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Participation in Design between Public Sector and Local Communities

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ABSTRACT

This paper discusses three cases where design was carried out at the intersection between public sector and citizen communities. Based on three dominant traditions meeting there–public (municipal) decision-making, Web 2.0 and participatory design–we identify challenges and solutions regarding participation and engagement of municipal workers and citizens. While this intersection is exactly where a new form of democratic participation could develop, the three traditions were, nonetheless, far from easily combined in the specific cases. The challenges that we have identified are to: Identify win-win situations, rather than to maximize participation; to work with motivation for long-term projects across municipality and communities; to identify and work with early movers, and not just representative citizens; and to create space for local municipal agencies to develop bottom-up technological solutions. The multiplicity of co-existing traditions of involvement need more focus in the future development of participatory design.

Categories and Subject Descriptors

H.5.m. [Information interfaces and presentation (e.g., HCI)]: Miscellaneous.

General Terms

Design

Keywords

Participatory design; e-government; municipalities; Web 2.0.

1. INTRODUCTION

The overall *motivation* for the current paper stems from the work we carried out in the eGov+ research project. The goal of this project was to explore social web approaches and Web 2.0 technologies for local government services. In the project we worked with three Danish municipalities through three cases of analysis and design.

We often met the assumption among municipal workers and politicians that if only they could be better involved with citizens as individuals and as groups, democracy would be improved. With this paper we address our experiences of doing Participatory Design (PD) in these settings where formal democracy meets citizen engagement **and** the work situation of municipal workers.

PD in public sector projects is not new (see e.g. [5, 11]), but PD on the boundary between public sector and the civic community is relatively unstudied (with recent exceptions such as [38]). A significant body of literature deals with the use of social technologies/Web 2.0 in this setting. However, most addresses how politicians and citizens debate in relation to elections, which is a different arena than the "everyday business" of municipal work discussed here (see e.g. [20, 45]). Web 2.0 has been celebrated for distributing power from central institutions to the masses through involvement [25]. But this has mainly succeeded in the commercial domain, rather than the non-commercial [45], We see, with many others, a potential for PD to utilize Web 2.0 or post-Web 2.0 design ideas to address user participation (sometimes *qua* citizen involvement). In her recent work, Saad-Sulonen discusses the meeting of PD with urban planning and end-user development, and proposes two different kinds of PD in this space, a traditional, staged PD, and *Participation as design-in-use* [44]. It is in this same space that we explore the involvement of both communities of citizens and municipal workers.

Due to its historic roots, PD has traditionally been deeply concerned with democracy ([1, 9, 31] to name a few). However, Kyng [36] has argued that PD should shift its focus from politics per se towards a meso-level between

politics and techniques. This begs theorizing about involvement on that level.

In this paper we will discuss how our project brought together Web 2.0 ideas with PD, local communities, municipal democracy and decision-making in terms of methods, understandings and conception of democracy and involvement. By discussing our research in the eGov+ project, we address and discuss tensions within this field. The paper is structured as follows: First we will describe our project followed by our method. Then we proceed to describing key elements of the notions of Web 2.0, PD and the Danish tradition of municipal decision-making for our task at hand–highlighting their differences. Following that, we discuss *the tensions in participation and democracy*.

2. OVERVIEW OF DATA MATERIAL

The goal of the eGov+ research project was to explore social web approaches and Web 2.0 technologies for government services. The project was interdisciplinary and focused on management and design methods as well as on novel web-technology (see e.g. [13, 14, 15, 16]). The project worked with three municipalities on four cases, of which three are discussed in this paper.

The project involved three commercial companies which all had government and in particular municipal government as their business areas, and three municipalities, represented both by their IT development and implementation departments and by offices which delivered front-line services to citizens. The cases vary in stakeholders and setup (Table 1).The eGov+ project included many partners: It involved municipalities and companies as partners in formulating cases, managing them, and directly as co-researchers in some cases. It engaged all stakeholders in discussions of how to influence the further funding of the project and reached out to citizens individually, as families, small groups such as mothers' groups and various NGOs. At the same time, the settings also included caseworkers and planners, but not formally through trade unions.

