



Provincialising platform citizenship: Citizen participation in and through civic platforms

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ABSTRACT

Commercial digital platforms possess a universal design and interface regardless of cities or particular political-cultural traditions. This is also the case for corporately owned platforms designed to facilitate citizen engagement in civic issues. In contrast, civic platforms rooted in a FOSS approach are configurable and can be adapted in context to produce tailored interactions. In this paper, we examine what this adaptability means for citizenship when citizens can be involved in the making and running of platforms, and can take an active role in city governance using civic platforms. We revisit the analytical framework developed by Cardullo and Kitchin (2019a) – the scaffold of smart citizen participation – to consider the platformisation of urban living designed to empower citizens to take an active role in management and governance processes and decision-making. In particular, we focus on the scaffold's least explored rungs, 'citizen power', providing a comparative analysis of instances of Decidim, a civic platform designed to engender collaborative governance, along with its associated soft infrastructure, in Barcelona, New York and Brazil. We highlight how *different instances of the same platform can confer different citizenship relations depending on how it is framed, configured and used. In other words, platform citizenship is provincialized*, enabling alternative futures to emerge from mainstream knowledge claims about citizens' role in platform urbanisation.

1. Introducing platform urbanisation

Arguably, digital platforms have become the most diffuse, inter-linked, powerful and widespread form of digitalisation in our societies. Major platform companies such as Amazon and Google, for instance, have been colonising almost any field of interest, market, expectations or future imaginaries, blending “technologies of communication and computation, connection and calculation in unprecedented ways” (Terranova, 2022). Other major platforms such as Uber, Airbnb and Deliveroo have been disrupting and reconfiguring specific markets globally (in these cases: taxis, accommodation, takeaway food). Platforms have thus been considered technical and institutional systems (Bratton, 2015), with immense power in relation to states and policy (Törnberg, 2024), markets and corporations (Barns, 2020), and citizens lives: as Kitchin (2024, p. 26) notes, platform “arrangements wield enormous data power that is largely out of reach of democratic politics”. Critical scholars have developed a double but interrelated critique of such platforms, considering them as *both* infrastructures *and* a way of living.

With respect to the former, especially from the business and software studies perspectives, platforms embed the ongoing (mainly privately-owned) process of making software an infrastructure for value creation and capture. Global digital platforms support the connectivity and locality of mobile media with essential services or utilities absorbed into or reprogrammed as exclusionary platform ecosystems, for instance in place of public broadcasting services, or national mapping systems, or the delivery of education and health services (Plantin & Punathambekar, 2018). Channelled through profit-making platforms, public goods are necessarily transformed into exclusionary benefits for the associates (consumers, users, players, members, etc.) in a process of privatisation, financialisation and regulatory capture. Moreover, these re-programmable digital and physical infrastructures are organised through the systematic collection, algorithmic processing, monetization, and circulation of data. With data-driven governance arrangements cast as an efficient way of knowing and managing the city on behalf of the citizens, they operate through dashboarding, mapping and tracking city flows in real-time (Kitchin, 2022).

Seen through the lens of media and cultural studies, digital platforms

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embed an “anthropological change” (Cristofari, 2024) notably through the widespread distribution of smartphones and their app interfaces that are becoming the contexts for practice, structuring the fabric of daily urban life and affecting forms of thinking, values, remembering, social relationships and the perception of space. These daily experiences — happening at different scales, from systemic planning to the intimate bodies of citizens — make sure the citizen is constantly engaged with digital media, reliant on digital devices that allow her to navigate the city, her home, or her own body (e.g. with app-powered mobility, voice-operated domestic assistants, digital implants and bracelets).

Importantly, global digital platforms such as Google apps, Glovo, Lyft or Netflix have a universal design and interface regardless of location or particular political-cultural traditions (one-app-fits-all). For such platform companies, a single interface design makes the management and on-going development of the platform relatively straightforward. For the platform user, how the app works remains the same regardless of context, such as travelling in another country. Moreover, the platform retains personal preferences and provides recommendations based on previous transactions. Yet, while the platform logic provides a standardised system of governance through the distribution of interfaces, reprogrammable and modular apps, market disruption, and personal profiling of their users, this mechanism remains mostly black-boxed and out of public scrutiny, thus hard to be fully apprehended (Poell et al., 2019). This homogenisation and stability of design, along with individualisation of user experience, provides a familiar experience and reassurance. Moreover, it provides the platform with its *worlding power*, an expression of the universalising ideology and materiality of planetary capitalism and urban planning which guarantee that “urban models, development best practices, technocratic expertise and multiple types of capital circulate in transnational fashion” (Roy, 2011, p. 11). This power is leading to what is variously been termed platform urbanisation (Hanakata & Bignami, 2023), platform urbanism (Barns, 2020; Caprotti et al., 2022), AI urbanism (Cugurullo et al., 2023), digitalisation-as-urbanisation (Datta, 2023) and, more broadly, the smart city — the corporate-led project of building data-driven and real-time cities (Kitchin, 2014). Although there is now a broad literature highlighting the novelty and the specificity of each of these umbrella terms, we prefer ‘platform urbanisation’ since this better captures two major processes.

