Co-Production In Planning And Design: Finding A Balance Between Collective And Individual Responsibility

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Abstract. Worldwide, the trend in policies and legislation is towards wider citizen participation. This development coincides with a move towards more government deregulation and market liberalization as well as an exponential growth of the Internet and an increasingly better educated and equipped citizenry. These developments together result in a Zeitgeist that profoundly challenges the traditional relationship between government, experts and citizens as established in the 20th century. To study the balance between deliberation and analysis and between collective and individual responsibility, two cases in urban development in the Netherlands are analysed. Both cases experiment with more citizen involvement in planning and design, but each one of them leaves different degrees of freedom for individual action and uses different participatory methods. In Smallingerland, extensive use is made of the Internet to reach out and reap the benefits from the “wisdom of the crowds”. Only two conditions frame the stage: The building location and the concept of sustainability. In Enschede, the master plan is more directive concerning the architecture and use of materials, dividing the new residential area in three different zones according to the construction guidelines. And more traditional participatory methods have been used to invite citizen and expert inputs. This paper reports on initial findings concerning crowdsourcing and the construction of publics, the outcomes of the participatory process, and the relationship between citizens, experts and the state in the network society.

Key words: citizen participation, information and communication technologies, internet, decision making, urban planning

Introduction

Citizen governance is the trend at local level (Monnikhof et al., 2003; Klok and Denters, 2010). The need to comply with legislation, sensitivity to public opinion of an ever better educated and networked citizenry, alertness to market developments and eagerness to keep up with technological developments all explain the interest in allowing citizens more influence in public decision making. At the same time, local governments realize that it is easier to justify difficult choices—very often spending choices—by involving the public in the very decision making process as demonstrated by experiments with participatory budgeting (Hofman et al., 2010). And not only that, authorities realize that budgets can actually be cut by involving the public in the delivery of services, much like self-service restaurants, shops and petrol stations have been able to cut costs by letting customers take care of those tasks that can easily be devolved. The underlying assumptions are that public participation leads to better decisions by tapping into a larger pool of knowledge, but also that public decision making should be more directly governed by popular will. Another assumption is that new mobile and networked communication technologies will facilitate the participatory process (Brabham, 2009).

The local authorities of Smallingerland, the Netherlands decided to put ideas into practice and opened up the planning process for a new residential area in Opeinde. In October 2008, they
launched the website www.wijbouweneenwijk.nl1 [in English: ‘we build a neighbourhood’ – ACN], inviting “everyone, residents of Opeinde, residents of Smallingerland, students, experts and all those who are interested, to help design and build a new residential area in the village of Opeinde”. For the first time ever, a Dutch local government uses collaborative peer production (Benkler, 2002), more popularly known as “crowdsourcing” (Howe, 2006), to inform public decision making. The essence of this upcoming trend is that tasks that are traditionally performed by employees of companies or organisations are now performed by people who complete these tasks in their spare time and entirely on a voluntary basis. The initiative to use the wisdom of the crowd can either come from an organisation, like the city council of Smallingerland or, for instance, the UK government soliciting ideas to improve the way public information is communicated2, or from the crowd itself, such as the development of the Linux operating system or the online dictionary Wikipedia.

In this article, we analyse the aims and efforts of the authorities of Smallingerland to involve the public in an urban planning and design process using collaborative peer production. To investigate how the method of crowdsourcing differs from a traditional participatory process, in which specific target groups are defined and invited, the case of Enschede, the Netherlands is analysed as well. In May 2000, the city was struck by a major disaster in a residential area now known as Roombeek: on a sunny Saturday afternoon a fireworks depot exploded, killing 22 and destroying around 650 homes, making more than 1,500 people homeless. The next day, Prime Minister Kok visited the area and promised that all victims would be able to return to the neighbourhood. The city added that they would do their utmost to involve residents in the redevelopment of the district. The Enschede case was selected because the participatory process in urban development of the Roombeek area was quite extensive and is considered a good practice by many Dutch city planners. Schenke et al. (2004) and Denters and Klok (2010), for instance, argue that through a well-ordered process and a considered mobilization campaign, the participatory planning process in Roombeek has stimulated broad and representative public participation.

