

HIIG Discussion Paper Series

Discussion Paper 2014-07

***Online Participation
and Decision-making***

December 21st 2014

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Abstract

It is our aim to illustrate a picture of the online participation behavior of German Internet users. We study today's forms of online participation in two selected fields: politics and the economy. The study is built upon 13 types of opportunities to participate. The outcome is based on a TNS Infratest panel, which is representative of Germany's online population. The selected sample size reached n=504 respondents.

The results of the study address three central questions:

1. Who participates online today?

We are interested in the distribution of sociodemographic (gender and age distribution) and socioeconomic (income distribution, educational background and current employment status) characteristics within user groups.

Our results show that internet users between the ages of 18 and 36, especially those with a university degree are the most active online participants.

2. What do the users do and what interests them?

Regarding the inquired participation forms, we indicate the frequency of usage, the width and intensity of online activities performed, and the individual level of interest in their respective participation forms. Our findings demonstrate that signing an e-petition, has become a very popular form of political and social online participation. Overall, the amount of time respondents dedicate to online participation demonstrates a high level of engagement.

3. What motivations and incentives are behind online participation?

In the third part, we examine what triggers online participation on the basis of action-oriented, outcome-oriented, and consequence-oriented motivations. Based on the answers given by respondents, five different user groups were

identified by similar incentive structures. Creativity and self-efficacy were central personality characteristics noted in the study. The results show that the more users engage in participation forms, the more empowered and creative they feel.

Keywords

Online Participation, Decision-making, Political participation, Economical participation, E-Petition, Crowdsourcing, Crowdfunding, Idea Competition, Participatory Budgeting

1. Research Interest and Relevance

Realization of online participation potential

The advantages of citizen participation in political decision-making processes are manifold. Organizations using participatory processes can benefit through strengthened relationships with their target groups or through a better-informed assessment to support arguments in favor of contentious decisions. Participation research has identified the growth of knowledge and learning effects as consequences of participation.

Online-based participation extends the possibility of reach across many groups of people already accustomed to using the Internet today, providing a path towards achieving lower barriers to participation. Thus, research on online participation or electronic citizen participation is more relevant than ever before. Participation is referred to as the “Buzzword of our time” (Voss, 2014). People participate online using different forms of participation on different societal levels: from political decisions and consensus building to crowdsourcing ideas relating to city planning issues – even extending to the integration of customers in actively shaping the context of doing business.

The demand for more participation has long gone beyond the political domain, with strong usage in the private sector context. Like in the political context, businesses can use online participation to strengthen their relationships with specific target groups, helping to make better-informed decisions, thus significantly enhancing product sales and acceptance – from the design of new products and crowdfunding to the crowdsourcing of ideas for campaigns. Customers are being asked to exercise their creativity. This has given rise to many new possibilities to share previously inaccessible knowledge. However, external participation comes with associated costs for the provider organization or for those engaged in participation. Participation demands time from both sides, bearing the risk that contributions made may go unconsidered. From the provider’s perspective, opening up the political or private sector decision-making process could mean losing a certain degree of control. Also, the euphoric hope that the Internet will lead to more democracy and enhanced participation is met with contrary empirical evidence, whereupon offers to participate online draw similar user groups than more traditional participation formats do. At a time when the variety of online

participation continues to grow, it's important for us to understand what kind of people take up which offers to participate to begin with.

Over the last two decades, a growing interest in participation research coming from the practitioner as well as scientific side led online participation to develop into the dynamic research field it is today (Medaglia, 2012; Sussha & Grönlund, 2012). For most scientists, participation begins with a definition containing information on those affected. The act of informing is perceived as a passive form of participation. In this study, we focus more on active involvement at a higher level, defining online participation more towards the concept of co-determination. This would apply when people are asked for their opinion or when they are directly involved in the decision making process.

