

INTERNET-MEDIATED COOPERATIVE NORM SETTING IN THE UNIVERSITY: DESIGN AND EVALUATION OF AN ONLINE PARTICIPATION PROCESS TO REDRAFT EXAMINATION REGULATIONS

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ABSTRACT

The focus of this paper is the use of the Internet for cooperative development of norms as one particular form of crowdsourcing policy. Our key interest is if and how such processes can produce norms of both high quality and legitimacy. To answer this question, we have designed and implemented an online norm setting process to redraft the examination regulations for doctoral degrees at a science faculty of a German university. To our knowledge, this is the first such process at a university and one of the rare instances in which online participation resulted in a binding regulation. In this paper, we outline an approach to operationalise quality and legitimacy, describe how this process was designed with the aim of ensuring both of these goals, and report on the results of the evaluation. Based on a variety of data sources, we argue that the quality and legitimacy of the resulting norm were high. However, even in the university context, which offers ideal conditions for online participation, only one third of the target group participated actively, and the participants' satisfaction with the result was far from universal. Furthermore, we highlight a number of challenges in evaluating such processes.

INTRODUCTION

Online participation, which we define as a voluntary activity that is aimed at the provision or preservation of collective (i.e. either public or common) goods, has seen many applications in the realm of politics and administration such as for online consultations (Coleman 2004) or online petitions (Lindner & Riehm 2011; Margetts et al. 2013). Furthermore, online participation is used for producing public goods such as the online encyclopaedia Wikipedia or in for-profit endeavours such as company design contests and online communities of companies (Kleemann et al. 2012).

In all cases, initiators of online participation ask the same question: “*What makes online participation successful?*” In fact, this entails two separate questions. First, what constitutes success of online participation and, once the particular meaning of success is defined, how can it be measured? Second, which factors influence whether a process actually achieves these standards? In other words, understanding online participation requires to i) define and measure success *criteria*; and ii) to determine success *factors* and to identify the mechanisms through which those factors bring about the outcome. The focus of this paper is the former, though we will offer some interpretations of the findings concerning reasons for those findings.

Although online participation is not inherently connected to participation by many (think of submitting an online petition or sending an email to a Member of Parliament), it is usually associated with the actions of a number of people (either jointly or individually) as is the case in *crowdsourcing* as one type of online participation. We focus on a particular form of crowdsourcing policy, which is the use of the Internet for cooperative development of not just simple decisions but more far-reaching norms; we call this process *internet-mediated cooperative norm setting* (or *online norm setting*). Norms are instructions on how to act that have a binding character for individuals. They are highly relevant as they can significantly affect the interests of a large number of individuals. So far, for technological and organizational reasons it has only rarely been possible to directly involve a large number of individuals in the process of norm setting. Hence, in the past, norms were usually the result of formal processes, in which representatives, authorities or experts develop and impose norms on their respective recipients.

Today, those who are affected by a norm increasingly demand opportunities for participation in norm setting processes (Parnell & Crandall 2001; Bertelsmann Stiftung 2011). The possibilities offered by the Internet, such as enabling more convenient access to participation opportunities or by offering new ways of interacting with a greater number of people at the same time, might be able to facilitate this. However, implications of such internet-mediated cooperative norm setting are not fully understood. On the one hand, it could increase legitimacy by allowing more people to participate in norm setting and by providing them with the feeling that their voice has been considered. On the other hand, such processes might increase social selectivity in participation through barriers such as lack of Internet access and skills, or introduce new means of manipulating results, altogether undermining legitimacy. Similarly, while it could improve the quality of norms by sourcing the wisdom of a great number of people, it is disputed whether non-experts could actually meaningfully contribute to policies and norms, and the additional input requires more time to process which reduces effectiveness.

Research to date is limited by an uncertainty about standards for evaluation and a lack of empirical data of online norm setting practices. In this paper we aim to contribute to the debate

by evaluating the success of a particular participatory project. We start by outlining our approach to make sense of the various standards for evaluating online participation. Based on this we formulate our research questions and introduce the internet-mediated collaborative norm setting process that we designed according to insights from previous research and implemented at a science faculty of a German university, that was aimed at redrafting the examination regulations for doctoral degrees. We report on the results of our measures of quality and legitimacy and discuss their implications as well as limitations, before we offer a summary and suggestions for future research in the concluding section.

A FRAMEWORK FOR EVALUATING THE SUCCESS OF ONLINE NORM SETTING

How to make participation in collective action successful is neither a new question nor unique to the online domain. It has been faced for a long time by many different areas and disciplines, such as political science, sociology and economics (see for example the work of Olsen 1965; Ostrom 1990). A key challenge of such research has been to define a set of goals of such processes that could provide a standard to evaluate and to compare different participatory processes (Rosener 1978). This challenge remains to this day, leading some authors to argue that such attempts will be in vain (Geissel 2012a, p.209). Unsurprisingly, this lack of consensus on a comprehensive set of evaluation criteria is also reflected in the attempts to evaluate online participation (OECD & Forss 2005; Macintosh & Coleman 2006). Here we suggest a simple framework for evaluation that is based on previous approaches and could overcome this problem. First of all, a basic lesson that can be learned from all these different perspectives is the need to distinguish those criteria that are placed to evaluate the impact or outcome of (online) participation from those factors that might determine it (Kubicek et al. 2011; Dietz & Stern 2008; Geissel 2012b). We discuss criteria for evaluating success and what shapes those criteria in turn.

SUCCESS CRITERIA

The evaluation of participation outcomes – no matter if online or not - has largely applied different standards. From our review of literature including research that focuses on online participation (Kubicek et al. 2011; Pratchet et al. 2009; Lippa et al. 2008), on participation in environmental assessment (Dietz & Stern 2008; Newig et al. 2012) and on public participation more generally (Geissel 2012a; Innes & Booher 2004; Geissel 2009; Rowe & Frewer 2000a; OECD & Forss 2005; Nanz & Fritsche 2012), we identify two common criteria for the evaluation of participation: *quality* and *legitimacy*. These two criteria apply in particular to norm setting processes such as the one which is the focus of this paper.

Following previous research (Rowe & Frewer 2004; Chess & Purcell 1999; Beierle & Cayford 2002), we distinguish these success criteria further by applying them not only to the result but also to the process of online norm setting. The connection between process and outcome is exemplified by deliberation theory which defines deliberation as a demanding type of communication having to take place under special conditions (e.g. openness, equality, enough time etc.) and to follow certain rules (e.g. argumentation, interactivity, respect, constructiveness). If these rules and conditions are fulfilled, theory holds that the outcome of the deliberation process is both of unique quality and legitimized due to the power of

communication and rational arguments. Thus deliberative theory draws a direct relation between a certain type (or quality) of communication and the quality and legitimacy of the result. For us the term “result” encompasses all kinds of outcomes and consequences, immediate or long-term, material or not. Although more refined schemes exist that distinguish between output (as a concrete result of a process), outcome (as immediate and direct effects) and impact (as long-term and sustained effects), these are useful from a theoretical perspective but rather difficult to apply in practice (Kubicek et al. 2011).

Applying this distinction to the two basic criteria yields a two-by-two matrix, which is illustrated in Table 1 and will be discussed below.

Table 1: Overview of criteria to judge the success of participatory processes

	process	result
quality	<i>quality of process</i>	<i>quality of result</i>
legitimacy	<i>legitimacy of process</i>	<i>legitimacy of result</i>

A participatory process has certain objectives, and whether these are achieved and to what degree constitutes something we term *quality of result*. Sometimes this is also referred to as effectiveness (Rosener 1978; Rowe & Frewer 2004) or substantive quality (Beierle & Cayford 2002; Coglianesi 2002). Quality of results means that a participatory process achieves what it set out to produce. In the context of norm setting, the objective is to produce a norm and whether this succeeds at all, or whether the norm provides a solution for the original problem, could be the objective of an evaluation. What exactly is a result of high quality will vary between different participatory processes and contexts. This requires a further refinement which should include means to operationalise it. At the same time, while we assume that ensuring the quality of a norm is an important effort, there might be instances in which there is no agreement on what actually constitutes a "better" norm.

