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Unmasking the crowd: participants’ motivation factors, expectations, and profile in a crowdsourced law reform

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\textbf{ABSTRACT}

This article examines the demographic characteristics, motivations, and expectations of participants in a crowdsourced off-road traffic law reform in Finland. We found that the participants were mainly educated, full-time working professional males with a strong interest in off-road traffic. Though a minority, the women participating in the process produced more ideas than the men. The crowd was motivated by a mix of intrinsic and extrinsic factors. Intrinsic motivations included fulfilling civic duty, affecting the law for sociotropic reasons, to deliberate with and learn from peers. Extrinsic motivations included changing the law for financial gain or other benefits. Participation in crowdsourced policy-making was an act of grassroots advocacy, whether to pursue one’s own interest or more altruistic goals, such as protecting nature. The motivations driving the participation were in part similar to those observed in traditional democratic processes, such as elections as well as other online collaborations such as crowdsourced journalism and citizen science. The crowds’ behavior was, however, paradoxical. They participated despite the fact that they did not expect that their contributions would affect the law.

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Crowdsourcing; crowdlaw; democratic innovations; digital democracy; participatory democracy; motivation factors

\section*{Introduction}

National and local governments across the world are increasingly applying crowdsourcing as a knowledge-search method (Lehdonvirta & Bright, 2015), with the dual goal of creating better policies and activating citizens’ interest in public issues. Crowdsourcing in policy-making can thus be seen as one of the latest so-called democratic innovations – that is, processes and tools designed to increase and deepen citizen participation in political processes (Smith, 2009). In crowdsourcing for policy-making, the crowd is asked to submit ideas and perspectives, and the input is then synthesized and incorporated as needed into the policy-making process. Crowdsourcing also serves as a tool for participatory democracy (for participatory democracy, cf. Fung & Wright, 2001; Pateman, 1970) and educating citizens about policy-making.
Despite the increasing number of crowdsourcing initiatives in governments, we do not know enough about the crowd’s profile, motivation factors, and expectations (Coleman, 2012; Coleman & Blumler, 2009). The crowd remains an anonymous, ‘masked’ entity. This is problematic because of the potential impact that crowds can have in influencing the policies that govern us, and also because knowing the crowd’s profile and motivation factors can help governments use crowdsourcing more efficiently. Answering such questions is thus important both for democratic theory and from the point of view of institutional design.

In this article, we examine the profile, the motivation factors, and the expectations of participants in a crowdsourced off-road traffic law reform in Finland initiated by the Finnish government, referred to as the ‘Finnish Experiment.’ The focus is on the following questions: what is the demographic profile of the crowd? What motivates the crowd to participate in crowdsourced lawmaking? How do participants expect their contribution to affect the law?

**Key concepts and theoretical framework**

**Crowdsourcing in open policy-making**

Crowdsourcing has many definitions, but can be captured by the idea of an open call for anyone to participate in an online task (Brabham, 2013, 2015; Estelles-Arolas & González-Ladrón-de-Guevara, 2012; Howe, 2008) by contributing information, knowledge, or skills. The ‘crowd’ refers to the group of people who participate in the crowdsourcing initiative online. The crowd can be constructed to emerge from the widest possible constituency (in theory anyone online) or specific subsets (usually national ones in the political context). Participation is either voluntary (uncompensated) or for money (financially incentivized). An instance of voluntary crowdsourcing can be found in crowdsourced journalism (Aitamurto, 2015) or crowdsourcing in crisis management (Liu, 2014). In paid crowdsourcing, participants are compensated per task, as in microtasking on digital labor marketplaces such as Amazon’s Mechanical Turk (Kittur, Chi, & Suh, 2008) or based on performance as in innovation challenges (Jeppesen & Lakhani, 2010).

Across the world, crowdsourcing is applied as part of open-government efforts to engage the public and thus discover knowledge for policies (Noveck, 2009, 2015; Prpić, Taieghagh, & Melton, 2015; Yu & Robinson, 2012). Crowdsourcing, in this way, is an instance of open policy-making, a method that opens up a process traditionally closed to the wider public. A well-known instance of crowdsourced lawmaking took place in Iceland in 2011, when the constitutional council tasked with writing a new constitution crowdsourced ideas from the Icelandic people (Landemore, 2015). Similar initiatives have been conducted for ordinary legislation by the House of Representatives in Brazil (Faria, 2013) and by the White House and various federal agencies in the USA (Aitamurto, 2012).

Crowdsourcing can be used in several stages in policy-making, as depicted in Figure 1. The policy-making cycle typically consists of sequences including (i) problem identification and definition; (ii) data gathering; (iii) developing of proposals and solutions; (iv) consultation; (v) designing and drafting of the policy; (vi) decisions; (vii) implementation; and finally (viii) evaluation (Edwards, Howard, & Miller, 2001; Howlett, Ramesh, & Perl, 1995; Peters, 1999). In the Finnish Experiment, crowdsourcing was used in the
research and drafting stages of a policy-making process. In legislative reforms, the crowd participates in the early stages, but elected representatives – in the Finnish case, the Parliament – make final decisions regarding bills.