This article tries to analyse the difference between crowdsourcing and more traditional forms of public participation focusing on three questions:

1. How was citizen participation organized in the two cases and what publics were constructed?
2. What was the outcome of the process in the two cases?
3. How much influence did participants have at what stage of the process and what can we say about the relationship between citizens, experts and local authorities in the two cases?
Problematicizing participation

Public participation may be defined as the involvement of individuals and groups that are positively or negatively affected by a proposed intervention (e.g. a project, a program, a plan, a policy) subject to a decision-making process or are interested in it (André et al., 2006). In the literature on public participation three main motives have been brought forward for enhancing public participation in (the preparation of) decision making: enhancing democracy as a system; increasing the social support for possibly controversial policy proposals; and improving the quality and effectiveness of policy proposals (Pelletier et al., 1999; Enserink and Monnikhof, 2003). Participation in planning is widely considered to improve the quality and effectiveness of decision-making as it widens the knowledge base, stimulates creativity and creates social support for policies (Pretty et al., 1995; Monnikhof and Edelenbos, 2001; Benkler, 2002; Burby, 2003; Leeuwis, 2004). But in order to be effective and reach the above objectives, public participation processes should be well-organized to have the desired impact. Arnstein (1969: 216) in her ground laying contribution on citizen participation already warned that “There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process.” Arnstein distinguished eight levels of citizen participation, ranging from manipulation through information and consultation to citizen control, and since then many authors created adapted participation ladders and distinguished new forms of participation. Most of these ladders have in common that they take the implicit moral stance that one should strive to go up the ladder; the higher up, the better. New insights are emerging, though, that political and cultural factors bear a great value too and may compromise this implicit moral pretension of public participation (Enserink et al., 2007; Enserink and Koppenjan, 2007). In addition, “participation inequality” in online communities is a well recognized phenomenon. Nielsen (2006) found that in most online communities 90% of users just browse, but never contribute; 9% of users contribute a little; and 1% of users account for almost all the action.

Clearly, citizen participation is not a simple straightforward activity. Rather, it is a process that needs to be designed purposefully so as to engage those who need to be involved in order to be effective and make a policy into a success. As many handbooks and experts will confirm, deciding on whom to involve and consequently getting them involved is a major challenge for any process manager (Bleiker and Bleiker, 1993; Klijn and Koppenjan, 2003; Creighton, 2005; HarmoniCOP, 2005). In the open source approach to public participation, individuals self-identify themselves as a player in the process. This puts the burden on the organizer to define tasks in such a way that they attract the right kind of public as well as enough numbers to solve the problem at hand (Benkler, 2002). Stakeholder analysis and/or actor analysis techniques, like the ones discussed by Bryson (2004) and Hermans and Thissen (2009) may be of help to process organizers to distinguish between those stakeholders who should preferably be involved, informed or may be neglected. Public participation, therefore, is not only about a subject, but also about an object: who is participating and/or who needs to participate? It is a matter of constructing the right public.

Sociologists of science argue that understanding how experts construct publics is critical in any attempt to understand the patterns of public engagement, but constructions of publics and models of communication with them are often inextricable (Maranta et al., 2003; Irwin and Michael, 2003). As Stilgoe (2007:47) puts it: Social studies of technology have suggested that technologies necessarily embed assumptions about users (Woolgar, 1991), constructing their particular public. So experts, when dealing with questions of public engagement, might be seen
as (re-)constructing their publics as they (re-)construct science-in-public (Stilgoe, 2007). In this disciplinary field with a focus on technology and innovation, publics seem to be limited to either ‘consumers’ or ‘neighbours’, who relate or contrast to the experts and the sponsor, usually a government organisation. Consequently, in their seminal paper ‘The Third Wave of Science Studies’, Collins and Evans (2002) ask “Should the political legitimacy of technical decisions in the public domain be maximized by referring them to the widest democratic processes, or should such decisions be based on the best expert advice?” The distinct worlds of the technical experts and the public is further problematized by Jasanoff (2002) who asks: “The question is [rather] how to integrate the two in disparate contexts so as to achieve a humane and reasoned balance between power and knowledge, between deliberation and analysis.” In city planning, the field we are studying, the same question is relevant: What is the role of experts, of citizens and of local government in city planning, and what are their respective responsibilities, especially when it comes to design – the traditional domain of the architects and engineers (Enserink and Monnikhof, 2003)?

Different mechanisms for citizen participation serve to achieve different participatory goals (Braun and Schultz, 2010; Felt and Fochler, 2010; Franklin et al., 2009). As for online participation, Nielsen (2006) found that web site design has a huge influence on participation inequality: ‘Finding ways to broaden participation will become even more important as the Web's social networking services continue to grow’. With the rise of the Internet, the public domain is growing; information that used to be in the expert domain is becoming publicly available and new mechanisms for public involvement and stakeholder participation are being explored. Consequently, the objectives of participation, such as openness and accessibility of information on the one hand and accountability on the other, have become important qualities of participative processes and are expected to change the character of the planning process. Open source communities are considered an example, or at least a source of inspiration for new open planning practices. Clearly, the local authorities of Smallingerland were inspired by the prospect of easy involvement through the Internet of a broad public consisting of both local citizens and experts in their urban planning and design process. Their expectations about the public and their method of crowdsourcing will be presented shortly. The same issues will be discussed for the more traditional participatory process in Enschede, where specific target groups were defined and invited to participate in a more traditional way, through consultation in public meetings.

