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Crowdsourced democratic deliberation in open policymaking: Definition, promises, challenges

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Abstract. While crowdsourced democratic deliberation is becoming more common in open policymaking, it remains unclear what its value and role is — and should be, and could be — in policymaking. This paper examines crowdsourced democratic deliberation and its features, comparing it to the traditional mini-publics approach in democratic deliberation and to general online deliberation. The paper shows the promise of crowdsourced democratic deliberation as a method for scaling up deliberation to masses, while also illuminating its challenges, rooted in the self-selected and distributed nature of crowdsourcing. The paper concludes that the value of crowdsourced democratic deliberation remains mainly procedural rather than instrumental in policymaking.

1 Introduction

Crowdsourcing has become a more common method in policymaking (Aitamurto and Landemore, 2015; Brabham, 2015; Noveck, 2015). National and local governments use crowdsourcing as a method for knowledge search and civic engagement, with the goal of developing stronger policies. While crowdsourcing as a knowledge search and discovery method in open policymaking has received

more scholarly attention, less attention has been paid on how crowdsourcing can serve as a method for large-scale deliberation, particularly for the more demanding forms of democratic deliberation. Therefore, this paper focuses on the notion of crowdsourced democratic deliberation, following the definition presented by Aitamurto and Landemore (2016). The paper examines the characteristics of crowdsourced democratic deliberation, and its value and role in crowdsourced policymaking.

The paper is structured as follows. The first part examines crowdsourcing as a method in policymaking. The second part discusses the notion of democratic deliberation, and the third part one about crowdsourced democratic deliberation. The last part elaborates the promise and challenges of crowdsourced democratic deliberation.

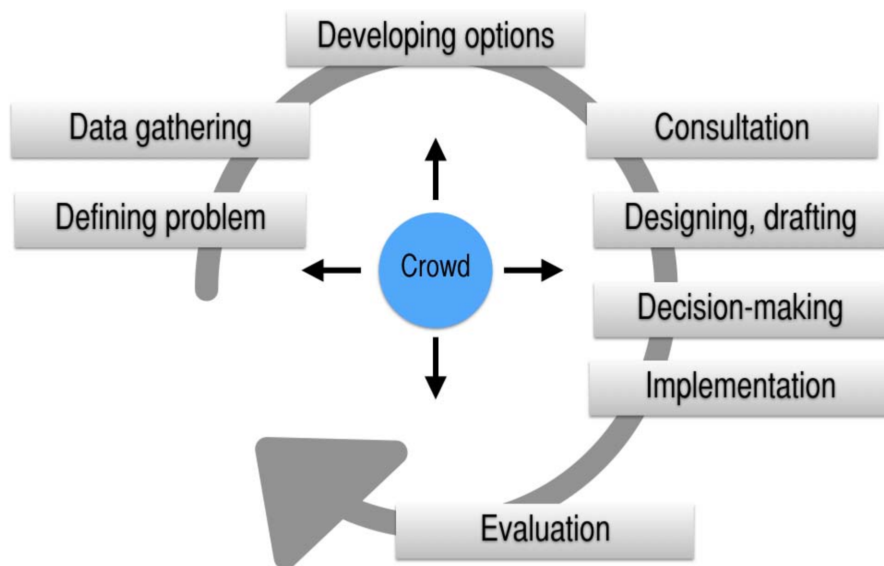
2 Crowdsourcing in open policymaking

Crowdsourcing is an open call for the crowd to participate in a policymaking process by submitting their ideas, knowledge or opinions. In the recent years, crowdsourced policymaking has become a widely used method across the world (Prpić, Taeihagh, and Melton, 2015). National governments in Iceland and Finland have applied crowdsourcing in law reforms (Landemore, 2014; Aitamurto, 2016), federal agencies in the United States have invited the crowd's input in strategy reforms (Aitamurto, 2012), and politicians such as the Lieutenant Governor of California, Gavin Newsom, has asked the crowd to submit ideas for the state's policy-agenda (Nelimarkka et al. 2014).

Public policymaking follows a cycle, which consists of several sequences: problem identification and definition, data gathering, developing options and proposals, consultation, designing and drafting the policy, decisions, and evaluation and implementation (Edwards 2001; Howlett et al. 1995; Peters 1999). Crowdsourcing can take place in several sequences of the policymaking cycle. The City of Palo Alto in California, for instance, is applying crowdsourcing in several parts of its Comprehensive City Plan update process. The crowd — the residents of Palo Alto — has been invited to provide ideas in the early stage of the policy update in a manner of an open call. After this initial period, the crowd has also been invited to contribute by commenting on policy drafts.