The quality of the result will depend on the *quality of process* as a necessary (but not sufficient) condition. This could include dimensions such that participation is meaningful and that the discussion that takes place lives up to the standards of deliberation, or that the process is transparent. It might also include that many people take part and/or that these are representative of the population. For example, reaching many people from a diverse set of backgrounds could be a prerequisite for generating new solutions and hence the quality of the result.

While we believe that ensuring a result of a particular quality will be a key success criterion for most participatory process, collaborative norm setting processes also require that the results are legitimate, something that will be less relevant for other forms of online participation. Most importantly, *legitimacy of process* pertains to the degree to which people accept or believe in the online norm setting process as “being legitimate”. The legitimacy of the process is directly linked to the evaluation of the *legitimacy of the result*. If people perceive the process as fair - which is associated with opportunities for participation, neutrality and trustworthiness of the

institutions as well as respectful treatment – they are more likely to accept its outcomes, even those that are unfavourable to them (Tyler 2000; Bertelsmann Stiftung 2014). A further dimension of legitimacy is whether a participatory process and its result are in accordance with the existing law (Nohlen 2005; Blatter 2007; Dietz & Stern 2008).

SHAPING THE SUCCESS OF ONLINE PARTICIPATION

The success of online participation in general depends on a multitude of factors. We provide a basic categorisation here and will highlight particular factors and their impact when discussing the design decision in relation to the case study. Following previous research (Rowe & Frewer 2000b; Pratchet et al. 2009; Beierle & Cayford 2002), we apply a basic distinction between factors that refer to the way a participation process is organised – what we call *design* – and the *context* in which the process takes place. Examples for the design elements are all aspects of the technical platform or the rules of decision-making; examples for context factors are the institutional culture of the administration initiating a participation process or the socio-demographic structure of the community that it targets. While the design elements can be shaped directly by the initiators, the context factors are more or less stable and might only be changed indirectly and in the long run. In other words, the design elements are part of the participation process while the context elements are mostly independent from it.

As a consequence, for the result of any online participation process, deliberate design decisions about the methods of engagement to employ, the anonymity of participants or the voting algorithm matter just as much as the context in which the participation takes place. A process design that works in the context of local council A might produce different outcomes in neighbouring council B, let alone in completely different contexts such as a company. In short, context matters.

PREVIOUS WORK & RESEARCH QUESTIONS

We are interested in whether online norm setting can produce a norm of high quality and high legitimacy. The evidence of previous research is very limited as to date there are only few instances that realise online norm setting at least to some significant degree. One of the few instances where norms are developed and set completely online is the online encyclopaedia Wikipedia. The norms on issues such as what constitutes a relevant article or a neutral point of view are developed through textual online interaction via the Wiki system and email lists. While not free from problems, it is fair to say that Wikipedia has successfully created a high quality product. So apparently, the norms that guide this production process are useful and accepted. Another area in which we perceive online norm setting to be at work is the development of open source software as discussions about decisions e.g. on future software features are also coordinated online (Weber 2004). However, simply starting a Wiki or making the source code of some software Open Source will not automatically lead to these desired results. For Wikipedia a considerable amount of research has been invested into determining how policies are developed and consensus is reached (Reagle 2011; Konieczny 2010; Forte et al. 2009) but these are not yet fully understood.

In a more formal context, the closest example to online norm setting are the efforts by the US administration to increase participation in rulemaking, even though this is largely a consultation

process as the norm development and decision remains with the relevant authorities. Proponents of online norm setting have hoped to use this instrument to tap into the wisdom of the crowds (Surowiecki 2004) and indeed there has been some evidence that through these channels new voices could be attracted which altered the final rules (Stanley & Weare 2004; Shulman 2003). This additional input could result in greater quality of the rule and the participation process as a sign of responsiveness could also increase its legitimacy. However, in general, results have been sobering as since the introduction of online means levels of public participation in rulemaking has not increased (Coglianese 2006; Balla & Daniels 2007). In particular, even when a substantial number of people participated they rarely contribute any original content that would provide new information for the rulemaking process (Shulman 2009; Shulman 2006). What is more, even those citizens who participate rarely deliberate (Figueiredo 2006, p.992).

A more common application of online participation is its use for public consultations on diverse matters not limited to norms. Research into offline forms of consultations has already established that these can indeed contribute to the quality and the legitimacy of decisions e.g. by delivering better solutions or increasing acceptance (Dietz & Stern 2008; Newig et al. 2012; Gonçalves 2014). This has also been shown for online forms of public consultations, for example in a systematic comparison of twelve consultative processes by Kubicek et al. (2011). The relevance of process evaluations has been shown by Carman (2010) for the Scottish Parliament's online petitions: those who perceived the process as fair would also assess the outcome more positively, regardless of whether or not it was in their favour.

At the same time, online norm setting can also result in negative consequences. The literature on offline participation indicates that offers of participation tend to be taken up primarily by individuals with high status and resources, which presents dangers to equality as only particular interests are advanced (Verba 2006; Verba et al. 1995). Additionally, although online norm setting reduces costs of interacting with large groups, research on digital inequality has shown that it poses additional requirements in terms of skills, which tend to disadvantage those groups who are least likely to participate in politics or indeed other forms of norm setting (van Dijk 2005; Norris 2001). Furthermore, the outcomes of more direct forms of participation have also been shown to disadvantage minority groups (Bowler & Donovan 2002, p.389). Finally, some risks are exclusive to online norm setting and the online means it relies on, such as the threat of manipulation and data theft.

Given this limited and mixed evidence, we are interested first of all in establishing whether an online norm setting process can deliver these promises at all. Therefore, we define our research questions as follows:

- RQ 1: Does the internet-mediated cooperative norm setting process result in norms of high quality?
- RQ 2: Does the internet-mediated cooperative norm setting process result in norms of high legitimacy?

Our work goes beyond previous research in several ways. First, we focus on a real norm setting process in which participants have developed the final norm. While we will discuss later that this was still voted on by a small group, the norm that is now binding was developed by those

who participated. Second, we analyse a case that was situated in a favourable setting. We have highlighted that context matters for outcome and in this paper we focus on the context of a science faculty of a German university. Potential participants are members of the faculty; that is why it is reasonable to assume that the target group has the necessary resources for participating online. The level of education, which is a well documented barrier to political participation (Verba et al. 1995), should be of no relevance for determining outcomes in this homogenous group of people. What is more, German universities already employ governance mechanisms in which all relevant groups of the university are represented (Zechlin 2012). Although these institutions do not reflect the composition of the university (as professors will always have a majority), these structures offer a base that can be more easily expanded to include larger numbers of people than institutions in other contexts. Additionally, the issue at stake had a clearly defined target group and the norm was relevant for all its members. As such it can be considered a case study of critical relevance (Yin 2009, p.74) – if online norm setting is not successful in this context it might be even more difficult to achieve success in other, less favourable contexts. Third, instead of analysis of secondary sources of third party processes we have designed and implemented the entire process, allowing a purposeful design representing best practice for online participation as well as access to a diverse set of primary data.