Table 1: Overview of stakeholder participation

	Project formulation	Empirical focus	Other user groups	Not covered
Parental Leave [16, 14]	Researchers, industry & Municipality	Mothers	Fathers, relatives, Case-workers	Labor unions, employers
Citizen service [15]	Researchers, industry & Municipality	Citizens	Case-workers Young citizens	Older citizens Labor unions
Mobile Democracy [13]	Researchers, industry & Municipality	Citizens, NGOs	Municipal planners	Commercial actors, State authorities, politicians

A difficulty in this type of project was that the particular user groups among citizens were not organized stakeholders in the project. Even though it would have been very interesting to have such interests explicitly represented, it is very difficult to see how, and it is even more difficult to see how the project would have been initiated and defined by a group of e.g. expecting mothers. We see the project as one that aims primarily at setting an agenda for alternative ways of allowing transparency, participation, involvement and in municipal eGovernment. The specific participatory design cases were instruments for exploring these possibilities in concrete and specific manners, rather than a project initiated and driven by particular groups of users.

2.1 The Three Cases

Each of the three empirical areas was researched through and around a design case. They generated many prototypes, sketches, dialogs with participants, reactions from municipal managers, etc., which served as basis for our retrospective interpretation.

The first case concerned case-handling of **parental leave**. The Danish legislation has a relatively generous subsidy system, and it is very flexible in how these subsidies can be allocated to the parents. Consequently, the municipality needs to handle parental leave as a service that involves several citizens–the mother, the father and the child. A surprisingly large web of additional stakeholders surrounds these primary stakeholders. We explored this setting by developing a prototype in which counseling and family planning were mediated by a timeline visualization (see [14, 15]).

The **citizen services** case took the physical citizen service offices of one municipality as its outset. These offices were the main point of contact between citizens and municipality in a number of rather straightforward cases of everyday life (moving, new passports, etc.). The caseworkers at the citizen services office were both front office of a number of more complicated matters, e.g. taxes, and they helped citizens by giving advice regarding simple matters. A number of explorative prototypes were developed, pointing out possibilities for citizen empowerment and citizen-caseworker and citizen-citizen collaboration. (See [15]).

The final case, **mobile democracy**, involved an exploratory participatory design process aimed at supporting citizen deliberation in municipal planning ([14]). In this case, municipal planning denotes a specific activity where the municipality devises a strategic plan for the development of the municipality, with an emphasis on physical planning. We investigated different ways for citizens to act and reflect on proposed plans: In-situ, while physically close to the planning object, and ex-situ when more remote from this. An important means to doing so is map-based discussions that are available on both mobile devices and desktop systems. We have provided a summary of the design cases in Table 2, where we address the overall design question, the use area in focus and the design concerns that were also posing challenges to our general technological, methodological and organizational research.

Table 2. Summary of the three design cases

	Overarching Design Question	Main use areas	Design Concerns
Parental leave	How can application for parental leave be supported through Web 2.0?	Form filling for application; applying relevant regulations; overview of consequences of everyday life; supervision and counseling of citizens	Visualization and interaction based on timelines; support and exchange between case-workers and citizens over time.
Citizen Services	How may citizens obtain better service through technology augmented citizen services offices?	Provision of instant municipal service delivery for minor services, e.g. moving, new passports, etc.	Servicing pairs and small groups of citizens and not just individuals; replacing or augmenting the physical meeting between citizens and municipal civil servants.
Mobile Democracy	How can citizen involvement in the development of municipal plans be increased through Web 2.0?	Providing the municipality with feedback; finding and engaging with people with similar concerns; discussing local planning issues.	The experience of citizen involvement; evoking interest and concern; maintaining engagement; design for mobile context.

3. METHOD FOR REFLECTING ON THE CASES

Our project was originally set up to investigate design-methodological questions through action research, whereas we had no up-front concern for the tensions between Web 2.0, PD and municipal decision-making as such. In eGov+, however, the role of the researchers was to address technologies and design methods in the boundary space, where the interests of groups of citizens met those of the municipalities. We all shared a broad commitment to user involvement, and a basic assumption was that participatory design (PD) would be useful and relatively straightforward. However, in retrospect, participation and varieties of involvement was challenged on a number of levels that deserves closer attention. Such an unexpected turn is not unusual in action research and we secured the possibility to analyze it by a quite broad data generation.