Because participation is usually anonymous, the crowd can include policy-makers and other authorities, as Figure 2 depicts. The arrows in Figure 2 illustrate the dynamic of a typical legislative process in Finland. Civil servants do the research for the bill and work with an expert committee and interest groups. The Parliament decides about the bill and can send it back to the civil servants for revisions. These interactions are rarely

Figure 1. Crowdsourcing in the sequences of a public policy-making process.

![Figure 1](image1)

Figure 2. The role of the crowd, expert committee, interest groups, civil servants, and the parliament in a crowdsourced lawmaking process. The dotted lines indicate nonpublic interactions. The solid line between civil servants and the crowd shows that they interact publicly.
public. When the research stage in the process is crowdsourced, and the crowd’s contributions are visible for anybody online, there is horizontal transparency in the process.

Crowdsourcing is not, importantly, a method for direct democracy (cf. Frey, 1994) in the sense that the online crowd would decide on the policy in a manner that compares with, say, binding referenda or ballot initiatives in California. The crowd’s input, rather, informs the policy. The input is analyzed without concern for the popularity or frequency of the expressed ideas (i.e., how often an idea is expressed on the crowdsourcing platform is, in theory, irrelevant). Unlike what happens in other democratic innovations such as deliberative polls (Fishkin, 2009) and citizen juries, where participation is based on random selection rather than self-selection, and the goal is preference and judgment aggregation, crowdsourcing does not ambition to identify what the larger public, or even better an informed and reasoning version of the public, thinks. To serve its goal, crowdsourcing thus does not require statistical representativeness of the participant crowd. Ideally, the process should nonetheless be as inclusive as possible in order to maximize the efficiency of the knowledge search (Aitamurto & Landemore, 2015).

Intrinsic and extrinsic motivation factors in crowdsourcing

What is a motivation? In this article, we refer to the term ‘motivations’ as the subjective reasons individuals claim or recognize to be driving their behavior. We thus distinguish motivations from mere incentives, which may – at least partly – cause the action to happen, but may not be endorsed subjectively by the participants as reasons to act. Motivations can differ from incentives in that although incentives may be necessary for people to participate and are often built into controlled experiments aiming at greater participation, such incentives may not be the reason with which people actually justify their participation. For example, monetary incentives are often useful in lowering the cost of participation. That does not mean, however, that citizens engage in democratic processes for the money. Similarly, just because sunnier days can be shown to be correlated with higher voter turnout does not mean that the weather is a motivation for citizens to go out and vote.

With motivations understood in this sense, we then differentiate between extrinsic and intrinsic motivations by using the self-determination theory in social psychology (Deci & Ryan, 1985; Ryan & Deci, 2000). Intrinsically motivated activity is performed for its own sake, in the pursuit of goals internal to the person’s identity and aligned with his or her values, principles, and desires. By contrast, extrinsically motivated activity is oriented toward goals and rewards toward which the self has a more instrumental, external relationship, such as money or other goods (Lakhani & Wolf, 2003; Ryan & Deci, 2000).

Intrinsic motivations are driven by the human need to be recognized as competent and self-determined, and they are categorized into enjoyment-based or obligation- or community-based intrinsic motivations (Deci & Ryan, 1985; Lindenberg, 2001). In enjoyment-based intrinsic motivations, the person is motivated by the fun or joy of performing the activity. In obligation- or community-based intrinsically motivated behavior, the individual is driven by the need to follow the norms of a group or a community (Deci & Ryan, 1985). Extrinsic motivation, by contrast, is present when an action is taken to achieve a separable outcome (Ryan & Deci, 2000), which can include financial reward, fame, or reputation.
Because crowdsourced policy-making is based on voluntary contributions, in the following review of motivation factors we focus on unpaid crowdsourcing. Studies on the motivation factors of voluntary (unpaid) crowdsourcing find that the crowd is motivated by both intrinsic and extrinsic motivations. In a crowdsourced film project, the participation was mainly intrinsically motivated: it was a fun way to pass the time; the participants also appreciated the reciprocity of the project - sharing knowledge and skills with others. But they were also moved by extrinsic motivations such as gaining respect and recognition (Lietsala & Joutsen, 2007). In another example, the crowd participated in crowdsourced journalism for intrinsic motivations, namely, to contribute to social change and mitigate power and knowledge asymmetries, and peer learning and deliberation (Aitamurto, 2015).