CASE STUDY

This paper reports the results of an internet-mediated cooperative norm setting processes that was initiated, designed and implemented by our interdisciplinary research team in order to gain a better understanding of the outcomes of such processes and its determinants. The subject of the norm setting was a redraft of the examination regulations that govern the conferral of doctoral degrees at a science faculty. For example, the regulations concern what is necessary to be eligible for a degree, supervision arrangements, defence of thesis and marking. These rules pertain to the very essence of the faculty as they are the guidelines by which new scholars are admitted into academia. Traditionally, the Faculty Council, an institution of about a dozen representatives in which professors hold the majority of votes, determines the rules. For the purpose of our research, this process was opened up to all affected stakeholders. These included all academic staff of the faculty who are involved with supervision (mainly professors but also some non-professorial as well as non-academic staff involved in administration), all current doctoral students and elected student representatives (as potential prospective doctoral students). Overall, more than 1,300 people were invited to contribute to the redraft.

The process was structured in five phases over a period of three months: In the first phase, general principles of the new regulations were discussed, such as if marks for PhD theses should be abolished or how many papers are necessary for a cumulative thesis. Participants could i) express agreement or disagreement by rating a proposal (pro/contra vote), ii) discuss a proposal by writing a comment, or iii) make a new proposal of their own which could subsequently be rated and discussed by other participants. In the second phase, the Deanery tried to combine the different principles into a coherent set of rules for the prospective examination regulations. For this the pro and contra votes of the participants provided a first ranking of desired and non-desired principles. Based on these ratings, the Deanery manually combined those principles that seemed to have the most support and that would also make a sensible overall norm. In cases in which a principle did not have a clear vote in (dis)favour, the

comments and the judgement of the Deanery were taken into account. This aggregate was then again subject to public participation. In the third phase, the Deanery drafted a document of the new regulations, which was publicly discussed in the fourth phase. The fifth phase was a debate of the Faculty Council on the proposed new regulations to formally enact the new rules, resulting in a final regulation binding for the whole faculty of more than a thousand people. Figure 1 gives a summary of the different phases and their duration.

phase	subject	participation opportunities	duration
1	discussion of general principles	online for all stakeholders	3 weeks
2	discussion of proposed aggregated set of principles	online for all stakeholders	2 weeks
3	draft of new regulations	offline by Deanery	3 weeks
4	discussion of draft	online for all stakeholders	3 weeks
5	formal vote on adoption of new regulations	offline by Faculty Council	

Figure 1: Overview of phases of internet-mediated cooperative norm setting process at science faculty and participation opportunities

The norm setting process was purposefully designed with the aim to ensure quality and legitimacy. This should ensure that also the results are of high quality and legitimate, even if this might not be guaranteed. For this we have further specified the four success criteria discussed above into a number of dimensions that cover different aspects of what can be considered a success and which can be operationalised for measurement. These are named in Table 2 and will be discussed in more detail in the next section, which will outline the reasons for the major process and platform design decisions.

Table 2: Dimensions of success criteria

	process	result
quality	quality of process	quality of result
	effort to participate / usability of platform	reasonable / sensible norm
	quality of discussion	correctness of norm
	satisfaction of stakeholders with process	satisfaction of stakeholders with result

legitimacy	legitimacy of process	legitimacy of result
	lawful process	legally valid result
	acceptance of (online) process	acceptance of result
	(satisfaction of stakeholders with process)	(satisfaction of stakeholders with result)

DESIGN CONSIDERATIONS

In general, our design decisions were targeted at three different areas. First of all, we aimed to generate participation, because when no one participates, there can be no results or those decisions that are taken lack legitimacy as no one provided input. Second, we aimed to increase the quality of the process, mainly by enabling and encouraging meaningful and constructive input and discussion. When those who participate do not take their participation seriously, or lack the knowledge to make meaningful contributions, this will again result in lack of quality which will also impact legitimacy. Third, we aimed to create a process that would ensure both the lawfulness of the result as well as acceptance by participants. Table 3 summarises the relevant design decisions, which we discuss in some more detail below.

Table 3: Summary of design decisions aimed at ensuring legitimacy and quality of online norm setting process

design decisions in order to increase ...		
... participation in the process	... quality of process as precondition for quality of result	... legitimacy of process as precondition for legitimacy of result
relevant issue	tried-and-tested software (Adhocracy)	integration into existing legal provisions (incl. vote by Faculty Council)
process sponsored by relevant authority (Dean)	participation limited to stakeholders	transparency of process
relevance of participant contributions	provision of additional information	use of real-names
availability of different means of participation (low/high involvement)	moderation	pro/con votes by participants as basis for aggregation
direct (personalised) invitations	pre-fill content	

no password required	use of real-names	
email reminders	dividing complex task into several easier tasks	
	dedicated staff support, e.g. for aggregation of contributions (by Deanery)	

Previous research has shown that one of the key factors to *motivate engagement* in participatory process is a clearly stated aim and the relevance of the issue at stake (Kubicek et al. 2011, p.10). The definition of our target group made sure that all of them were affected by the examination regulations, hence making this an issue of relevance to them. This was further emphasised by the fact that the process was sponsored by the dean with the aim of resulting in a binding norm. Participation was also motivated by the fact that every person in the target group received an email – sufficient in this case as the target group is regularly online. To test the effects of personalised emails on levels of participation a random control trial was used, comparing personalised invitation emails to more standardised emails.

To lower barriers to participation, the system did not require setting a password straight away and different opportunities for participation were offered, from voting on proposals which just needed one click, to commenting and writing of proposals which required more effort. By splitting the norm setting process into several steps, the structure of the process also aimed to make participation easier. At the beginning, it was only relevant to discuss general principles; having expert knowledge of the norm itself was not required. Recognition of user contributions, for example by immediately displaying contributions and also attributing them, has also been shown to motivate participation (Towne & Herbsleb 2012, p.102). Finally, reminders notified the target group of the start of new phases in the process.

In order to ensure the *quality of the process*, we focused on usability on the one hand, and on creating an environment for constructive debate on the other. To ensure usability we relied on the Open Source software Adhocracy¹ which has been used in number of previous participatory online processes. Prior to launching the system, we undertook a usability study of the system with 21 subjects which led to some modifications of the system (e.g. increased visibility of the voting buttons, streamlining the login process).

In general, constructive participation should be aided by the high level of education and the fact that participation was limited to people who should have had some basic knowledge about the norm in question. In addition, the online forum’s design considered a lot of factors that are known for supporting the quality of online discourses. For instance, the complex task of developing a norm was divided into smaller tasks that required less time and knowledge and allowed participants to choose a certain field of interest and competence (Towne & Herbsleb 2012, p.103). Providing a first set of relevant principles to discuss instead of offering only an

¹ <https://github.com/liqd/adhocracy/> [29.08.2014]

empty space was intended to make engaging in participation easier and to provide guidance on the topics that would be relevant for the participation. Since deliberation lives upon the rational weighing of different arguments and information, the forum provided a section of relevant information. Providing relevant information is widely considered to maintain deliberation (Fishkin 2009; Himelboim et al. 2009). The online platform did not allow for anonymous commenting; instead the real name of the participant was displayed next to the contribution. Even if the factor of identification is a controversial matter, evidence that identification of the user supports the quality of discourse more than anonymity is winning empirical ground (Suler 2004; Janssen & Kies 2005). Additionally, it was also meant to limit abuse given that people tend to know each other. Furthermore, the terms of use gave the Deanery the right to moderate comments, because moderation is considered to have a positive impact on deliberation (Kubicek et al. 2011; Coleman & Gøtze 2001; Janssen & Kies 2005; Coleman & Moss 2012; Wright & Street 2007). Finally, the online process was supported by a number of dedicated staff to attend to technical queries as well as other questions, and the Deanery provided the expertise to aggregate the different principles from the first phase (Kubicek et al. 2011, p.10).