On the one hand, the *normalisation of software* (algorithms, data, AI) in the everyday life of cities and, inevitably, of citizens; it is the ability of software to become omnipresent to any action attached to a digital object that makes it now the prime mover in the production of space. For citizens, this process has been made more apparent by mobile apps: these almost ubiquitous digital objects embed functions and services always linked to a platform ecosystem thus acting as the interface between users and remote data servers. Through their apps, platforms mediate the space of the urban and the body as ‘mobile media’ concerned primarily with mobility, location, and mobile communication (Gerlitz et al., 2019). The recent pandemic period has been crucial in accelerating this evolving relationships at the heart of citizenship itself (Sequera, 2024). The result has been the normalisation of software relations for work, city planning, decision-making and real-time service and the acceleration of an urbanisation process driven by platforms. While the pandemic highlighted the role of social media and tech platforms in fostering connection and learning, it also exposed challenges like unequal access to technology and diminished face-to-face interactions with people appearing increasingly ‘apart together’ (Cascalheira et al., 2024), which raises concerns about their ability to participate to the overall wellbeing of societies.

On the other hand, the *corporatisation of the Internet* and the relentless neoliberalisation of city living have determined an unprecedented subsumption of the very product of such exchanges, that is data, to acquire the role of commodity (Kitchin, 2022). Unlike classic forms of urban capitalism, however, platforms do not need to possess city resources, already de facto owning the exchange between services, products, intermediaries and their users (Sequera, 2024). A ‘platform ecosystem’

approach then needs to consider: competition, governance by API (Application Programming Interface, which functions as a filter and a gatekeeper to platforms’ services), data extraction, recentralisation through data services, market disruption and competitive advantages (Barns, 2020), as well as intra-cities (Caprotti et al., 2022) and globalised geographies (Graham, 2020), all the way to a ‘Corporate Platform Complex’ led by very few giant players and their numerous subsidiaries and contractors (Terranova, 2022). Everyday software everywhere has thus reinforced in many instances the neoliberal framework of the so-called ‘smart city’ agenda: privately-owned platforms are increasingly deployed for management of city life and the organisation of urban relations and transactions through algorithmic-led systems, with data-driven governance arrangements purported as an efficient and predictive way of knowing the city on behalf of the citizens. This means that city functions and services, including governance, are being rendered through real-time data streams and apps in order to predict and regulate (Kitchin, 2014).

Platform urbanisation, then, denotes that the dynamics of the smart city have reached a more mature stage in which the urban condition is now postulated, defined and negotiated by and through digital platforms and their related extensions. This chimes with the critiques of the disruptive potential of artificial intelligence: “a revolutionary technology is not the same thing as a technological revolution”, Perez (2024) argues, “AI depends on the Internet, which in turn depends on powerful microprocessors and computers”, thus bolstering a third chapter in the much longer ICT revolution. In more familiar terms for our discussion, Kitchin and Dodge (2011) observed how “software and the work it does are the products of people and things in time and space, and it has consequences for people and things in time and space” through the translation of how cities function back into algorithmic representations, and transduction from algorithmic representations to urban space and city life. Digital platforms do not seem to have altered such a relationship, rather deepened and normalised it.

What then does the right to the smart city (Kitchin et al., 2019) look like when platform urbanisation is a process that, like urbanisation itself, does not speak of a territory or a particular place, rather expressing an ‘urban condition’ (Hanakata & Bignami, 2023)? How can bottom-up deliberations and commons-oriented values be mobilised within a platform society? One response has been a mounting interest in developing citizen-led initiatives through civic platforms as an innovative and necessary development to counter declining traditional forms of civic participation (e.g., town-hall meetings, citizen surveys) and the rise of populism and fake news (Tang & Noveck, 2024). Such platforms aim to inform citizens of potential new initiatives in their locale, provide feedback on such proposals or develop their own counter proposals, engage in dialogue with government bodies and other citizens, and in some cases, vote on proposals. Notably, many of these platforms — including those seeking to broaden democratic participation and institutional governance through transparency and accountability in decision-making processes — are privately owned and black-boxed with respect to their software development and their governance, and are run for-profit. For instance, GoVocal (ex-Citizens Lab) is a European platform which recently has gained popularity in the USA; Ethelo is an e-democracy platform that facilitates collective scenario-building and decision-making within and across different constituencies in relation to specific local issues. The power of these platforms is that they provide a common, universal platform design that can be deployed across different issues and communities.

In contrast, other civic platforms are distinctly FOSS (free and open-source software) and commons-oriented, hosting a variety of participatory processes and tools for collective governance and decision-making. Importantly, given the source code is freely available, such platforms are configurable and can be adapted in form and processes by citizen coders, rather than having a universal, black-boxed design. Software development can be shaped through dialogue with ethical hackers, communities of interest, local authorities, stakeholders and

start-ups companies, and the intended platform users. Decidim¹ (Catalan for ‘let’s decide’) is such a configurable platform, whose base design has been used to construct other platforms in different institutional contexts globally. The modular structure of the platform can adapt itself to the scale of governance required: from neighbourhood regeneration to a city’s participatory budget or environmental plan, from the general assembly of cooperatives to resolutions for the French Parliament or the Conference for the Future of Europe (EU 2021–2022). The platform has been developed in Barcelona since 2016 and used by the city for collective decision-making on participatory budgets and shared governance on local regeneration initiatives. More recently, Decidim was the base platform for ‘Brasil Participativo’, which unified at a federal scale the long tradition of participatory budgeting in Brazil’s 27 states, resulting in the Participatory Pluriannual Plan 2024–2027. Other such platforms include LiquidFeedback used by the Pirate Party in Germany, among others; and YourPriorities, part of the Iceland-based Citizen Foundation and winner of 2024’s Platform Rating by People Powered.² The underlining idea is that such flexible and modular platforms can lead to “more responsive decision-making, increased civic engagement, and better-informed policies” (Tang & Noveck, 2024). *Differentiation is their provincializing force, so to speak.*

