



An e-participatory map over process methods in urban planning

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Abstract:

In this paper, we put the concept of e-participation in a wider perspective. Based on experiences of using participatory process methods in urban planning, we address the importance of communicating underlying epistemological beliefs in various participatory methods. Using eight cases of urban planning, we show how an analysis of the interplay of the concept of agenda, participant, and method can be used when developing strategies for e-participation. The investigation reveals a lack of procedures and methods for actively visualizing different groups' and individuals' unequal influence on the participatory processes and decisions. In contrast to the usual governmentally controlled participation models, we propose a map clarifying the epistemological and ontological positions of different participatory methods, bridging various research paradigms and methods while identifying project teams' expectations and common concepts.

Keywords: Participatory decision making, Societal planning, Regional development, eDemocracy

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In the Swedish Planning and Building Act public participation in the planning process is emphasized as being vitally important. The purpose is, according to the current legislation, to improve the information upon which the decisions are made and to enable insight and influence. However, in contexts where participatory methods are used to gather information and develop the agenda along with citizens, confusion often arises because participants have contradictory or exaggerated expectations of what the process entails. A striking example is the concept of "dialogue process". This is frequently used in the context of citizen participation when it actually, at best, is about a consultation regarding an already developed proposal that the citizens are asked to comment on. Needless to say, in these cases the potential to influence is rather limited. To reduce confusion and conflict in a dialogue process, it is fundamental to have a common understanding of; who should participate, what is on the agenda and what is the scope for action, in other words, the ontological and epistemological foundations of these methods, during the entire process in the process from agenda setting to discussion and decision-making.

These challenges are not relevant merely to practitioners but also to academia. Especially in research projects that involve different research perspectives and practices, a clarifying of the democratic discourses is needed. The more academic area tends, however, to be a bit discouraging in this respect with quite limited theoretical developments. In their review of e-participation research in six European countries, Freschi et al. (2004) are critical to the lack of real interdisciplinary research in the field of e-participation, where many disciplines are gathered but seldom mixed. In a recent review of EU funded e-participation projects, de Marcos, Martínez, and Prieto-Martín (2012) point out the importance of looking at a wider participatory situation and to put the concept of e-participation in context of the field of participation. This has also been recognised by several researchers in the fields of e-democracy and collaborative government. For instance, in overviews of the field of e-participation by Macintosh et al. (2009) and Sæbø et al. (2008), in Dahlberg's (2011) overview of discourses on e-democracy, and in reviews of the field of e-government by Heeks and Bailur (2007), the authors point to a lack of nuanced discussion of the underlying concepts of democracy, and to the fact that it is usually an unarticulated liberal or deliberative conception of democracy which forms the basis for technology development. In the more broad field of collaborative government, (Ansell & Gash, 2007; Emerson, Nabatchi, & Balogh, 2011) complain about the lack of common language to describe underlying strategies.

The area of e-participation is also characterized by technical determinism. For instance, Helbig, Gil-Garcia, & Ferro (2005) point out that there is too much confidence in the technologies' capacities of solving complex democratic problems. This despite the fact that most research on the digital divide and marginalisation indicates that technology often increases socio-economic inequalities rather than reduces them, and, as (Norris, 2001; Schradie, 2011) note, it seems that these differences are not primarily about access to technology but rather about how to use technology to reach out to influential groups. Not surprisingly, authors such as Macintosh et al. (2009) emphasize that the unequal distribution of access to the Internet may cause severe problems with regard to strengthening democracy through increased e-participation. Similarly, Sæbø et al. (2008) call for greater in-depth knowledge of the citizen as an e-participant, especially given the differences in gender, nationality, social grouping, and cultural background.

Thus, in order to develop our methods further in the interdisciplinary field of e-participation we cannot assume the existence of general and unified ideas about what participatory processes actually mean, and methods utilised in this context should preferably recognise these problems and at least partly provide means of visualising differences and clarifying representativeness in the participatory process. In order to support interdisciplinarity in the field of e-participation it is necessary to state the underlying assumptions and ideologies in the concepts, stories, and vocabulary used when developing methods for participation in public decision making; what can be called democracy discourses.

