

# Participation in a New Media Landscape - a Literature Review of Participation Tools

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*Abstract: In this paper, we present our preliminary findings from a literature analysis of eParticipation tools. The background for the study is the expectation from many national governments that local politicians should have an ongoing digital dialogue with citizens. Media technologies and communication tools frame, structure and shape debates based on their affordances, underlying sociocultural as well as sociotechnical context. The purpose of this work in progress is to present our initial findings from a literature study of eParticipation tools. The literature study will form the foundation for future work, which includes a further examination of the potential political/deliberative consequences of different technologies. The study is set in a Norwegian context.*

*Keywords: eParticipation, democracy tools, literature review, deliberation, political communication*

## 1. Introduction and Background

Democracies have an obligation to involve their citizens in the democratic process, through elections, membership in political parties (Dewey, 1927; Oppenheim, 1971) and by facilitating dialogue within the framing of representative democracy (Brooks & Manza, 2007).

Ferree, Gamson, Gerhards, & Rucht (2002) describe four different approaches to democracy (Representative Liberal, Participatory Liberal, Discursive, and Constructionist). These four approaches, or models, describe different normative criteria for a functioning democracy in terms of "who should speak, the content of the process (what), style of speech preferred (how), and the relationship between discourse and decision-making (outcomes) that is sought (or feared)." (p.290).

Different democratic nations emphasize different approaches. As the authors are in Norway, we will argue from the perspective of the Norwegian political context. Norway is arguably close to what Ferree et al. (2002) describe as participatory liberal, or perhaps discursive, democracy. It is a stated objective that citizens, organizations and businesses should be involved in the decision-making process, also between elections (participatory liberal model), and general participation in the public sphere is also seen as an important part of democracy (Discursive model). Participation is even part

of the constitution, §100: "Government is required to facilitate an open, inclusive and enlightened public debate" (authors' translation).

Despite this objective, democratic interest and participation is declining in many areas. In 2017, 7 percent of Norwegians were members of a political party and only 2 percent considered themselves as active members (attending meetings etc.) (SSB, 2017). At the same time, our options for participating have never been better. Social media, for example, allow us to express our political opinions and take part in public debate, and is also an important tool for mobilization and protest (Steen-Johnsen, Enjolras & Wollebæk, 2013).

### 1.1 Local Political Debates and Participation in a New Media Landscape

The Internet brought about a belief that more people would participate in democratic discourse, both nationally and locally. Research on the democratic effects of digital tools have to some extent dampened this belief. New media and participation channels introduce new dilemmas for participation, and the Internet has not necessarily led to new groups of people being engaged, or a more deliberative public debate (Skogerbø & Enli, 2008).

Early attempts at democratic discussion forums showed that few were able to attract participants, and those who did participate often disappeared after an initial burst of interest (Sæbø, Rose, & Nyvang, 2009). When social media appeared, there was much interest from local politicians, municipalities, and political parties. In social media such as Twitter, blogs and Facebook, active citizens formed protest groups and discussed politics, and local politicians attempted to tap into this engagement (Brandtzæg & Lüders, 2008). Based on the idea that participation has not disappeared, but rather found new forms, many municipalities established a presence in social media (Segeberg & Bennett, 2011). While social media has made it easier to engage in political debate, the quality of debates has not necessarily benefited (Johannessen, 2018). Debates are often fragmented and with little direction, which makes it difficult to include in formal political processes (Majumdar, 2017). Policy informatics emerged as an approach to collect and analyze unstructured social media data through data mining and machine-learning (Androutsopoulou, Mureddu, Loukis, & Charalabidis, 2016).

In Norway, the organization for municipal cooperation (KS) has published two studies showing that on the local level, municipalities have been successful in using social media for information, reputation building and crisis management, but less successful in tapping into the deliberative possibilities of social media<sup>12</sup>. While politicians on the national level have become active social media users, local politicians have been more reluctant, with a few being very active but most being absent (Enli & Skogerbø, 2013; Elvestad & Johannessen, 2017).

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<sup>1</sup> <http://www.ks.no/globalassets/vedlegg-til-hvert-fagomrader/utvikling/fou/politisk-lederskap-og-dialog-gjennom-sosiale-medier.pdf>

<sup>2</sup> <http://www.ks.no/contentassets/40a67437a2b3485d9e995fe061fee0f0/kommunesektorens-bruk-av-sosiale-medier.pdf>

A third option, tools tailor-made for participation, was emphasized in the EU FP7 funding programme, and from around 2013/2014 we started to see new participation tools presented at conferences (see f.ex. Liddo & Shum, 2014; Porwol, Ojo, & Breslin, 2014)

So far, there has been little research into how different tailor-made tools or participation can be applied in Norwegian local communities. The purpose of our project is therefore to summarize and map the different tools presented by literature (this work in progress-paper), and further to examine if and how these tools are being used, and how they can be used to further participation. This introduces the following research questions:

*RQ1: What can we learn from existing research on tools for deliberation?*

*RQ2: How can we categorize and sort different types of tools and their usage areas?*

