COLLECTIVE INTELLIGENCE AND DIGITAL PARTICIPATORY PLATFORMS

Learnings from Barcelona’s Decidim

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The story

Democracy, collective intelligence, and digital technologies

This chapter explores the connection between policy co-production, collective intelligence, and digital technologies drawing on the Decidim experience. Decidim.org is a “free open-source platform that enables organizations and institutions to initiate participatory processes, such as deliberation, decision making, collaboration and co-design” (decidim.org). However, Decidim cannot be framed as merely a digital platform for political participation. It is rather an “open and free infrastructure for participatory democracy and a project that strives to be a model for political transformation” (Barandiaran, Calleja-López & Monterde, 2018). By channeling the collective intelligence of the many, Decidim seeks to better and more fairly include societal actors into policy co-production (Satorras, 2020) and society co-construction more broadly. It has a significant impact not only on the number of people who participate in collective intelligence processes, but also on the quality of citizen dialogue in digital societies. Decidim is an emergent model of a third generation type of digital network: a “political and technopolitical network” in which users are not viewed as mere “prosumers” but rather as political actors, and in which a collective will and identity is articulated, beyond the mere addition of individual tastes and preferences. (Barandiaran et al., 2018). It goes beyond informational networks, which revolve primarily around information (such as the world wide web in the 1990s), and beyond social networks (such as Facebook), which focus on social interactions and consumption between atomic individuals, frequently intervened or even manipulated by the platform (Zuboff, 2019). Decidim aims at constituting a political “we,” through organized processes of inclusive deliberation. This specific mode of communication seems key to nurture collective intelligence and generate collective understandings, actions, and decisions that exceed the mere aggregation of the preferences, skills, and agency of individuals.
A brief story of Decidim: From its cradle in Barcelona to its global expansion

The brand “Decidim” was initially introduced as a label for Decidim.barcelona, the city council’s participatory site, launched in the Spring of 2016. The site resulted from the local government’s will to generate broad citizen engagement around the drafting of the “Municipal Action Plan” (PAM, in Catalan), the strategic document that guides the city council’s action during its mandate. This first experience was a sound success, drawing the participation of 1,741 organizations and 39,000 people, 24,000 of which participated online via Decidim.barcelona. 15,021 people participated via the 410 physical gatherings organized during the process, some of which included the Mayor herself and prominent policymakers. The process generated 247,000 visits to the digital platform and more than 200,000 digital interactions (including proposals as well as comments and votes on the proposals).

A set of 1,300 proposals put forward by the local government was widely debated and subsequently complemented by thousands of citizen and organization proposals. In total, 10,860 proposals were submitted around the axes of Good government, Global justice, Plural Economy, Buen vivir and Ecological Transition. 76.6% of them were accepted, generating 5,523 results or approved actions. Every citizen could track what happened exactly to their proposals, in accordance with Decidim’s Social Contract principle of traceability. Whenever a citizen’s proposal was rejected, he or she received a well-argued response from a local official through the platform, explaining the reasons for the rejection in a transparent manner. The most common reasons were that the proposal had already been implemented, or was beyond the jurisdiction of the municipality, or was technically unfeasible. Whenever a proposal was approved, any citizen could follow its implementation (in percentage) through a specific follow-up functionality (Figure 25.1) (Ajuntament de Barcelona, 2019).

The success of the PAM process inspired and initiated a period of participatory innovation around local policymaking in Barcelona. Decidim became the go-to platform for the local government to learn more directly to what citizens need and think and to incorporate them into decision processes affecting their lives and the city’s destiny. With every new successful experiment, new needs were identified and fresh opportunities for citizen participation emerged. There was initially some skepticism, but the platform soon gained cross-party support and generated a technology-enabled participatory culture. In the five year period after it was first put in place in 2016, the platform registered 120,000 active participants in Barcelona, which has 1.6 million inhabitants, with an accumulated 27,000 citizen proposals and 3,500 physical gatherings channeled through more than 70 participatory processes. 8–10% of Barcelona’s population thus has had some level of engagement with the platform, whereas many digital platforms manage to engage 1–3% of their target population.