In this paper, we examine the nature of civic platforms rooted in a FOSS approach and what their configurable qualities – their ability to provincialise a platform (in contrast to a worlding platform) – means for citizenship. To do so, we revisit the analytical framework developed by Cardullo and Kitchin (2019a) – the scaffold of smart citizen participation (Table 1) – to consider the platformisation of urban living designed to empower citizens to take an active role in management and governance processes and decision-making. In particular, we focus on the Scaffold’s least explored rungs, ‘citizen power’, by providing an analysis of the platform for collaborative governance, Decidim, and its associated ‘soft infrastructure’, the coming together of the commoning practices of software development and the institutional openings towards commons-oriented initiatives (Cardullo et al., 2023). The aim is to examine how Decidim *provincialises* platform urbanisation through its localised, specific configuration and deployment (Charnock et al., 2021): a continuous process of “emergence and remaking” (Odendaal, 2021, p. 651), thus enabling subaltern discourses and alternative futures to emerge from a worlding (universalistic) framework.

We do so by comparing three different instances of Decidim deployed in Barcelona, New York and Brazil and their soft infrastructure. A techno-political concept, ‘soft infrastructure’ merges technics with cultural and spatial practices to capture the sociality arising through platform affordances, creating communities of practice, mediating labour, and generating social and political effects in the world (Star, 1999; Tonkiss, 2015). *Contra* ‘platform ecosystem’ (e.g. Barns, 2020), the soft infrastructure commoning practises of cooperation, ethical exchange and digital commons of FOSS civic platforms are embedded within a culture of collaborative governance and free and open software development. Civic and commons-oriented platforms like Decidim, in fact, do not seek universality and homogeneity of their users or scopes. Rather, they foster flexible and locally suitable configurations, adjusting to varying local data ontologies and culture, and responding to differences in the context, laws, regulations and policy they embed at each instance. For example, with regards to the core development of the platform and the governance of the Decidim Association, its soft infrastructure includes both the network of people with their informal relational practices of learning and working together, and the more institutionalised agreements and documentation leading to its unique internal governance (their own instance for self-government called MetaDecidim³)

and the Public Commons Partnership with the City of Barcelona, Localret,⁴ and the Generalitat of Catalunya (Cardullo et al., 2023).

2. Platform citizenship

We understand ‘platform citizenship’ as a multilayered concept that captures citizens performing the density of relations that software implies for city living, in diverse and simultaneous roles both on platforms as well as in their diverse political spaces and scales of reference (the state, the municipality, the body). For some, platforms enact a performative extension of traditional forms of political and territorial citizenship by way of exploiting their techno-social affordance and ubiquity. Bignami and Hanakata (2024), for instance, suggest that “citizenship is no longer solely defined by legal status or physical residence, but is increasingly shaped by individuals’ interactions and engagements with platform-based urban systems”. For others, algorithmic processes have entailed more rigid expressions of rights and entitlements – for instance in relation to housing allocation, management of the poor, e-government, social scoring indexes, digital ID, etc. – which hinder de facto liberal and more egalitarian ideals of citizenship (Kitchin et al., 2019).

In the case of universal, worlding platforms, citizenship lies on the lower tiers of the scaffold of smart citizen participation, constituting a form of non-participation, wherein citizenship is framed within technocratic and paternalistic terms in which citizens are users who are steered, nudged and controlled through the platform’s functions, and who provide streams of data in return for a service. Citizens have no say in how the app functions or its design and have no entitlement to any profit derived from their extracted data. Privately developed civic platforms such as GoVocal⁵ possess the same framing, albeit they do enable tokenist forms of consultation and placation through facilitating feedback and suggestions concerning the topic the platform is being used to consider. Citizenship is thus emerging as a testing ground for platform urbanisation — how it is defined and refined by, through and outside platforms.