In order to ensure the *legitimacy of the process* from a legal point of view, it was necessary to acknowledge that only the Faculty Council has the right to adopt a new examination regulation. To allow for outside participation, the norm setting process was conducted as an open Faculty Council meeting that lasted three months and in which all invited stakeholders had the right to speak. This is another reason for the use of real names as in a Faculty Council meeting participants would usually be identifiable. Nevertheless, for legal reasons, only the members of the Faculty Council could vote on the adoption of the norm. As their members are free in their mandate this would forbid binding them on the vote of the wider participation exercise. While this would ensure formal (i.e. legal) legitimacy, it posed risks for legitimacy in terms of acceptance as the usual small group of people had the power to ultimately change the norm. However, Kubicek et al. (2011, p.10p) found that a large degree of transparency of process and decision-making will benefit its acceptance. Therefore, the whole process was open to everybody, in particular the website was accessible for everyone as was the Faculty Council meeting, and this transparency was meant to contribute to legitimacy in terms of acceptance. In the same way, the aggregation by the Deanery of the principles discussed in the first round was meant to ensure a norm of high quality, for example to make sure that the different principles within the norm would not be in contradiction to each other, and to reduce effort on behalf of participants. However, this gave large discretion to the Deanery which could result in lower levels of legitimacy for fear of abuse or manipulation. Therefore, this aggregate set was again put to discussion and vote to increase legitimacy.

SOURCES OF DATA

We can draw on a variety of data sources including the platform log data, a survey of invited faculty members, content analysis of the online discussions, interviews with selected stakeholders, and observations of the Faculty Council meetings.

The online platform allowed tracking of individuals' usage of the platform including navigation through the site, voting history, access location and device. In addition, a few days after the Faculty Council had passed the new regulation, all approximately 1,300 faculty members that had been invited to participate in the process were asked to complete an online questionnaire, focusing on their assessment of the quality and legitimacy of process and result. In total, 230

questionnaires were sufficiently completed, representing a response rate of 17%. Unsurprisingly, those actively participating in the online process by voting or commenting were twice as likely to also participate in the survey, hence making the sample biased towards this group (59% of the sample were active participants). What is more, professors are overrepresented in the sample (23% in the sample vs. 14% in the faculty population) at the expense of postdocs. The survey data could be combined with platform log data, for example to distinguish people who engaged with the platform from those who did not.

To enrich the survey's results and get a deeper insight into the perceived legitimacy and quality of both the online participation process and the process' result, we conducted semi-structured interviews during November 2013 and February 2014. We selected the interviewees at random from the population of all invited faculty members to avoid selection bias. Additionally we interviewed the Deanery. We interviewed 15 persons from different status groups: five doctoral students, five postdocs, two professors two non-academic staff and the Dean. Of those, five belonged also to the Faculty Council (two professors, two postdocs and two non-academic staff). Furthermore, the interviewees differed in their participation intensity. While some of them preferred lurkdom, others actively participated but differed in frequency (low or high). The interviews were conducted face-to-face and had an average duration of about 38 minutes. The interviews were transcribed and content analysed using the qualitative data software MAXQDA. In addition, three meetings of the Faculty Council were documented by non-participant observers. Finally, all comments that were written during the online discussion were content analysed on the basis of a coding scheme drawn from the fundamental assumptions of normative deliberative theories (Gutmann & Thompson 2004; Dryzek 2000; Habermas 1992). The coding scheme includes 19 variables, which operationalised the concept of deliberation within nine categories (e.g. rationality, interactivity, respect, empathy, constructiveness, meta communication etc.).

RESULTS

We report first on the general levels of participation before discussing in detail the results in relation to quality and legitimacy.

LEVELS OF PARTICIPATION

Of the 1,346 invited faculty members, only about 30% did not react to the process at all. While a further 40% only interacted passively with the platform by visiting the site, more than a quarter of invited people actively participated, most of them by voting but also by commenting on proposals or drafting proposals of their own. Overall, more than 500 comments were written and more than 5,000 votes cast. As Table 4 shows, active engagement with the platform was highest at the beginning of the process while fading towards the later stages. A field experiment that randomized two different versions of the email inviting people to the process showed that a personalised email that highlighted the relevance of the process and the individual contribution significantly increased active engagement. In this case about one in three receivers would actively participate while this was only the case for one in four receivers of an impersonal email lacking those features.

Table 4: Engagement with online platform

activity	phase I discussion of principles	phase II aggregation of principles	phase IV discussion of draft regulations	total across all phases
no engagement	41%	57%	68%	29%
passive (reading)	32%	37%	30%	42%
low activity (voting)	20%	5%	0.7%	21%
high activity (commenting, proposing)	7%	0.6%	1%	8%
<i>number of votes</i>	<i>4,878</i>	<i>167</i>	<i>103</i>	<i>5,148</i>
<i>number of comments</i>	<i>436</i>	<i>33</i>	<i>73</i>	<i>542</i>

It can be assumed that engagement with and perceptions of the online process will differ between the different stakeholders in the university. The primary stakeholders in the university are the professors on the one hand, and the doctoral students they supervise on the other. Potentially, both have distinct ideas about what constitutes a good doctoral examination regulation. For example, we might hypothesize that doctoral students strive for lowering requirements and more supervision, whereas professors might prefer more rigorous tests for academic merit and less supervision effort. Another relevant stakeholder is the Faculty Council which includes professors, academic (including doctoral students) and administrative staff and students, and which has a key influence on the online process but is also possibly “threatened” by a loss of power.

Table 5 illustrates the participation levels of the different status groups. While both doctoral students and professors were comparatively highly motivated, resulting in about a third of these groups actively participating, postdocs were less interested. The members of the Faculty Council were particularly engaged, which means they actively participated in the discussion and acted to integrate this online forum into the offline Faculty Council discussions. Doctoral students and professors exhibited very different styles of engagement. While the students opted in the majority for low participatory activities (i.e. voting), the professors would usually prefer to interact more deeply by commenting.

Table 5: Engagement with online platform by status group

activity	doctoral students	postdocs	professors	other	<i>Faculty Council</i>
no engagement	25%	37%	28%	43%	20%
passive (reading)	42%	44%	39%	44%	13%
low activity (voting)	28%	13%	12%	9%	27%
high activity (commenting, proposing)	6%	6%	22%	4%	40%
N	189	279	790	91	15

Note: The case numbers do not add up to the total number of 1,346 invited individuals as the category “Faculty Council” consists of members of the other status groups.

QUALITY OF PROCESS AND RESULT

As outlined previously, the *quality of the process* has several dimensions. One is usability, for which we report both technical measurements as well as subjective assessments. From a technical perspective, the system was accessible more than 99.9% of the time and remained responsive (latency less than one second) even throughout phases with a high number of requests. The user support received only five emails highlighting minor technical problems with using the site, and six that made suggestions for improvement of the site such as an additional link or information. A few people did email user support with a comment for publishing on the site as they apparently did not understand that they could do this themselves, indicating some difficulty. However, considering that more than 1,000 people had been invited, this is less than 1% of users which we interpret as an indication for a largely usable site. This interpretation is supported by the generally high satisfaction with the process which can act as a proxy for usability. The problem of usability was less in using the site for voting and commenting, but that the lively discussion could make participation difficult as participants did not have the capacity to read all comments and to cognitively connect information, as findings from the qualitative interviews indicate (I.03: 292-297; I.05: 603-606, I.07: 372-385): “*There was an exponential increase of comments, they were posted so fast, at one point, everyone got confused*” (I.07: 376-378).

Of particular interest is the quality of the debate. The survey showed that the majority judged the discussion as respectful and based on rational arguments. An interviewee even perceived the high discussion level as intimidating (I.06: 285-291). These subjective assessments are supported by the results of the content analysis which showed that it fulfilled many of the criteria postulated by deliberation theory. In particular, almost all 435 analysed comments were clearly related to the topic of the forum. Two thirds of the comments showed at least one valid argument. More than half of the analysed comments included references to other comments. About 21 percent of all posts made a critical reference to another comment while 26 percent

supported other posts. About 25 percent of all comments were engaging a specific argument. These findings indicated a fairly high degree of interactivity. Uncivil communication was not found at all and more than 20 percent included constructive elements, which means that participants tried to find a common ground or proposed new solutions.