Below we are investigating what participation actually means in theory and in our own practice. The next section looks at discourses about democracy in participatory processes. Using this apparatus, Section 2 analyses eight urban planning cases where we have been involved. Finally, some concluding remarks are provided and formulated in a "participatory map".

1. Discourses about (e-)democracy in participatory processes

Not unexpectedly, definitions of e-democracy are not without problems and lack uniformity. Päivärinta (2006), for example, reviews various theoretical models of e-democracy and shows that the definitions and meanings often deviate significantly from each other. To systematise the

concept of e-democracy, Dahlberg (2011) suggests a model that displays which ideas about democracy are present in an e-democracy setting. The author creates four positions for digital democracy: liberal-consumer, deliberative, counter-publics, and autonomist-Marxist; and argues that most of the development of e-democracy takes place in what he calls a liberal-consumer position.

- The *liberal-consumer* position concerns the improvement of government “customer service”, i.e., providing better services, increased accessibility and information transparency through flexible information systems and more informed decision-making.
- To some extent, this is also about changing the representative system by making room for *deliberative* discussion on various issues, and for public opinion development. Here, there is less public investment in the development of technologies for e-democracy on a global scale. Nevertheless, ICT has, in this context, enhanced participation in global movements and global communities of interest.
- The *counter-public* position is about grassroots activism, network-based organizations, built on a shared interest, that use the Internet to create opinion and to engage members. Internet and mobile communications represent a cost-effective way of organizing a group and articulating opinions, and can also provide links to other similar interest communities globally.
- Democratization can also take place at a micro level, as in an *autonomous-Marxist* position, within companies and between individuals in a network-based form of production that is facilitated by the rapid exchange of information communication that technologies allow: here, ICT supports networked collaborations and peer-to-peer distribution and sharing.

These positions can be fruitfully combined with different perspectives on space and community as shown in Fig. 1. E-democracy is often seen in a macro perspective, looking at society as a whole as a framework that can be reformed by local national authorities (macro/local), or global NGOs (macro/global). But e-democracy can also be seen from a micro perspective, with a focus on individual or small-group interaction in specific situations, as the local citizen's rights in relation to the local community or nation-state (micro/local), or a way for the individual to act in relation to other individuals beyond the local institutional context (micro/global).

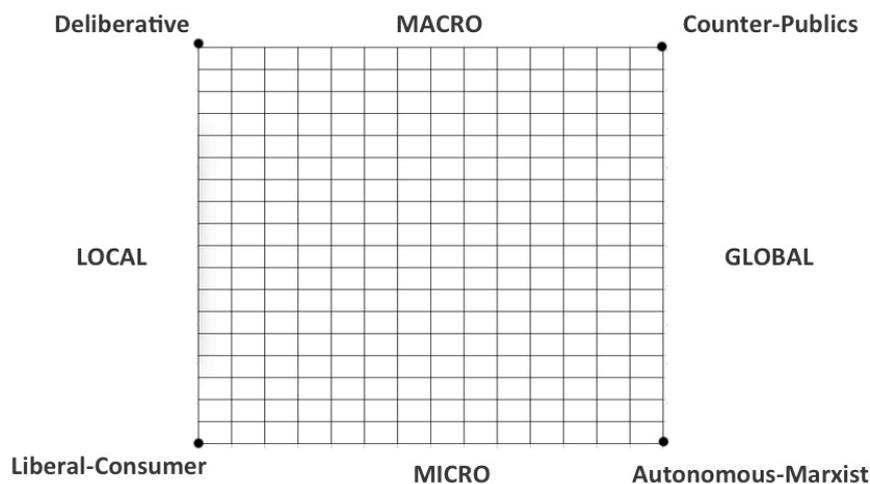


Figure 1. Map of Dahlberg’s (2011) four e-democratic positions in relation to local/global positions and macro/micro perspectives.