Crowdsourced policymaking is a method for participatory democracy (Pateman, 1972), not for direct democracy, unlike in participatory budgeting (c.f. Cabannes, 2004), because in crowdsourced policymaking the crowd doesn't have decision-making power.

Crowdsourcing is an online call for the crowd to participate in a task that is open online (Brabham, 2013; Howe, 2008). In crowdsourcing, the crowdsourcer



— **Figure 1.** Crowdsourcing in policy cycle. The crowd can be invited to participate in all parts of a policy-making process.

the leader of the crowdsourcing initiative, whether an individual, group or an organization — has the control over the crowdsourced process. The crowdsourcer decides what is being crowdsourced, when and how, and how the crowdsourced input is used. In contrary, in another popular mode of online collaboration, commons-based peer production, the locus of power is within the commons, the contributors. (Aitamurto and Landemore, 2015.)

Crowdsourcing can be applied in several ways in policymaking: as crowdsourced microtasking, crowdsourced ideation, and crowdsourced argumentation and deliberation (Aitamurto and Landemore, 2016). When crowdsourcing microtasking, the crowd is asked to conduct tasks that support policymaking, such as collecting data from the field with sensors or checking documents and then reporting the findings on the crowdsourcing platform, similarly to crowdsourced journalism (Aitamurto, 2015) and crowdsourced crisis management (Liu, 2014). In crowdsourced ideation, the crowd is asked to submit ideas for resolving issues in policy. If the policy regulates traffic, the crowd can be asked to provide solutions for instance about improving safety during heavy traffic conditions. The crowdsourced knowledge can be ideas, solutions, or situated knowledge expressed in of crowd's experiences, which can help the policymakers to formulate a stronger policy. In crowdsourced argumentation and deliberation, the crowd is asked to exchange arguments about a given topic, as on

dedicated deliberation platforms such as Deliberatorium (Klein, 2011), Consider.it (Kriplean et al. 2012), and Regulation Room (Farina et al. 2013).

Each type of crowdsourcing can be a call for open participation, that is, the process is open for anybody to participate. That is called public sourcing. The call can also be limited to only for a specific, pre-determined group of people, based on their knowledge, geographic location, or other characteristics. That is called expert-sourcing.

3 Democratic deliberation

Democratic deliberation is "the public use of arguments and reasoning among free and equal individuals" (adapted from Cohen, 1989, c.f. Mansbridge et al. 2010). Deliberation requires a reasoned exchange of arguments, and democratic deliberation requires equal standing among free participants ("free and equal") and a public, to a certain degree transparent exchange.[17] Democratic deliberation differs from general forms of discursive online communications and citizen engagement. The core features of democratic deliberation are the presence of arguments and critical listening among free and equal participants (Aitamurto and Landemore, 2016).

Deliberative democrats advocate for democratic deliberation for its epistemic and legitimacy-enhancing features (Marti, 2006). Democratic deliberation is argued to lead to a more informed and active citizenry, awareness of societal issues and learning, and the participatory nature of the process enhances legitimacy of the decision. As a result of successful democratic deliberation, the public is supposed to be thinking about societal issues in a more informed way than they previously were. The outcome of the deliberation should have more legitimacy because it has been preceded by a deliberation.

The golden standard for democratic deliberation has been set in the mini-publics approach in deliberation (Mansbridge, 1999). The mini-publics approach aims to detect the public opinion by gathering a group of citizens to deliberate about a given issue — for instance, about nuclear power. At the end, the participants' opiniosn about the topic is measured, and the opinion is thought to represent the public opinion of a larger population. The mini-public approach is applied in deliberative polling (Fishkin, 2009), and other similar forms of deliberation such as citizen juries. The participants are recruited by random sampling, and the number of participants is typically at most in some hundreds, and the sample is divided to smaller groups for deliberation.

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[17] This definition for deliberation is more requiring than a mere "deliberation within", that is internal dialogue, (Goodin, 2005) or cross-cutting exposure to others' opinions (Mutz, 2006).

