

Democratic possibilities and limitations of digital co-creation

Exploring ICT facilitated platforms in Reykjavik and Barcelona

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Abstract

Platform-based, virtual co-creation in cities is currently a major, global trend. In response to democratic challenges, cities like Madrid, Barcelona, Paris and Reykjavik invite citizens to co-create the city through virtual platforms. Based on research in the fields of e-participation and digital crowdsourcing and drawing on the first mover cases of Reykjavik and Barcelona, this article explores the democratic possibilities and limitations of this type of digital co-creation.

Keywords: Co-creation, e-participation, virtual platforms, crowd-sourcing, democracy

Introduction

Digital technologies play an increasing role in co-production and co-creation, as ICT-facilitated forms of co-creation are gaining popularity across the world. The aim of this article is to explore possible democratic gains and limitations of introducing digital platforms for co-creation. Focusing specifically on virtual crowdsourcing in



cities, the article seeks to answer the following three questions: To which extent do these platforms lower the threshold of participation? To which extent do they grant citizens agenda setting and decision-making powers? And finally, to which extent do they contribute to solving the democratic challenges facing cities?

The article proceeds as follows: In the first paragraph the concepts of co-production/co-creation and ICT are defined. The second paragraph describes the democratic challenges currently experienced by cities in the Western World, elaborating on Reykjavik and Barcelona as empirical cases of ICT-based co-creation and on the methodologies applied in data-collection. The next paragraph unfolds the theoretical framework applied in terms of e-participation and crowdsourcing/techno-politics. The article then proceeds to discussing the possibilities and limitations of ICT facilitated co-creation from a democratic perspective and is rounded off with a conclusive paragraph.

Theorizing co-production/co-creation and ICT – and the relation between them

The notions of co-production and co-creation have been disputed and interpreted in different ways by researchers (Tortzen 2019; Agger and Tortzen 2015). This article uses the notion co-creation drawing on the distinction between co-production and co-creation introduced by Brandsen & Honingh (2018) based on the kinds of inputs, citizens contribute in the process: "...when citizens are involved in the general planning of a service – perhaps even initiating it – then this is co-creation, whereas if they shape the service during later phases of the cycle it is co-production" (Ibid 2018, 13). This understanding of co-creation corresponds with Pestoff's (2012) notion of co-governance signifying citizens participating on the input side of the policy circle.

The notion of co-creation accommodates a shift to a more collaborative paradigm of public governance (Osborne 2010) positioning the public sector as facilitator of collaboration across sectors and stakeholders to mobilize resources for solving complex societal challenges. Co-creation in this understanding involves decision makers sharing power with citizens and other stakeholders, transforming the role of citizens from voters or consumers of public service to co-creators (Tortzen 2019; Durose et al. 2013; Needham and Carr 2009).



Research points to the potential of ICT (Information and Communication Technologies) to strengthen the participatory element of the collaborative governance paradigme and possibly transform co-creation (Lember 2018). However, there is still little systematic evidence on the effect of digital technologies on co-creation in practice (Lember 2018; Lember, Brandsen, and Tõnurist 2019). Overall, research in the field of ICT facilitated co-creation concludes that the relation between ICT and co-creation is complex and dependent on the specific context. ICT, thus, may influence co-production and co-creation both in positive and negative ways, i.e. empowering citizens, but also enforcing existing power-relations or transferring power and control to private companies (Lember, Brandsen, and Tõnurist 2019).

Cities facing democratic challenges: Reykjavik and Barcelona as first movers

Many cities in Western Europe face substantial challenges that create a need for inviting citizens to participate as co-creators. This paragraph outlines the main democratic challenges faced by cities, then presents the empirical cases of Reykjavik and Barcelona, including the methods used for collecting empirical data on these two cases.

Cities are arenas condensing 'wicked problems' in fields such as social inequality, unemployment, homelessness, mobility and climate change (de Lange and de Waal 2013; Meijer and Bolívar 2016; Durose et al. 2019) Many cities are currently facing a multitude of wicked problems and are challenged in terms of sustainability, socially as well as environmentally (Abrahamsson 2012; Tahvilzadeh 2016).