Each case involved observations, interviews, and workshops exploring the nature of participation among citizens and municipalities (see Table 3). Moreover, we explored possible new participatory design processes involving different types of workshops and prototyping. The prototypes served to bring out concrete alternatives to current practices, as well as constituting ways of probing the problem area to reveal the anatomy of current, and future, patterns of cooperation.

We focus on retrospective interpretations of the data and related literature from the project in this paper. As a challenge to our analysis, we were, perhaps, naive as regards the traditions in which we situated our research and in particular we simultaneously (but tacitly) used the multiple conceptions of democracy that we inherited from literature of PD, Web 2.0 and Danish municipalities. This resulted in a number of tensions that we explore further here.

We found preliminary tensions (e.g. prioritization problems between municipal workers and citizens), and contrasted them against existing literature. This led to reformulation and iteration (see [28] for a similar approach to incorporation of literature), until we had stable interpretations [4]. Full self-reflexivity is an ideal rather than an attainable goal, but we have actively worked with our actual pre-understandings, in what Betti calls "the actuality of understanding" [4]. We have made sure that both authors agree to the meaning of the interpretation and have reached a higher degree of intersubjectivity. We have discarded several early interpretations (e.g. discussions of double level language, something we feel is interesting in CSCW), because they were mere projections on the data rather than emergent issues of otherness that were new to our minds. Our analysis did not search for causality. Instead, we attempted to establish a coherent account covering even contesting interests of participating communities. We applied a textual approach to the events that took place, well aware that action was not translated into text without problems. We see the results of this type of interpretation as exploratory or heuristic and benefitting from further action-based validation. The results are, hence, exploratory, rather than they are testing existing theory. We relied on concrete method guidance from the methodological hermeneutics of Betti [4] who gives concrete recommendations for the reflection on data. We do not strive to make the design processes of the research process

replicable, and the details describing our data are not included here, but in the referred papers.

Table 3. Overview of empirical activities.

	Interviews (N, interview length)	Obser-vations (days)	Workshops (Numbers, total hours)	Miscellaneous Empirical Material
Parental leave	1 (1 hour)	2	8 (23 hours)	Parental leave law; secondary data on parental behavior
Citizen Services	18 (10 minutes)	16	1 (3 hours)	Student projects where students worked with parallel design issues based on scenarios and personas from the case study
Mobile Democracy	9 (45 minutes)	0	5 (16 hours)	150 pages of citizen objections from real cases; Field trial of prototype

4. THREE THEMES IN OUR CASES

When analyzing the tensions, three themes began to stand out in the work, which we increasingly refined through further engagement with the literature until the tensions had their final form: web 2.0, the concept of involvement in participatory design, and municipal decision-making.

4.1 Web 2.0

O'Reilly popularized the term Web 2.0 and characterized it as "the business revolution in the computer industry caused by the move to the Internet" [40]. He saw it as centered on governing principles such as "Build applications that harness network effects to get better the more people use them," "Don't treat software as an artifact, but as a process of engagement with your users," and "Open your data and services for re-use by others, and re-use the data and services of others whenever possible". While there have been attempts to treat the concept of Web 2.0 in a more rigorous way (see e.g. [43]), it is also a set of loose norms in use and design of the web beyond academia, and the Danish IT industry, the municipalities and the citizens are influenced by these conceptions. Web 2.0 is thus not a research concept but a loosely defined set of abstract design principles without clear and agreed definitions of e.g. democracy or firm theoretical basis. According to Best [3], the characteristics of Web 2.0 include user experience, user participation, as well as dynamic content, metadata, web standards and scalability. Web 2.0 is often connected with grassroots participation such as in citizen journalism, Wikipedia contributions, and other activities which are basically empowering people from the ground up, by giving access, shortcutting various bodies and stakeholders who are holding on to power too heavily. The ideal democratic process is participatory, liberating and anti-authoritarian, in particular for the vanguards, and Web 2.0 is primarily about democratizing digital technology. Web 2.0 is often connected to hacktivism, and the recent developments of hacktivism illustrates that on the one hand, the hacker community has helped e.g. democratic movements in the

'Arab spring', on the other they have in some instances simply turned destructive [26].

