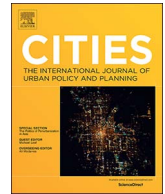




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## Living labs and vacancy in the neoliberal city

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### A B S T R A C T

This paper evaluates smart city (SC) initiatives in the context of re-using vacant property, focusing on the role of living labs (LL). LL utilise Lo-Fi technologies to foster local digital innovation and support community-focused civic hacking, running various kinds of workshops and engaging with local citizens to co-create digital interventions and apps aimed at ‘solving’ local issues. Five approaches to LL are outlined and discussed in relation to vacancy and gentrification: pop-up initiatives, university-led activities, community organised venues/activities, citizen sensing and crowdsourcing, and tech-led regeneration initiatives. Notwithstanding the potential for generating temporary and independent spaces for transferring digital competences and increasing citizens’ participation in the SC, we argue LL foster largely a form of participation framed within a model of civic stewardship for ‘smart citizens’. While presented as horizontal, open, and participative, LL and civic hacking are rooted often in pragmatic and paternalistic discourses and practices related to the production of a creative economy and a technocratic version of SC. As such, by encouraging a particular kind of re-use of vacant space, LLs are used actively to bolster the Smart City discourse, as part of the more general neoliberalization of urban political economy. We discuss these approaches and issues generally, drawing on previous fieldwork and with respect to a case study of Dublin, Ireland.

### 1. Introduction

*“Living Labs are defined as **user-centred**, open innovation ecosystems based on a systematic user co-creation approach integrating research and innovation processes in real life communities and settings. In practice, Living Labs **place the citizen at the centre of innovation**, and have thus shown the ability to better mould the opportunities offered by new ICT concepts and solutions to the specific needs and aspirations of local contexts, cultures, and creativity potentials.”*<sup>1</sup>

(European Network of Living Labs, ENOLL, our emphases).

The Living Lab (LL) concept is generally intended as a bottom-up approach to the smart city (SC), designed to increase citizens’ participation and involvement in ‘solving’ local issues. LLs utilise Lo-Fi technologies to foster local digital innovation and support community-focused civic hacking, running various kinds of workshops and engaging with local citizens to co-create digital interventions and apps. They were born in the open design tradition of MIT’s experimentation with space-aware technologies, fostering the idea that digital technologies should first be tested by their users’ “in-vivo settings” (Dutilleul, Birrer, & Mensink, 2010). LLs were given a primary role in the development of SC in 2006 when the European Commission decided to “put

the user in the driver’s seat” of the innovation process (EC 2009, cited in Dutilleul et al., 2010) and they are now at the forefront of SC strategies given their citizen-centric focus and appeal as the target of state and EU funding (Voytenko, McCormick, Evans, & Schliwa, 2016). In other words, there has been a notable shift from passive user feedback to a more active approach based on users’ involvement (co-creation or participatory design). Therefore, the LL approach situates the SC as a testbed for experimenting with the design and use of digital technologies in situ. Here, the SC is recast in two ways. First, as being a *beta version* in need of testing through trialling, where smart infrastructures are “white-boxed”, layer by layer (Corsin Jimenez, 2014). Second, as being *citizen-centric*, a more open, affordable, and democratic endeavour, developed from the bottom-up around the needs and desires of local residents, with LL supplying the necessary skills and competences to citizens.

The promoters of LL highlight three important characteristics that enable such a vision of SC. Firstly, LLs are a context-based experience, which is difficult to replicate in the same way elsewhere (Clark & Shelton, 2016; Voytenko et al., 2016). Secondly, LLs are temporality contingent, framed with respect to the temporal cycles of projects, technologies and funding, and often run the risk of shifting a focus away “from place-making to creating temporary events” (de

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<sup>1</sup> <http://www.openlivinglabs.eu/aboutus>.

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Lange & de Waal, 2013). Thirdly, LLs are intended to operate as multi-stakeholder endeavours that include local residents, acting as a counterweight to the techno-centric, top-down approach to SC initially forwarded by big business. Ultimately, the ambition for some is that the SC will eventually boast a model of governance in which “a community assumes political and expert management over its infrastructures” (Corsin Jimenez, 2014).