At the same time, many cities are struggling with a democratic deficit, resulting in distrust and protests among citizens organizing in demand of a 'real democracy'. Critical researchers (Abrahamsson 2012; Peters and Pierre 2012; Harvey 2007; Sassen 2000) point out that widespread neo-liberal governance of cities, focussing on growth, favouring capital interests and privatizing the 'commons' tend to result in 'postdemocratic' cities characterized by a democratic deficit and a lack of trust in the city government.

All in all, many cities currently find themselves in a challenged position democratically. Both in terms of *legitimacy*, i.e. citizens' participation, trust and support for the political system – and in



terms of *efficiency*, i.e. the ability of the political systems to solve wicked problems (Van Reybrouck 2013; Fung 2015). This creates a need for democratic innovation and co-creation and is an important explanation why platform-based, virtual co-creation in cities is currently a major trend.

Two cases of digital democracy and co-creation: Reykjavik and Barcelona

The article focusses on two cases of ICT-assisted co-creation in cities, i.e. Reykjavik and Barcelona. The two cities may be considered 'first-movers' as they have year-long experiences with using digital platforms for co-creation with citizens. The multi-purpose platforms applied in the two cities contain digital functionalities that facilitate citizens presenting, debating and voting on ideas and petitions for the development of the city as well as taking part in participatory budgeting, i.e. allocating funds to citizen driven ideas and projects. Thus, the platforms were introduced to expand civic participation and facilitate the sharing of agenda-setting and decision-making power with citizens.

Empirical data on the two cases have been collected through a combination of document analysis and semi-structured qualitative interviews face-to-face with central stakeholders, i.e. academic researchers, politicians and civil servants (Reykjavik N=4, Barcelona N=8). Informants as well as policy documents have been identified and selected through snowball sampling and subsequently analysed thematically (Tortzen 2020).

In both cities, the launch of virtual co-creation platforms has been spurred by widespread mistrust of the city government and political system resulting in popular demands for innovating democracy in the form of digital platforms for co-creation with citizens (Calatayud 2019; Castells 2015a).

Reykjavik, the capital of Iceland, was (probably) the first city in the world to develop and adopt a digital platform for crowdsourcing citizens' ideas on the development of the city (Better Reykjavik) in 2010. In 2012 the platform of Better Districts was added, facilitating a participatory budget of approx. 24 mil Danish kroner (6 % of the city's construction budget) on citizen-led initiatives in 12 local districts of the city (Calatayud 2019).



In the Spanish city of Barcelona, a political platform, Barcelona en Comú, formed by activists, has held a political majority in the city council from 2015 onwards, introducing an ambitious democratic transformation of the city governance (Castells 2015; Flesher Fominaya 2017). Part of this transformation being Decidim, a multi-purpose co-creation platform launched in 2016 for crowdsourcing, debating and voting on citizen proposals, for participatory budgeting (75 mil. Euros distributed among local areas) and for self-organizing among citizens.

Theoretical perspectives: E-participation, crowdsourcing and techno-péolitics

This paragraph places the phenomenon of ICT facilitated co-creation platforms in a larger theoretical framework. In doing so, it draws on two relevant lines of research on virtual co-creation, i.e. e-participation and crowdsourcing/ techno-politics respectively.

The e-participation perspective

From an e-participation perspective virtual platforms for citizen participation may be considered the last step in a twenty-year development of different forms of e-participation in the public sector directed at enhancing civic engagement and strengthening the legitimacy of governments and citizens' trust in public institutions (Le Blanc 2020). E-participation takes on a multitude of different forms from informing citizens to collaborating with them and from public service delivery to political agenda-setting (Le Blanc 2020). According to Le Blanc (2020, 9) "In many cases, making a participation practice digital mostly allows for doing more, faster and cheaper".