The early success of Decidim in Barcelona quickly drew interest from cities in Catalonia and other Spanish regions, such as Sabadell, Martorell, Pamplona, and regional governments such as Catalonia and Castilla La Mancha. As of 2022 the international network keeps growing with cities such as Helsinki, Veracruz, Mexico City, Toulouse, and New York using the platform. It has been used also in nationwide processes such as discussions of the French National Assembly, as well as supranational processes such as the Conference on the Future of Europe. In addition to innovation in the public sector, Decidim has been implemented successfully in the private and social sectors, with examples in the social economy, such as the cooperative of clean energy production Som Energia, or the Open University of Catalonia which used it for the participatory development of its five-year strategic plan.
Many examples of application of collective intelligence to diverse areas of policy making can be found in Barcelona in the 2016–2021 time period. One of the processes supported by Decidim – the city’s 2021 participatory budget – recorded nearly 39,500 participants, allocating a total of 30 million Euros (Aj. Barcelona. 2021). Over 2,000 proposals were presented by citizens, of which 822 were preselected by civil agents on the basis of solely technical criteria such as viability and applicability. The total amount was distributed between projects for the whole city and projects for the districts. The budget for the different districts was adjusted with criteria of equity, allocating resources inversely to the socioeconomic level of the different neighborhoods. The participatory budget resulted in the extension of the Superblock model\(^4\) and of green areas for pedestrians across the city; in the adaptation of the surrounding areas of several schools, diminishing traffic and making them safer; in the creation of 24 urban gardens; and the extension of 21 bicycle lanes and 14 playground areas. Some of the approved projects addressed historical demands of local associations and the Mayor committed to implement the projects with the most votes which could not be funded within the available budget for that specific process. Among various applications, Decidim was also used to co-produce green urban policy, such as the Plan Natura 2021–2030;\(^5\) to codesign the Barcelona Climate Plan aimed at “catalyzing a fair transition towards a decarbonised city resilient to the uneven and unavoidable impacts of climate change” (Satorras, 2020); and for the 2020–2023 Science Plan with the participation of researchers, scientists, university presidents, experts, and citizens to co-create the strategy to make Barcelona a global scientific hub.

Figure 25.1  Screenshot from Decidim’s Barcelona website, in the section of follow up of implementation of the 2016–2019 Municipal Action Plan.

Note: The Decidim accountability functionality allows the citizen to follow up on the level of actual implementation of the approved proposals, the 5 axes, and the overall plan.

The Conference on the Future of Europe: A continent-wide citizen conversation

Decidim has also been used to catalyze collective intelligence at national and supranational levels. The Conference on the Future of Europe "represents a milestone for digital democracy in Europe as a large-scale dialogue process to co-create a shared vision for the future of the Union. It was launched in April 2021 by the European Parliament, the Council, and the European Commission as a "citizen-led series of debates and discussions that will enable people from across Europe to share their ideas and help shape a common European future" (Conference on the Future of Europe, CoFoE, 2022). Decidim was chosen as the online multilingual deliberation platform allowing any citizen to publish ideas, to endorse or comment on them, in the 24 official EU languages. It is open to all. Anyone can set up and event, and organizers are provided with campaign material to help spread the word.

In less than a year, this has become the platform's consultation that has hosted the highest number of meetings (6,400) and one of the most active in terms of participation with more than 50,000 participants registered, 5 million visits to the website and 17,000 ideas generated. The conclusions of the process were captured in an extensive report that presented 48 key recommendations addressed to the European authorities. Behind such numbers, ongoing research by our fellow Emanuele Cozzo has found some limits, such as the fact that participants are publishing contradictory answers for similar issues. This raises two problems: which of the proposals will be incorporated into the conference if they are incompatible? How will these decisions be taken? Mediation between proposals and social listening must be taken into account in the design of participatory processes in order to increase the quality of deliberation and political commitments.