Urban development plans and the role of public participation

The municipality of Smallingerland is situated in the predominantly rural province of Friesland in the north of the Netherlands. Consisting of the city of Drachten and 13 surrounding villages, it has a total population of around 55,000. The village of Opeinde, where development is supposed to take place, is the largest of the 13 communities and has a population of around 1,700.

In their policy document on housing for the period 2005-2015 (called ‘Woonplan’), the council of Smallingerland approved the construction of a total of 453 houses of which 20 units were projected for Opeinde in 2009-2010. However, in 2007, the local authorities noted that housing development stagnated, in large part due to the global financial crisis. Yet, there was a need to add to the housing stock to allow households to upgrade to larger family homes, thereby freeing up houses for newcomers on the housing market. In addition, the area needed a boost to remain attractive. Since the council had land in ownership, they decided not to wait for a developer but

take the initiative in their own hands instead. A site of 17 hectares just south of Opeinde was selected out of seven potential sites as the best building location.

Two goals were formulated for the development of the area: 1) to build a “neighbourhood for tomorrow”, exceeding ordinary expectations for a middle-income residential area; and 2) an innovative planning and implementation process, including new financial and administrative constructions, to make this happen. From the outset, the council intended “to do things differently”. Rather than commissioning its urban planner to draw up a plan, the city manager initiated a round of discussions in-house with civil servants from various departments, such as the Environmental Service, Infrastructure, Spatial Planning, Permit Office, Housing Department, and a few other staff who could think out of the box. The proposal to turn the planning process completely around met with approval. It was strongly felt that future residents needed to be included in the process from the beginning onwards. Also, the expectation was that by inviting “everyone” to contribute via the website a wealth of innovative ideas would be unveiled that would otherwise never surface in a regular participatory process that depended on local contributions only. But not only that, rather than naturally assume responsibility for services traditionally provided by government, such as infrastructure, energy provision, maintenance of public spaces, etcetera, it was decided to leave this up to the community to resolve. Administrative reform was firmly on the agenda, a development also observed in a recent comparative analysis of changes in local government in 15 advanced industrial democracies (Denters and Klok, 2010).

For more than a decade, Smallingerland had been experimenting with several initiatives to engage citizens in the management of public problems. For instance, in the late 1990s, Drachten pioneered Hans Monderman’s concept of “Shared Space” whereby all road signs were removed at a busy intersection to improve road safety. The philosophy of the concept is that by making roads more dangerous, negotiation of shared areas is encouraged by all users—motorists, cyclists and pedestrians alike—at appropriate speeds and with due consideration for each other (EU, 2005). Mr. Monderman was the city’s Manager of the Integration Programme, heading policy making in the combined areas of spatial, landscape and traffic planning. An important characteristic of the Shared Space approach in the context of this case study is that it too shifts the emphasis away from government assuming responsibility for risk to the road users being responsible for their own safety and that of others at their own risk.

By 2008, the city of Smallingerland was ready to pioneer yet another concept: calling on the wisdom of the crowd for the design of an urban development plan. Since the new neighbourhood in Opeinde had to be innovative and built for the future, the council wanted to attract the brightest people, not only from their own community, but worldwide, to help develop the area. Inspired by famous examples of peer collaboration projects such as Wikipedia, Boeing4 and Goldcorp5, Smallingerland embarked on an approach of building an Internet community where “everyone, residents of Opeinde, residents of Smallingerland, students, experts, and everyone else who is interested” would help in the design.

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4 In 2003, Boeing lost its position as the global sales leader to Airbus, a European consortium. Yet instead of trying to compete with foreign expertise, Boeing decided to harness it by inviting 100 global suppliers to collaborate on the design, engineering, and manufacturing of the new 787 Dreamliner, the company’s first all-new commercial airliner in 12 years. Traditionally, Boeing design teams created drawings and sent them off to suppliers, who then churned out parts and shipped them to Boeing’s factory floor, where Boeing workers pieced them together. Boeing called the shots and only invited suppliers to participate in the development effort at the final stages. For the 787, however, the company turned that process on its head.

5 In 2000, Canadian gold mining firm Goldcorp made valuable geological survey data available to the public on their corporate website, offering a total of $575,000 in prize money for the best suggestions for high-grade gold exploration in the area. The Challenge website received more than 475,000 hits and more than 1,400 online prospectors from 51 countries registered as Challenge participants, eventually producing 110 targets, over 80% of which proved productive; yielding 8 million ounces of gold, worth more than $3 billion.
The second case of a more traditional approach to participatory decision making is situated in Enschede, the Netherlands, a university town located on the border with Germany. With around 157,000 inhabitants Enschede is the largest city in the province of Overijssel and the 14th largest city in the country. The fireworks explosion of 13 May 2000 destroyed an area of 43 hectares in the city centre. Around 1,000 people were injured and more than 1,500 residents were displaced because their homes were destroyed beyond repair. Approximately 2,000 homes were damaged up to a distance of 1.5 kilometres from the epicentre of the explosion, forcing thousands to look for temporary shelter. Of the 123 small and middle-sized businesses in the area, including independent artists, 97 were forced to relocate. With the blast, 553 jobs were lost (Projectbureau Wederopbouw, 2005).