Others, such as (Ansell & Gash, 2007), provide an analysis model based on collaborative governments. They emphasise the importance of initially *clarifying power relations* among interests and ask how much various participants have to actually participate in dialogues. Only thereafter, leadership is defined as well as the methods and moderation principles utilised. A similar model, obviously suitable as a basis for our purpose, not automatically taking the state perspective as a basis for democracy, is Dahl's (1989) model of democracy. The purpose of this more general analytical model is less about categorizing democracy but more on reflection over the degree of democracy in different participatory situations. Democracy in this sense is when *those affected by the decision-making are also involved in the decision*. In this context, decision means to define who is actually a *participant*, to define what the participation is about, to state how the *agenda* is set, and to clarify the rules for discussion and the actual decision making steps, the actual *method*. Transparency and an informed understanding of what is going on are important conditions for participation at all levels of the process.

2. Eight cases of urban development projects

We will now use Dahl's more general model as a starting point for an analysis of urban development processes in reducing the preconceptions about what these processes actually mean on a global and local level. We will focus on the issues regarding agenda setting, the perceptions of the participants, and the role of the method in the development process. With this perspective, we have analysed the planning processes and the methods used in eight urban development projects in which members of our research team have been actively involved as researchers coming from the field of computer science, urban planning, social science, and art. Thus, the projects, shown in Table 1 below, are not randomly chosen, but rather they are fairly typical for contemporary planning practice in Sweden.

Table 1. Summary of eight cases of participatory processes in urban planning in Sweden.

Nacka Infrastructure	The aim was to help the politicians to take a decision about if services such as roads, water supply, sewers, and marinas, should be in private or public hands. (Danielson et al., 2008) Method: Multi-criteria, multi-stakeholder decision analysis to enhance transparency
Örebro Water	The aim was to reach a more sustainable (long-term) solution with improved quality of the water quality of Svartån, Örebro. (Danielson et al., 2010) Method: Multi-criteria, multi-stakeholder decision analysis to enhance transparency
Stockholm Transportation	Future development of the infrastructure around Stockholm including new roads and public transportation. Method: Multi-criteria, multi-stakeholder decision analysis to enhance transparency
Muskö Eco Village	The aim was to develop a plan for an eco-village for a more sustainable living. Method: An iterative dialogue process in three steps with residents and other stakeholders, e.g. the municipality, investors and NGO's and investors.
Stockholm Central Station	The aim was to develop Stockholm Central Station with new premises. Method: A dialogue with the two closest stakeholders. The resulting plans were displayed in public and consultation meetings with the public were held.
Högalid Urban Development	Because of the housing shortage the city wanted to densify centrally located neighbourhoods in Stockholm. Method: A Charette was used in the beginning of the plan process, where municipal officials, developers, and residents participated in a consultative and creative collaborative process.
Husby Urban Development	Municipal development plans included new houses and extensive renovations, and a redesign of the town centre. (Hansson et al., 2012) Method: The methods used by the municipal to involve residents were surveys, dialogue forums, and exhibitions. Residents used town meetings and online tools like blogs, twitter and social media to create debate.
Upplands Väsby Vision	Municipal plans included an increase of the population, but also an expansion of the number of workplaces and to strengthen public and commercial services. (Hansson et al., 2012) Method: Surveys, dialogue forums and interactive exhibitions to involve residents in planning

In conducting this study, we adopted a strategy of successive approximation. We analysed additional cases while refining and elaborating our analytical model as we evaluate these additional cases in an iterative process. The goal is to develop a general model for analysing, highlighting, and identifying the underlying assumptions and ideologies in methods for participation, and to develop a common language for interdisciplinary researchers and practitioners in planning processes to communicate expectations and limitations. We view this paper as a starting point and a way of inviting others to add cases and further refine the model.