Decidim and collective intelligence at the political, technological, and technopolitical levels

The practical workings of Decidim embody a vision based on collective intelligence and democratic innovation which permeates all aspects of the design of the platform, its work methods, and its ecosystem. Decidim’s White Paper – a paper drafted by some of Decidim’s co-founders, which outlines what the project is about, why it is relevant, and how it works in practice – explains how Decidim aims to enable collective intelligence at the political, technological, and technopolitical layers (see Barandiaran, Calleja-López & Monterde, 2018, from which we heavily draw in this section).

At the political level, an example is the website of Decidim.barcelona, where citizens can find dozens of active and past participatory processes covering a wide range of topics. The specific design of each process may vary, but all have in common the enabling of direct communication between local institutions, citizens, and organizations, as well as among citizens themselves. There are thus bottom-up/top-down vertical (albeit bidirectional) channels of communication, as well as bottom-bottom, horizontal dynamics. This is aimed at facilitating collective intelligence processes in areas such as public policy.

From a technological perspective, Decidim works as a customizable and flexible matrix for participation. A majority of processes in Decidim.barcelona follow a similar methodological blueprint structured around four consecutive phases: “Information” (framing the process), “Debates” (generating and discussing proposals), “Evaluation and feedback” (deliberative selection of proposals), and “Implementation” (implementation of the resulting plan throughout the mandate). However, a much greater variability is afforded by the Decidim software.
On the front end side, the possibilities of process design are based on two key elements: the participatory spaces (Initiatives, Processes, Assemblies, and so on) and the components (comments, proposals, amendments, votes, results, debates, surveys, raffles, pages, blogs, newsletters, meetings, and so on). The participatory spaces constitute “the framework that defines how participation will be carried out.” On the other hand, the components are defined as “the participatory mechanisms that enable a series of operations and interactions among the platform’s users.” Due to the combination of these two elements, participatory experience through Decidim allows participants to perform different types of actions, such as browsing, creating, voting, supporting, commenting, endorsing, and many more. Crucially, Decidim also aims to seamlessly integrate online and face-to-face interactions rather than focusing on digital-only processes. Customizability favors such integration as well as the incorporation and catalyzation of collective intelligence, as administrators can more flexibly adapt the tool to community needs and increase the overall quality of their processes. Also, hybridization favors various modes of participation, potentially compensating the limits of either isolated digital-only or analog participation, thereby facilitating inclusiveness, deliberative quality, and the emergence of collective intelligence (Leal, pending publication).

On the back-end side of the software, the versatility and successful adaptation of Decidim to different needs is facilitated by its modular architecture. Rather than a “monolithic architecture” in which numerous elements are fixed and vertically integrated, generating structural dependencies and rigidities, a “modular architecture” gives relative autonomy to different parts of the platform and makes the addition and integration of features less costly (Pereira de Lucena & Blanco, 2016). This modularity, together with its free software policy, makes it easier for technical experts not only to intelligently adapt the platform but also to contribute their collective intelligence to the software.

Finally, Decidim’s key feature in relation to collective intelligence is its community, which is specifically designed to incorporate people who are not technical experts into the governance of the project. This is the “technopolitical” dimension of Decidim, which involves a community of innovators, hacktivists, citizen groups, civil servants and stakeholders, a growing body of academic research, an open space of experimentation in participatory practices, and an international learning hub. In 2018 this community took legal shape around the Decidim association, which has an assembly as its main decision-making organ. Through the community, a diverse and distributed collective intelligence helps to improve the project at numerous layers and levels, including, but also beyond, the software. This community is itself boosted by the use of the Decidim platform, deployed in meta.decidim.org, the community site, with more than 9,000 members worldwide.

To sum up, as a project, Decidim aims to nurture collective intelligence at the political level (institutions and policies), technological level (software), and technopolitical level (community). Furthermore, these levels feed back into each other, in what has been referred to as a “loop of technopolitical democratization” (ibid.) that increases “technopolitical autonomy” (Barandiaran, 2019). In this chapter, however, we will mostly attend to the political layer, with some comments on the technopolitical one.