Online Participation today: From the E-Petition to product design

The spectrum of political (Ritzi et al., 2012; van Deth, 2009) as well as private sector forms of participation (Füller et al., 2011) greatly expanded in previous years. In the meantime, numerous online-based procedures of political participation have come about through so-called “boundless expansion of participation repertoires” (van Deth, 2009). This diversity of possibilities follows the course of new and constantly re-designed offers in the private sector. Similar technologies have been harnessed in both areas – differing however, in their rationale. While creating democratic legitimacy by opening up the process of participation always plays an important role in politics, companies often tend to be more interested in users with highly specific needs in order to successfully appeal to such customers in a larger market at a later point, for instance.

Motivation and Incentives for online participation

Users of online participation need motivation to engage in participatory activity to overcome the effort it requires. In the third part, the study focuses on results through a focus on different factors of incentives for individual forms of participation. In political participation research, participation is understood – first and foremost – as instrumental: political participation is referred to as action with the goal of making decisions or changing the political system. However, in the context of integrating customers in business, intrinsic motivations play a key role – as in, the joy one receives in carrying out an

activity for their own sake. Extrinsic incentives like the desire for recognition are stated in the context of political and private sector forms of participation.

<i>Incentives</i>	
<i>Intrinsic activity incentives.</i>	<i>I participate because it is fun</i>
<i>Instrumental results incentives</i>	<i>I participate to achieve a goal</i>
<i>Extrinsic incentives</i>	<i>I participate to get recognition</i>

Table 1: Overview on the motivational class 'person'

Many studies in political participation research explain the requirements of such participation online mostly independent of the presence or absence of individual resources, like socioeconomic sector and demographic factors, time and political interest. Through multifaceted participation possibilities and new forms of participation, there is a need for incentive-focused research that takes a closer look at online political participation. Based on factors of incentive in innovation research, the present study provides a contribution with regard to the individual motivations of those that participate online. The insight offers perspective on motivating factors, in particular incentives, which have been previously neglected in participation research.

2.1 Forms of Participation

A variety of online participation opportunities were observed. We inquired about eight forms of participation in the political field and five in the economic field.

<i>Forms of political participation</i>	<i>Forms of economic participation</i>
▪ Voting on political matters <i>Voting on a specific political question e.g. an issue on the Internet</i> ▪ Engaging in participatory budgets <i>Citizen contribution of public funds allocation through communal participatory budgeting</i> ▪ Signing an online petition <i>Signing a parliamentary Bundestag e-petition or another online petition</i> ▪ Starting online petitions <i>Independent writing and posting of e-petitions through the German Parliament or another online petition</i> ▪ Joining political networks <i>Becoming a member of one or more political groups on social networks</i> ▪ Participating in online consultations <i>Temporary and issue-specific public hearings or consultations of community or political organizations</i> ▪ Writing political contributions <i>writing personal contributions and commentaries on internet forums or blogs</i> ▪ Contacting politicians <i>Submitting concerns or complaints to politicians online or generally contacting them over the internet</i>	▪ Developing existing products <i>Improvement of existing products or services</i> ▪ Crowdfunding <i>Financing of new products or new services</i> ▪ Developing product ideas <i>Participation of users in the open idea development of future products or services (e.g. idea in text or sketch form)</i> ▪ Product configuration <i>Customizing individual user products (like shoes, T-Shirts or groceries) with the help of online product configurators</i> ▪ Participating in campaigns <i>Joining advertisement or marketing campaigns of existing products or services</i>

Table 2: Overview on the motivational class 'person'

2. Methodology

Population

The population of the study looks at Internet users in Germany over 18 years of age who are familiar with or actively participate in online platforms in the context of political (e.g. online petitions, online consulting or participatory budgeting) or private sector themes (e.g. idea competitions, design platforms, or crowdfunding). The criterion in selecting respondents was that they must be aware of at least one online participation opportunity listed. The TNS Online Panel's pool of 197,000 people in Germany served as a basis for the sample. The sample was randomly selected without a fixed quota according to the percentage/proportion of the panel (persons over 18 years of age), although anticipated response rates were accounted for per group based on similar studies.