The eight cases summarized in Table 1 were selected to represent the width of the field, but a common denominator is that they represent urban development projects in which conflicting interests are present. In all but one case, it is a government agency that initiates the planning process and all of the cases have a local development perspective. In all of the cases the methods deal both with supplying the single participants with information (micro/local), and to view the local society as a framework that can be reformed by authorities to support a more deliberative process (macro/local). In two cases online participation framed the situation as global/macro, as it was connected to global counter-publics.

The researchers' roles in the projects have also varied, from more passive observers to a direct involvement. We have focused on the view of the *agenda* and the view of the *participants* in the cases. We are also interested in the role that the *method* plays. The concepts (agenda, participation, and method) that we have identified are not per se necessary for the analysis; other concepts could have been chosen as well. The purpose is primarily to identify underlying notions/values that are represented, and also notions/values that are missing in order to enable further joint development of various types of methods. As we operate in the interdisciplinary field of ICT and urban planning, this is also a way to examine the different views on knowledge that are represented in our interdisciplinary research group.

2.1. The role of the agenda

The first aspect we examined in the projects is agenda setting. How is the agenda set? What are the problems targeted? Who is setting the agenda? What issues are given priority? Is a solution proposed? Is the agenda open for discussion and possible to develop? How do you handle the presence of powerful interests that dominate the agenda?

The agenda in most of our cases is already set, or is more or less defined by the initiating authority. One case is an exception. In the case Muskö Eco Village it was an association that initiated the process and the development of the agenda was made with the help of a variety of groups invited by the association in order to prepare the agenda prior to political decision-making concerning the frame and focus of the project. The ambition with Muskö Eco Village was to combine an organic farm with a timeshare. The association wanted all buildings to be environmentally friendly, and dedicated farmers would operate the completely organic farming. The idea was that consumers could become partners in everything from a mobile hen house to the farm dairy.

The project could be seen as a local project, but not without a global character as the global environmental movement's success helps to justify the project locally. Decision-making can therefore also be seen as something that takes place in a global public sphere that affects local public opinions and therefore politicians' decisions. In this case, the agenda is defined by the local association, but also defined globally by the dominant discourses that restrict the types of solutions that are possible to express. In the case of Muskö, the global environmental movement can be seen

as an important e-participant in the local agenda setting; what Dahlberg (2011) calls a counter-public e-democracy position.

Explicitly or implicitly, the agenda is a powerful tool in our cases. By taking the initiative and forming the agenda, the initiator gains two powerful advantages. First, the agenda offers an opportunity to formulate the problem. In most of our cases it is obvious that the “problem” underlying the project can be formulated in different ways. For example, in the case of Högalid in Stockholm, the City authorities perceived the problem as a shortage of housing while residents living adjacent to the proposed development saw the improvement of urban and green qualities as the main problem to be addressed. Second, by shaping the agenda the initiator has an advantage, including and excluding issues as he/she finds appropriate. Also, the way in which the agenda is structured (priority and links between issues) has impact on the outcome of the project.

In most of our cases, the agenda is not problematized, except when there is a clear conflict, as e.g. in Nacka municipality where conflicts between antagonistic interests created a stalemate. The municipality of Nacka belongs to the Stockholm region and parts are situated in the inner Stockholm archipelago. Although originally inhabited by summer residents, at some of the islands, particularly those that are easily accessible either by car or commuter boats, the summerhouses have evolved into permanent residences. The proximity to Stockholm has made property prices surge, so on some islands houses built by relatively affluent newcomers now neighboured older houses inhabited by residents who have lived there for generations. This influx of permanent residents into the areas raised demands for public services such as roads, water supply, and sewers, and also for marinas to facilitate commuting to islands inaccessible to cars. For almost a decade, the debate regarding the issues concerning whether the above-mentioned services should remain in private hands or be run by the municipality had been on-going. All groups had lobbied politicians for many years. What complicated the situation further was that Swedish law requires prospective real estate owners to apply for permits for every planned building. However, the municipality has the ability to postpone a permit application for only two years, after which it automatically passes without alteration, thus creating a planning chaos. In this case, a multi-criteria, multi-stakeholder decision analysis tool was used to clarify different solutions for the stakeholders, and to enhance transparency in the decision process for everyone involved.