In the context of the fireworks disaster, the city council of Enschede had quite different motives to involve citizens in the planning of Roombeek. Faced with the daunting task to reconstruct an inner city neighbourhood in the aftermath of major catastrophe, but also to restore trust and confidence amongst its residents, the local authorities quickly decided that they needed an open and transparent planning process allowing a large degree of influence, in particular to those who were hit the hardest. Moreover, an informed and participatory process would help the victims to come to terms with their losses, which was the third major goal of the authorities.

Before the fireworks explosion destroyed the area in May 2000, the city already had advanced plans for its redevelopment. In 1998, the council approved a master plan and subject to sufficient additional financing from national government, construction was due to start in the year 2006. Roombeek was an inner city neighbourhood characterized by old textile factory building complexes, partly abandoned and partly in use as artist's studios; adjacent social housing units dating back to the beginning of the 20th century; and slowly deteriorating districts constructed immediately after WWII. The goal was to upgrade the area while preserving the industrial heritage. Since the aim was to create a lively district, the master plan allowed for a combination of living and working. Finally, as part of the city's public transport policy, the old railway route that cut through the area had to be used for regional bus services based on the latest technologies and environmental insights. Even though the planning process started from scratch in 2000 and residents were allowed “full participation” (Klok et al., 2004), these original goals were eventually adopted one on one in the new plan.

**Methodology**

To study the use of crowdsourcing in public policy making, we decided to conduct a “two case” case study (Yin, 2009) to investigate the outcomes of two contrasting strategies in public engagement. The Opeinde case illustrates the use of Web 2.0 applications and open source strategies in public decision making, while the Roombeek case represents a more traditional approach to participatory policy making, although a website was used in Enschede to solicit ideas in the initial phase of the process.

Since the Opeinde case is the first and only case in the Netherlands in which local government appeals to the “wisdom of the crowd” for the development of an urban master plan, it was considered useful to compare it with a successful traditional public participation case. The Roombeek case was selected because the participatory process was quite extensive, essentially unrestrained by financial limitations due to its particular circumstances and generally considered

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a success in terms of achieving “full participation”, defined—and monitored—by Klok et al. (2004) as:

• each actor (citizen or organisation) in a target group should have the possibility to express her opinion on the development plan during all relevant stages of the planning process;

• participation of target groups is proportionate; and

• the opinions of the participating actors in the target groups are seriously considered in the decision-making process.

The assumption hence was that the process was near ideal from a design point of view.

The major difference between crowdsourcing and traditional public participation is that the public in the conventional method is invited to participate as representing different stakeholder interests and only at events organized by the proponent, while in crowdsourcing the call to participate allows the public to self-identify for a particular task and contribute when they find the time to do so. Who is allowed to participate when is hence subject to far stricter rules in traditional public participation methods than in the open source approach. These stricter rules would reduce the participation base and hence creativity, is the assumption. Although direct selection of participants does not apply in open source methods, the construction of publics still plays a major role through the definition of tasks (Benkler, 2002). To motivate people to contribute, a project has to be broken up into smaller tasks that are well-defined. In addition, rewards for contributions have to be commensurate with the time and expertise invested. Rewards need not be of a financial or material nature, but can also consist of increased status or simply the pleasure to be part of a community. This depends on who owns the end result. If a company or a government organisation is in charge, rewards will more likely have to match market expectations. If the community owns the project, recognition and the virtuous pleasure to contribute may be enough for volunteers to give freely (Benkler and Nissenbaum, 2006). But like in traditional public participation, having an impact is a prerequisite for participation. The expectation is that comparing an open source method with a conventional process in the same area—namely urban development—will provide useful insights into how participatory mechanisms relate to outcomes and how they contribute to the changing relationship between citizens, experts and government.

Both cases share the characteristic that the goal was to allow citizens a large degree of influence over public decision making. However, not until research had started, it became clear that the motives for public participation were quite unlike. In Smallingerland, the prime objective for public participation is administrative reform—or innovation, motivated both by calls for more influence by a better informed and educated public as well as the call for financial reform of government. In Enschede, quite aware of the fact that modern citizens are assertive and well informed, the most important objective for the local authorities was to restore public trust in government and eventually with it, support for its urban development plan for Roombeek. Another major objective was to show support for people who were hit hard in a tragic disaster. Thus, the context in which the public was involved differed dramatically in Smallingerland and Enschede. The two associated parameters of context and motivation were not part of the selection criteria for the cases, but due consideration is given to their influence in the analysis.