The MetaDecidim community and its role in catalyzing collective intelligence

One of the defining aspects of the Decidim project has been the constitution of a quadruple helix community with a marked leadership of state and civil society actors in a public-communitary partnership. Already in 2016 a community composed by researchers, public
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servants, and common citizens began to meet periodically in two types of processes: community meetings (then called SOM, an acronym that in Catalan means “we are,” and which stood for “metadecidim operative sessions”) and research meetings (called LABs, the laboratory of Decidim). While in the former type of session all aspects of the project, from communication or UX to back-end features, were discussed and decided upon with community members, in the second type of meeting, the center of attention was knowledge-intensive problems, as well as the vision and the role of Decidim in society. Lab debates were held openly by researchers and citizens in half research, half intervention-oriented sessions. The emerging community not only met face-to-face in Barcelona, but also had its digital space, the mentioned meta.decidim.org site, based on Decidim software, as a permanent space for exchanging and debating proposals and ideas around the project, from the technical to the political. Yearly meetings, today called Decidim Fest, have served as a space for the growing international community. After its legal constitution as an association in 2018, the Barcelona city council signed an agreement by which the new legal entity came to hold control over the Decidim brand and core repositories. Decidim exhibits a public-common (or public-communitary) software governance, in which public institutions provide funds for the project and the association holds control over it. In 2018 Decidim became an effective public-communitary project around a digital commons.

The potentiality of this model lies in its ambition to move not only beyond the usual proprietary software model of private and corporate intelligence but also beyond the free software model (which is open to collective intelligence but mostly involving experts) by outlining a democratic software model (Calleja-López, 2017). Under this governance model the collective intelligence of anyone and everyone (built upon various modes of expertise, experience, desire, etc.) is potentially incorporated into the design of the software. A recent example illustrates this: the Decidim Community (Metadecidim) decided on November 4, 2021 to radically rethink the current interface of the platform, as design and usability limitations had become obvious to members through their variegated uses. The rethinking process is being articulated through several open debates and meetings to be concluded by August 2022 with a concrete proposal for renewal. The process has so far received around 40 ideas. As an example, our Tecnopolitica team at IN3/UOC is promoting a debate around the deliberative features of the platform, which are, in turn, key to favoring collective intelligence in processes aided by Decidim.

In this example we can see how Decidim recursively becomes a mean and an object of democracy, deliberation, and collective intelligence. We can think of this as a form of recursive collective intelligence, which operates on itself and puts the conditions of its own functioning and improvement in successive layers, from software to public policy. This, in turn, is only one of the many aspects of the recursive citizenship in digital society that Decidim aspires to foster (Calleja-López, 2017). It suggests, ideally, a technopolitical spiral of collective intelligence and citizenship. This spiral makes it possible (in principle) that whenever a specific need in the development of Decidim is identified, anyone can come up with a new solution and share it with the rest of the network.

Recent changes in Decidim’s Social Contract are another example of the types of improvements that the Metadecidim community has brought about in its ongoing processes of collective intelligence. The Social Contract was initially designed as a code for democratic guarantees and open collaboration that all members of the Decidim community and users of the platform are committed to follow (Decidim’s Social Contract, 2022). It was not a mere statement, but also an effort to consolidate Decidim’s vision into specific design and deployment principles aimed to ensure broader sociopolitical effects (Barandarian, Calleja-López
& Monterde, 2017). However, even though issues such as “participation washing” (i.e., deployments of the platforms contrary to the projects’ culture and ethos) had been debated since the early days of the project, the Social Contract did not contemplate certain uses (or abuses) of Decidim. A debate around potential modifications of the Social Contract resulted from a claim by a Chilean community member, posted as a comment in meta.decidim.org at the end of 2019, regarding the use of the platform by the Chilean government, accused of human rights violations by international organizations. The comment led to the launch of a new space, called Decidim Politics, to discuss Decidim’s principles, practices, and impacts worldwide. Among Decidim members, an open draft communication was created. At the end of the deliberation an official Decidim statement was issued to show its opposition to certain government uses of the platform (Decidim Blog, 2019).