Within the framework of platform urbanisation *software is biopolitical*: it sets up co-constitutive relations of exchange between digitally-mediated urban spaces and citizens, and these can be exploited for many purposes, and steered and nudged towards different goals (Terranova, 2022). The most evident digital object are mobile apps, a layer within a larger computing stack, or the tip of an iceberg of complex networked relations (between platforms and their ecosystems, and between different agents). Apps function as an approximation to platforms (Gerlitz et al., 2019), although not all apps are linked to platforms, but all smartphone accessed platforms are fronted by apps: as they embed most of platform ecosystem functions and services, apps represent de facto the final interface between users and remote data servers. The novelty of smart devices is that these appear as personal and portable but, at the same time, are also always interconnected with platforms cloud spaces which are highly centralised. People’s daily life is in the reach of digital devices and applications, virtual augmentation and communication, on-time and ad-hoc occurrences, and real-time monitoring of systems that inherently and fundamentally track and control. Apps thus modulate the relationship of bodies and space in a process of co-creation of urban life (Terranova, 2022). These changes have been happening, moreover, in a well-established neoliberal framework which understands citizenship as an individualised task towards personal autonomy and responsibilities (Brown, 2016). Indeed, the pandemic accelerated platform urbanisation, creating new policies, assumptions and understandings about the use of digital technologies, without these been necessarily translated for citizens through more meaningful involvement in their design and function, or in relation to data

¹ <https://decidim.org/about/>

² <https://www.peoplepowered.org/platform-ratings>

³ <https://meta.decidim.org/processes/Welcome>

⁴ <https://www.localret.cat/qui-som/>

⁵ <https://www.govocal.com/plans>

Table 1
The scaffold of smart citizen participation (Cardullo & Kitchin, 2019a).

Form and Level of Participation		Role	Citizen Involvement	Political discourse, framing	Modality
Citizen Power	Citizen Control	Leader, Member	Ideas, Vision, Leadership, Ownership, Create	Rights, Social/Political Citizenship, Commons	Inclusive, Bottom-up, Collective, Autonomy, Experimental
	Delegated Power	Decision-maker, Maker			
	Partnership	Co-creator	Negotiate, Produce	Participation, Co-creation	
Tokenism	Placation	Proposer	Suggest	Civic Engagement	Top-down, Civic Paternalism, Stewardship, Bound-to-succeed
	Consultation	Participant, Tester, Player	Feedback		
	Information	Recipient	Browse, Consume, Act		
Consumerism	Choice	Resident, Consumer		Capitalism, Market	
Non-Participation	Therapy	Patient, Learner, User, Product, Data-point	Steered, Nudged, Controlled	Stewardship, Technocracy, Paternalism	
	Manipulation				

sovereignty related to their use (Pansera et al., 2023). Indeed, surveillance, predictive policing, welfare and taxation systems, and intelligent transportation systems are enacting forms of governance-at-distance where analytics are used to assess past and likely future behaviours or events and to direct appropriate action, such as disciplining (e.g., penalties) and control (e.g., nudge), with little transparency or accountability (Eubanks, 2017).

Even Barcelona's approach on commoning the digital city under the banner of the technological sovereignty policy (2015–2023) has not been immune to a data-centred, although ethically-proven and commons-oriented, discourse and vision (Fernandez-Monge et al., 2024). Despite Barcelona's digital policy seemingly preoccupied with reining in and controlling digital platforms and data flows through a data sovereignty strategy, the most successful and widely exported initiative of that experience remains a participatory platform: Decidim. This is centred on democratic governance, is decentralised in nature, and rather than leaning on "charismatic leadership" (Fernandez-Monge et al., 2024) has fostered the support of a broad soft infrastructure. The Decidim case-study is particularly relevant here because it suggests that, while industry and politicians marvel at the affordance of big data and AI in dashboarding, predicting and controlling city living, the current discourse on city governance has been probably overestimating the 'actually existing' utility of data for governance purposes. Decidim illustrates that not all platforms are universal and worlding in how they enact citizenship, but rather that platform citizenship can be provincialised. Moreover, different instances of Decidim might confer different citizenship relations depending on how it is framed and configured.

3. Decidim on the scaffold

In a pair of related studies, Cardullo and Kitchin (2019a, 2019b) examined how citizenship is framed and enacted in a context where the EU actively promotes the creation of the 'smart city' through its funding mechanisms. Their scaffold of smart citizen participation (Table 1), in particular, has become a widely used heuristic through which scholars can map inclusion and participation in smart city projects, including the use of platforms. Working through smart city initiatives operating within Dublin, Ireland, they found that citizens most often occupy non-

participatory, consumerist or tokenistic positions, framed within political discourses of stewardship, technocracy, paternalism and the market. While citizen participation is potentially diverse, this is framed in a *post-political* way in that citizens can make technical suggestions but are unable to propose a new political vision. Thus, the paradox of fostering increased choice with less meaningful participation for citizens is due, they argued, to the contradictory coming together of forms of technocratic and market-driven governance with poorly understood and practised notions of conviviality, commoning, civic deliberation, resource sharing, trust building, and other face-to-face forms of confrontation and living that make *polis* and communities work (Cardullo & Kitchin, 2019a).

In this paper, we consider the platform citizenship enacted through Decidim using the Scaffold heuristic. Since citizen power cannot be routed through platform capitalism, in fact, we need to look elsewhere for meaningful examples of civic technologies for the common good, democratic governance and citizens' meaningful participation. Decidim is a multi-purpose platform based on FOSS principles developed in Barcelona in the context of the social movement-led and political-enabled effort known as technological sovereignty. This policy became part of the leftist coalition programme (2015–2023) of municipal governance and had as its ultimate goal the achievement of radical democracy through citizens' deliberation, the advancement of the right to information, and a bottom-up software ecosystem that could confront the dominance of corporate software with a commitment to the common good (Charnock et al., 2021). An important part of the Barcelona City budget⁶ is now vetted through Decidim in order to drive consensus via wider deliberation on city expenses, typically towards improving public spaces and municipal infrastructures, and the acquisition or rehabilitation of real estate facilities for common good, as well as being used to consult on community-led neighbourhood plans.