Research in the field of e-participation points to the fact that in spite of great expectations, e-participation has overall not succeeded in transforming democracy (Bastick 2017; Le Blanc 2020). On the contrary, e-participation possibilities are largely applied in ways that reproduce existing democratic processes and power relations. According to Bastick (2017, 10): "The Internet has largely been applied to further the political status quo rather than exploring alternative democratic futures." A recent review of research in the field of e-participation, thus, concludes that it is unclear whether the increased use of e-participation processes has indeed translated into in broader or deeper citizen participation (Le Blanc 2020).



The perspective of crowdsourcing and techno-politics

From the perspective of techno-politics, ITC-assisted co-creation platforms are but one of multiple types of ITC facilitated co-creation that constitute a transition 'from e-Government (citizen as customer) to we-Government (citizen as partner)' (Linders 2012). In Linders terms, the virtual participation platforms in Reykjavik and Barcelona may be categorized as a 'citizen sourcing' type of we-government.

Also, the term citizen-sourcing is central to understanding the democratic ideals inspiring the development of virtual co-creation platforms. The notion of 'crowdsourcing', i.e. a combination of the open innovation-concept of outsourcing with the idea of 'wisdom of crowds' are central notions in the ambition of fundamental democratic change brought forward by activists in both Reykjavik and Barcelona. The democratic ideal of the 'crowd' as opposed to representative democracy is expressed as follows by Tormey (2015, 119): "Swarms and crowds obey a different logic to those engaged in representative politics ...Individuals engaged in swarm politics are themselves actors. More than this they are not directed by someone, but rather part of an ecology that is itself without direction from above or anywhere else for that matter".

This alternative democratic ideal has been labelled 'techno-politics' and rests on the following basic ideas: 1. The internet and digital platforms constitute possibilities to transform democracy into a direct, non-hierarchical, network-based form of democracy 2. Representative democracy should not be trusted and is un-necessary – rather, individual citizens should be enabled to participate directly through digital platforms 3. Through these platforms, individual citizens have the possibility to interact like 'crowds' and 'swarms' without being governed by others (Tormey 2015; Curban, Peña-López, and Haberer 2017; Castells 2015).

Possibilities and limitations of ICT facilitated cocreation – from a democratic perspective

The following paragraph will discuss the democratic possibilities and limitations of ICT facilitated co-creation in terms of spurring civic participation and facilitating collaboration and power-sharing with citizens. It poses three central questions and answers them by drawing on empirical research, using the cases of Reykjavik and Barcelona as illustrative examples.



To which extent do the platforms for virtual co-creation lower the threshold of participation and expand citizen participation?

Research shows that digital citizen engagement has the potential to lower the 'threshold' of participation by offering an easily accessible and user-friendly channel, thereby allowing more citizens to participate. However, it has proved a challenge to attract groups of citizens who are not normally willing to participate, e.g. in planning processes (Schröder 2014; Randma-liiv and Vooglaid 2020). Digital citizen engagement platforms, furthermore, tend to require a lot of marketing initiatives to create visibility and awareness among citizens (Schröder 2014).

A limitation of virtual platforms is connected to the so called 'digital divide' that may exclude groups of citizens from participating. Le Blanc (2020, 16) point to three layers of digital literacy apart from physical access to ICT: The skills to operate computers and the Internet; the skills to look for and analyze information; and the skills to use web 2.0 functionalities to achieve one's individual goals. In general, e-participation has proved most successful when linked to or combined with events or processes of face-to-face participation that may serve to bridge the digital divide.

Case illustration:

The digital co-creation platforms applied in Reykjavik and Barcelona have both succeeded in attracting relatively large numbers of participants. In Reykjavik, 12 % of the inhabitants contributed via the Better Districts platform during 2019. Citizens at the age of 35-45 turned out as the easiest to engage, whereas younger and elderly citizens have proved more difficult to reach. It has taken several years and a lot of marketing and social influencer initiatives to direct citizens towards Better Districts (interviews, Reykjavik).