In the crowdsourced citizen science project Galaxy Zoo, participants were intrinsically motivated by the possibility of contributing to science, which is an interest, hobby, or profession that contributors care about (Raddick et al., 2013). Similarly, Nov, Arazy, and Anderson (2011) document that in the stardust@home citizen science project, intrinsic and collective motivations are the most important - namely, the enjoyment gained from the activity and a feeling of identifying with the goals of the project. Similarly, Rotman et al. (2012) show that in ecological citizen science projects, citizen volunteers participate out of interest, curiosity, and commitment to conservation. When studying the motivation factors behind participation in a bus stop design challenge, Brabham (2012) finds that the extrinsic motivations were to advance one’s career and be recognized by peers. To express oneself and to have fun were the intrinsic motivators.1

Although crowdsourcing and commons-based peer production (CBPP) (Benkler, 2002) differ from large-scale collaboration methods in several ways, they also have much in common, including contributing one’s time voluntarily online. CBPP refers to bottom-up online creation, such as Wikipedia writing or open source software production, in which the power and control lie within the commons. In crowdsourcing, instead, it is the crowdsourcer – the organizer of the crowdsourced initiative – who has the control over what is being crowdsourced and how the crowdsourced input is used (see also Pedersen et al., 2013, p. 582).

The commonalities between crowdsourcing and CBPP might be reflected in motivation factors, so it is worth examining the motivations in CBPP. Nov (2007) found that active Wikipedia contributors are motivated mainly by fun and ideology. ‘Ideology’ refers to the contributors’ beliefs in the need for information to be free and universally available, and ‘fun’ refers to the enjoyment of contributing. Yang and Lai (2010) found that Wikipedians are intrinsically motivated by pursuing an activity - such as sharing knowledge - that meets their inner values and principles (Leonard, Beauvais, & Scholl, 1999).

Case profile, methods, and data
Off-road traffic law and crowdsourcing
The case studied here is a crowdsourced off-road traffic law reform in Finland. Off-road traffic is motor-powered transportation in nature, mainly with snowmobiles in the winter and all-terrain vehicles (ATVs) in the summer. The Finnish Ministry of the Environment regulates off-road traffic in Finland under a law that came into effect in 1995. There has
been pressure to reform the law, one reason being the increased volume of off-road traffic (Aitamurto, Landemore, Lee, & Goel, 2014). The Ministry of the Environment and the Committee for the Future in the Finnish Parliament decided to experiment with crowdsourcing as a participatory method in the lawmaking process.

Crowdsourcing took place in two sequences in the spring of 2013 on an online platform. The process was designed for problem mapping, ideation, knowledge sharing, and information exchange among participants. The participants could propose ideas on the platform, comment, and like or dislike ideas by using a thumbs-up/thumbs-down modality. The crowd-input was visible to the online public. To participate, the users had to register on the site with a verifiable email. They could choose to stay anonymous or use their real names.

The crowd was asked to submit ideas for improving the law in categories defined by government experts and the two authors of the paper, who advised the process. These categories included safety, age limits, protecting nature, and regulation of the route establishment process. The prompts for the participants included information about the law and questions for them to answer. The idea crowdsourcing phase resulted into 500 ideas and 4000 comments from more than 700 users. A minority of participants, one-fourth of them (23%), produced most of the ideas. The 10 most active participants submitted almost one-half (46%) of the ideas. The participants’ input was evaluated by their peers and international experts (for the evaluation process, see Lee, Goel, Aitamurto, & Landemore, 2014). The results of this evaluation were then handed to the Ministry of the Environment for further processing, which is ongoing. The focus of this paper is on the idea crowdsourcing sequences, because it was in those two sequences that participants were interviewed and surveyed.

**Methods**

Two of the authors participated in the planning of the crowdsourcing process as advisors, thus applying an approach of action research. In action research, the field is not something to be observed; rather, the researcher is active in interacting, producing, and creating the research site (Gustavsen, 2001). Once the crowdsourcing began, the authors took the role of participant observers (Hansen, Cottle, Negrine, & Newbold, 1998). The participation of the researchers helped to build a rapport with the interviewees.

**Interviews with key informants**

We interviewed 23 people who participated in the crowdsourcing. The interviewees were recruited via emails on the online platform sent to a random sample of participants across activity levels. Those who responded positively to the interview request were participants who had participated in the online exchanges in some manner, the sample thus excluding those who were the most passive. The interviewees’ activity level (i.e., several ideas, comments, and votes) varies from very active to low activity – that is, no ideas, just comments and votes.

Nine of the 23 participants were interviewed twice, once early in the process and again after the crowdsourcing was over, totaling to 32 interviews. Seven of the interviewees were females and 16 were males. The average age of the participants was 53 years, ranging from...
27 to 69 years. Seven of the 23 interviewees were retired, and the rest were working in various occupations, including individuals in electrical engineering and business and product management, a kindergarten teacher, a lawyer, a wilderness guide, an environmental and land-use expert in municipal government, and a forest expert. The numbers 1–23 in the text identify the interviewees.

**Online survey**

An online survey examined participants’ demographic profiles. The survey link was sent to participants by email. Out of 743 registered users 186 replied, resulting in a 25% response rate. Active participants were overrepresented in the survey respondents, as Figure 3 illustrates. Six survey responses were removed because of the respondents’ outlier activity level. The survey respondents produced more ideas, comments, and votes than the nonrespondents.