Interviews were held with key people, including civil servants, administrators, residents and experts. Four interviews were held in Smallingerland and seven in Enschede. In addition, the online forum for ideas (the “Ideeënbus”) was analysed in the case of Opeinde. Ongoing case study research of participatory budgeting in Dordrecht further informed this paper concerning motives for citizen participation as well as preliminary findings about turnout in relation to the
difficulty of the task at hand (Benkler, 2002; Naber and Enserink, in progress). Besides policy as well as evaluation documents that have been studied, three interviews were carried out in Dordrecht with civil servants and an administrator.

For both the Roombeek and Opeinde cases, publicly available implementation plans and policy documents have been studied. As the Roombeek case is well researched and well covered in the media, both academic and journalistic publications served as background material.

### The organisation of participation

The local authorities in Smallingerland and Enschede wanted to extract ideas from participants to feed the design process of an urban master plan. For Enschede, the quality of the participatory process was of utmost importance as the city wanted to restore confidence amongst its populace and create a sense of ownership as a form of therapy. To be credible, the process in Enschede had to go well beyond tokenism (Arnstein, 1969): “Full participation” was the aim. Since the aim in Smallingerland was to be innovative and original, the public was given the lead in the process. Hence, for both organizers the context implied that the planning process had to start from scratch, from tabula rasa, in order not to curtail participants’ inputs. Therefore, in both cases no conditions from the local authorities were made public at the outset of the process. Only the building location was predetermined as was a high ambition level.

The design of the participatory approaches was contracted out to an independent expert in the field of public participation in the case of Roombeek and to a new media consultancy in the case of Opeinde. A website was constructed in Opeinde to solicit ideas, and an essentially face-to-face process formed the foundation in Enschede. Despite the use of different media—online versus face-to-face—the first phase, or the roadmap from tabula rasa to development plan, was quite similar in both cases, roughly consisting of five stages: i) mobilization of participants; ii) generation of ideas and dialogue; iii) development of a draft plan; iv) discussion of the plan by participants; and v) submission to the local council for approval.

Since trust in local government was shaken after the disaster in Enschede, it was important for the success of the reconstruction process that the designer of the participatory process was perceived as operating independently from local government. In addition, a Projectbureau Wederopbouw ('Reconstruction Bureau') was set up as an independent “municipal service” and an urban planner was selected from outside. He too was conscious of being perceived as being an independent adviser to the public and to the local council. The added advantage for the Projectbureau was the financial control they had as an independent body as this considerably reduced bureaucracy and thus speeded up the process of decision making. Time was considered of the essence as so many people had lost their homes.

The authorities, normally used to lead the process, were advised to keep a back seat. Their main task was to host events as part of the dialogue phase of the participatory process. Councillors and officials were trained to be “silently present” and at best provide advice during the debates, but certainly not express their own opinion. Likewise, officials and administrators in Smallingerland were encouraged to visit the project's website, but advised to keep a low profile in the online forums. The message was clear: Leave the generation of ideas as well as brainstorming to the public. Ultimate decision making power remained with the local council, however, who committed themselves in principle to the outcome of phase 1.
Construction of publics in Enschede

To mobilise as many stakeholders during phase 1 as possible, target groups were defined. In Enschede, they were approached either directly, through community based organisations—such as schools, churches, mosques and health care centres—or through the media, including local newspapers and regional radio and television stations. The selection criteria in Enschede were essentially of a geographical nature: residents from the “inner circle” who were hit hardest; residents from adjoining streets who suffered minor to even more serious damages in the “outer circle”; and all other residents of Enschede. Stakeholders from the inner circle were further divided into target groups according to gender, ethnicity and age. In addition, entrepreneurs, artists, and public organisations and associations were approached separately. The prime motivation to participate consisted of a great sense of involvement. Indeed, 41 percent of the 850 participants indicated to be “very interested” and 46 percent would “certainly return” to the area. Combined, this group constituted 72 percent of all participants (Klok et al., 2004: 13).

A group of active residents organised themselves in the association for victims of the fireworks disaster Enschede [in Dutch ‘Belangenvereniging voor Slachtoffers van de Vuurwerkramp Enschede-BVSE’]. For fear of this group dominating the process, the association was deliberately not considered a target group in the formal participatory rounds. The BVSE was member of the Reconstruction Platform, as was the association of affected entrepreneurs, OGOVE (Ondernemersvereniging Getroffen Ondernemers Vuurwerkramp Enschede). Together with representatives of other stakeholder groups (housing corporations, home owners, tenants, artists), the Platform formed the “internal” participation track in which stakeholders were involved in the organisation of the reconstruction activities. These activities were sometimes rather practical and mundane, such planning road closures and traffic flow during construction, but also dealt with more fundamental issues, such as compensation for indemnities, the conditions under which victims could return, etc.