Also in the district Husby in Stockholm, the development has halted due to participants having different views of the problem. Here, the plan to develop the area was first presented in 2007 and is still (2013) frozen for the time being due to inhabitants’ protests. Husby has slightly more than 11,000 inhabitants and is a suburb in the northern part of Stockholm built in the 1970’s. The neighbourhood consists of prefabricated multi-storey buildings constructed as a response to the housing shortage prevailing at the time due to rapid urbanisation. The neighbourhood has over time come to be regarded as a problem area and is one of the parts of Stockholm associated with segregation, exclusion, unemployment, and other social problems. In addition, the houses have become run-down and there is a great need of renovation in the area. As a reaction to the negative image of Husby, and as a way of creating debate about the cut-downs, residents have been using townmeetings, public demonstrations, and online tools like blogs, twitter, and social media to create a counter-public, which has influenced the hegemonic discourse and forced the city to stall its plans. There is thus a broad perception in the dominating public discourse that Husby needs to be developed, and there are a number of players in different areas that have plans for Husby’s development. But many of the people who live in Husby today have another opinion than the one held by the City. The development plans also coincide with cut-downs and changes in public

services, and there are political controversies surrounding many of the initiatives included in the planned investments.

In Nacka as well as in Husby the problem is thus not only that the stakeholders cannot agree on what the solution to the problem is, but also that they cannot agree on the definition of the problem, and therefore the process of agenda setting is surrounded by conflict.

2.2. The role of the participants

The second concept examined is the participants' roles in the process. The problem here is to define who the participants are. The key question is – who is a stakeholder?

The case of Upplands Väsby and the plan for development of the railroad station and its vicinities could be taken as an example to illustrate this ambiguity. Upplands Väsby is a municipality with slightly more than 40,000 inhabitants, located in the northern part of the Stockholm region. Municipal plans include an increase of the population, but also an expansion of the number of workplaces and to strengthen public and commercial services. An important feature of the municipality's development strategy is to change its image, from being a mono-functional 'sleepy' suburb to being a part of the region characterized by urban qualities; i.e. creating an urban fabric with higher density where different functions are physically integrated. The significance of culture and the promotion of street-life are stressed in the visions for the future. At present, the municipality is engaged in a number of activities to realize these ambitions. A long-term vision is being developed. This activity includes a variety of measures aiming at active involvement of the residents. Substantial new construction and 'fill-in' are carried out in the central part of the municipality with the ambition to create and strengthen urban qualities. This comprehensive change process is complicated as it involves a number of stakeholders with varying interests.

The plan for the development of the railroad station illustrates this complexity. Residents living in close vicinity to the railroad station, and whose local environment will be affected by the project, consider themselves self-evident stakeholders. But also other individuals will be affected, directly or indirectly, by the project. For example, train commuters from other parts of Upplands Väsby will benefit from improved means for intermodal public transport. For individuals working in the area, the project means that the adjacent outdoor environment will change dramatically, and for current and potential Stockholm residents suffering from the housing shortage in the Stockholm region the plans for a railroad station and adjacent land could imply housing options. Thus, an initial issue is to define groups with an interest at stake. Having done that, it becomes obvious that these interests are often diverse and conflicting. The issue of weight and power related to various stakeholder groups becomes crucial in participatory processes. Especially when we translate these processes to digital mediated systems, the necessary inequality between different participants has to be addressed.

Thus, all the potential interest owners might be regarded as potential participants, as in the case Muskö Eco Village where all affected by the construction of the village were invited. Or you can view only those directly active in the process as the main participants, in this case the association that took the initiative and the politicians who make the formal decision. Some of the cases also emphasized the participants' diverse opportunities to participate, as in Husby where the municipality by involving local youth in the dialogue process reached many that would otherwise not have been reached because of language difficulties. In the Upplands Väsby case the municipality also viewed lack of representation as a problem, and tries to use different forms of dialogue to reach different groups. Here the question is how the use of ICT can improve the

representation of different groups of people, rather than favouring groups already influential. Obviously, some people see themselves as participants while others do not. How can participation in creating the vision of the municipality be extended? Maybe participation here is not so much about participation in single questions, but rather about engaging in a development of a community of participants who engages in all sorts of questions.