4 Crowdsourced democratic deliberation

Crowdsourced democratic deliberation, as introduced by Aitamurto and Landemore (2016), conceptualizes democratic deliberation taking place in crowdsourced policymaking in a novel way, combining the core characteristics of democratic deliberation and crowdsourcing. The features of crowdsourced democratic deliberation are presented in the following (ibid. pp. 15-16):

- Crowdsourced democratic deliberation is embedded in a larger process, which is governed and controlled by crowdsourcers. Crowdsourcing has a goal and a structure for reaching the goal, including a mechanism for synthesizing and analyzing the crowdsourced input. The goal of crowdsourced policymaking is typically a stronger policy, and the analysis mechanisms vary from manual analysis to natural language processing tools. The crowdsourcers can be government officials organizing the crowdsourcing initiative, or other entities, who have initiated and are leading the crowdsourcing exercise. The crowdsourcer has the say about how the crowdsourced input is used, how and when, if it is used at all. This feature follows the nature of crowdsourcing, in which the locus of power is always within the crowdsourcer.

- Crowdsourced democratic deliberation is always based on self-selection, because crowdsourcing as a method is inherently based on a self-selected group of participants as opposed to random sampling. This means that crowdsourced democratic deliberation doesn't attempt to recreate "the public opinion" — which would be a biased result due to the selection bias.

- Crowdsourced democratic deliberation includes reasoned argumentation, including critical listening between free and equals in public. *Equality* refers to the equal possibility to have an influence through crowdsourcing. That includes the access to the crowdsourced process, and the possibilities to act within the process, without anybody censoring or overriding the individual. *Publicity* means the horizontal transparency of the online exchanges; the participants can see what others are saying.

- Crowdsourced democratic deliberation is distributed, asynchronous, and depersonalized in nature. Crowdsourced democratic deliberation is distributed across time, place, and across viewpoints rather than between participants. The participant crowd is distributed

geographically, and their participation is distributed across time: the deliberative interactions rarely happen real-time, but they take place asynchronously. Crowdsourced deliberation is depersonalized in that it is distributed across viewpoints rather than between actors. This means that a participant can choose to respond to certain arguments that are presented in the deliberation, and another deliberator can take on a previous or earlier argument in the thread and continue from there. That differs from offline deliberations, in which the golden rule is to respond to previous argument first, and the arguments are exchanged between persons. In crowdsourced deliberation, we don't often even know if the participants are same or different, due to the anonymous nature of the crowd. This often leads to highly person-centric to the other participants' arguments, but they choose which arguments they care to respond to, build on, or to propose new ones.

5 Differences between crowdsourced democratic deliberation, mini-publics and online deliberation

As the aforementioned list of features show, crowdsourced democratic deliberation differs from the traditional mini-publics approach in several ways. Instead of random sampling, crowdsourced democratic deliberation is based on self-selection. Randomization, however, could be applied even within the self-selected crowd, assuming that the crowd is large enough to be divided to smaller groups, and the technology facilitating deliberation would meaningfully enable small group deliberations.

Crowdsourced democratic deliberation happens online, and allows mass-participation, instead of only small group of participants. Its asynchronous, distributed, and depersonalized nature gives more freedom to the participants: they can participate as much or as little as they want, and they can choose the place and time too. The mini-publics approach, instead, requires a physical presence, often times traveling to the location, and a continuous presence and participation before the deliberation is over. Crowdsourced democratic deliberation is typically also anonymous, following the nature of crowdsourcing, which is often based on anonymity.

Crowdsourced democratic deliberation differs from other types of online deliberation. Crowdsourced democratic deliberation is a part of a larger process, which is governed by the crowdsourcer, and the process has a goal. In crowdsourced policymaking, the goal is typically to develop stronger policy, and deliberation can support the goal with its epistemic qualities. Crowdsourced

democratic deliberation thus differs from discussions on newspapers' commenting forums, or other online forums, on which people exchange arguments. While these interactions may qualify even as democratic deliberation, they don't fulfill the criteria of crowdsourced democratic deliberation unless there is crowdsourcing activity, including a goal and structure in the process. Deliberation on platforms such as Consider.it and Deliberatorium could qualify as crowdsourced democratic deliberation, assuming that they meet the aforementioned criteria.