A further sign of the constructive debate is that the moderator never needed to exercise her rights for removing a comment. The quality of the online process is also underlined by the fact that the debates online mirrored the offline debates in the Faculty Council. Consequently, there was a high satisfaction with the process: More than two thirds of surveyed faculty members were at least somewhat satisfied with the online discussion and online drafting of the new regulation (i.e. the process). Less than 10% were really dissatisfied. Process evaluations differed markedly between those who actively participated through voting or commenting, and those who did not. In the active group, 84% were satisfied with the process, in the passive group only 59%.

An indicator of the *quality of the result* was that the regulation which was developed in the online process (and hence largely outside the Faculty Council) was finally passed by the Council with merely small alterations to correct minor mistakes. Remarkably, despite an intensive discussion, there were 12 pro votes and only one abstention with no contra votes which is rather rare in the Council. Furthermore, 70% of surveyed participants think that the quality of the regulation has improved. As with the process, about 70% of the participants are at least somewhat satisfied with the outcome. Some interviewees also perceived an increased quality of the result (e.g., I.01: 529; I.02: 782; I.04: 488; I.06: 313; I.08: 173) because the new regulation is more precise (I.04: 496).

Those actively participating expressed significantly higher satisfaction with result and process. Overall, 73% of active participants were satisfied with the new examination regulations as compared to 64% of those who did not vote or comment. Furthermore, there are differences between status groups. 17% of the professors were dissatisfied with the resulting regulations compared to only 3% of the doctoral students. Notably, professors were significantly more satisfied with the old regulations: 44% of this group expressed that there was (almost) no need for improvement as compared to 16% of doctoral students, indicating that professors perceived little need for such a process. Unsurprisingly, these are also the ones who are more likely to be dissatisfied with the new regulations. Subject to critique has been the abolishment of the general question & answer session or the number of examiners in the oral exam. What is more, from the observations of the Faculty Council meetings it became apparent that professors were particularly dissatisfied with those parts of the new regulation that are perceived to increase their work load, such as supervision agreements and mentoring.

LEGITIMACY OF PROCESS AND RESULT

The legal aspect of legitimacy had been primarily addressed by the design of the process that made sure that the way the new norm was set would fulfil legal requirements. The resulting norm was itself examined by the university's legal team as part of routine procedures. This confirmed that the norm would be in accordance with the legal requirements of the university and wider jurisdiction, ensuring formal legitimacy.

At least equally relevant is whether the new norm and the process by which it was developed are perceived as legitimate. Many participants of the interviews appreciated that the process of redrafting was opened to a broader group of participants than is usually the case (e.g., I.02: 652-653; I.03: 269-271; I.07: 23-24). As a result of the democratisation of the process, the interviewees evaluated the *legitimacy of the process* rather high: for instance, I.04 emphasised the democratic value since it is “*generally welcomed to have the opportunity to participate irrespective of which norm will be set at the end. It is fair to be part of a discussion about such a regulation. I think that is quite good*” (I.04: 149-152). The online procedure as such was well accepted by the interviewees (e.g., I.07: 487-495; I.09: 381-389; I.13: 436-447). Arguably, legitimacy is also connected to who participated. In the present case study this relates to the representation of the different stakeholder groups. In the process the two most relevant groups, of professors on the one hand and doctoral students on the other hand, participated in roughly equal rates. At the same time, a slight dominance of professors might be asserted from the fact that those were more outspoken by commenting as compared to doctoral students who preferred voting.

Most interviewees also perceived the separation of the process into several steps and the aggregation phase as being transparent (e.g., I.02: 1016-1017, I.5: 472-478). A crucial step in the online process was aggregating the premises discussed in the first phase. This was done by the Deanery which could be subject to critique from a perspective of legitimacy. However, four out of five active participants surveyed agreed with the statement that the proposals and ideas from the online discussion were adequately reflected in the draft. Also the interviewees said they felt involved and could reconstruct in which way their comments become part of the redraft (I.06: 218-222, I.11: 535-545) or why some proposals were not successful (I.10: 134-135). In the Faculty Council meetings, the online process was rarely used as an argument for or against a certain decision. It was taken as a given and a strong argument in favour for the existing proposal but hardly explicitly verbalised as such. During those sessions, the legitimacy of the process was not questioned.

Not least due to the rather positive process evaluations, most interviewees reported that they perceived a higher *legitimacy of the result* (e.g., I.02: 807-809; I.03: 508-512; I.07: 459-558). Interviewee I.07 felt “*respected*” (I.07: 217) for having the opportunity which he/she usually does not have to participate in a decision. Furthermore, I.07 noticed that the administrators had considered all comments and suggestions, which he/she saw as an important reason why the result is widely accepted (I.07: 279-285). Likewise, interviewee I.05 perceived some degree of control of the process’s result and appreciated that the norm was not set in the quiet (I.05: 549-551).

However, from the survey we know that only about 40% of those actively participating agreed that their proposals and votes had an impact on the final draft. One in seven believed it had no influence while a quarter could not tell. The survey did not explicitly inquire into acceptance but into satisfaction. It can be assumed that the satisfaction with the process and result as discussed above are also connected to perception of legitimacy. The more satisfaction with the process and the result, the more likely it will also be accepted as legitimate. This satisfaction was high, however, we do not know how those who were not satisfied would perceive it.

DISCUSSION

Our research questions have been whether the internet-mediated cooperative norm setting process in the university result in norms of high legitimacy and high quality. We discuss this in turn for participation, quality and legitimacy even though these are interconnected.

PARTICIPATION

About one in four invited stakeholders did actively participate. While compared to other online participation initiatives, e.g. those consultations reviewed by Kubicek et al. (2011) or rulemaking efforts (Balla & Daniels 2007) this represents a high rate of participation, those taking up the offer to get engaged still remain in the minority. It is an open question whether participation levels should be higher and indeed could be? We argue that it is not necessary that everybody participates. After all, participation is time consuming and cost intensive, as some interviewees highlight (e.g. I.4: 581-585; I.5: 390-396). This is why a broad participation can probably only be motivated if the results significantly affect the participants (I.11: 654-666).

Participation did also markedly decline over the three phases of the participation process. This could be a sign of declining interest or even disillusionment in the participation process. This interpretation, however, is unlikely given the largely positive evaluations by survey stakeholders. Instead, we argue that participants might be more motivated to discuss general principles of the new norm. In contrast, working on the formulations of the specific norm is more tedious and time-consuming and, therefore, less motivating. Discussing the principles of the norm and formulating the norm itself constitute quite different tasks which attract different kinds of people. Indeed, a quarter of those who engaged in the final phase of norm checking had not participated at all in the first phase of principle discussion.

QUALITY

Overall the quality of the discussion has been quite high and some participants attributed this in particular to the online form of communication. For instance, I.01 highlighted that in online discussions participants have the possibility to collect information and rethink their arguments before posting them so the discussion is more elaborate (I.01: 438-446). I.11 reported his/her impression that online procedures offer the chance for more rational deliberations, because unobjective elements like facial expressions and gestures are banned from the process (I.11: 723-734).

Some interviewees pointed out that they see online procedure as the only way to enable broad participation in decision-making processes (e.g. I.12: 669-677; I.14: 656-678). They argue that participation in online debates is more efficient and more flexible than in offline debates. Furthermore, I.04 thought that norms are often set by authorities which lack the required operative knowledge to keep track of the needs of those who are affected by the norm (I.04: 760-764). Thus, if – as in our case – both authorities and the persons who are affected set the norms, more perspectives could be incorporated into the final decision (I.04: 339-353). I.01 and I.04 ascribed the increased quality to the relatively low complexity of the process since the number of participants was small and interests were largely homogenous (I.01: 535-537; I.04: 552-555).