**Data analysis**

The interview data were analyzed by following Strauss and Corbin’s (1998) analytical coding system. In the first round, open coding was used, allowing key themes and patterns to emerge from the data and thus guide further analysis (Lindlof & Taylor, 2011; Strauss & Corbin, 1998). Coding involved dissecting each transcript paragraph by paragraph to identify recurring subcategories and themes. Finally, we applied selective coding to integrate and synthesize the subcategories (Strauss & Corbin, 1998) into the following main

![Activity Level Distribution](image)

**Figure 3.** Survey respondents’ and nonrespondents’ activity distribution.
categories: impact, civic duty, peer learning, deliberation, and expectations: realism and skepticism.

The survey data were first analyzed for the demographic profiles of the participants. The demographic data were combined with the data on participants’ level of activity - ideas, comments, and votes - on the crowdsourcing platform to detect an association between participants’ activity levels and their demographic characteristics. The activity data were preprocessed in the following way: participants who did not answer the survey were removed, six outliers were removed, and the survey data and activity data were merged by taking the email addresses as the common denominator, resulting in a data set of 180 records.

Motivation factors: impact, civic duty, and peer learning and deliberation

In this section, we elaborate the findings, starting from extrinsic and intrinsic motivation factors and then moving to the crowd’s expectations and profile. The primary motivations for participating in crowdsourced policy-making were having an impact, upholding civic duty, and peer learning and deliberation. Having an impact on an issue of interest for tangible benefit was an extrinsic motivation for the crowd, whereas fulfilling a sense of civic duty, affecting the law for sociotropic reasons, and finding and enjoying opportunities for peer learning and deliberation were intrinsic ones, as Figure 4 illustrates. Figure 4 shows the role of the motivation factors in a crowdsourced policy-making process. There are two types of factors: those that drive the crowd to participate in the first place, such as the opportunity to affect the law, and those that are created during the process, such as peer learning and deliberation, and they can motivate the crowd keep on participating in the process. The interactive nature of these factors in relation to the crowdsourced process is illustrated in the double-headed arrows in Figure 4.

Figure 4. Extrinsic and intrinsic motivation factors in crowdsourced policy-making process.
Affecting the law: extrinsic and intrinsic motivation

The crowd participated in the crowdsourced process because they wanted to affect the law. Affecting the law is an extrinsic motivator to the extent that the participant is seeking an outcome distinct from his or her core values, such as a financial benefit. However, many participants wanted to impact the law for reasons that did not include a direct benefit: for instance, for protecting nature and society at large as altruistic and sociotropic reasons, which are intrinsic motivation factors. Thus, influencing the law can be an extrinsic or an intrinsic factor, depending on the motivator.

The crowd cared about the off-road traffic law because they had an interest in it, grounded in their relationship to off-road traffic. By participating in crowdsourced law-making, the crowd hoped to contribute to resolving an issue important to them, as the following interview excerpts depict:

I’m such a nature-lover that I’m getting annoyed by the all-terrain vehicle craze. So I thought maybe I could have an impact on that this way. (1, online participant, female)

The topic is closely related to my own life. The legislation will have a strong effect on what I do. (4, online participant, male)

The participants were snowmobile riders for leisure or work, land- and forest owners, entrepreneurs, or environmentalists, and each group was motivated by a particular goal. The snowmobile riders wanted to have more routes for riding, and professional users of snowmobiles, such as fishermen and reindeer herders, wanted to maintain their special privileges of riding beyond routes designated by existing laws. Landowners were worried about the damage caused to their land by off-road traffic vehicles and wanted to be better compensated for the use of their property. Having the law changed a certain way would often have benefitted these participants directly and even financially. In addition, environmentalists were worried about harm to the environment.

When affecting the law is an extrinsic driver, the motivations to participate are instrumental and even self-serving to a degree, bringing the motivations close to what certain rational choice theories claim motivate voting in elections (Downs, 1957): the maximization of self-interest. Rational choice theory models assume that voters are motivated only by instrumental considerations – the likelihood of being pivotal to the desired outcome (i.e., getting candidate X elected or policy Y implemented) – with very often the added assumption that the outcome is supposed to serve the interest of the voter, narrowly defined as an economic benefit. A rational choice theory model of voting (Goodin & Dryzek, 2006) suggests that voters participate when they know they can win – that is, make a difference with their vote. However, the motivations in crowdsourcing are neither purely instrumental, nor when they are instrumental are they necessarily self-serving. Often the participants want to bring the law closer to their ideal of reasonability, sensibility, and justice, as evidenced in the following:

I’m doing this for entirely selfish reasons [laughs]. I happened to have come to the conclusion that I’ll do as much as I can to make sure that off-road traffic will be thought through sensibly, at least to the extent that … it will at least be legal. […] And of course, I hope that my rights will be properly taken into consideration. (9, online participant, male)
I’m an active hiker, and I’ve noticed while spending time outdoors that the off-road traffic, particularly snowmobiles, are really a nuisance. So the fact that I can in some way at least try to influence these things, I feel I must try to bring some sense into the discussion. (12, online participant, male)