According to Schuler [45], O'Reilly's depiction of Web 2.0 places the focus on the Web itself rather than on the social processes that are mediated by Web 2.0. Schuler claims that Web 2.0 *alone*, with its focus on business, seems unlikely to result in a paradigm shift towards democratic engagement. This is because it constitutes a conceptual frame that precludes non-business solutions. "*Whether the Web 2.0 approach turns out to be useful in addressing public issues in the long run, the idea that we are intellectually restricted at the onset into thinking only of business-oriented approaches to public problem solving is unsettling*" ([45], p. 63). Currently we are in a state where large corporations (e.g. Facebook and Google) economically benefit from our communal contributions more than we do ourselves, whether we like it or not.

In recent literature, Web 2.0 and social technologies have often been connected with PD, mainly as a matter of addressing the innovative power of NGOs through PD and social technologies (see e.g. [7, 17, 29]). While democratic innovation is an interesting extension of PD, we focus on cooperation between groups of citizens and municipalities, rather than on these "in the wild" innovations [29]. We believe that the meeting between communities of citizens and municipalities need to be addressed as well, even when these communities are producers of technological innovations, and return to a discussion of this.

4.2 Involvement in and through Participatory Design

Participatory design (PD) is a long tradition in which direct and indirect future users are involved in the design of IT. The theme of involvement through democracy is as old as the PD tradition itself ([6, 18, 33] are some landmark writings). Shapiro [46] argues that involvement even acts as an essential aspect of PD's raison d'être. Without it, PD is just a plethora of techniques.

According to [33], PD researchers have, from the beginning, been explicit about their concern with the politics of system design as it relates to the introduction of IT and the distribution of power in the workplace. From the early work of Nygaard and Bergo [39] and onwards, the active co-operation between researchers and workers has been emphasized, with inspiration from the work in the Norwegian anti-EU movement. As was the case in this political counterpart, the approach was bottom-up, building on people's own experiences, and providing resources that enabled them to involving them by taking departure in their current situations. It was democratic in the sense outlined above, i.e. it tried to increase workers' influence, planning capabilities and information exchange. Later projects, e.g. UTOPIA and Florence, have contributed with experience-based methods and techniques, and micro-political issues such as use quality of technological alternatives (see several

papers in [6]). In our reading of the PD literature, it is difficult to come up with a specific, generally agreed definition of democracy. Within workplaces, it seems generally agreed that a) workers have very little influence on their working conditions and b) there are few or no institutionalized channels for information exchange among the workers. Easing these conditions can, in our view, be seen as PD-democratic–but discussing democracy and participation at the workplace is not sufficient for our current setting.

Projects have particular democratic challenges when many users are affected by participation: In the MAXI-project [30], e.g. patients as individuals are empowered, but the basic disempowering structure of patients on the macro level is not addressed. Projects of this micro-oriented type have historically been the most successful [41].

Kautz [32] discusses the relationship between agile software development and user involvement and points out that despite the ways agile practices have developed, the work of Ehn [22, 23] and others was a direct source of inspiration for user involvement in this tradition. He also presents a recent case where actual users played a big and active role in an agile development process in a semi-public organization (the 'Water Works'). Another trend in the later decades of PD is the exploration of less confrontational approaches, e.g. adversarial design [21].

PD is now embracing the fact that much technology development no longer happens as design of isolated systems in well-defined communities of work (e.g. recently, [44]). Users combine multiple technologies with overlapping capacities, and transfer experiences between them. Technology is used for playing, contemplating, etc., as well as for working. Communities take over and learn from one another. PD research now has to deal with use situations that are more general than the rather work-specific use situations that were focused on in the past [10]. This leads Kyng [37] to propose the decreased focus on politics, and increased attention to commercial partners and methods. We will return to this conclusion later.

4.3 Decision Making in Danish Municipalities

In this section we will discuss how decision-making is enacted in Danish municipalities, based on existing literature. Danish municipalities have a large number of duties under their jurisdiction, in international comparison, [34]. The municipal decision processes concern physical planning, education, leisure activities, administration of various benefits, and so forth. Some of their features were inherited from the general conception of democracy in Denmark and the international democratic sphere, while others are more local. From a historical perspective, the Danish state and municipalities combine representative and participatory democracy (ibid.). However, the municipalities have formally and informally organized themselves in a great variety of

ways because citizens have different demands, as well as possibilities.