Results in Enschede

In the months of January and February 2001, stage ii (generating ideas) was organized, resulting in 850 participants producing around 3000 opinions and suggestions during seven target group meetings, on the website, in 30 ID-boxes, with children and a LEGO-project, with senior citizens, on an “idea wall” and using forms in the newsletter. The ideas were summarized in a pamphlet entitled “a neighbourhood designed around the kitchen table”, highlighting ten major characteristics of the area and some of the main controversies (Spil Adviesgroep, 2001). This pamphlet, published at the end of February 2001, served as the main basis for the urban planner to design a draft master plan (stage iii). Around 500 participants took subsequently part in stage iv, also named “Operation Boomerang”, during which the draft plan was presented to the community for feedback during five meetings in three weeks in June 2001. The final master plan was submitted to the local council and approved in March 2002 (stage v). The entire process took just over one year to complete.

Different participation levels were defined for elaborating the 40 sub-projects of the plan in phase 2 of the reconstruction of Roombeek, generally following Arnstein's ladder of participation: a) decide; b) participate in decision making; c) advise; d) consult; and e) inform. While the communication department of the Projectbureau was in charge of the participatory process during phase 1, the different project managers decided which level of participation would be appropriate for their sub-project. The idea was that this would prevent “participation fatigue” and keep up the momentum (Klok et al., 2004).
The ambitions for realising the plan during phase 3 of reconstruction were to achieve 50 percent of houses built under private commission. The national target percentage for private commissions is 30 percent in the Netherlands. In 2011, Roombeek achieved a little over 40 percent construction, well beyond the 11 percent achieved on average nationally. The main culprit for such low results in the country is the fact that most of the land is owned by developers. In Roombeek, prior private claims to land by three large developers were renegotiated, so that the local authority of Enschede was able to own the entire construction site. This made it possible to realize the objective of 50 percent private commissions. Once a part of the building site was ready for allotment, the plots were sold during especially organised events. When 80% of the total area was claimed, the future neighbours were put together to negotiate the exact boundaries between the different plots. This encouragement of self-organisation took participation in public decision making to a different level.

The development plan was divided into three zones with a low, middle and high degree of control over the architecture in that area. Partly, this differentiation came from the desire to create different urban environments and to encourage variation and vivacity. In part, participants planning to buy in the area indicated that some degree of control over architecture would be appreciated to guarantee the value of the homes they wanted to build.

According to Klok et al. (2004), full participation was indeed achieved on all three counts in Roombeek, i.e. 1) the possibility to participate; 2) proportionate participation; and 3) influence on the outcome. However, no hard criteria were formulated to measure to what extent participants influenced the planning process nor were any expectations made explicit to the participants. Nevertheless, stakeholders were generally satisfied with the final version of the master plan. Only four people voted against. Although the initial two stages of phase 1 took a lot of time, the investment was considered worthwhile by both the Projectbureau as well as the local council since the final result met with virtually no objections, which is usually not the case with development plans.

The sense of urgency in Enschede was enormous and ambitions high, ambitions both in terms of wanting to include the public as well as build a neighbourhood that would be the pride of every resident of Roombeek, of every resident of the city as a whole. Because of the strong feeling of a shared goal amongst those in charge of reconstruction in the physical, social and economic sense, an atmosphere of camaraderie and of 'we can do this' emerged. To explain the success of the participatory approach and the speed with which reconstruction took place, it is important to stress the commitment to a common goal of all involved.

Construction of publics in Smallingerland

In Smallingerland, the concept behind the participatory process was to launch a website (www.wijbouweneenwijk.nl) and build an online community in which individuals would participate because they either had a great sense of involvement as resident or prospective resident of the area or they had a passion for urban development. In the second category, the website developers counted on the professionals' drive to promote ideas or their company—as in the case of Boeing or Goldcorp—or to earn respect and status within the community—as in the case of Linux and other open source software initiatives. They did assume, however, that only few participants would be interested in the overall goal of developing a master plan, but rather have more affinity with the various issues or subjects that together constitute an entire urban development plan, such as 'house', 'traffic', 'water management', 'sustainability', etcetera. The structure of the website was therefore built on three themes: 'An innovative neighbourhood', 'the future house', and 'finance'.
and organisation’. Within these main themes, participants would publish their ideas and meet with like-minded visitors. On the website, visitors could indicate whether they belonged to one of the following groups: residents of Smallingerland; interested public, specialists, students, guests or moderator (The Crowds, 2008).

Smallingerland widely publicized the website www.wijbouweneenwijk.nl in the local media and evidently on a variety of websites and in online forums. Specialists in the field of architecture, design and engineering as well as schools of architecture and their students were especially targeted to rally as many expert users as possible at the launch of the site. Residents of the village of Opeinde were informed of the online approach through their community organisation in newsletters and in an especially organised meeting in June 2008.