Participation is a way to protect their rights (whether theirs specifically or that of other people they care about), such as property rights and associated claims to compensation for the use of their lands or the right to a serene natural environment. Participation is also a means to offer a viewpoint that has not been, in their opinion, properly expressed or represented:

I had the feeling that not all the viewpoints were being taken into account in the drafting of the law, and I had a few viewpoints in my mind that weren’t necessarily being taken into account, at least adequately. (2, online participant, female)

Just based on the legislative proposal, the snowmobilers’ point of view was missing – and in particular, when it comes to the needs of someone who rides a snowmobile as a hobby. (10, online participant, male)

Participants often consider themselves to be representing the opinions or interests of stakeholders that are not otherwise present on the platform, such as people with fewer communication skills or even nature itself. They sometimes consciously claim the role of advocates for other citizens – an endorsement, in other words, of the role of informal representative, stepping up to fix the problems of the existing formal representative institutions:

I unwittingly became involved, persuaded by desperate landowners and citizens, who felt utterly powerless; I had to be their advocate so to speak. The decision-makers had a tyranny over drafting routes, especially in northeastern Savo (21, online participant, male)

Several participants had been previously active in the off-road traffic issue. They had very specific and defined ideas about how the law should be changed, as the following excerpt depicts:

We wanted to have an impact on the drafting of the off-road traffic act and on the safety issues, which ATVs generally have. There should be those rules and, of course, this is related to the tractor discussion, too. So, currently, helmets aren’t mandatory in tractors, and we’ve been really trying to bring that forth. (5, online participant, male)

The crowd also included participants who were professional representatives of interest groups, such as a lawyer from the organization representing professional fishermen and fisheries and a representative of a nature conservation organization, who participated with their real names on the platform. Their organizations perceived crowdsourcing as another avenue to influence the law, and they saw that while in the traditional lawmaking process a small organization can be easily sidelined by larger stakeholder groups, in crowdsourcing, their viewpoint had a better chance of becoming public and being heard. The regular, non-lobbyist participants welcomed the professional lobbyists to the discussion and hoped that the civil servants in the ministry would also interact with them on the platform.

Interestingly, transparency in crowdsourcing revealed a diversity of opinions within some lobbyist groups. For instance, the largest lobbyist organization in the off-road traffic
issue, the Central Union of Agricultural Producers and Forest Owners, with about 400,000 members, represents farmers and forest owners. The crowdsourcing process made it publicly visible that neither their members nor the organizational representatives were unified in supporting the stance the organization had taken previously in public about off-road traffic. These divided views became visible on the platform, as seen by a representative from that organization in an interview (22).

**Participation as a civic duty: intrinsic motivation**

The crowd was also spurred by a strong sense of duty, which was an intrinsic motivation. The sense of civic duty refers to an internalized purpose of the self, engaged in the activity. For the crowd, participation in crowdsourcing was not only a way to influence an issue important to them, but also an action they felt they *had to take* as citizens. Some participants suggested they would have regretted missing this chance to participate - as if there were something morally reprehensible about inaction:

> If there were such an opportunity, and I had done nothing and hadn’t shared my own opinions … afterwards, I would have felt bad. (1, online participant, female)

The act of participation was seen as valuable for its own sake, or at least necessary to minimizing regret (similar in this to the act of voting in elections according to theories by Feriejohn & Fiorina, 1974) and perhaps even guilt. After having done their duty, participants felt a sense of accomplishment and relief independent of any actual instrumental impact:

> I have actually been thinking about this for some 20 years – that it would be good to have a channel to share my opinions. It could move the opinion forward. And at least you feel relieved when you can share your opinions. (15, online participant, male)

The participants felt that they should not waste their chance to have an impact on the law. One plausible way to interpret this ‘burden’ that is alleviated by the act of participation is as a civic duty, which weighs on people’s conscience when they fail to act. The civic duty thus identified in this study resembles the motivations attributed to voters in Blais and Young’s (1999) classic experiment – namely, a sense of moral duty to preserve democracy. The motivation is similar to obligation- and community-based intrinsic motivation, in which participation is driven by a sense of obligation derived from external social pressures that have been internalized. Instead of being motivated to participate by an external social pressure similar to that which makes people vote in national and local elections because they assume that everybody else votes too (see Weinschenk, 2014), participants in crowdsourcing feel an internal pressure to participate. Given that there was very little awareness about the crowdsourcing initiative in Finland, it is unlikely that external social pressure could have been a factor and so we credit the participation to other types of intrinsic motivations.