What science tells us

To what extent may digital participatory platforms actually enhance collective intelligence for a better and more democratic governance? In today’s complex and conflictual modern societies, can the creative use of information and communication technologies (ICTs) actually contribute to incorporating “democratic reason” and the distributed intelligence of the many (Landemore, 2011) into better decision-making? In the first two decades of the 21st century, local and state governments around the world have adopted digital platforms as part of their governance toolbox in order to increase citizen engagement in public decision-making (Van dijk & Hacker, 2000; Macintosh, 2004; Saebø et al., 2008; Medaglia, 2012). Technology has been regarded as a key enabler of the interaction and communication among large numbers of people, including public institutions, individual citizens, and organized groups, vastly exceeding the possibilities of traditional analog-only modes of interaction. Among the purported benefits of using ICTs for participation in innovative ways has been the engagement of “a wider audience to contribute to democratic debate, where contributions themselves are broader and deeper” (Macintosh, 2004). However, numerous limits and myths have also been diagnosed within these processes and the analyses around them (Hindman, 2008).

In the context of participation, this deployment of technologies (specially, digital technologies) has enabled new spaces of mediation between citizens and public bodies, as well as between citizens themselves, in processes such as the negotiation and implementation of public policies. The technologies used are sometimes labeled as “govtech” (short for “government” and “technology,” a concept that broadly includes technologies used for the digitalization of government and its services) and, more particularly, “civic tech” (technologies specifically deployed in the context of civic participation, whose development is sometimes led by communities along with – or including – NGOs, private companies, volunteers, or even civil servants; Boehner & DiSalvo, 2016; Schrock 2019).

In places like Barcelona, the Decidim ecosystem aims to go beyond these models by radicalizing and blending various technopolitical practices of “co-production” of policy, community, and technology, while situating collective intelligence at its heart. According to the official definition of the Barcelona municipality, policy and political co-production is a “joint and shared way of working between the City Council and the social actors, regarding a specific action or policy of public interest and under municipal jurisdiction” (C40, 2018b, p.16, as quoted in Satorras, 2020). Policy co-production presumes the involvement of both government and community participants in a converging and learning process, including knowledge sharing and discussion of alternative measures (van de Ven et al., 2016). Co-production processes are aimed at
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creating an open, leveling field of interaction, dialogue or deliberation that includes government officials, citizens, and stakeholders where arguments can be exchanged, different ideas can be examined, and collective decisions can be produced. In a typical participatory process in Decidim, collective intelligence is facilitated in a sequential manner throughout the different stages via alternate moments of divergent thinking (opening the conversation to explore a wide variety of views, arguments, and options) and convergent thinking (selecting the best generated options and integrating them in a cohesive manner). Each phase builds up on the conversations and documentation produced in previous stages, which summarize the core agreements and common understandings achieved collectively.

When applied to politics, a variety of dimensions and potential effects can be underlined, one seems to be policy improvements resulting from the number of people involved (Landemore, 2011), or their cognitive diversity (Page, 2006), when they are mediated by the deliberative quality of the communicative interactions (Habermas, 1981). Academic research suggests that inclusive public deliberation, which is a defining methodological feature of collective intelligence processes, leads to an increase in the effectiveness and innovation of policy. Participation and, specifically, platforms such as Decidim have the potential to embed CI in all the stages of the policy production process: from the preliminary stages of setting the agenda and identifying the public challenge to the generation and evaluation of proposals; from the filtering and selection of options to the implementation, testing, and scaling of the solution(s) (See Boucher, chapter 3 in this Handbook).