*RQ3: How can we measure the usefulness of such tools for (Norwegian) local democracy?*

## 2. Research Approach

In this paper, we mainly address RQ1, and present our preliminary findings from a literature review of participation tools. Literature reviews are important tools for summarizing research in a given field or subject, as long as the review clearly states how data collection and analysis was done so others can replicate the review (Templier & Pare, 2015). Our process was as follows:

We downloaded the Digital government research library V16.6<sup>3</sup> (DGRL), as DGRL covers most of the relevant journals and conferences for e-Government and e-Democracy. We used Endnote to search the DGRL (title, abstract and keyword sections) for variations and combinations of the following keywords:

tools, (e-)democracy, (e-)participation, deliberation, consultation, policy modelling

To be included in the list, articles should describe a specific tool or method for democratic participation. This narrowed down the list quite a lot, as few articles address concrete tools. Further, we classified the relevant articles according to the following:

Type of system (what kind of participation, thematic area)

Research focus (evaluation/implementation, development)

Empirically validated (yes, no)

To narrow our selection, we first selected based on article title and keywords, and further narrowed the list by reading the abstracts to search for specific democracy tools.

The DGRL contains 14.940 articles published between 1995 and 2020. More than 1300 of these address digital (e-) democracy, around 600 address social media, 154 social media + deliberation or

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<sup>3</sup> <http://faculty.washington.edu/jscholl/category/egrl/>

consultation and 158 contains the combination "tools" and "democracy". Finally, we searched for open data + deliberation or consultation, which provided 39 hits in the DGRL.

After the second screening, we were left with 49 articles (see table 1 below for the resulting literature matrix). Many of the articles in the initial sorting discussed participation in general terms with no mentions of specific tools, or social media without specific methods or frameworks for data use. These were not included, as we concentrated on articles explicitly discussing development or evaluation of specific tools. If we had included case studies of participation in geographic regions or social media in general, we would have been left with a much larger list. The articles identified in the DGRL mainly divided into two categories: Development and evaluation. Most of the articles have empirical data, mostly case studies or evaluations of pilot projects. Finally, it is worth noting that there are a lot more democracy tools than studies of democracy tools. Many of these are presented in the Oxford Internet Institutes «Civic tech field guide»<sup>4</sup>, but as our focus was academic research, we have not included these in the current phase of our project. We mention the Oxford guide simply to acknowledge that there are a lot of tools out there, and a great need for research into their implementation, use and effects.

### 3. Preliminary Findings

The first thing we looked for was what type of democratic purpose or democratic model the articles discussed, and there is great variation in how explicit the included articles are in this regard. Some mention a democracy model or purpose, but most leave this up to the reader. The generic term "participation technology" is the most commonly used. The articles are more focused on concrete usage areas, and in our DGRL sample we found four categories that broadly fit all the articles: Participatory budgeting, urban planning (including smart cities), open data and policy informatics. In addition, we found the categories deliberation and consultation implicitly mentioned in many articles.

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<https://docs.google.com/spreadsheets/d/1FzmvVAKOOFdixCs7oz88cz9g1ffPHDlG0AHgHCwhf4A/htmlview#>

Paper	Type of system							Focus			Research approach			
	Participatory budgeting	Urban planning	Open data	deliberation	Consultation	Analytics	petition	Implementation, development	Evaluation	empirical	conceptual	Design	Framework/method	
Singh, 2020		x							x	x				
Panek & Paszto, 2020		x						x			x			
Davies & Procter, 2020				x					x	x				
Aditya, 2020		x						x				x		
Sousa et al, 2019	x								x	x				
Sari et al, 2019							x	x				x		
Germann & Gemenis, 2019														
Sousa et al, 2018	x				x			x				x		
Perez et al, 2018				x	x				x	x				
Pautz, 2018				x					x	x				
Panek, 2018		x							x	x				
Gutierrez et al, 2018		x						x				x		
Fernandez-Martinez et al, 2018					x	x			x	x				
Zepic et al 2017	x								x	x				
Panek & Pazto, 2017		x						x	x	x		x		
Omar et al, 2017	x							x				x		
Khan et al, 2017		x						x				x		
Dong et al, 2017			x						x	x			x	
Cai et al, 2017				x				x					x	
Afzalani et al, 2017		x						x					x	
Åström & Karlsson, 2016				x					x	x				
Talantsev et al, 2016					x	x		x					x	
Puron-Cid et al, 2016			x			x		x					x	
Niemeyer et al, 2016	x							x				x		
Forbes & De Paoli, 2016				x				x				x		
Charalabidis et al, 2016			x					x				x	x	
Androutsopoulou et al, 2016						x		x					x	