In the Danish model, democracy cannot be reduced to the formal rights of citizens. It extends to the ways in which citizens live and think. As discussed by [8], the anti-elitist perspective of the Danish clergyman, educationalist and philosopher Grundtvig had a profound influence on education and democratic thinking has been influential in many spheres in the Danish society. However, for our purpose it is sufficient to note that it has created relatively transparent and open municipalities, and that citizens are socialized through schools, libraries, news media, religious institutions, voluntary organizations, etc. to expect participation and transparency as well as to engage in such organizations.

The combination of representative and participatory democracy is central in the decision processes. Politicians are guaranteed quite some freedom in relation to the opinions of those who elect them. Many smaller municipalities have a fairly strong tradition of consensus in the political councils. However, some strategic decisions, for instance physical planning of the municipality, must be both publicly available and invite citizens' objections. There is no simple pattern as to exactly which processes are open to external critique–budgeting, for instance, is typically an internal process. Ultimately, the elected politicians decide what to do with citizens' objections, but they are held accountable in the media and at elections if some widely held objections are not acted upon.

A typical physical planning process involves two phases where first politicians and administrators produce a proposal. In the second phase, this proposal is disseminated in public, for citizens, companies, voluntary organizations, local grass-root communities and other public authorities to react upon.

In administrative decision processes, e.g. parental leave administration or citizen service, citizens have only indirect influence on technologies and principles–through their elected representatives. The employees have the right to be informed about and exert influence on principles for the introduction of IT in their workplace, including the set-up of administrative work processes. These rights are exercised through the representation of employees in cooperation committees, established under the collective agreement between the national employers' confederation and the trade unions.

In recent years, the classical municipal model has been weakened and to some degree replaced by expert rule [35]. In particular, the representational aspect of democracy has been weakened (ibid.), and the role of mayors has been strengthened. The municipalities have become slimmer, and organizational units have been transformed into separate organizations beyond direct democratic requirements of transparency.

The pattern of citizens' engagement in decision-making is complex. On the one hand, fewer citizens are members of political parties [34] and public support for local politicians is dwindling [3]. However, cause-based engagement is increasing and support of the participative model remains strong [47]. This may mean that citizens are dissatisfied with the current concrete form of municipality decision-making, but remain loyal to its abstract idea and open to new forms of participation.

4.4 Summing up

We have explored the roots of Web 2.0, municipality decision-making and PD. The intersection between these areas is exactly a place where new forms of participation may develop. What would be needed is precisely the meeting between the technical grass-root potential of Web 2.0, the transparency concern of municipal government and the conceptual and methodological roots of PD, but it is also where involvement tensions are arising.

5. EMPOWERING CITIZENS VS EMPOWERING MUNICIPAL WORKERS?

To PD research, the democratic empowerment of users is important. From the parental leave case we learned that citizens felt rather helpless in the maze of regulations and idiosyncrasies surrounding their cases. At the same time, the process of empowering citizens could lead to the disempowering and loss of control of municipality employees and increase municipal workload in citizen service. This led us to a search for win-win situations in the interests of citizens and planners in the case of municipal democracy.

There is a possible tension between workplace democracy, historically endorsed by classical PD, and citizen democracy. If a PD process is carried out within the confined space of workplace democracy, citizens who may be indirect users of e.g. a service resulting from this process, have very little influence on this service (see also [1] p. 81). Historically this is not very different from the challenge that doing PD with one group of workers could potentially jeopardize the role and influence of others, such as the journalists as in the case of UTOPIA [12]. However, citizens may be greatly affected by the decisions of such a single community of workers. At the same time, workplace democracies have little influence on larger societal questions, even though they may be totally dependent upon them: The regulations for citizen services and municipal planning play decisive roles for the labor conditions of civil servants and municipal planners, e.g. regarding the procedures of case handling. Accordingly, if we assume that PD workplace democracy is about maximizing worker empowerment [18], this may be at odds with citizens' municipal democracy ([5] argued similarly for societal work life as a whole, versus the local workplace) Although we did not come across any PD texts favoring workplace democracy at the expense of other democratic aspects, texts often advocate e.g. 'more democracy' rather than analyzing this potential trade-off [36]. Accordingly, we find it naive to see democracies as atomized where different areas and communities (municipalities, workplaces, etc.) are separate. Rather the tensions may be explored and utilized productively in design: How may the democratic interface and coordination mechanisms between an organization and the larger society be designed so that it supports both transparency and democracy of citizens and the participation and influence of workers on their everyday work processes and the quality of services and decisions?