2.3. The role of the method

The third concept we focused on is the method in the development process. We talk about method in a broad sense, from the approach chosen by the initiator in order to involve the participants/stakeholders in the development process to concrete technical systems. This calls for establishment of long-term rules and institutions for participation.

The case of Stockholm Central Station exemplifies how the method also can be used as a way to restrict participation. Here, the statutory methods of public dialogue required due to Swedish law were used, but the process owners tried to limit the number of active participants in the discussion of the development of the project. The process was about how to create a new station entrance for the central station to cope with increasing passenger volume. Two key players were setting the agenda. The first one was the Swedish Transport Administration (Trafikverket) who has the main responsibility for communications in Sweden. Of critical interest to the Administration was to create an appropriate station with high capacity and efficient links to the train station and the metro. The second key player was the owner of the real estate who developed a proposal for a new building that could accommodate the station, hotels, and offices. The proposed building was significantly larger than the current one. In this case, the planning process followed the formal rules that are prescribed in the Planning and Building Act, i.e. formal plans are developed, displayed, and consultation meetings are held, but no initiatives were taken to more systematically identify stakeholders' possible interests or understand how the proposed building would be perceived by the citizens. The process was instead characterized by a bargaining game, which in essence was held behind closed doors. The developer was claiming that extensive exploitation is necessary to finance the station, and Stockholm city was concerned also with the new building's impact on the city's skyline. Though the method emphasizes the importance of a deliberative discussion, the discussion was in practice only open to two participants. Other participants' possibilities to participate in the discussion were deliberately minimized by withholding information. In this way, the conflicts that otherwise could easily have slowed down this process were avoided.

Another example of how to look at method is the case of Nacka infrastructure where the regular dialogue process stalled because of antagonistic interests, and the municipality decided to try a decision support system for political public decision making in order to sort out the complexity of the situation and allow for a decision. Here, the role of the method was to provide participants with better information so they could make informed decisions.

In the two cases where the process was stalled, Husby and Nacka, this was due to the lack of visibility of certain interest groups that had not actively been taken into account which therefore resulted in infected conflicts. It can for instance be as in the case of Stockholm Central Station, where they purposely tried to avoid inviting some stakeholders. But mostly it's about ignorance, as in Husby where they based the agenda on a discourse dominated by people with no personal experience of the site; instead of at an early stage developing the agenda together with a broad group of stakeholders.

2.4. Summary of the result

Table 2 gives a rough overview of the results of the case studies. As can be seen from the first column, the agenda in most cases is already *set*, but often dialogue methods are used as a way to *develop* the details of the agenda. Only when it creates a conflict, it is noted that powerful groups might *dominate* the agenda setting. In the second column, different views on participants are represented, from the case of the participants as a well-defined group that consists of *all* those affected by the decision, to looking at participants as mainly those who are *active*, to looking at the participants as a *diverse* group of people where a need is acknowledged to reach less active groups and individuals. The third column shows a lack of methods to actively *visualize* different groups' and individuals' unequal influence on the processes. Instead, most emphasis is on methods for deliberative discussion and on tools that give participants access to more accurate information.

Table 2. Different attitudes, in eight cases of urban planning processes in Sweden, to how the agenda is set, to how the participants are defined, and to the role of the method in the process.

Cases	Agenda			Participants			Method		
	Set	Develops	Dominated	All	Active	Diverse	Info	Discuss	Visualize
Nacka Infrastructure	Set		Dominated	All	Active	Diverse	Info		
Örebro Water	Set	Develops		All			Info		
Stockholm Transportation	Set			All		Diverse	Info		
Muskö Eco Village		Develops		All	Active			Discuss	
Stockholm Central Station	Set				Active			Discuss	
Högalid Urban Development	Set	Develops			Active			Discuss	
Husby Urban Development	Set		Dominated			Diverse		Discuss	
Upplands Väsby Vision		Develops		Active		Diverse	Info	Discuss	

What our case exposition shows is that even in a local planning process, within the framework of a geographically restricted representative democracy, the agenda is still set in a public sphere dominated by interests that can be locally as well as globally situated.