The Decidim platform in Barcelona occupies the top rungs of the Scaffold, citizen power (Table 1), where we find the categories of: Partnership, when planning and decision-making are shared (e.g. via the

⁶ Up to 75 million euros over a period of four years were pledged before the pandemics, 30 millions afterwards

public agreements and ethical tendering between the City of Barcelona and other local institutional players and the Decidim association, which guarantees the continuity of the initiative); Delegated Power, when citizens gain the dominant decision-making authority within a shared initiative (such as local regeneration plans or participatory budgeting vetted through the platform); and Citizen Control, wherein citizens “can negotiate the conditions under which ‘outsiders’ may change them” (Arnstein, 1969, p. 223) – for instance, by putting participants and platform developers (who are by large volunteer citizen coders or start-ups, not a professional company) in charge of the policy and managerial aspects of the platform itself via community meetings, assemblies, and the instance of the platform used for internal governance, Meta-Decidim.⁷ In other words, through the citizen power categories there is a chance to *re-politicise* the smart city: indeed, Decidim and the technological sovereignty policy were able to combine social and economic solidarity with radical democracy ideals (Charnock et al., 2021).

We are aware that the Scaffold has attracted important critiques, for instance from postcolonial and governance scholars. The former argue that the Scaffold is representative of traditionally liberal and neoliberal democracies, typically Western European and North American societies rather than more incipient democracies and much younger participatory cultures, such as South-Eastern Asian societies (Bunnell et al., forthcoming). Granted, democracy is a tortuous and uncharted path which is contested and contextual without set recipes or determined steps. And indeed, the Scaffold was based on a fieldwork study of a neoliberal smart city in Dublin, Ireland. However, its palimpsest is grounded on theoretical work around the ethical justice framework developed during those years (Kitchin et al., 2019) and inspired by the societal change envisioned by Sherry Arnstein (1969). Arnstein did not build her influential Ladder in order to score societies in a race towards an ideal of democracy; instead, she linked meaningful participation to power in order to induce “significant social reform”, eventually ensuring “the benefits of affluent society to the have-nots” (1969, p. 217): simply put, Arnstein warns repeatedly against the “empty ritual” of citizen participation, which she terms tokenism and non-participation. The Scaffold was also not intended to perform an assessment of democracy per se, rather to evaluate the power relations within the so-called ‘citizen-centric’ smart city (Cardullo & Kitchin, 2019a). However, since digital technology has become ever so intertwined with democracy, to the extent that Schaake (2024) talks of a ‘Big Tech’s coup’, an enquiry into this relationship might be fruitful. In the words of Audrey Tang (2024), ex-Minister of Digital Affairs of Taiwan, “Digital Participation Infrastructure is not a *replacement* for traditional democratic processes, but an *enhancement* that makes our democracy more robust, inclusive, and responsive in the digital age”.

The flip side of this critique is that by underplaying power struggles over governance and decision-making, some kind of ethics-washing of the human and social rights-based values built within the Scaffold might occur, in turn watering down smart technologies’ implications for citizenship; not just their negative and even perilous effects (e.g. Kitchin et al., 2019), but also the sovereignty implications for a future society: who holds decisional power over these technologies, their data and service infrastructure, and their development and uses? Let us make no mistake, social justice and issues of power are the foundations of the reasoning behind the Scaffold: for instance, in citizen power where bottom-up inclusive processes and transparent accountable governance lead the way (Table 1).

The latter critique suggests that ladder-type classifications represent only a snapshot which freezes a specific citizen’s role as “static”, rather than taking into account long-period outcomes and “multiple dynamic

citizen participation arrangements” (Przebyłowicz et al., 2022). The Scaffold, however, is a heuristic tool built through the iterative work of abduction, from theoretical insights to the field, and vice versa: this method offers a flexible space for data collection and evaluation that can be modified in time. In that, it always encourages mobility through its rungs, so that cities and stakeholders are able to “shift as many of its initiatives as possible up the scaffold towards citizen engagement and citizen power” (Cardullo & Kitchin, 2019a). The Scaffold, then, rather than portraying a static one-size-fits-all solution shows a pragmatic path for meaningful civic participation and decentralised governance through emancipation from the pitfalls of digital society (e.g., the negative affordances of AI, smart city, platforms) towards a much needed system upgrade. In sum, the Scaffold was meant always as a tool for comparative analysis of different institutional arrangements and scales in the delivery of smart city projects against the mainstream rhetoric purported by the spinning discourse of ‘smartmentality’ (Vanolo, 2014): in that, it shows provincialising potentials, “deconstructing what we think we know, disrupting norms about what is familiar and what is strange” (Sheppard et al., 2013, p. 895), thus decolonising mainstream knowledge claims about citizen’s role in platform urbanisation.