Survey Methods

Data collection took place using an online survey with computer-aided web interviews (CAWI) during February 17 – 27, 2014. The sample size consists of n=504 interviews, n=248 of which participate online (in relation to political and/or private sector contexts). The duration of the interview took a maximum of ten minutes including sociodemographics. The gross sample size (number of panelists contacted) is n=4465. The response rate lies around 11 percent. The estimate of TNS Infratest's many years of experience with the online panel reveals that the response rate is around the same rate similar studies have received. The structure of the sample size corresponds to sociodemographic characteristics (age, gender, and region) representative in the overall panel. Therefore, systematic distortion is not apparent. Representativeness with regard to the sample size has been attained.

Partner

TNS Infratest, a renowned market research institute, acted as a cooperation partner in this survey.

3. Overview of Main Findings

3.1 Participation and Awareness

The first part of the study provides an overview about what level of awareness Internet users have about online participation in Germany and what portion of users participated in the listed forms of participation. The most important socioeconomic indicators evaluated were: gender, age, level of educational attainment, employment status, and average household net income.

	Knowledge of Participation
Respondents did not know any of the stated participation forms	6%
Respondents knew of at least one of the stated participation forms	45%
Respondents that have actively contributed to one political project on a platform or in the development or refinement of products, for example	49%

Table 3: Online participation is familiar territory for almost all respondents (n = 504)

Illustration 1 shows how many stated participation forms respondents participated in.

Number of participation forms

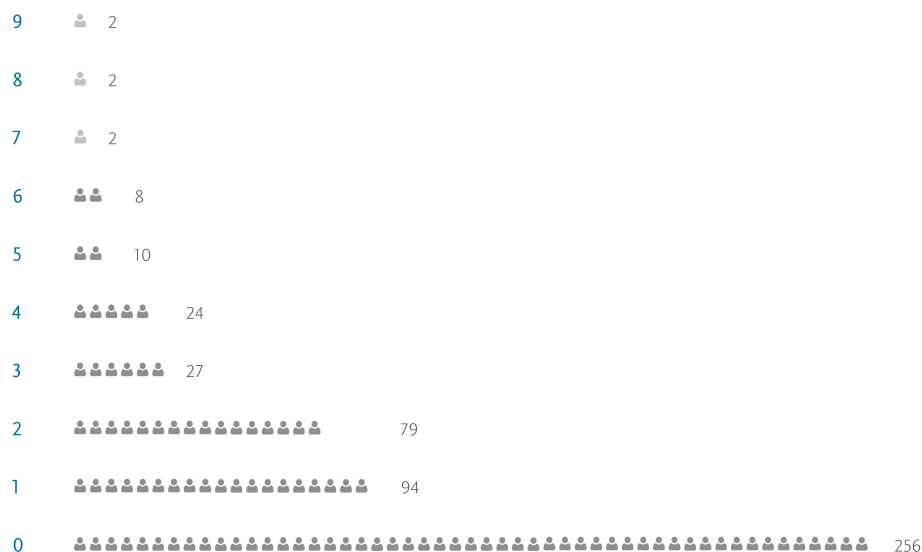


Illustration 1: Use of different participation forms per person

A small, very active group stands in contrast to the wide midfield of people that took part in between one and four stated opportunities. 256 people did not participate in any of the listed participation forms.

	<i>Aware</i>	<i>Participate</i>
<i>Until 34 years</i>	38%	58%
<i>35 – 49 years</i>	45%	49%
<i>50 and above</i>	54%	39%

Table 4: Online participation by gender: Men are slightly more active (n=504)

The 18 – 34 year old age group is especially active. Compared to older groups, this group has the largest proportion of people (58 percent) that have participated in at least one opportunity. In the 50+ age group, this proportion of participants is 39 percent – the lowest of all groups.

	<i>Aware</i>	<i>Participate</i>
<i>I am currently self-employed or work freelance</i>	62%	33%
<i>I currently do not have paid employment (student, presently unemployed, retired, homemaker)</i>	51%	41%
<i>I am currently employed (part-time or full-time)</i>	46%	49%

Table 5: Employment status: The majority of the self-employed and freelancers make use of online participation (n=501)

When faced with the question of current employment status, those that identify as self-employed or freelance demonstrate a high degree of active participation (62 percent). The group of employed respondents had the lowest participation rate of 46 percent.