The deliberative element means that citizens are invited not only to show their agreement or disagreement with the local government’s proposals, but also to voice their own proposals in an equal level to those presented by the officials, to show support to the proposals put forward by other citizens, to generate new options, and to weigh the pros and cons of the different available options. In this way, public officials can better identify citizen’s needs and diagnose problems which may be “outside of the radar”; gather new valuable ideas; spot certain “pain points” or actions in their original plans which could generate strong opposition and run early tests of the level of support of different action plans. The underlying hypothesis is that direct interlocution of public administrations with citizens leads to an increased legitimacy for political action derived from having had into account those most affected by their action and by having gathered a diversity of perspectives. The experiences with Decidim suggest that the policies resulting from this genre of consultative processes tend to be less controversial and enjoy broader levels of citizen acceptance. If we follow the hypotheses of the participatory and deliberative traditions, this increased legitimacy is related to the fact that any citizen has the opportunity to voice reasonable arguments to oppose certain policies, and that as a result of the deliberative process there is an increase in the quality of the resulting collective decisions.

There are different ways to understand collective intelligence, with varied implications for the conceptualization of co-production. In earlier works we have previously distinguished between a cognitivist, a computerist, and a technopolitical vision of collective intelligence, especially in digitally mediated environments (Toret and Calleja-López, 2014). A classic technopolitical and philosophical definition of collective intelligence can be found in Levy (1999) that etymologically interprets it as a “reading” and “working together (inter legere), as a union point not only of ideas but also of people ‘constructing society’” (we could add the “choice” or “selection” meaning of legere). We believe that this view is heuristically more interesting than cognitivist approaches that focus on some of the possibilities of intelligence as a primarily individual faculty, emphasizing their cognitive aspects or — in its pragmatic versions — defining it as the “ability to solve problems” (Heylighen, 1999) which only points to a
single aspect of the “society construction” noted by Levy. We also prefer it to computerist views that speak mostly of computation systems that are deemed intelligent. Levy further defines it as

an intelligence distributed everywhere, constantly valorized, coordinated in real time, which leads to an effective mobilization of competences. We aggregate to this definition this necessary idea: the ground and objective of collective intelligence is the mutual acknowledgement and enrichment of people, not the cult of fetishized or hypostatized communities.

Crucially we believe it necessary to follow Latour (1992, 1999, 2005), albeit critically (Hayles, 2021) in rethinking the “collective”, thereby stressing the need for extending the notion to encompass actors other than humans. In digital societies collective intelligence cannot be cut off from its technological preconditions, which (politically) shape and are potentially shaped by it.

Do’s and don’ts

The availability of a technological platform that connects many people does not guarantee per se the emergence of collective intelligence. While a growing number of studies have shown Decidim’s potential, they have also pointed out some of its limits, both on the political side, related to its deployment, and in relation to its design and community. In the Catalan context, which has been thoroughly studied (Borge et al., 2019, 2022), Decidim has faced a number of challenges, such as the cost of adapting it to municipal processes, limited interest in social media, relatively low participation levels, the difficulty of processing inputs from the platform by humans (with unavoidable limits), and the instability of local governments. There are threats too, such as when citizens use the platform to register complaints about minor street problems rather than to make proposals or deliberate, or when civil society organizations refuse to play the game. The digital divide, the fact that many Decidim functionalities are unknown to both users and administrators and the limited outreach of information campaigns by public institutions, which effectively reach only a portion of the total target population, are also limits to the platform’s impact. Most of these are exogenous rather than endogenous factors. However, some of them seem to be a result of its design, making it difficult to take advantage of its complex participatory architecture and to deliberate (thereby the redesign process mentioned above, activated by the community). Finally, the Decidim community itself faces crucial challenges, such as gender imbalance, typical of the tech sector. Such challenges are however being addressed (f.i.: via the DecidimFemDev program or by constituting a women-led coordinating committee) thereby showing the richness, and advances, of the platform and its community.