4. Decidim in comparative perspective

Both for its important role in participatory planning strategy and for its broad international adoption, Decidim has acquired visibility and prominence in an alternative ‘smart city’ discourse. At the time of writing, Decidim was being used by 390 institutions and organisations (including municipal, regional and national governments, NGOs, trade unions, cooperatives, neighbourhood associations and universities) in 30 countries. The level of adoption highlights a consistent effort in producing a citizen-centric smart city and alternative forms of participatory governance. Indeed, the platform has become the flagship project for a novel, inclusive means of implementing digital technologies, not only re-purposing the smart city agenda in Barcelona, but also purporting a ‘model’ status for the smart city yet to come (Ward et al., 2025), this time in favour of citizen participation, the advancement of the right to information, and open, transparent and participatory decision-making.

Arguably, the international appeal for the platform is due to some specific factors around the technology itself: its modular structure allows a wide use from small instances to nation-wide processes; its radical FOSS principles and ethics guarantee a fair deployment and transparency; its local network of software development, also very active at the global level, keep the community around the platform alive; and Barcelona being a city on the international scene of technological innovation with *worlding* events, such as the Smart City World Congress & Mobile World Congress among others, have made the platform a global referent and cradle of opportunities. The different contexts of the platform’s deployment, however, raise the possibility for a comparative study. For this, we use ethnographic material, including direct participation at four Decidim Fests,⁸ which is a catalyst event for the Decidim community from around the world; ten semi-structured interviews, plus numerous informal conversations at the margins of workshops and community events, with key developers and institutional figures in the platform development and implementation; and a thoroughly review of existing documentation and secondary sources. Our findings and conclusions are based on a synthesis of these materials in which we sought to identify commonalities and differences between the three cases.

Here, we compare the Decidim Barcelona instance with two other successful instances of the platform. The first one is ‘Brasil Participativo’,⁹ which included over 8000 proposals: there were 1.5 million

⁷ <https://meta.decidim.org/assemblies/our-governance>: to date, the meta-platform counts for over 40 k registered participants, 300 meetings and nearly 2 k proposals. Moreover, the official documentation and code are hosted on GitHub with 9 active repositories and over 400 forks

⁸ <https://meta.decidim.org/conferences>

⁹ <https://brasilparticipativo.presidencia.gov.br/>

Table 2
Decidim Soft Infrastructure.

Drivers/Place	Political and Admin	Community	Ethical Hacking
Barcelona	✓	✓	✓
Brazil	✓	✓	–
NYC	–	✓	–

registered Decidim users for the first Participatory Pluriannual Plan 2024–2027, which was able to mobilise digital ID on a scale much broader than ever seen before¹⁰ (Bezerra & Da Fonseca, 2024). The second initiative analysed is New York City’s participatory plan (The People’s Money 2023–2024, for up to 5 million dollars) which, after a few years of piloting, made Decidim the main tool for public deliberation and collaborative budgeting in the city.¹¹

When seen in a comparative perspective some obvious differences in the implementation of different features of the platform appear, thus making a specific instance of Decidim potentially move up or down on the Scaffold rungs: for example, some instances are used for important collaborative processes like participatory budgeting (PB) which implies discussion and deliberation through ballots, while others might be used as a notification board for information purposes only (Palacin et al., 2024). Comparison brings up similarities, too (Robinson, 2022): notably, all instances of the platform from the case-study have been enabled by a bottom-up process, led by social movement and civic society and delivered by political drive.

Of course, participation is not automatic even when ethical digital tools are given: according to critics, the platform maintains some of the barriers to access to the digital public sphere, privileging the most attentive and literate citizens’ groups.¹² Other issues have emerged which might slow citizens’ inclusion: for instance, a very diverse city like NYC needed to simplify the platform interface, while detecting different language needs of the participant population.¹³ Thus, all the promoters of the platform point to the need of enabling a *hybrid participation process*, both digital and analogue, stressing the importance of public assemblies and the role of civic society (Barcelona: 700 public meetings organised around the PB in 2016; NYC: 534 sessions with over 12,000 participants during the first PB launched in 2023; Brazil: 27 large assemblies, one for each state, organised by social movements leaders, in preparation of the PPP 2024–2027). NYC and Barcelona are using district assemblies and people’s juries to evaluate the relevance of the many projects presented, while Brazil recurred to social influencers in order to capture young people’s attention (currently the social group which participates least, apart from elderly residents).

Importantly, residents registered on the platform can vote on pragmatic local issues such as the regeneration projects in their neighbourhood, even if their age or immigration status would not allow that in standard political consultations – for instance, in NYC citizens as young as 11 years old are allowed to cast a ballot; in Barcelona voting starts at 14 but there are district assemblies for kids as young as 8 who can first suggest proposals and then prioritise a small number of proposals for the final general voting. As for Brasil Participativo, 61 % of digital participants were women, thus changing significantly a historic imbalance in the public sphere. Increasing participation in Brazil was aided by new features such as text-to-speech, which is thought to greatly advance the use for less literate people; moreover, Decidim will be translated there into a mobile app in order to bring into the decisional process as many citizens as possible, since mobile phone connection counts for up to 80 %

of actual Internet users.¹⁴ And since many of these are using the free Metaverse-only version of the Internet, the deliberation process on Decidim has become well-integrated with a Whatsapp layer, in a trade-off between privacy of own data and inclusivity.¹⁵ Registration, however, is not a geographically bounded problem and can be a real barrier to broader digital participation: for instance, the Conference for the Future of Europe lowered this threshold to a simple account creation enabled by email, avoiding or postponing the challenge to bring to the table the many numerous digital ID policies of the continent.¹⁶