Instead of a model that is non-iterative and one-dimensional, or consists of a field of different types of decision making, we suggest looking at different types of participation, agenda setting, and methods as intersecting axes according to the map in Figure 2. Where the three axes intersect on this map, decisions are made based on given information, the agenda is set, and those who make the decisions represent all groups affected. By method is meant collecting and presenting information in a proper way as a service to participants. The ontology here is a positivistic one, where facts are reliable and decisions rational. A little further out, a more interpretative and critical ontology dominates; the information is under development and the agenda is more negotiable, and those who take an active part in the discussions will influence the policy-makers. Here, participatory methods are about moderating the discussion. It is important to develop tools that address the inequality between different participants, but also to acknowledge issue of weight and power related to various stakeholder groups. The map's external fields show the development of public opinions. Dominant interests that are not representative for those affected by the decisions control this field. This field is influential for the decisions made in the inner layer. This layer

involves methods of clarifying the dominating interests and to increase the visibility of groups and interests that are not visible. (As seen in Table 2, we here have a lack of available methods.) By putting these concepts in a sphere, we emphasize that these different participatory approaches are not either/or, but represent different parallel on-going participatory decision-making situations that influence each other in an iterative process.

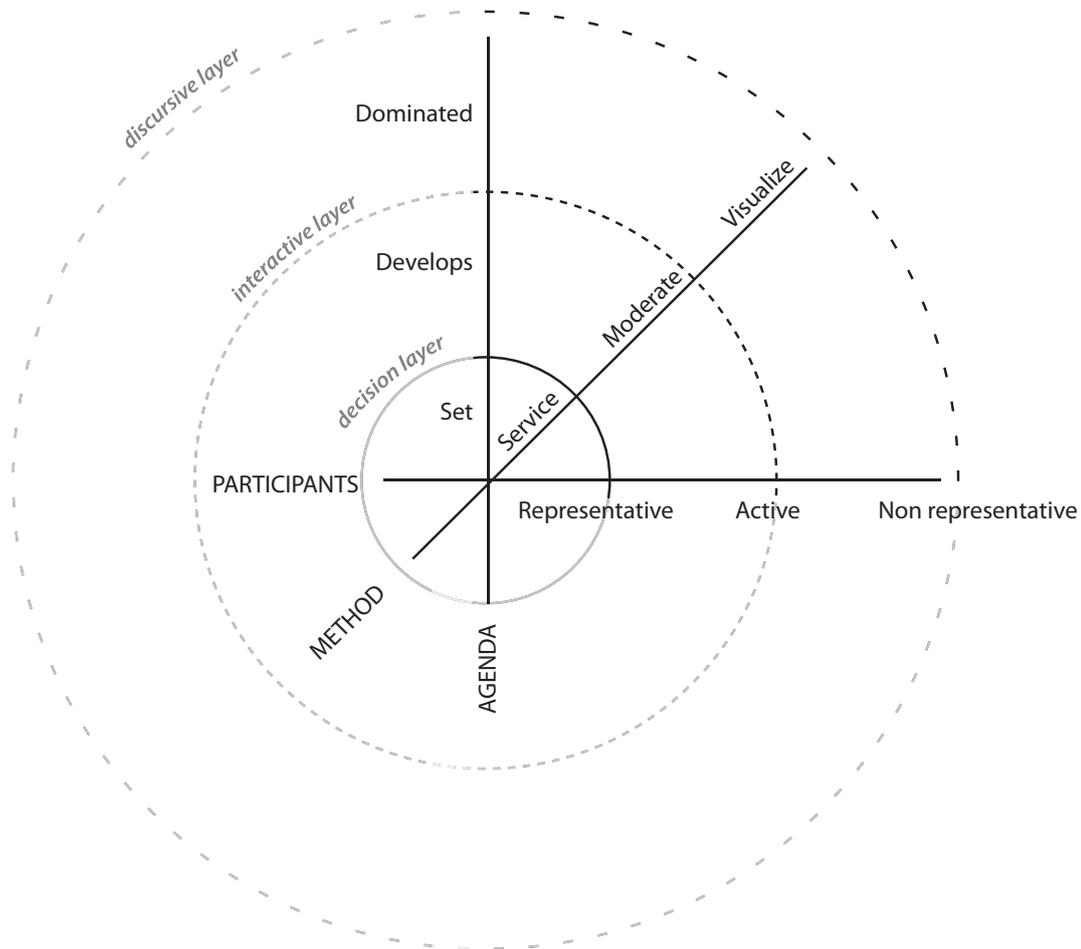


Figure 2. An e-participatory map over process methods in urban planning.

To clarify the different types of methods and approaches relative to each other, we have divided our map into three composite layers that contain different types of solutions:

1. The *discursive layer* that contains the deliberative process of setting the agenda, using a broad spectra of multimodal tools to support organization and discussion, and using web statistics to clarify the representativeness of the information.
2. The *interaction layer* containing interaction with affected stakeholders, organized stakeholder groups and citizens, using web-based techniques for interaction.
3. The *decision layer* typically consisting of the local government's administrative process making the investigations and assessments necessary for taking the process further. But it can also be seen from a single participants perspective, or a global NGO.

The layers also describe the different ontological and epistemological positions represented in our interdisciplinary research team, and can help us see how a mixed method approach can enrich our understanding of the situation and help us to create tools that constructively combine quantitative methods with critical reflexion.

3. Concluding remarks