Based on the experience learned so far, we can stress that creating collective intelligence-based responses to public challenges is fostered by critical factors like the following:

1. **Cultivate and show a political will to listen to citizens and exert power in a more collaborative way.** According to Arnau Monterde, Head of Democratic Innovation of Barcelona’s townhall and coordinator of Decidim.barcelona, the key for its success is the “willingness of those in power to really listen to the citizens.” Participatory democracy platforms do not lead to an increase in citizen participation unless those in power sincerely seek participation.
2. **Trust comes first: ensure high standards of (digital) rights.** In an age of digital surveillance in which data has become a key asset, who owns the digital platforms and what use is made of the collected data affects the users’ rights, privacy, freedom of expression, and thereby the level of trust. Decidim has very high standards of digital rights, with advanced secure encrypted procedures and the limitation of data recollection to the bare minimum necessary to run the platform. It obviously does not share nor sell the collected data.

3. **Public-common governance leads to a public-common good orientation:** Decidim is highly open to community input and such nurturing of collective intelligence (and decision-making) feeds into a common-good orientation, from its open source nature to its feminist policies.

4. **Combine online and face-to-face dialogue:** The fostering of collective intelligence requires the facilitation of diverse spaces for citizen encounter. Processes should complement and combine rather than separate digital and analog processes, taking advantage of their possibilities to foster inclusive and quality participation.

5. **Participatory democracy starts at home: co-develop the technology.** Decidim is a software made in collaboration with its users. Thereby a lesson is to open up the development of technology to collective intelligence by involving users, communities, experts, citizens, and administrations in the development of the platform.

6. **A foundation and practice guided by democratic values: Decidim’s “social contract.”** The platform has a binding social contract, periodically improved, with a set of ethical and political values aimed to set high standards of democratic participation. This suggests to think beyond the code.

7. **Design processes flexibly to enable inclusive deliberation:** At the heart of collective intelligence is inclusive deliberation which allows all affected parties and a variety of perspectives to be heard and to contribute to better understanding. The lesson is to carefully include all voices and include facilitators that hold space for it.

**Notes**

1. The site was built upon Madrid’s “Consul” code. By early 2017, however, the software of the site had been entirely redesigned to render the platform more customizable, flexible, and adaptable to the local context, moving from a monolithic to a modular architecture (Lucena & Blanco, 2016), and giving birth to a brand new platform. For a detailed narration of the techno-political differences behind the separation, see Calleja-López (2017).

2. *Buen vivir* – “living well” – is a reference to the Quechua indigenous notion of *Sumak Kawsay*, which is the basis of a model of development centered around people as part of a larger social and natural environment. Bolivia (2007) and Ecuador (2008) enshrined *Buen vivir* in their constitutions as pillars of their legal systems.

3. https://decidim.org/modules/

4. The *Superilla* is a public space model implemented in Barcelona that transforms city roads into community green areas, prioritizing street-calming, citizen interaction, and sustainable mobility.

5. This was an urban naturalization and greening plan that the local government submitted via Decidim with the objective of adding 385 acres of green areas in 2023 with a long-term plan to protect and expand the city’s biodiversity.


8. From the *Climate Action Plan* that accelerated the ecological transition locally or the *Youth Forum*, oriented to empower the voice of young people in the city’s governance to the *Plan to Combat Unwanted Loneliness* or the 2020–2023 *Barcelona City of Science Plan*. 

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Within the literature of technopolitics (Winner, 1986; Hetch, 2009; Toret et al., 2015), probably one of the best definitions is Hecht’s (2009: 56–57) that understands it as “the strategic practice of designing or using technology to constitute, embody, or enact political goals.”

One may note here also the term “poltech” which refers more specifically to technologies employed to help parties and political movements in election campaigns.

References


Decidim (2021, April 19). Proud to see this instance of the @EU_Commission for #TheFutureisyours! @decidim_org is a free/libre and open technology that requires political greatness to achieve a truly democratic deployment. We look forward to them being up to the task [Tweet]. Retrieved 11 February 2022 from https://twitter.com/decidim_org/status/1384068551888171010.