Barcelona's Decidim platform has had more than 1,5 mio. visits in the period of 2016-19 (Ajuntament de Barcelona 2019). Decidim has managed to increase the diversity of citizens participating, particularly through supplementing the digital platform through faceto-face meetings, facilitation of participation through civil society organisations and deliberately seeking to minimize the digital divide by providing special support for citizens lacking digital and other participation skills (Peña-López 2017).



To which extent do virtual co-creation platforms grant citizens agenda-setting and decision- making power?

A basic feature of the ICT facilitated platforms of co-creation is the access for citizens to communicate their ideas, opinions and proposals, ultimately affecting the political agenda setting and priority of local politicians. Engagement through digital platforms/channels has the potential of communicating ideas and preference of citizens in a quick and simple way to planners and policy makers. The question is now: To which extent do digital co-creation platforms contribute to transforming the power relations between citizens and public institutions by sharing political agenda setting and decision-making power?

The answer from empirical research is discouraging: Overall, there seems to be a reluctance on the part of political systems to genuinely share agenda setting and decision making power with citizens (Le Blanc 2020; Fung 2015; Bastick 2017). Summarizing a review of 20 years e-participation development, Le Blanc states (2020, 28) that e-participation "has generally not translated into broader or deeper citizen participation. …..the reluctance of political systems to genuinely share agenda setting and decision-making power seems to explain much of the observed limited progress". Thus contradicting the somewhat optimistic notion of the techno-political approach to power-sharing happening as a result of digital platforms.

Fung (Ibid 2015) launches the concept of 'trivial' citizen participation, i.e. participation that does not in any significant way transform the roles or shift the power relations between citizens and politicians. According to Fung (Ibid 2015, 15): "There are many different ways to restrict participation so that, at the limit, it is trivial: participants exercise little influence over outcomes, the agenda of issues that they consider can be highly constrained, or the resources and authorities invested in a participatory process can be tiny". Apart from a low level of responsivity of politicians towards citizens, research also points to organizational capacity and competences in administrative and political organizations as a limitation. Thus, it has proved a challenge for administrative and political systems to process and translate the input from citizens coming in through digital participation channels (Schuurman et al. 2012; Schröder 2014).

Case illustration:



The crowdsourcing platform Better Reykjavik applied by the city from 2010 serves as an illustration of the challenges, digital crowdsourcing may pose for political and administrative systems. The ideas harvested from the citizens did not in any significant way transform the political agenda or influence the way, in which the administration or politicians worked. The reasons: A lack of organizational capacity and resources in the city administration to back up the inputs from citizens. The administrators of the municipality were not sufficiently geared for the cross-sector collaboration needed to process ideas from citizens and did not receive extra resources for this task. The same was true for the political system: The city council committed itself to formally processing the highest-ranking citizen ideas once a month. This resulted in an 'overload' of ideas to be processed politically. The Better Reykjavik platform has slowly withered over the years and is in the process of being replaced (interviews, Reykjavik).

The case of Barcelonas Decidim platform, on the contrary, may serve as an example of the organizational and institutional support needed to make digital co-creation work. In Barcelona, Decidim is perceived as part of a systemic change transforming both the administrative and the political system. The city council, thus, aims at supporting the democratic transformation institutionally, allocating resources to improve the working conditions of civil servants and supporting them in collaborating with citizens by offering training and guidance. Also, all city councilors have signed a new codex for political ethics aimed at transforming the political culture by increasing transparency, avoiding corruption and supporting the accessibility and responsiveness of politicians (Barcelona en Comú 2015; P2P Foundation 2019; interviews, Barcelona).

To which extent do virtual co-creation platforms contribute to solving the democratic challenges of cities?