What tools may be used to address these tensions? In the parental leave case we addressed tensions where citizens push for better service, and municipal caseworkers push for a more appropriate case handling and humane workload [16]. Through a paper prototype, the different stakeholders were involved in a search for alternatives and win-win situations. Even though such reframing cannot always be done, it may be worthwhile to bring out the participation ideals in municipal democracy and workplace PD in the design process.

The municipal planners in the case of mobile democracy did not emphasize internal workplace democracy as far as our data shows: Meetings or workshops neither raised the question of how to anchor the decisions within the municipal organization, nor was workplace democracy at the forefront in methodological discussions among planners. What seemed important was anchoring the planning process among those who finally needed to accept the proposal, i.e. the democratically elected representatives. The eGov+ project however, concentrated on supporting articulation of the interests of the citizens. This was not to take a stance against planners or their elected politicians but to demonstrate to them the power of the perspective of the citizen.

Mobilizing citizens to participate in planning, is seen by several authors as a continuation of PD (e.g. [17]). Often it is also seen as a way of educating citizens for democracy in general. The vision of the mobile democracy prototype was for citizens to comment on municipal efforts [13, 35], rather than it was to increase citizens' formalized decision power. Giving communities of citizens an instrument to help direct powerful critique may be best framed as an issue of influence rather than autonomy [19]. However powerful the citizens may be because of the new mobile democracy system, this would not decrease the level of democracy for the municipal employees. On the contrary, even the municipal workers themselves could use the system in order to voice their concerns. Despite the general tension in democracy ideals, local democratic win-win situations could possibly emerge from this.

Summing up:

* Democratic empowerment cannot simply be generally maximized, even through PD.

* In our cases (parental leave coordination, municipal plan discussion) there are numerous win-win situations between municipal administrators and citizens.

6. PARTICIPATION FOR NOW VS FOR FUTURE IDEAS?

We initiated all three cases by meeting with municipality management in order to establish and ascertain motivation and resources for the project. We became allied in changing the municipality, but in retrospect doubt arises. Did we actually have the same expectations as to when change would occur?

It is common to focus on long-term change through PD, such as mass adoption of emerging technologies. Another underlying idea is reformism towards distant goals: PD practitioners are often critical of the present mode of organization and see radically different ways of operating as an underlying, often implicit goal, however without advocating instant revolution. In contrast to this, the municipalities, as well as other organizations, which take part in projects, need concrete incentives for their involvement. In our three cases there were up-front requests for functional IT solutions. The technology was available and the timeline or simpler variations of it could be finalized for deployment. In the parental leave case, however, the organizational/interorganizational setup stood in the way. The design concept was strong in its usability/citizen service improvement, whereas the business case was less clear–we had no cost-benefit analysis or equivalent model. Accordingly, the local municipal office declared that they wanted the solution, but could not afford it. The involved companies did not take any further initiatives, and an attempt to seek external funding (through governmental grants for applied systems development) failed. In the mobile democracy case, the organizational setup was relatively ready. Nevertheless, we assessed that the penetration of smartphones (by the end of 2010) was not yet sufficient to reach critical mass, and this was holding back the municipality from implementing the technical solution.