**Peer learning and deliberation: intrinsic motivations**

Crowdsourcing provides new educational and learning experiences for the crowd, and these serve as intrinsic factors to participate. The crowd perceived its role to be that of educating other people or redressing their misconceptions by sharing knowledge about the off-road traffic issue, as the following interview excerpt depicts:
I thought the point of departure was not right. They hadn’t done the analysis thoroughly enough. The interpretation they made was wrong. How they had justified it, that … I thought they were untrue statements. (4, online participant, male)

One motivator was to generate more complete or true knowledge. Participants’ intention was not necessarily to change the minds of the dissenters or the people they saw as being incorrect, but to improve the quality of the discussion:

But I also tried to bring some facts into the emotional debates, in my own provocative way, because I know that the topic is such that it’s almost impossible to make the opposition change their opinions. (9, online participant, male)

The participants were worried about false information and extreme opinions, and they wanted the interactions to be based on facts rather than on extreme opinions from ‘the propaganda machines,’ as they called the extremists. They wanted the interactions to be ‘rational,’ ‘sensible,’ and ‘serious,’ hoping the knowledge they shared on the platform would reach the civil servants and politicians who prepare the law and write legislation:

A civil servant isn’t necessary a hobbyist. He observes the issue from the viewpoint of his task and takes a stance on the drafting based on his knowledge. And now that the knowledge is more widely available – from the hobbyist – it has a positive effect. At least I would hope that it has. (5, online participant, male)

The participants perceived their knowledge of the off-road traffic issue to be different from that of the civil servants, and they saw their knowledge as necessary for developing a good policy. The crowd also perceived inherent value in the transparency: the mere act of sharing their knowledge is a contribution through which the participants hope to affect the public debate and the general opinion by bringing in knowledge they think is true even when they think they are unable to influence the law:

That has been a place where it’s been possible to bring the viewpoint from the other side to the attention of the extremes. And to correct the urban legends that have been presented. (7, online participant, male)

Moreover, by exchanging arguments and reading others’ comments, participants were able to learn what others – even opposing groups – thought about their viewpoints. After participating, the participants felt they had learned from others:

There were quite a lot of opinions when I went there, so I was able to get an idea about what people think about it, on both sides. So I felt that I finally understood what people think. (1, online participant, male)

Peer learning and deliberation were intrinsic motivators in this study; however, they could be extrinsic ones too, if the learning and deliberation had been performed for extrinsic outcomes, such as recruiting supporters for one’s interest group in the issue. Such factors, however, did not surface in the data for this study.

Crowd’s expectations: a small possibility of ‘winning’

The act of participation was an empowering moment, in which the participants perceived crowdsourcing as a more direct way to influence a societal issue than voting:
This is actually the first time in my life that I feel I’m really participating in making democracy and influencing the decision-making in this society. It feels much more real than just voting for some person. (9, online participant, male)

Even though participants were excited about the novel avenue for influence, they remained acutely aware of their limited possibility to actually have an impact, being realistic and even skeptical about their chances of influencing the law:

The way I see it is that at least I have the chance to say something somewhere, either by writing or talking, and I’m trying to use that opportunity, even though I know that the effect that I may have is rather small, unless some lucky turn speeds the effect up a little. (2, online participant, female)

The participants perceived their participation as one element in a larger, more complex process in which lobbying groups and other political powers will easily drown out citizens’ voices:

The possibility is there, but at the end of the day, it’s all ultimately so politicized that … And then there are the organizations, like MTK [The Central Union of Agricultural Producers and Forest Owners]. They’re such strong actors that an idea presented by a mere individual might seem rather lightweight. (1, online participant, female)

The civil servants will probably end up having a general idea about the direction to go in, and then they will consider comments that fit the framework they have in mind. (11, online participant, male)

Participants were aware of the nature of policy-making. They anticipated that political authorities would determine how the crowdsourced input would be used. They were also aware of the nature of the Finnish legislative process, in which the Parliament can approve, reject, or revise the bill the government proposes - regardless of the input from the crowdsourcing moment in the law reform. Participants, thus, did not consider their participation as a particularly efficient means of having a direct influence on the law. The crowd members saw themselves as a small cog in a larger legislative system, where the main responsibility remained with official authorities:

It’s now up to the authorities. Preparing the legislation and then taking it forward into the political decision-making process and so on. […] There is a wealth of smart ideas [on the crowdsourcing platform], and above all, the main points have emerged. (8, online participant, male)

Participants believed that they had done their part in the law reform and that the responsibility to bring about a better law was now in the official decision-makers’ hands.

This result has a rather counterintuitive and even paradoxical nature. Despite the participants’ skepticism about their ability to influence the law, they still found reasons to be there and engage constructively. Participants perceived their chances of making a difference as being low, but they still tried. One explanation is that they got enough utility from whatever low expectations they had of making a difference, developing perhaps ‘adaptive preferences’ (Elster, 1983), whereby their preferences were formed in response to their restricted options, thus saving them from disappointment. Another explanation is that they engaged in ‘rationally irrational’ behavior, whereby they chose to believe what made them feel good, namely, that they could make a difference even in the face of actual
knowledge to the contrary (as per Caplan, 2007). The latter interpretation is suggested in some interviews:

The passive action won’t help much, whereas *I want to believe* that if you are being active in your field of interest, you can make a difference. (16, online participant, male, our emphasis)

The more plausible interpretation of the crowd’s behavior, however, contradicts rational choice theory. People participated even though they knew they had little chance of being pivotal agents in the final decision. They were not ‘rationally irrational’ in the sense that, as per the comment above, wanting to believe is not the same as believing and it is clear that our participants were not delusional. Either way, the participants’ hope of having a little or enough influence carried them over the threshold of registering on the platform and spending their time contributing to crowdsourced policy-making.