This question is highly relevant to the challenges facing cities - both in terms of *legitimacy* and *efficiency*. Research points to the fact, that in general, virtual platforms for co-creation carry a risk of low democratic quality. Digital participation platforms are characterized by researchers as 'thin participation' as opposed to 'thick participation'. 'Thin' democratic participation engages citizens as individuals and does not support mutual learning, dialogue or collaboration



(Nabatchi and Leighninger 2015). Democracy researcher Graham Smith (2019) warns against the absence of deliberation in digital participation and a tendency to focus solely on numbers: "..we have a real tension here between digital and deliberative democracy...I think the digital people are obsessed by numbers, and the funny thing is that this can very easily end up as an old politics — who is shouting the loudest? How many people are 'liking'? That reminds me of standard electoral politics".

In terms of efficiency, a central question is: To what extent are digital co-creation platforms suited for dealing with complex issues and conflictual interests that characterize the 'wicked problems' facing cities? In opposition to the optimistic view of the techno-political approach, Lember et al. (2019, 1666) point to some limitations of digital co-creation when dealing with complex issues: "Conflicting interests and diverging values among stakeholders, the inability of data and algorithms to mirror the complexity of societies, unevenly spread technological capabilities and other factors make digital coproduction a fundamentally ambiguous, open-ended and contested process".

Also, the potential 'wisdom of the crowd' highlighted by the techno-political approach is contradicted by empirical research. In a case study of a digital crowdsourcing platform (The Ghent Living lab in Belgium), Schuurman et al. (2012) found a low level of innovativeness. This is in line with previous research results showing that crowdsourcing often leads to mainly incremental ideas.

Case illustration:

The case of Better Districts in Reykjavik illustrates that the digital platform may at best serve as first step in a longer process of participation and dialogue but may not in itself be expected to transform the relation between citizens and public administration. Faceto-face meetings and dialogue with citizens have been added in Reykjavik to qualify suggestions and facilitate community building around local development. Over the years the use of the cocreation platform has been developed both on the side of the public administration and of the citizens supplementing the digital platform with face-to-face community building and deliberation (interviews, Reykjavik).

The case of Decidim Barcelona illustrates a paradox in digital cocreation: How may digital platforms inviting citizens to participate individually be used for solving the collective challenges of the



city? This dilemma is raised by one of the social activists behind Barcelona en Comu, who is also a researcher. He reflects critically on the capacity of the co-creation platform Decidim to support collective reflection and action: "We need more space for collective reflections. A platform such as Decidim invites contributions from individuals – making it difficult to form collective arenas.. we miss the possibility of thinking and discussing collaboratively" (interview, Barcelona).

Conclusion

This article explores the possibilities and limitations of ICT-facilitated co-creation in meeting the democratic challenges currently facing many cities both in terms of *legitimacy*, i.e. citizens' participation, trust and support for the political system – and in terms of *efficiency*, i.e. the ability of the political systems to solve wicked problems. The article draws on qualitative case-studies of two frontrunner cases of virtual co-creation platforms in the cities of Reykjavik and Barcelona, that were launched in response to widespread citizen protests with a hope of transforming democracy.

The analysis shows that virtual platforms do offer some democratic possibilities by lowering the threshold of participation and allowing more citizens to participate. However, a limitation to digital participation is the so-called 'digital divide' that may be bridged by linking or combining ICT-facilitated participation with face-to-face participation. In terms of power-sharing with citizens, co-creation facilitated by ICT tends to mirror the challenges identified in co-creation face-to-face, a major limitation being a reluctance of administrative and political systems to invest resources and build organizational capacity for genuinely sharing agenda setting and decision-making power with citizens. A systemic change in terms of organisational and institutional support is needed to support digital co-creation.

Furthermore, digital platforms are not per se suited for solving complex issues. Techno-optimistic ideals of solving wicked problems through harvesting 'the wisdom of the crowd' do not find support in the data. On the contrary, virtual platforms for co-creation carry a risk of 'thin' democratic participation that is not well suited for working with the complex issues and conflicting interests currently facing cities.



The article contributes to the research field of co-creation by supplying in depth knowledge on co-creation in cities through digital platforms. However, the empirical basis of this study is relatively limited and could be strengthened by studying more cases of ICT-based co-creation in cities.

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