However, some of the ambivalence of research findings into online interactions is also expressed by the interviewees. I.02 argued that bodily expressions and pitches of voices are helpful for a

correct understanding of the intended meaning; this is why online deliberations are potentially affected by misunderstandings (I.02: 586-591). Additionally, the interviewee called attention to the fact that writing well-grounded arguments takes a lot of time, which is often not spendable, and that written communication lacks in nonverbal cues (I.02: 156-160). There were also concerns that extreme positions appear more often in the internet than in offline discussions (I.12: 690-696).

Furthermore, the interviews indicate a broad consensus that displaying participants' real names and status groups increased the quality of the process – especially the quality of discussion (e.g., I.02: 261-2262; I.05: 240-242; I.07: 183-200, I.14: 404-413, 434-439). Because comments could be attributed to specific persons, participants tried to post proper arguments (I.07: 193), and paid attention to spelling and diction (I.05: 241-242, I.02: 261-262). Nevertheless, only about a third of survey participants would demand real names while the majority (54%) was in favour of leaving participants the choice. About one in ten preferred anonymity for all, apparently motivated by concerns that an honest discussion, in particular about problems in the current state of supervision, would be inhibited by the requirement for real names. However, given that the new regulation emphasises a number of measures that are meant to improve supervision, to the best of our knowledge this seems not to have caused a general lack of representation of doctoral students' concern. At the same time, this could also originate from the fact that such concerns were rather actively pursued by the Deanery itself.

The relatively broad participation rate among high status persons (like professors or the Deanery) seemed to have a varying effect on the willingness to participate of lower status persons (like doctoral students). One interviewee pointed out that he/she had the impression that PhD students were daunted by this fact (I.09: 145-149). Another person, on the other hand, reported that she felt motivated by seeing that even the dean contributed to the discussion (I.13: 171-179). In addition, some interviewees perceived that the quality of discussion was reduced if participants could not detach themselves from their own position (e.g., I.01: 406-410; I.03: 378-380).

Despite the various indicators that the quality of the discussion has been high, in the final discussion of the online draft, members of the Faculty Council still discovered some issues that were not spotted during the online discussion. These included underspecified procedures (invocation of a committee that was not defined, how to obtain information on paper contributions of co-authors) and legal issues (change of supervisor and how to use results from research grants, anonymity of examiners). In other words, the online process did not detect all problematic issues. There are a number of possible explanations for this. Some of the people with expertise did not (dare to) take part online, as one member of clerical staff from the Deanery expressed. What is more, the majority of participants would lack in particular the legal expertise to be aware of this issue. Finally, some issues might just become obvious in a discussion amongst people who regularly deal with such norms such as the Faculty Council. Therefore it might be unreasonable to expect flawlessness from such a process. It is the collaboration of the Faculty Council as experts in collaboration with the wider and less knowledgeable group of other stakeholders that makes it work.

Another issue is assessment of quality. We enquired into satisfaction with the result but some interviewees stated that it is difficult to estimate the redraft's quality at this point, because its

quality has to be proved in the future (I.01: 529-530; I.03: 555-556; I.04: 40-41). Another limitation of evaluating the result's quality at present is the fact that in universities the personnel often fluctuates, so that new employees may perceive the quality differently from those who set the norm (I.02: 1127-1132). The assessments of satisfaction showed a significant difference between those who participated (of which 81% were satisfied with the process and 73% with the result) and those who did not (of which only 59% were satisfied with process and 64% with the result). However, we do not know whether participation increased satisfaction or whether this is just a self-selected group who would have been more satisfied with the outcome anyway.

More substantially, satisfaction is a somewhat problematic measure in order to assess the substantive quality of the result. (Coglianese 2002). After all, it could be assumed that doctoral students would be more satisfied if requirements are eased but this might result in theses of lower quality. Hence the norm would not be good. Conversely, as we have discussed, the dissatisfaction of some professors seems to stem from the fact that some provisions in the new regulation such as supervision agreements and mentoring increase their workload. However, these were explicitly suggested to improve the quality of the theses. While it seems sensible to seek a certain level of satisfaction with a norm – as otherwise it might fail to be enacted in practice and other problems might arise – it is clear that quality should be assessed in other ways. One possibility could be an expert judgement by someone outside the faculty. Other measures could be to compare the number of disputes over supervision that need to be resolved, but comparative data for the old regulations is hard to come by. Finally, there was a general feeling among the Deanery that the process was much more time consuming than the traditional process. This workload might be reduced if such a process is repeated and procedures have been learnt but this is still a challenge that needs to be justified by the results.

LEGITIMACY

From a legal perspective it turned out that during the participatory process there can be suggestions that are not in accordance with existing laws, e.g. a request for anonymous examiners in order to ensure greater independence of examiners. These need to be addressed during the process, otherwise they result in illegitimate norms. Another threat to legitimacy is that the process was still influenced by existing hierarchies because the Deanery was shaping the aggregation of policy preferences and the final verdict remained with the Faculty Council. To confront this legitimacy gap, the proposed aggregation was again put to a vote. While those participating overwhelmingly expressed support, overall only 68 people participated. This is much lower than involvement in the first phase, even though it could be argued that this low need to confirm the aggregation is in itself a sign of general acceptance. Another potential threat to legitimacy is that the technology is liable to manipulation by those with access to it. However, this was not negatively mentioned in the process. Almost half of professors did not perceive much need for improvement of the old examination regulations which suggests these could somewhat question the legitimacy of such a process. Notably, while in the case study the contributions by participants were indeed taken into account, in the end only 40% also perceived it as such, one in seven believed it had no influence and a quarter could not tell. This is rather negative because a process that seems to be beyond the influence of the participants can hardly count as legitimate. Apparently, the process was not able to convince participants of their efficacy.

A challenge is the measurement of the concept of legitimacy that is more difficult than operationalising quality. For example, while we are basically interested in evaluations of acceptance of the final rule, it would have been difficult to measure this in a survey as all stakeholders are legally bound to the rule anyway. We therefore had to fall back on measures of satisfaction whose problems we have already discussed. One key assumption has been that a legitimate process should produce legitimate results. However, there are some indications that this is no simple connection. Professors and doctoral students differ significantly in their satisfaction with the outcome, even though both groups are equally well satisfied with the process. While this is no perfect measure of legitimacy, it shows that even though there is little to criticise in terms of process, the outcome still raises criticism. In other words, ensuring the quality and legitimacy of the process might not quite be enough.

Another difficulty of measurement is to assess whether the legitimacy of the process has increased as compared to other forms of norm setting. Some interviewees argued it would be increased at least for those who participated. So could it be argued that those who actively participate, but whose suggestions were not considered, feel heard anyway and will accept the result (I.04: 595-615). This interviewee argued that this is not true for those who refused to participate, because for them the situation is the same whether they can participate or not. Clearly a problem is acceptance by those who do not participate. I.02 raised concerns that in general the legitimacy of such a process could be reduced if only a fraction of potential participants attend and, thus, non-participants would dissociate themselves from the result (I.02: 1096-1098). In addition, a small but persuasive minority could influence the results, since it alters the opinions of other participants (I.02: 122). However, the widespread satisfaction with the outcome and the lack of criticism of the process indicate a high legitimacy. Even of those who did not participate, a majority was satisfied with the process (59%) and the result (64%).

