn in green, restrictions in red.

Methodology and data

The methodology of the experiment aims to observe the impact of different web tools in the engagement of the citizens. For this a toolbox for the conception, design and submission of parklets in Vienna was developed. The toolbox is called CityMaking!Wien and it includes four main tools described below.

- 1- Basic information regarding the construction of parklets. The basic information presents online the requirements and suggestions of the city of Vienna for the design and construction of parklet. Some of the restrictions are: the use of parklets for commercial activities is not allowed; the location of the parklet should be in the immediate surroundings of the responsible person; the maximal dimensions of the parklets are 10 meters or two parking places.
- 2- A parklet potential map that shows where would be possible to build a parklet, by showing in red the different restrictions that apply for the use of parking places. The map simplifies the understanding of the regulations and offers a new understanding about public spaces.
- 3- A design tool that facilitates the creation of the required drawings for the submission. The tool is very simple to use, yet it has considered many of the requirements regarding dimensions and security. People can also download the drawings and edit them according to their own visions.
- 4- An online submission tool that facilitates the contact with the authorities and the submission of the required documents to obtain a permit for the use of parking places.

CityMaking!Wien was launched in 2018 and it is being used to collect data regarding the impact of web applications in the level of engagement and participation of the citizens in the city. It has been promoted through social media channels and also through the local citizen organizations (geht-doch, Raumstation Wien, space and place) with interest in activities or interventions in public spaces. Three different data collection methods are being

used: online surveys, automated data collection and interviews. The automated data collection includes for example the location of the visits, the duration of the visit, the origin, the date and the pages visited. This data delivers a picture of the actual engagement of the people with the tools offered by the website. The second method being used is an online survey that can be answered on a voluntary basis. The survey asks about: the previous experience of the participant with interventions in public spaces; the social background (social capital) of the participant; the technical skills; and the perceived impact of the toolbox. Finally interviews with people from the citizen organizations involved will be conducted to get a detailed view of the people that are interested in building parklets and their perception of the CityMaking!Wien.

Implications

CityMaking!Wien should work as a catalyst for transformations in urban development. The toolbox offers an understanding of public spaces that is normally not accessible to citizens, enabling them to participate with short-term (but eventually also long-term) interventions in the city. The toolbox also shows that technology can be certainly shaped according to a paradigm of urban development that gives priority to human and more than human factors over mere functional and rational ones. While the discussion on the morals of technology is not within the scope of this text, the project presented shows that the right tools might help to activate and engage citizens in the development of human and environmentally sustainable cities.

In this context we should stress that technologies for cities can in turn educate and shape citizens according to a given paradigm of urban development. There is a fundamental difference between a map that represents the city as a potential parking place and a map that presents public spaces as potential green areas. The first can lead to more congestion and air pollution, while the other allows a better balance between humans and nature. By providing a different understanding about public spaces, a map can also support the shift towards paradigms of urban development that are not only human-centred but also give nature a central role in cities. We have to make a fundamental choice between providing applications that let us park a car, or applications that let us make a socially and environmentally friendly use of public spaces. This decision can inspire and shape the citizens of the future to transform their cities into spaces that accommodate both humans and more than human activities.

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References

- [1] Finn, D. (2014) DIY urbanism: implications for cities. *J. Urban. Int. Res. Placemaking Urban Sustain.* 7, 381–398.
- [2] Lydon, M., Garcia, A. & Duany, A. (2015) Tactical urbanism: short-term action for long-term change. Island Press.
- [3] Hou, J. (2010) *Insurgent public space: guerrilla urbanism and the remaking of contemporary cities.* Routledge.
- [4] Frug, G. E. (2001) *City making: building communities without building walls.* Princeton University Press.
- [5] Pratt, L. (2010) *Divisadero Trial Parklet Impact Report.* 19 San Francisco Great Streets Project.
- [6] Pratt, L. (2011) *Parklet Impact Study.* 16 San Francisco Great Streets Project.
- [7] New York City, D. of T. (2011) *Curbside Public Seating Platforms - 2011 Pilot Program Evaluation Report.* 16. Department of Transportation.
- [8] Littke, H. (2016) Revisiting the San Francisco parklets problematizing publicness, parks, and transferability. *Urban For. Urban Green.* 15, 165–173.
- [9] Lazarova, K., Helfenstein, B. S., Alcántara, S. & Dietz, R. (2018) *Parklets für Stuttgart - Ein Realexperiment.* (Städtebau Institut der Universität Stuttgart, Lehrstuhl Internationaler Städtebau).
- [10] Patton, Z. (2012) Parklets: The Next Big Tiny Idea in Urban Planning. *McClatchy - Tribune Business News; Washington.*
- [11] Saffron, I. (2011) Transforming parking spots to parklets: Philadelphia joins an urban trend. *McClatchy - Tribune Business News; Washington.*
- [12] Berg, N. (2010) From Parking to 'Parklets'. *Planning; Chicago* 76, Nr. 6.
- [13] Eggertsen Teder, M. Placemaking as Co-Creation – Professional Roles and Attitudes in Practice. *CoDesign*, 15. Mai 2018, 1–19. doi:10.1080/15710882.2018.1472284.
- [14] Turner, A. (2006) *Introduction to Neogeography.* Sebastopol, Calif.: O'Reilly. <http://public.eblib.com/choice/publicfullrecord.aspx?p=752625>
- [15] Lambio, C. & Lakes, T. (2017) Placing of photos on the internet: Critical analysis of biases on the depictions of France and Afghanistan on FLICKR. *Geoforum* 82, 21–25.
- [16] Foth, M., Choi, J. H. & Satchell, C. (2011) *Urban informatics.* in 1 (ACM Press). doi:10.1145/1958824.1958826