Very importantly, to entice people to participate, the website had to be attractive, informative and easy to access. Interviews with key people explaining the concept were uploaded. Polls, a photography contest, prizes for the best idea were all part of the strategy to attract as many visitors and get as many ideas as possible. However, all interviewees had received reports that the website was difficult to browse and that the Ideeënbus and the different themes were difficult to find. In addition, a large number of residents of Opeinde were not familiar with the Internet.

**Results in Smallingerland**

The Ideeënbus in Opeinde resulted in around 600 posts by nearly 160 individual participants, including 123 postings by the moderator. These 160 active participants constituted the Opeinde Community. Out of the 600 some posts, about 150 were ‘ideas’ soliciting around 300 substantive reactions. The remaining messages had no substantive content. Not counting the moderator, seventy percent of the contributors visited the website only once or twice; sixteen percent were residents of Smallingerland, producing 18% of the blogs; and just 13 students, or 8 percent of the contributors, accounted for 117 postings alone, equaling 23 percent of the blogs.

What is striking in the outcome of the Ideeënbus is that a posting would only evoke two reactions on average. Apparently, most bloggers were interested in advancing their own ideas and very little discussion ensued. Another striking result is that professional parties and environmental organisations have been virtually absent with respectively 4% and 1% of contributions, and essentially no innovative ideas have been suggested. Rather than groundbreaking, some ideas could be characterized as eccentric and therefore quite difficult to realize.

Originally, one month was earmarked for the generation of ideas (stage ii), one month for aggregation (stage iii) and yet another month for finalization of the plan (stage iv). However, only very few ideas were generated at the end of the first month. The Ideeënbus was therefore kept open for another six months. Because this stage was taking long to conclude, participants were gradually losing interest. The Ideeënbus (stage ii) eventually closed in June 2009. Stage iii (development of a draft plan) hardly drew more visitors. Very few groups formed under each theme to elaborate single ideas and within groups virtually no brainstorming took place. An architecture office was therefore subcontracted to aggregate the 450 some substantive postings into a draft development plan. This draft plan was presented on the website and to the community during a workshop that took place in Opeinde in June 2010, almost a year after the Ideeënbus closed and almost two years after the launch of the website.

The municipality of Smallingerland considers the online community to be the owner of the development plan. As the plan is ambitious, and according to the local authorities too expensive to implement without further financial commitment from future residents, further elaboration of
the plan by the community is required. This would have to include innovative ideas about services usually delivered by local government, such as the construction and maintenance of roads, the installation of a water supply and sanitation system, an energy supply system, etcetera. The local authorities also want to delegate responsibility for maintaining public space to the residents of the neighbourhood. However, residents would only assume this task if they had some form of shared ownership of the land involved. Hence, different legal modalities for allotment will have to be designed to incorporate the idea of a green commons. But, no further activity has taken place online since the moderator published a report of a working group on how to take the process further in September 2010. Meanwhile, the residents of Opeinde regret that the process is taking this long. They are confused about what is expected from them, and not yet prepared to consider constructing their own roads and water and energy supply systems.

Discussion

Comparing crowdsourcing in Smallingerland with the conventional method of involving citizens in Roombeek is interesting from the perspective to investigate whether Web 2.0 technologies could be fruitfully applied to help in public decision making. A few questions need answering to address this issue. First of all, how is different crowdsourcing from conventional methods? Second, what conditions have to be met to produce (innovative) results? And third, to what extend does crowdsourcing contribute to administrative reform and a changing relationship between citizens, experts and government?

Representative participation, participation inequality and the construction of publics

The approach to involving the public in urban development was quite similar in the two cases of Opeinde and Roombeek: no conditions at the start of the process, an extensive publication campaign to attract interest, followed by subsequent stages of generating ideas, brainstorming and finalizing the plan for submission to the local council. The outcome of the two processes gives rise to some reflection, though.

In particular, the number of ideas generated through the website was well below expectation in Smallingerland. Too few visitors and not the right kind of visitors, is considered to be the cause. By comparison, Roombeek drew ten times more ideas from five times more participants in just two months, while the Ideeënbus of Smallingerland stayed open for almost a year. But how many participants would Smallingerland be able to interested in principle for such a local issue as the development of a master plan for about 20 houses in a relatively unknown and not very densely populated part of the country? Population-wise, Enschede is nearly three times larger than Drachten and surrounds. And because of the tragic events in Roombeek, the sense of involvement and urgency was enormous compared to Smallingerland. Also, the different modalities and the ease with which participants in Roombeek could share their ideas account partly for the more prolific result in Enschede.

On the other hand, the local authorities of Smallingerland were not just looking for opinions and support from (future) residents, they were seeking innovative ideas to construct an almost futuristic neighbourhood. Such ideas would have to come from citizens with particular technological know-how, and crowdsourcing could be a great tool to harness these, as the Boeing and Goldcorp cases illustrate. However, to attract that type of visitor to the website, the proposition has to be defined in such a way that participants do feel that their investment would bring some professional, financial or other personal gain. The task of developing a master plan
turned out to be too general and dividing the overall goal into three themes still not specific enough to challenge the expert citizen. Here, the general aim of public participation to allow citizens a large degree of influence by not creating too many conditions conflicts with the aim to use public participation to innovate.