These data show how this platform-mediated process de facto tries to extend traditional political citizenship, at least on the matter of inclusion. However, ‘platform citizenship’ is not just giving voice to unrepresented social groups by extending their entitlements and forms of participation, but ought to enable real deliberative democracies through a well-integrated governance infrastructure, which is a matter of political culture, public expectations, and social trust. Table 2 zooms into the Scaffold categories of citizen power to capture the nuances of the platform deployment behind the successful stories of Decidim in Barcelona, NYC and Brazil. The focus here is on their respective ‘soft infrastructure’, their commoning practices such as developers’ work and the organisation’s activity designed to produce trust and solidarity through traceable and transparent actions (following the principles of free and open software development), by maintaining a public debate on the ongoing design of Decidim on an instance of the platform itself (Metadecidim), and sustaining an accountable and transparent governance model more broadly, made of documentation, public-commons agreements, workshops, and legal framework. Soft infrastructure has been operationalised here through three main drivers: political and administrative; community and social movements; and civic or ethical hacking. These have been the analytical categories through which we understood our ethnographic material in the three case studies.

As for Brazil, its soft infrastructure seems to be evolving rapidly along the huge political, administrative, and social movement-led effort to consolidate its participatory architecture (Bezerra & Da Fonseca, 2024), develop Decidim into a mobile app, and nurture a new generation of ethical hackers¹⁷ — part of Lula’s broader project towards technological sovereignty and autonomy from high tech monopolies.¹⁸ Issues of trust in public institutions, as well as from cities in tendering towards FOSS developments (preferring other solutions available on the market) surface, instead, as an important cultural background in the USA.¹⁹ According to Noveck (2024) this is a parcel of the “institutional inertia” in US, springing from the “long-established but limited methods of citizen engagement, including periodic elections, town hall meetings, and written public comments”. As the public remains the largest spender on information technology, the way in which the City or the state tenders contracts to private companies or other providers, such as cooperatives and community groups, can induce “behavioural change” in big tech and their subsidiaries (Schaake, 2024).²⁰ Indeed, public procurement has been strategic in Barcelona to pin down digital platforms to their responsibility during the technological sovereignty policy (2015–2023): an ongoing struggle for digital rights has been steering the debate in the

¹⁰ Decidim Fest 2024

¹¹ <https://www.participate.nyc.gov/>

¹² <https://carnegieendowment.org/research/2022/05/eu-democracy-a-fier-the-conference-on-the-future-of-europe>

¹³ Decidim Fest 2023

¹⁴ <https://capitalofdemocracy.barcelona/processes/news/f/4/posts/16>

¹⁵ Decidim Fest 2024 (own interview)

¹⁶ Decidim Fest 2024 (own interview)

¹⁷ Fifty students are currently been trained at the University of Brasilia as coders of Ruby-on-Rails, the language on which Decidim has been built, in order to maintain and further develop the platform at federal level (own interview at Decidim Fest 2024)

¹⁸ <https://framaforms.org/public-letter-against-big-techs-attack-on-digital-sovereignities-1726420881>

¹⁹ Decidim Fest 2023 & 2024

²⁰ See also Pasquale, 2024: The Big Green Buy. How Obama can use the government’s purchasing power to spark the clean-energy revolution: “Procurement premised on public purpose could contribute to a Green New Deal” <https://www.thenation.com/article/archive/big-green-buy>

Catalan capital, translated in documentations, ethical standards and legal requirements (Cardullo et al., 2023; Lynch, 2020).

Indeed, while algorithmic trust is performed via long alphanumeric keys which recognise each other and perform a friendly ‘handshake’ in milliseconds, social trust hinges on long term relationships and slow exchanges performed mostly face-to-face and in the spaces of the everyday. Social trust builds over time, upon frequency, social bonds and culture, and around social spaces shared in common. It would be wise to follow Przybylovicz et al.’s (2022) suggestion to return to the study of this particular platform in NYC in a few years in order to evaluate the long-period effect that this had on the governance side of public policy: at the present, we had a modest pilot for young people’s public spending (up to 100,000 dollars in 2021) which has grown to the current city-wide annual participatory budget of 5 million dollars. This proves that a culture of trust and commonality in and from the public administration can help move digital participation infrastructures beyond piloting and experimentation, typical features of civic hacking and FOSS solutions, and thus embed them into the governance infrastructure (Tang & Noveck, 2024).