The participant crowd: male, educated, and working full time

Most of the participants were male (86%) and had formal education, as Figure 5(a) illustrates. Moreover, the majority of participants were middle aged: the largest group was 35–54 years old (46%), and about one-fifth were 55–64 years old (22%) or 26–34 years old (20%), as Figure 5(e) illustrates.

Most of the participants worked full time (65%). About one-third of them were high-ranking officials (27%) and about one-fourth were employees (23%). Entrepreneurs and those in farming or forestry made up 13% (Figure 5(b)). All main geographic areas were represented (Figure 5(c)).

Although the distribution is relatively even between the main geographic areas of Finland, northern Finland is overrepresented in population size. Northern Finland has the smallest number of inhabitants, but represents one of the two largest participant groups. In Northern Finland, snowmobiles can be used during most months of the year and are used for professional fishing and reindeer husbandry. Most participants lived in rural areas (45%) or suburbs (28%), as illustrated in Figure 5(d).

The participants’ civic activity level varied. About one-third had written op-eds to newspapers or contacted a member of the Finnish Parliament (Figure 6). However, many of the participants had not been that active in the civic realm: most of them had not contacted an elected representative, for instance. Most of the participants (72%) had been active in online forums before, indicating that those who are familiar with online participation are more likely to find more ways to continue participating online, such as in crowdsourced policy-making.

The participant profile in the Finnish Experiment follows, in many ways, the demographic features of the population found to be generally active online. Participants were mostly men, as most Wikipedia contributors (Collier & Bear, 2012; Hargittai & Shaw, 2015). The nature of the issue in the Finnish case on off-road traffic most likely created a stronger bias toward male participants than probably would have existed if the topic had been a more general one, such as a social security or taxation issue. Snowmobile riding is a male-dominated hobby and professions that use off-road traffic vehicles, such as the fishing and reindeer herding industries, are also male-dominated. Nonetheless, although women were the minority in terms of numbers, they were more active as idea producers on the crowdsourcing platform, as illustrated in Figure 7. The difference in idea
production between genders is statistically significant ($p = .012$, significance level = .05). Women’s underrepresentation in numbers was thus somewhat compensated by their higher level of activity.

**Figure 5.** Participants’ education, employment, geographic location, living area, and age.
There was no statistically significant association between any other variables and participants’ activity in crowdsourcing. For instance, there was no association between activity in civic life and activity in the crowdsourcing process.

The participant crowd was educated and somewhat active in civic life, two characteristics that are predictors of more active Internet use (Gibson, Lusoli, & Ward, 2005), more active participation in online deliberation (Albrecht, 2006), and more active sharing of content online (Hargittai & Walejko, 2008). The participant crowd thus included the ‘usual suspects’ in online participation and civic life. The ones already active offline were also active online. However, most participants had not been actively contacting politicians or writing op-eds to newspapers. The crowd was a mix of both civically active and less active citizens.

**Limitations and future work**

This study has several limitations. First, it is one case study based on a limited sample. The findings are thus not directly generalizable without testing them with larger samples in other countries and contexts, and in other types of process and technology designs. Those can affect on the profile of the participant crowd, and thus the motivation factors. Future research should formulate hypotheses based on the findings of this study, and test those hypotheses in larger studies. The methods could include A/B testing, by which motivation factors can be embedded into features on the technical design of the platform and their impact tested on one-half of the users. In A/B-testing, a half of the users, the A group, are shown a design appealing to a certain motivation factor, whereas the other half,
the B group, is shown another feature appealing to another motivational factor. Assuming that there will be access to several in-the-wild crowdsourced policy-making processes, future research should identify what key factors in the process affect motivation factors, and how the factors may change over time during the crowdsourcing process. The research agenda also needs to include qualitative research approaches to examine the motivation factors in greater depth, with interviews and digital ethnographic methods. Finally, future research should also find a way to study and assess the motivations of the more passive participants in the crowdsourcing processes – as well as those who choose not to participate at all – as surely the reasons for passivity are as enlightening as the reasons for active participation.

**Conclusion**

This study examined the demographic features, motivation factors for participation, and expectations of participants in a crowdsourced lawmaking process we call ‘the Finnish Experiment.’ The crowd consisted of mainly male, highly educated, full-time working citizens, who shared a strong interest in the off-road traffic issue and had previous experience in expressing themselves on online forums, while they were also a mix of civically more and less active citizens. Unlike several other types of participatory democracy practices, crowdsourcing can also attract people who are less civically active and may thus provide a new avenue to increase civic participation for those who have not been previously very active – at least among those who already use digital means for participation. This shows a promising aspect of crowdsourcing as a democratic innovation enhancing participatory democracy.