Paper	Type of system							Focus			Research approach			
	Participatory budgeting	Urban planning	Open data	deliberation	Consultation	Analytics	petition	Implementation, development	Evaluation	empirical	conceptual	Design	Framework/method	
Veckman & Va der Graaf, 2015		x						x		x			x	
Tambouris et al, 2015					x				x			x		
Showers et al, 2015				x					x	x				
Moss et al, 2015						x			x	x				
Mietzner et al, 2015		x						x				x	x	
Hansson et al, 2015			x						x		x			
Hagen et al, 2015						x		x				x		
Charalabidis et al, 2015						x		x				x		
Taudes & Leo, 2014					x				x			x		
Sánchez-Nielsen et al, 2014					x			x					x	
Porwol et al, 2014						x		x				x		
Lyons et al, 2014		x							x	x		x		
Loukis et al, 2014				x					x			x		
Liddo & Shum, 2014				x					x	x		x		
Lampe et al, 2014				x					x	x		x		
Hellberg, 2014			x						x	x			x	
Porwol et al, 2013				x				x		x			x	
Patterson et al, 2013		x						x		x		x		
Graves & Hendler, 2013			x						x		x	x		
Chun & Cho, 2012				x					x	x		x		
Benn & Macintosh, 2012				x				x			x	x		

Five articles discuss participatory budgeting (PB). PB in short allows citizens to "make their own" budget. In its simplest form it is about distributing funds to various areas, so people can see the consequences of distributing limited funds. More money to health means less for education or transport. More advanced PB solutions also simulates citizen sentiment towards the budget, for example reactions to a tax hike. In other scenarios, PB sets aside a sum of money for actual citizen distribution (Sintomer, 2008). In our sample, we find evaluation of concrete cases (Zepic, Dapp, &

Krcmar, 2017) and descriptions of tools or designs for PB (Omar, Weerakkody, & Sivarajah, 2017). Tool-oriented articles tend to focus more on how the systems works, and not as much on democratic effects, outcomes or contextual issues.

The second category is urban planning, with 12 articles. In this category we find articles presenting designs for systems, or descriptions of systems aimed at including citizens in various stages of urban planning. One is an evaluation of the City of Chicago's tool for dialogue, a system actually in use, (Lyons, Walsh, Aleman, & Robinson, 2014), while most of the other articles discuss development of systems, some in the design stage, while others have been run as pilot projects.

Open data also receives some attention in a democratic setting. Open data is publicly available data sets, published in a machine-readable form under an open data license which allows users to use, reuse and redistribute the data. An important motivation for open data is to provide citizens with information which allows them to reach reasoned conclusions and opinions when participating in democratic activities (Attard, 2015). The articles in our sample discuss how open data can be essential for deliberation and transparency, but also point out that there is little research on how to realize the democratic potential of open data (Hansson, Belkacem, & Ekenberg, 2015). Other articles are critical towards the statement that simply publishing data will lead to increased engagement (Hellberg, 2014), or point out that even if open data has democratic potential, the learning curve is steep and there are few good, non-technical tools out there to process data sets (Graves & Hendler, 2013). This category is somewhat special, as it does not explicitly mention concrete tools. However, we mention it because there has been much debate on open data as an underlying requirement of a reasoned debate. As such, it is heavily intertwined with the policy informatics/analytics tools we found.

The fourth category we identified involves using and analyzing data, which is not necessarily part of a citizen dialogue but rather the result of citizens actions or statements. Policy informatics (and/or data analytics) concerns the use the use of analytical tools for unstructured data from sources such as social media. Many of these articles mention that rather than trying to establish new arenas or tools, we should concentrate on what is there, and use algorithms and analytical techniques to make sense of the discussion that is already taking place in social media and other digital platforms. This can for example be used as an advanced form of polling and included in the political decision-making process. One of the articles take a rather elitist approach and point out that today political decision-making has become such a complex and intertwined area that what we really need is not another platform for debate, but access to experts, and suggests a system for identifying experts in varying fields (Androutsopoulou et al., 2016).

The next categories we identified are deliberation and consultation. In this area there is a variety of articles discussing concrete cases, tools and systems for consultation, and quite a few presenting a more generic approach or framework for deliberation. The latter was excluded from our screening, but we still retained a few articles just to present an overview of what is being discussed in relation to deliberative systems. More work is needed to examine the papers in this category more closely, but so far we see that few articles are explicit in stating what kind of dialogue they want to facilitate, who initiates it, the impact it should have in the political decision-making process, or where in the process results for deliberation should be applied. The evaluation articles in this category indicates

that open discussions provide little in terms of constructive participation, but systems that require more preparation and knowledge from the user can provide more valuable input. The catch is that these complex systems also struggle with few users.

#### 4. Discussion and Future Research

Overall, the literature on democracy tools tend to present results from limited pilot studies, present results in terms of quantitative figures (with some discussion on qualitative success criteria). We have identified a potential catch-22 in that systems with high quality feedback tend to attract few users, while systems with many users tend to generate low quality. This is by no means certain, but needs further research. Finally, we see that most tool-based articles focus on the technology, with little or no discussion on the democratic context/model or outcomes, which makes theorizing on tool/democracy combinations another avenue for further research. Future plans include the above-mentioned, as well as more empirical work on how Norwegian municipalities use (or can use) these tools to further local democratic participation.

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