We present five examples of LLs – pop-up events, university-led activities, community organised venues/activities, citizen sensing and crowdsourcing, and tech-led regeneration initiatives – discussing each in the context of addressing issues of urban vacancy at a time of neoliberal/austerity urbanism (Di Feliciantonio, 2016). Drawing on critical geographers' work, in fact, we consider cities as critical nodes in the complex scalar politics of “actually existing neoliberalism” (Brenner & Theodore, 2002), where neoliberal programs have been “directly ‘interiorized’ into urban policy regimes” with “a ‘shock treatment’ of deregulation, privatization, liberalization and enhanced fiscal austerity.” (Peck, Theodore, & Brenner, 2009, p. 58) With the proliferation of unfinished and vacant buildings as a consequence of the global financial crisis, their reactivation has been one of the priorities of local governments in order to boost investments (Kitchin, Hearne, & O’Callaghan, 2016; O’Callaghan & Lawton, 2016). Because of their contingent nature and their emphasis on digital innovation and ‘participation’, LLs have been one of the preferred options to reactivate these spaces, offering the potential for the creation of independent (although temporary) spaces. However, just as the smart city agenda has been criticized for reproducing neoliberal rationality (e.g. Hollands, 2008; Vanolo, 2014), LLs based on vacant urban sites are at risk of being co-opted into the neoliberal model of city growth. We have summarized this interplay between potentials and limits of LL in Table 1, which represents a heuristic device for better evaluating LL initiatives with respect to vacancy, governance and city policy. Its categories are not exclusive – e.g., a crowdsourced project can enable forms of communal engagement and ownership of the data produced for anti-gentrification purposes, assuming citizens have the political capital to act upon the data. Neither are these categories unique to each typology of LL – e.g., different LL initiatives can be co-opted into the ‘creative city’ model of city growth, whether they are pop-up artistic projects or university-led experiments.

In the definition of LL quoted at the start of the paper, there is an evident slippage between the ‘user-centric’ model of LL and its assumed ‘citizen-centric’ nature. Which raises the question, what model of governance is operating with respect to our five different forms of LL? Are LL really promoting horizontal, open, and participatory SC or, rather, is their ethos rooted in pragmatic and paternalistic discourses that enact a form of civic stewardship for ‘smart citizens’? Thus, we ask whether LLs really realise the bottom-up ethos of SC they promise, or rather they foreground an urban environment primed for the “creative classes” (see Castelnovo, Misuraca, & Savoldelli, 2015; Clark & Shelton, 2016; Florida, 2003)? In the next sections we start unravelling these links by first looking at urban vacancy in the post-crisis city. Then, we provide a systematic critical overview of five different typologies of LL in relation to city vacancy and urban governance. In the conclusion, we set up an agenda for future research around forms of smart citizens' participation and the SC discourse.

Our analysis is based on a patchwork of different approaches at different times by each of the authors: interviews with observation of many LL projects, hackathons,<sup>2</sup> and social centres' activism in Dublin, London, and Modena; systematic desk-based research of secondary sources; and fieldwork concerning SC initiatives in Dublin as part of a large European funded project that involved more than three hundred interviews and participant observation by a number of team members,

<sup>2</sup> A hackers' marathon, usually lasting one day or a weekend, where programmers collaboratively code in an extreme manner.

**Table 1**  
LL typologies in relation to SC vacancy and city governance.

City model	LL type	Vacancy	Governance	Policy	Examples
Pop-up	Localised, community-based, artistic projects	Pop-up, communal or commercial	Active citizenship or technocratic stewardship	Creative city, cultural displacement, cultural capital, empowerment	Dublin Beta, ‘fillit’
Digital literate	Educational	Re-use, partnership	Stewardship, paternalism	Empowerment, steering, instrumental, cultural capital	Officina Emilia, Coderdojo
Communal	Localised, community-led, artistic projects	Squat, social centre, moderate rent	Ownership, membership, participation or stewardship	Communitarian, anti-gentrification, cultural capital, empowerment	Open Wireless Network (OWN), Tog
Crowdsourced	Geo-located, environmental sensors	Secondary data	Active citizenship or non-participation	Eco-sustainability or data-products, participatory or instrumental	OpenStreetMap (OSM), Inside Airbnb, Re-Using Dublin, AIRO mapping, Derelict Sites register
Regenerated	Smart districts, hackathons	High rent, exclusionary	Non-participation, stewardship	Displacement, gentrification, creative city	Digital Htub, Silicon Docks

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