Urban planning processes are often complex, involving many stakeholders. The decisions often have a large impact on society as well as on the environment. Many citizens and organisations are affected by the outcomes. Therefore, it is important to have a model that brings together and triangulates different types of participatory approaches; from the mediation and visualisation of discursive processes in the media, to citizen dialogue, to transparency in public decision processes. By moving between different types of ontologies and methods and building a transferable and more pragmatic approach to participation, deeper insights into the complex nature of urban planning processes will be obtained.

In clarifying the purpose of different methods by positioning them in a participatory map over process methods in urban planning, different ambitions are made explicit, and we may reduce the problem of ambiguity because of contradictory or exaggerated expectations on what technology and organizational change can bring. This is also a way of discussing different ontologies and epistemologies in the interdisciplinary research group, making possible a creative mix of methods.

By placing the local processes in a wider global perspective, we can see the planning process not only from a government perspective but also from other participants' perspective. In this way we might better understand what role the planning process play in the participants' lives, on a micro/global level, and which other processes are competing for attention. How will local participation make sense for an individual on his or her journey between different global spheres of interest? These are issues that must be resolved in order to involve a diversity of participants in public dialogue work.

In the on-going project in the municipality Upplands Väsby, we are exploring how ICT can be utilized in public participation processes in urban planning. Our project group consists of a diversity of competencies from multiple disciplines and with different approaches to research. Here, the participatory map is useful as a way to sort out the project team's expectations, to define common concepts, and to understand how different types of participatory methods can interact. The map also works as a way to put ICT into a wider framework, and to emphasize that ICT is not the only solution but one of many ways to involve those affected by the decisions. A dialogue process around an issue can also create an expectation that it will yield a direct outcome. Here, the map can clarify for participants how the input is being used and in which way this will impact the final outcome.

There is a clear lack of procedures and methods to actively visualize different groups' and individuals' unequal influence on the participatory processes. Therefore, we are now working on developing a support system that separates not only the different interests and opinions contained in the debate, but also makes clear how representative they are to the general population and different stakeholders. ICT is then used as a means to analyse participatory processes in the discursive and interactive layer on the map in Figure 2, and thus produce information services for participants in the decision layer.

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