CONCLUSION

„There are high expectations that electronic ways of citizen participation in public planning and decision making may increase the quality and legitimacy of the decision and may help to overcome some of the democratic deficits indicated by lower voter turnout, decreasing engagement in political parties, distrust in political bodies and politicians among others.“ (Kubicek & Westholm 2010, p.323)

This paper has contributed to assess the merit of such expectations. We have focused on a particular form of crowdsourcing policy, namely the cooperative development of norms by affected stakeholders. We have shown that within the context of our particular case study, namely the redraft of examination regulations for doctoral degrees, the online norm setting process did succeed in producing a norm of both high quality and high legitimacy. First, the level of participation meant that a substantial number of people did actively contribute, even if “only” by voting. Second, the debate was highly constructive as measured in terms of content analysis as well as subjective interpretation by participants. Third, satisfaction with both process and result – though not universal - was widespread and the legitimacy of the process and its result was not challenged. While satisfaction was higher for those who participated, it was not limited to those participating. Hence, our study shows that online norm setting can indeed fulfil some of those expectations. While we could not systematically test relevant success factors, we have

offered a detailed design suggestion and can show that for example personalised e-mails contributed to higher participation rates, and non-anonymity was believed to increase the constructiveness of the discussion.

This paper contributes to research in several ways. First, it qualifies discussions about the potential of online participation processes. As described above, we could show that online participation can deliver some of its promises. At the same time, even in a context such as the university that offers a nearly ideal environment for online norm setting with its highly educated staff and high levels of Internet access, and even with a topic that is relevant to all potential participants, only a minority actively participated. However, the case study indicates that a more widespread participation might not be necessary to achieve the desired results (here: norms of high quality and legitimacy). This calls for a re-evaluation of the common expectation, that the success of a participation process is foremost dependent on widespread participation.

Second, this project represents one of the few attempts in which participants actually set a norm. In most online participation processes, authorities merely consult participants, i.e. they ask for comments or suggestions, but they do not grant participants the right to vote for the proposals. In particular, to the best of our knowledge, this has been the first such process within a university. While there is extensive research on the use of the Internet for facilitating learning in universities, there are virtually no studies of using the Internet within the university for engaging in decision-making processes and norm setting in particular. In our project, participants had more far-reaching rights including the right to vote for suggestions. Although it was not possible to make the vote binding for the Faculty Council due to legal constraints, it is important to note that the members of the Faculty Council voted for the proposal suggested by the participants of the online process. This voting might be explained by at least two factors. First, the quality of the norm resulting from the online participation processes was very high, so that the members of the Faculty Council felt no need to revise it. Second, the non-binding vote by the faculty members set up a high pressure on the members of the Faculty Council. Analysing the reason for this finding is promising for future research, because it provides important insights into the connection between results from online participation processes and the behaviour of representatives, who have the legal right to make the final decision.

Third, our paper provides an approach to conceptualize different dimensions of success of such processes. By suggesting a focus on quality and legitimacy, we distil a simple set of relevant criteria from the many different and complex frameworks suggested previously. By applying these criteria separately to process and results, we highlight the importance of the process as a foundation for the results. In addition, our mixed-methods approach adds insights into research on individuals' behaviour in online participation processes. For instance, our findings show that the very same design factor (e.g., anonymity in the discussion) might have both positive and negative effects on people's decision to participate in the discussion. This finding indicates that more research is needed in order to identify individual-level factors (e.g., personality, status) that moderate the relationship between design factors and participation.

However, our study has several limitations. A first limitation concerns the generalisability of our findings. As argued above, universities seem to be rather ideal contexts for online participation. What is more, the researchers were heavily involved in the process. Therefore, it is questionable to what extent a similar project in a different context, e.g., a for-profit organization, will produce

similar results. For instance, the higher pressure in for-profit organizations might serve as a barrier to online participation, which is – as indicated by some of our interviewees – time consuming. Hence, we might expect lower levels of participation in these organizational settings. Second, although our mixed method approach provides comprehensive insights into the online participation process, it is limited by a rather short time frame. For instance, evaluating the quality of a norm is often not possible a few months after the norm is set. In our case, follow up evaluations by members of the Deanery and those affected by the norm (i.e. professors and doctoral students) should be conducted in order to analyse to what extent the initial evaluation correlates with the long-term assessment of the norm. What is more, a real-world process puts limits on the way influencing factors could be tested experimentally. Third, there is a lack of data from comparable cases that would allow putting the results into perspective. An important task for future research is therefore to offer more insights from cases of online norm setting in diverse contexts. By offering a detailed description of the case study and its result, this research provides a basic comparator for this future research. This would allow more systematic testing for success factors of online participation. In addition, future research should also aim to refine the operationalisation of success criteria, include more perspectives on assessing substantive quality, and also probe deeper into perceptions of legitimacy, in particular the perceptions of those people who are dissatisfied with the outcome and/or did not participate in the process at all.

REFERENCES

- Balla, S.J. & Daniels, B.M., 2007. Information technology and public commenting on agency regulations. *Regulation & Governance*, 1(1), pp.46–67.
- Beierle, T.C. & Cayford, J., 2002. *Democracy in Practice. Public Participation in Environmental Decisions*, Johns Hopkins University Press.
- Bertelsmann Stiftung, 2011. Bürger fordern direkte Beteiligung. Umfrage bestätigt Wunsch nach Volks- und Bürgerentscheiden. Available at: http://www.bertelsmann-stiftung.de/cps/rde/xchg/bst/hs.xsl/nachrichten_107591.htm [Accessed September 9, 2014].
- Bertelsmann Stiftung, 2014. *Vielfältige Demokratie*, Gütersloh.
- Blatter, J., 2007. Demokratie und Legitimation. In A. Benz et al., eds. *Handbuch Governance*. Wiesbaden: VS Verlag fuer Sozialwissenschaften, pp. 271–284.
- Bowler, S. & Donovan, T., 2002. Democracy, Institutions and Attitudes about Citizen Influence on Government. *British Journal of Political Science*, 32(02), pp.371–390.
- Carman, C., 2010. The Process is the Reality: Perceptions of Procedural Fairness and Participatory Democracy. *Political Studies*, 58(4), pp.731–751.
- Chess, C. & Purcell, K., 1999. Public participation and the environment: Do we know what works? *Environmental Science & Technology*, 33(16), pp.2685–2692.
- Coglianesi, C., 2006. Citizen Participation in Rulemaking: Past, Present, and Future. *Duke LJ*, 55, p.943.
- Coglianesi, C., 2002. *Is satisfaction success?: Evaluating public participation in regulatory policymaking*,
- Coleman, S., 2004. Connecting Parliament to the Public via the Internet. *Information, Communication and Society*, 7, pp.1–22.
- Coleman, S. & Götze, J., 2001. Bowling Together: Online public engagement in policy deliberation. Retrieved January, "London"(1), p.48.
- Coleman, S. & Moss, G., 2012. Under Construction: The Field of Online Deliberation Research. *Journal of Information Technology & Politics*, 9(1), pp.1–15.
- Dietz, T. & Stern, P., 2008. *Public participation in environmental assessment and decision making*, National Research Council.
- Van Dijk, J., 2005. *The deepening divide : inequality in the information society*, Thousand Oaks Calif.: Sage Pub.
- Dryzek, J.S., 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*, Oxford: Oxford University Press.