6 Promises and challenges of crowdsourced democratic deliberation

Now that we have established what crowdsourced democratic deliberation is, let us focus on examining the promises and challenges of this type of political communication. Crowdsourced democratic deliberation holds the potential for scaling up democratic deliberation from small group interactions with physical presence to mass-scale online deliberations. That means faster, cheaper and more widespread deliberations, because the participants don't need to travel to attend deliberations with physical presence but they can participate conveniently online. Empirical evidence shows that democratic deliberation takes place in crowdsourced policymaking (Aitamurto and Landemore, 2013; 2016), which shows promise to sustaining both large numbers of participants and the qualities of democratic deliberation.

Despite its promise, crowdsourced democratic deliberation faces serious challenges, the first one being its value in policymaking. Does crowdsourced democratic deliberation have any import to the actual policymaking process? Deliberative democrats would argue that yes, it does: it creates value with is epistemic and legitimacy enhancing qualities. Both of these are, however, debatable. First, while democratic deliberation may produce knowledge, does it produce more useful and usable knowledge than crowdsourced knowledge search through ideation or other type of knowledge sharing? In crowdsourced democratic deliberation, the crowd exchanges arguments about the given issue, resulting to long comment threads. The crowd is asked to express their opinions and share supporting arguments, not knowledge. Most likely there is knowledge shared too, but it is buried in opinions and arguments. While the quality of democratic deliberation may be high in these discussions, the amount of unstructured data can make the analysis process impossibly burdening to crowdsourcers. Even if the analysis could be automated, say, for instance, with sentiment analysis, it remains unclear what the value of the crowdsourced arguments are. As elaborated earlier, crowdsourcing is a self-selective method, leading to a non-representative sample of the population — not to the public opinion based on a random sample. The

self-selected crowd most likely has an interest bias (they participate because they have a stake in the issue, and are already active in the issue) and demographic bias (they have access to the online process) What is the value of aggregated preferences of a non-representative crowd?

When crowdsourcing for knowledge, instead for deliberation, the process is ideally designed for collecting solutions for defined problems, often giving a structure in which the solutions are proposed. That unifies the data and makes it easier to analyze, whether manually or automatically. Because the goal is to find knowledge — for instance, solutions — the crowd's input is analyzed based on the knowledge value in it, that is, using criteria such as the feasibility, effectiveness and cost-efficiency of the solution.

To this end, crowdsourcing for knowledge should have stronger epistemic qualities in policymaking, but the legitimacy claims of crowdsourced democratic deliberation still remain. When citizens participate in democratic deliberation en masse, we could argue that the outcome of the process — the policy — has more legitimacy than a policy that has not been deliberated in public. However, how legitimate is a process, in which a self-selected crowd with most likely an interest bias and a demographic bias, has deliberated about an issue and expressed their opinion? Does the transparency and (assumed) large numbers develop the legitimacy, or should we expect some kind of representativeness of the participants? In traditional deliberation, the legitimacy is ensured by selecting the participants, either based on random sampling (public deliberations) or elections (deliberations among political representatives).

There is also an inherent discrepancy between the traditional use of deliberation and its role in crowdsourced policymaking. Traditionally, deliberation is often primarily tied to decision-making. In crowdsourced policymaking, instead, the crowd participates in the research and drafting parts of the process, producing options that are considered to the policy. That means there are often hundreds, and even thousands of options, in the form of proposed ideas and comments. There are not just two options that the crowd would deliberate about, and the crowd is not a part of the decision-making process. Therefore, even if the challenges with representativeness were solved, it remains unclear what role the aggregated preferences of the crowd should play in policymaking.

Deliberation, of course, can have other positive effects, such as peer-learning and social awareness, which should be taken into account when evaluating the value of crowdsourced democratic deliberation. These are, however, have more procedural than instrumental value in reaching the goal, a stronger policy.

There are other open questions too. One is about quality and scale. Can mass-scale deliberation be as high quality as small-scale, in-person, highly controlled democratic deliberations? How much reasoned argumentation and critical listening there has to be present so that a crowdsourced process qualifies as being crowdsourced democratic deliberation? How should the quality of deliberation be

measured? Crowdsourced democratic deliberation may have its own, inherent features that are distinct from democratic deliberation.

The latter set of questions can be addressed by smart design of the process. But the former ones are higher in priority, and we need to address those before moving forward with any design decisions. As is, crowdsourced democratic deliberation has primarily procedural value with its legitimacy enhancing qualities. Epistemic value remains unproved, and thus, the method lacks instrumental value: it is unclear if it helps developing stronger policies. Therefore, the main question remains: What is the role of crowdsourced democratic deliberation in open policymaking?

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