Also, the phenomenon of participation inequality has not been properly addressed in the case of Smallingerland. As usability expert Nielsen (2006) discovered, participation inequality is a very stubborn characteristic of online volunteer-based activity. In fact, in the real world the problem is well known too: It is hard to recruit volunteers, especially for the more specialized tasks. While generating ideas may still be doable, brainstorming is in a different league and attracts far fewer participants from the public. This is confirmed by findings in the participatory budgeting case in Dordrecht too (Naber and Enserink, in progress).

In Roombeek, the public produced a wealth of ideas, but the aggregation of ideas into a coherent plan was left to the specialist, i.e. the urban planner and his team. To ensure that ideas were properly captured, the plan was presented for feedback to the community. In Smallingerland too, an architecture office was recruited eventually to produce a draft plan when the Opeinde Community failed to do so in the various planning groups on the website. This plan was not just presented for feedback to the community, but now serves as a starting point for discussing administrative reform online. This is a complex issue, requiring both specialist inputs as well as public support from within the municipality. Again, the problem statement is too general to attract substantive contributions. Moreover, the local public feels confused and betrayed as this goal and the consequences of implementation were not made sufficiently explicit in advance.

An important finding is that participation inequality contradicts to the goal of representative participation. Public participation is only considered successful if all walks of life have been represented in the process. It was one of the three criteria for full participation in Roombeek (Klok et al., 2004) and tacitly also played a role in Smallingerland. For instance, the authorities had expected that environmental groups would have been more vocal in the Ideeënbus or young people. From a democratic point of view it is not desirable if one group dominates the debate at the expense of others, but very often organisers simply have to work with the contributions received. In Dordrecht, the local authorities no longer use the criterion of representativeness. Instead, the benchmark of providing the possibility to participate is put in place, which was also the first criterion for full participation in Roombeek. The result is that the onus is on the citizen to participate.

The overall conclusion is that to produce a better result, the single call for help to construct a neighbourhood, albeit split up thematically, should have been divided into smaller tasks that would define different specialist publics as well as resident target groups. Further study is required into how to break up the immense task of developing a neighbourhood into modules that are of suitable size and complexity to attract a critical mass of volunteers who can generate sufficient and sufficiently relevant ideas to solve the various problems defined.

The major difference between crowdsourcing and traditional methods of public participation centres on the construction of publics. Aims have to be explicated into objectives and objectives into well defined problem statements. In crowdsourcing it is therefore the definition of tasks that results in the construction of publics. One could argue that this increases transparency in public participation. Further research is required to investigate this preliminary claim.
Crowdsourcing and administrative reform

In times of limited resources, governments look for ways to reduce expenditures. One way of doing this is to devolve responsibilities to the public. The local authorities of Smallingerland have made it very clear that unless some advancements are made by residents in taking on more responsibilities, the development plan for the new neighbourhood cannot count on council approval. The plan was made by the community, so the community has to come up with the resources to realize it, the argument goes. If the onus of participation rests ever more on the citizen, sufficient checks and balances have to be put in place to verify whether enough has been done to make sure that the public has had every chance to inform herself and decide to participate or not.

The trend in citizen governance as well as administrative reform implies an ever less authoritarian role for experts in public decision making. Both the Roombeek and Opeinde cases confirm that experts continue to play an important part in urban planning. But, in an era of citizen empowerment they have to adopt the role of facilitator as well. More particularly, crowdsourcing is an open source strategy in which information is shared freely. The fact that expert contributions were far and few between in Smallingerland’s Ideeënbus illustrates that a cultural change is required among the professionals to adapt to new methods of harnessing knowledge.

Finally, while the debate about the needs and modalities of administrative reform is legitimate, it should also include investigating the wider institutional setting in which citizen governance takes place. For example, as the popularity of building a house under private commission in Roombeek illustrates, citizens are quite willing and quite capable of self-organization. However, the construction industry is organised in such a way in the Netherlands that private commissioning is often frustrated. Land is owned by large developers, who work with large architectural offices, who work with large contractors, who work with large suppliers and so on. Local authorities also generally have the habit—and the preference—to work with large contractors rather than with individual clients. As the national average of 11% construction under private commission shows, some change is needed to turn the construction industry on its head. Further research is required into how institutional settings hinder citizen governance and self-organisation.

In conclusion, crowdsourcing requires further experimentation as well as further research to make it fully useful as a participatory tool in public decision making. While it may increase transparency of the participatory process by explicating proponents’ objectives, due care has to be given to whether the public has been offered all information to decide whether to participate or not.

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