In eGov+ we adopted a strategy where we relied to a large extent on our municipal and commercial partners for sustainability. In the parental leave case, we envisioned a technology that would be effective, possibly in all municipalities, but at a high cost and a relatively high maintenance costs due to the regular implementation of new laws. Even though senior management of the second biggest municipality of Denmark wanted to go with the idea, the major industrial partners did not see implementation as a low-risk investment, and ultimately no implementation happened. The mobile democracy case ended up belonging to no one. In this case, the technological design was actually almost ready to be rolled out. The project provided a more concrete alternative to current ways of interacting with the municipality, but it was still a new, and in 2010 not very widespread, technical platform and a new mode of organizing stakeholders, which made its broad breakthrough uncertain. A key issue was that of attaining critical mass (see also [44]). The problem is that in several of our cases, there is no clear agency ready to collect and use the insights–involving private companies and disseminating the ideas to practitioners proved not to be a guarantee. We are not certain what we could have done to change this. Probably we should have devoted more resources to establishing a germ cell or microcosmos [24], which contained a sub-set of prototype functionality with 'here and now' benefits, and which was operational without one stakeholder assuming ownership. Perhaps it would make sense to see this process as something that would lend itself more to Web 2.0 thinking. Would open versions of the prototypes be picked up by somebody and developed into something that would be useful for new parents, community groups, or even for the municipalities? Would it be possible to open the data and services for re-use by others, and re-use the data and services of others whenever possible? What would such a process of engagement look like? As discussed in [16] the municipal offices had great concerns regarding open websites that gives e.g. pregnant women advise regarding their health and financial situation. They found it difficult to point to websites that provided "answers" of which they had no control, and in this way it is not obvious that Web 2.0-based solutions would find their way back into the municipal system (see more below). There would be room for other studies that empirically investigates how NGOs and social entrepreneurs reason regarding existing open digital resources, and choose between them, including prototypes that may be clear in their ideas, but not meant for deployment (as in the case of the Parental Leave case).

In retrospect, the motivation for long-term or strategic projects seems vague and it remains to be seen what e.g. the municipalities have learned from their involvement in eGov+. In order to anchor experiences, long-term issues of sustainability and political strategy must be addressed in continuation of previous PD discussions (for a recent discussion on local governance, see [44]). In sum:

* Current literature states the need for expectation management and suggests that user involvement is important.

* We have demonstrated that PD and community engagement generally is still not sufficient.

* Hence, when designing in the municipal context, we need more focus on the issue on *when* change is to occur.

7. DESIGN WITH THE VANGUARDS VS INCLUDING EVERYBODY?

In discussions between Danish digital government developers, we often heard that it was important to design for everyone. The Web 2.0 user involvement strategies seldom excluded anyone formally, yet it is heavily attuned to early movers and vanguards. Should the mobile

democracy case really focus on increasing participation from one percent to a hundred percent, and should redesign of parental leave really include the most complex cases that are a concern of less than one percent of the pregnant population?

What seems mainly to be a clash of rethorics is actually deeply intertwined with methodological concerns, as we elaborate on in the following. When we set up the eGov+ project, we were inspired by Web 2.0 thinking, where participation is framed in terms of early movers and voluntary sharing of ideas and solutions. Many Web 2.0 designs are based on a group of users, often early movers, who are interested in engaging in the invention of new functions. Applications attain their value from user-created or third-party-created applications (e.g. Facebook). This contrasts with the traditional Danish municipality way of thinking according to which it does not suffice to design for enthusiasts. Instead, the municipality takes full responsibility for all features, addressing comfort, service and userfriendliness for all.

This problem at the rhetorical level echoes at the level of design method and decisions. Municipal officers, politicians, etc. are used to being convinced by statistic arguments such as "x percent of our voters think this IT system should be changed", and they are simply concerned about not losing any citizens when introducing new technological solutions. This concern unfolds into three issues, of which the first is how to respond to these concerns about the greatest common denominator, while leaving room for early movers and ongoing development.

Secondly, in order to gain influence, it is important to involve actors that are politically strong. The classical PD tradition teamed up with the labor unions because the unions were, at the time (see [8]), seen as the strongest possibility for working with alternatives to classical automation. They lost that role in the 1990s, and the AT project, for instance, focused on local action across the worker-management divide in an attempt to influence a multi-branched organisation ([11]). To some extent, the eGov+ project has mimicked this model, while, at the same time, the citizens have come to play an important role. In the three cases, the role of citizens and the access to them have been quite different: In two of the cases it was possible to team up with existing groups of citizens; a parish group in mobile democracy and mothers' groups in the parental leave project. In the Citizens' services case, such groups were less easy to identify, and citizen involvement with these services is much more ephemeral. While the parish group may be considered strong in local politics, this is hardly so in the other two cases. Seen from the municipality's point of view, it may be beneficial to attract the most 'loud-yelling' citizens and involve them in a process as a simple method of passification, which is in contrast to the intentions of the researchers. Furthermore, the municipality is also the employer of the caseworkers,

and there may be tensions between the local level and the contributions made by particular caseworkers, and the managerial and political-strategical interests of the municipality. This is indeed the case when caseworkers want to give more advice to citizens, and the municipality wants to save time and focus on an automatic and streamlined process, as in the case of parental leave.