- Figueiredo, J. De, 2006. E-Rulemaking: Bringing Data to Theory at the Federal Communications Commission. *Duke Law Journal*, 55, pp.969–993.
- Fishkin, J.S., 2009. *When the People Speak. Deliberative Democracy and Public Consultation*, Oxford: Oxford University Press.
- Forte, A., Larco, V. & Bruckman, A., 2009. Decentralization in Wikipedia Governance. *Journal of Management Information Systems*, 26(1), pp.49–72.
- Geissel, B., 2012a. Democratic innovations - Theoretical and empirical challenges of evaluation. In B. Geißel & K. Newton, eds. *Evaluating democratic innovations: curing the democratic malaise?* Abingdon: Routledge, pp. 209–214.
- Geissel, B., 2012b. Democratic innovations - Theoretical and empirical challenges of evaluation. In B. Geißel & K. Newton, eds. *Evaluating democratic innovations: curing the democratic malaise?* Abingdon: Routledge, pp. 209–214.
- Geissel, B., 2009. Participatory Governance: Hope or Danger for Democracy? A Case Study of Local Agenda 21. *Local Government Studies*, 35(4), pp.401–414.
- Gonçalves, S., 2014. The Effects of Participatory Budgeting on Municipal Expenditures and Infant Mortality in Brazil. *World Development*, 53, pp.94–110.
- Gutmann, A. & Thompson, D., 2004. *Why Deliberative Democracy?*, Princeton: Princeton University Press.
- Habermas, J., 1992. *Faktizität und Geltung: Beiträge zur Diskurstheorie des Rechts und des demokratischen Rechtsstaats* 2. Aufl., Frankfurt am Main: Suhrkamp.
- Himmelboim, I., Gleave, E. & Smith, M., 2009. Discussion catalysts in online political discussions: Content importers and conversation starters. *Journal of Computer-Mediated Communication*, 14(4), pp.771–789.
- Innes, J.E. & Booher, D.E., 2004. Reframing public participation: strategies for the 21st century. *Planning Theory & Practice*, 5(4), pp.419–436.
- Janssen, D. & Kies, R., 2005. Online Forums and Deliberative Democracy. *Acta Politica*, 40(3), pp.317–335.
- Kleemann, F. et al., 2012. *Unternehmen im Web 2.0. Zur strategischen Integration von Konsumentenleistungen durch Social Media*, Frankfurt/New York: Campus Verlag.
- Konieczny, P., 2010. Adhocratic Governance in the Internet Age: A Case of Wikipedia. *Journal of Information Technology & Politics*, 7(4), pp.263–283.
- Kubicek, H., Lippa, B. & Koop, A., 2011. *Erfolgreich beteiligt? Nutzen und Erfolgsfaktoren internetgestuetzter Buergerbeteiligung - Eine empirische Analyse von 12 Fallbeispielen*, Guetersloh: Verlag Bertelsmann Stiftung.
- Kubicek, H. & Westholm, H., 2010. Consensus Building by Blended Participation in a Local Planning Process: The Case of the Public Stadium Swimming Pool in Bremen. In D. Rios

- Insua & S. French, eds. *e-Democracy. A Group Decision and Negotiation Perspective*. Advances in Group Decision and Negotiation. Dordrecht: Springer Netherlands, pp. 323–341.
- Lindner, R. & Riehm, U., 2011. Broadening Participation Through E-Petitions? An Empirical Study of Petitions to the German Parliament. *Policy & Internet*, 3(1), pp.63–85.
- Lippa, B. et al., 2008. *eParticipation Evaluation and Impact (D13.3 Demo-net booklet)*, Bremen/Leeds: DEMOnet D13.3.
- Macintosh, E.A. & Coleman, S., 2006. *Multidisciplinary roadmap and report on eParticipation research. DEMO-Net Deliverable 4.2.*,
- Margetts, H.Z. et al., 2013. Leadership without Leaders? Starters and Followers in Online Collective Action. *Political Studies*, (10), p.n/a–n/a.
- Nanz, P. & Fritsche, M., 2012. *Handbuch Bürgerbeteiligung*, Bonn: Bundeszentrale für politische Bildung.
- Newig, J., Jager, N. & Challies, E., 2012. Führt Bürgerbeteiligung in umweltpolitischen Entscheidungsprozessen zu mehr Effektivität und Legitimität? *Zeitschrift für Politikwissenschaft*, 22(4), pp.527–564.
- Nohlen, D., 2005. Legitimität. In D. Nohlen & R.-O. Schultze, eds. *Lexikon der Politikwissenschaft*. München: C.H. Beck, pp. 511–513.
- Norris, P., 2001. *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge, England, Cambridge: Cambridge University Press.
- OECD & Forss, K., 2005. *Evaluating Public Participation in Policy Making*,
- Olsen, M., 1965. *The logic of collective action: Public good and the theory of groups*, Cambridge, MA: Harvard University Press.
- Ostrom, E., 1990. *Governing the Commons. The Evolution of Institutions for Collective Action*, Cambridge: Cambridge University Press.
- Parnell, J.A. & Crandall, W. “Rick,” 2001. Rethinking participative decision making: A refinement of the propensity for participative decision making scale. *Personnel Review*, 30(5), pp.523–535.
- Pratchet, L. et al., 2009. *Empowering communities to influence local decision making. A systematic review of evidence*, London: Communities and Local Government.
- Reagle, J.M., 2011. *Good Faith Collaboration. The Culture of Wikipedia*, Cambridge: MIT Press.
- Rosener, J., 1978. Citizen participation: can we measure its effectiveness? *Public Administration Review*, 38(5), pp.457–463.
- Rowe, G. & Frewer, L.J., 2004. Evaluating Public-Participation Exercises: A Research Agenda. *Science, Technology & Human Values*, 29(4), pp.512–556.

- Rowe, G. & Frewer, L.J., 2000a. Public Participation Methods: A Framework for Evaluation. *Science, Technology & Human Values*, 25(1), pp.3–29.
- Rowe, G. & Frewer, L.J., 2000b. Public Participation Methods: A Framework for Evaluation. *Science, Technology & Human Values*, 25(1), pp.3–29.
- Shulman, S., 2003. An experiment in digital government at the United States National Organic Program. *Agriculture and Human Values*, 20, pp.253–265.
- Shulman, S., 2009. The Case Against Mass E-mails: Perverse Incentives and Low Quality Public Participation in US Federal Rulemaking. *Policy & Internet*, 1(1), pp.23–53.
- Shulman, S.W., 2006. Whither Deliberation? Mass E-Mail Campaigns and U.S. Regulatory Rulemaking. *Journal of E-Government*, 3(3), pp.41–64.
- Stanley, J.W. & Weare, C., 2004. The Effects of Internet Use on Political Participation: Evidence From an Agency Online Discussion Forum. *Administration & Society*, 36(5), pp.503–527.
- Suler, J., 2004. The online disinhibition effect. *Cyberpsychology & behavior: the impact of the Internet, multimedia and virtual reality on behavior and society*, 7(3), pp.321–6.
- Surowiecki, J., 2004. *The wisdom of crowds: why the many are smarter than the few and how collective wisdom shapes business, economies, societies, and nations* 1st ed., New York: Doubleday.
- Towne, B. & Herbsleb, J.D., 2012. Design Considerations for Online Deliberation Systems. *Journal of Information Technology & Politics*, 9(1), pp.97–115.
- Tyler, T.R., 2000. Social Justice: Outcome and Procedure. *International Journal of Psychology*, 35(2), pp.117–125.
- Verba, S., 2006. Fairness, equality, and democracy: Three big words. *Social Research: An International Quarterly*, 73(2), pp.499–540.
- Verba, S., Schlozman, K.L. & Brady, H.E., 1995. *Voice and Equality: Civic Voluntarism in American Politics*, Harvard University Press.
- Weber, S., 2004. *The success of open source*, Harvard University Press.
- Wright, S. & Street, J., 2007. Democracy, deliberation and design: the case of online discussion forums. *New Media & Society*, 9(5), pp.849–869.
- Yin, R.K., 2009. *Case study research : design and methods* 3rd ed., Los Angeles, Calif. ; London: Sage.
- Zechlin, L., 2012. Zwischen Interessenorganisation und Arbeitsorganisation? Wissenschaftsfreiheit, Hierarchie und Partizipation in der ‚unternehmerischen Hochschule‘. In U. Wilkesmann & C. J. Schmid, eds. *Hochschule als Organisation*. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 41–59.