The lesson we can derive from this comparative analysis of Decidim’s soft infrastructure is, then, that an active cultural background of civic tech, city government and society at large acting as a *provincialising force*, and making Decidim not just one of the now numerous platforms for governance, but an integral part of the city governance strategy (Charnock et al., 2021). As platform urbanisation has shown its splintered borders — from a sort of centralised panopticon to diverse and competing oligoptics (Wood & Mackinnon, 2019) — it has also laid bare some interstices where to look for alternative and disrupting practices in order to *unstuck* ourselves from the platform (Lovink, 2022). Provincialising means, in fact, to identify and empower “new forms of resistance to corporate-led smart cities agendas and the mainstreaming of alternative forms of smart urbanism” (Burns et al., 2021, p. 464), thus looking at the peripheries and their specific contexts in order to counter universalist knowledge production and strategy while attempting to build alternative ones. An innovative and more just digital city should be focusing on nurturing such trajectories which are deeply cultural, political and social, rather than following only the technology per se and its capabilities for replication. But this will require, firstly, we need to free our imaginaries from high-tech patterns. This strategy for technological development blinks the eye to the pragmatic attitude of open-source and low-tech movements, a “positive vision of ingenious applications, of simple but adequate technology, to very concrete problems” (Guenot & Vetter, 2022, p. 257). Within this framework we can further contextualise software relations thanks to comparative analysis of the platform’s soft infrastructure: this denotes nuances which positions the relative instances at different rungs of the Scaffold with regards to citizen power. This is why citizenship has become the testing ground for platform urbanisation(s), now necessarily a plural and variegated process.²¹

5. Conclusion

With few exceptions, commercial platforms possess a universal design and functionality, and afford users a constrained means of interaction with no means to configure the platform in ways that produce fundamentally different social relations. Such platforms appear almost state-like in that they are sovereign in providing services and with respect to the platform governance. These platforms offer a form of citizenship that is characterised as non-participation, wherein users have no influence on the platform’s design, function and governance, and have no entitlement to the profits and data power enabled by the

platform’s use. Such platform citizenship is technocratic and paternalistic in nature, with users receiving a service in return for data streams under terms dictated by small print terms and conditions and privacy agreements set by the platform owners with some consumer protections. Within such a framework, citizens are steered, nudged and controlled through the platforms functions, with few prospects of being able to claim tokenist (e.g., feedback or suggest how the platform is configured) or citizen power (e.g., co-create or make decisions or lead on platform design and functionality) forms of citizen participation. This is also largely the case for corporately owned platforms that facilitate citizen engagement, albeit these enable tokenist forms of feedback and suggestions with respect to civic issues (rather than the platform itself).

In contrast, for civic platforms rooted in a FOSS approach — wherein the underlying code and associated documentation are openly available — platform architectures, interfaces and functionality can be reconfigured, tailored as desired by user groups. Here, citizens can claim tokenist and citizen power forms and levels of participation, including leadership roles in a platform’s design and management, depending on how a platform is configured, operated and governed. FOSS based platforms therefore confer stronger forms of citizenship for platform users with respect to the platform itself (its management and governance) and the civic issues that the platform aims to help address. Albeit, it needs to be recognised that there are hierarchies and exclusions within FOSS initiatives, particularly along lines of coding knowledge and skills and gender, and FOSS are often reappropriated by corporate interests to reinforce existing socio-spatial relations (Mahmoudi et al., 2024). FOSS platforms then are provincialised (as opposed to the worlding nature of commercial platforms). In this sense, different instances of a platform confer varying degrees of citizenship and levels of civic participation (ranging through tokenistic to citizen power) depending on its soft infrastructure and how it is framed, configured and used. We have illustrated such variance by comparing three versions of the Decidim platform using the scaffold of smart citizen participation. The Barcelona instance of Decidim, while sponsored and used by city government, is produced by citizens for citizens and facilitates citizen involvement at all levels of production and governance. The form and remit of the Brazilian and New York instances of Decidim are more actively shaped by city government, but nonetheless enable direct participation in governmental decision making.

The provincialising nature of Decidim, with the affordance to craft the nature of citizen engagement through the platform and to foster trust through transparency, means that it has been adopted by numerous city governments and has become an integral aspect of some elements of city governance. Such is its embeddedness in Barcelona that its use has continued despite political changes to city government. In Brazil, in the wake of the Bolsonaro’s era, the aim is to build on the success of its latest federal participatory plan and transfer to the platform many more deliberative, consultative, or simply informative processes with a pledge of about 40 new participatory processes per month.²² Nonetheless, the extent to which other cities will adopt similar provincialised civic engagement platforms that enable citizens to claim and assert citizen power is uncertain. There is nothing automatic about platforms fostering active citizenship or empowering communities. Instead, platforms that enable citizen power demand the deployment of a great deal of collaboration, mutualistic involvement and exchanges, and stewardship that are crucial to the practice of commoning (Cardullo, 2021): for instance, intervention from community advocates with strong technical skills, a favourable political and institutional environment, a culture of direct participation and digital care, and ethical digital technologies made by ethical hackers. Such soft infrastructure it seems to us is vital to enable provincialised FOSS platforms to be exported and adapted to different places. The challenge then for communities seeking to increase civic engagement and public participation in urban governance is to create

²¹ It is worthy rephrasing here previous scholars’ contributions: e.g. Tornberg (2023) speaks of ‘variegated platformisation’, reclaiming Brenner’s et al. (2010) ‘variegated neoliberalisation’

²² Decidim Fest 2024

the conditions in which the production of such soft infrastructure can flourish. Only then will a form of platform urbanisation arise that is not entirely captured and controlled by corporate and state interests.

CRedit authorship contribution statement

Paolo Cardullo: Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Rob Kitchin:** Writing – review & editing, Conceptualization.

Declaration of competing interest

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