The last issue has to do with the extent to which the involved citizens will be actual future users of the technology. Throughout its history, PD has has carried out many projects in which cooperation was not with the actual future users, e.g. UTOPIA, see also [27]. In all such projects it is essential that there is some organization that can accumulate and hold on to the experiences of the participants and activate them in later design. In some projects this organization was a labor union, in others it could be the public or municipal organisation as such (see [11, 42]). In our cases it is obvious that the municipalities would be able to handle the side of the workers, whereas it is less obvious that the side of the citizens would be handled equally well: What makes early movers or citizens who are engaged through an established NGO interested in participation with long-term perspectives in mind, as some kind of representatives of future citizens? And how do their insights get accumulated for future projects?

We see a need to push more for vanguards and early movers among citizens rather than for representativity and greatest common denominator arguments in order to achieve strong IT systems. We do not think that all design should be carried out with the vanguard in mind, however. The problem is that the rhetoric of inclusive design, which in some ways are well aligned with the rhetorics of representative democracy, makes the local development of promising ideas impossible, since such ideas are rarely universal. Accordingly, designing for the vanguard can sometimes create an increased digital divide because those who present the active and those hwo present e.g. statistical averages are different groups. The eGov+ project has focussed very little on this, and more on supporting the voices of groups that do not normally have a voice in the development of technology–a recurring theme in PD. The challenge for the public sector is to strike a balance between projects that design for the vanguard, and projects that aim for the later stages of diffusion.

Opening municipal websites to Web 2.0 mash-ups created by early movers may well be a strategy for a multistep inclusion, yet it requires re-thinking and re-organization within municipal IT as discussed above. Staged participation may be supplemented with design-in-use [44]. Democratic innovation [7] or wider maker communities may after all provide a framing to support such a development. Yet municipal IT development and deployment, which has been a centralized and standardized effort, leaves little room for citizens or local citizen-related offices to exert direct control over the information and

services they make available on-line, and needs to be thoroughly rethought so as to technically and organizationally embrace such activities. This discussion can be put into the following methodological implications for design:

* Municipal innovation is hampered by the Danish traditional unwillingness to prioritize one user group above the others.

* Hence, consider designing with the first-mover citizens.

* Successful design relies on striking the difficult balance between designing for the vanguard and broad diffusion of technologies.

8. CONCLUSION
The purpose of this paper has been to highlight some challenges of participation in design on the boundaries between municipalities and communities of citizens. Through the interpretation of our eGov+ project and associated literature, we established an understanding of this field as tensions, which are largely due to democratic and participatory assumptions being overtly similar but fundamentally different, which makes democracy a confounding concept. The tensions are important to be aware of when carrying out the next generation of research in this area, both as potential pitfalls, but also as source for generating interesting dynamics. [37] argued for PD moving from a focus on democracy and politics to a design of better systems. 'Better' seems to mean being less prone to failure, and generally aiming for win-win situations between stakeholders. Indeed, some of the tensions we addressed are relevant when it comes to reducing the risk of failure. However, win-win situations may be fewer than recognized at first. At the municipal workplace, PD projects can concentrate on win-win situations; these are pockets where management can tolerate empowerment and loss of control. On the other hand, many of the aspects we studied do not confine themselves to workplace democracy and the micro level. Rather, participation and democracy happen in intricate series of phenomena and ideas that have to be taken seriously and have very different practices. Simply choosing a PD approach because public planning is supposedly democratic, for instance, may be problematic.

Our findings are exploratory in nature, and will benefit from complementary, more focused studies that are not retrospective, but instead deliberately engage with the tensions defined here.

9. ACKNOWLEDGEMENT

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