The crowd members had various ranges of expertise: there were regular citizens who enjoyed hiking and thus cared about the off-road traffic issue, and there were also professional influencers, such as lawyers from lobbyist groups. Interestingly, even though

<table>
<thead>
<tr>
<th>Gender</th>
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<th>Means</th>
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<tr>
<td>Female</td>
<td>25</td>
<td>1.04</td>
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<tr>
<td>Male</td>
<td>155</td>
<td>0.72</td>
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*Figure 7.* Participants’ activity level by gender.
women were the minority in numbers, they produced more ideas than the men did. This shows how intensity of activity in online participation can offset sheer numbers and that minorities can shine in online environments.

The motivation factors driving the crowd’s participation were seizing the possibility to influence the law, civic duty, and peer learning and deliberation. Willingness to influence the law was both an extrinsic and an intrinsic motivator. To the extent that the participation was driven by the goal to change the law to one’s interest, for example, to gain more financial gain, the motivator was extrinsic. When the attempt to affect the law was done for sociotropic reasons (e.g., preserving the nature for future generations), it was an intrinsic motivation. Among the intrinsic factors, civic duty was a powerful motivation, as observed in other forms of political participation such as voting. The act of participation in this case of crowdsourced lawmaking was often seen as a moral obligation and, when performed, a fulfillment of civic duty. Peer learning and deliberation were also intrinsic motivations. These factors are similar to those observed in crowdsourced journalism, citizen science, and on Wikipedia. By contrast, however, the motivators in crowdsourced policy-making otherwise differ from those detected in other realms of crowdsourcing and large-scale online collaboration. Having fun, passing time, enjoying problem-solving, feeling creative, and advancing one’s career were not the driving factors of participation in crowdsourced policy-making. This indicates that participation in the Finnish experiment was experienced as primarily a political act. It was driven by a concern to protect the rights of individuals, groups, or a larger entity, such as nature, and a sense of civic duty. In this respect, crowdsourcing for policy-making differs from the other crowdsourcing initiatives that are often ‘less serious’ in nature, which emphasize creativity and intellectual stimulation or the practice of one’s skills.

Participants in the Finnish Experiment perceived crowdsourcing as a channel for getting their voices heard and for presenting solutions to issues related to off-road traffic. Participation in crowdsourced policy-making is an act of grassroots advocacy, whether to pursue one’s own interest or more altruistic goals, such as protecting nature. The crowd saw their participation as a way to attempt to make a difference, enabling them to pursue the change they want to see in the world. It is in part an instrumentally rational act to attempt to achieve a goal – by changing the law – that the participant cares about, similar in this to voting in elections. Participation was thus an empowering moment, providing citizens with the feeling of having a greater societal influence than with voting. Rather surprisingly, at the same time the crowd was also rather skeptical about its potential for influencing the law. The participants understood that policy-making is about consensus and compromises. Their skepticism – or perhaps realism – may also reflect the crowd’s disappointment in the political system, in which the lobbyist organizations have excessive power in policy decisions and in which citizens’ input is not welcome. The crowd’s behavior is somewhat paradoxical: they participate even though they are not sure that they can make a difference. This suggests willingness to try and trust a new mechanism for participation as well as a desire for self-efficacy. It also shows the power of civic duty and other intrinsic motivations, contra certain rational choice theory predictions, and indicates that the crowd’s behavior may rely on adaptive preferences or rationally irrational behavior.

The crowd’s genuine hope, and ever so light expectation that they can make a difference should pressure policy-makers to use the crowd’s input. If the input is not used, there is a risk that crowdsourced policy-making will increase citizens’ skepticism. The crowd
experienced and enjoyed learning and deliberating in the process, even though neither the crowdsourcing process nor the medium was designed for such things. These aspects should be reinforced by designing crowdsourced policy-making processes and technologies that support learning and deliberation. The crowdsourcing technology should have as low threshold as possible for participation. The crowd in the Finnish experiment was mainly composed of working people with presumably very limited time to participate in the process. Therefore, the design of the crowdsourcing platform should enable an easy way to find and track the most recent contributions so that users can get involved in the process quickly. Finally, since the crowd wants to have an impact on the law (even as they realize it is unlikely), crowdsourced policy-making initiatives should be publicized in a way that emphasizes not just the possibility of having a say in policy, but the likelihood of making an actual difference. This means that politicians and official organizers need to make credible promises to take seriously the crowd’s input and make public commitment that they will give a minimal account of why they chose to ignore that input when and if they ultimately do.

Notes

1. Other factors for participation listed by Brabham (2012) include low barriers to entry and an appealing, usable website. In our view, such preferred features do not amount to motivations per se and rather qualify as incentives.
2. A new government started in the summer of 2015, and it is unclear if and how the new ministries will continue the projects started during the previous government. This uncertainty indicates the vulnerability of open government practices to changes in political power.
3. In Blais and Young’s experiment, exposure to rational choice models of voting lowered the participation rate of students who voted in the 1993 Canadian federal election. The results suggest that a plausible motivation for voting prior to this exposure was a sense of duty.

Disclosure statement

No potential conflict of interest was reported by the authors.

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