	Aware	Participate
> 3000 Euro	44%	51%
1500 – 3000 Euro	47%	48%
< 1500 Euro	37%	56%

Table 6: Online Participation across all income brackets (n = 450 with a statement of less than 500 Euro, 500 to 1000 Euro, 1000 to 1500 Euro, 1500 Euro to 2000 Euro, 2000 to 2500 Euro, 2500 to 3000 Euro, 3000 to 3500 Euro, 3500 to 4000 Euro, 4000 Euro or more)

With regard to the income of respondents, a relatively consistent picture has surfaced. Respondents with incomes under 1,500 Euro participated in opportunities online most often (56 percent). They are similarly active to those belonging to higher income brackets (less than 3,000 Euro: 48 percent and 3,000 Euro: 51 percent, respectively).

	Aware	Participate
Higher education completed	32%	65%
High school diploma, higher education entrance qualification, advanced technical college certificate	35%	61%
Technical school without high school diploma	53%	40%
Elementary or secondary school with apprenticeship	60%	33%
Elementary or secondary school without apprenticeship	56%	19%

Table 7: Educational qualification is decisive: Proportion of online participants grows with formal education (n=499, the category still attending school was excluded from the analysis)

Of the respondents with the highest level of educational qualification, those holding a college degree, a large percentage participate (65 percent). Only 19 percent of citizens with second- or elementary-level qualifications (without apprenticeship) count towards those that participate most. However, 56 percent of the group is aware of at least one of the stated forms of participation.

3.2 Interests and Activities

In addition to the question of group composition, we were also interested in the amount of awareness for different forms and actual participatory activity. We inquired about the present interests of the respondents on the forms of online participation as well as the amount of time spent on each activity.

<i>Forms of Political Participation</i>			<i>Forms of Economic Participation</i>		
	Aware	Participate)		Aware)	Participate
<i>Voting/polling for political issues</i>	281	34%	<i>Developing products further</i>	114	35%
<i>Signing online petitions</i>	256	48%	<i>Developing product ideas</i>	104	38%
<i>Joining political networks</i>	191	15%	<i>Participating in campaigns</i>	85	38%
<i>Writing political contributions</i>	267	19%	<i>Crowdfunding</i>	97	27%
<i>Consulting on participatory budgets</i>	81	27%	<i>Product configuration</i>	106	50%
<i>Participating in online consultations</i>	70	27%			
<i>Contacting politicians</i>	175	20%			
<i>Starting online petitions</i>	122	4%			

Table 8: Awareness and Participation: Polling/voting for political issues at the forefront (for n see each form of participation)

The table demonstrates the extent to which recognized forms of political and private sector participation have been used. It shows the ratio between people that have used participation forms and those who were aware of opportunities to participate but did not do so. The absolute number signifies the amount of respondents who are aware of the respective form of participation. Fifty percent of respondents have actively participated in product configuration, an especially good participation rate given awareness. Furthermore, of the many respondents recognizing online petitions as a participation form, 48 percent have also actively signed a petition. E-petitions through the German Parliament as well as other online participation platforms were included in this study. Starting an online petition has by far the lowest figure, but is associated with a medium degree of recognition. The ability for citizens to weigh in on participatory budgeting and participate in online consultations about political and community projects proved to be the least familiar to respondents. The 27

percent rate of participation given awareness of these respective activities is also quite low.

A relatively homogenous picture can be observed in the private sector forms of online participation. In general, it can be established that they are less well known than the political forms of online participation. The proportion of respondents that have participated in such forms at least once lie around 27 percent in the case of crowdfunding and 38 percent for ideas about future product or service development (e.g. participating in advertising or marketing campaigns). Among those aware of product customization, 50 percent have actually personalized products according to their own tastes and preferences.



Illustration 2: Interest-Activity Profile: Relationship between interests and engagement in participation forms

Illustration 2 combines interest and participation in various participation forms, demonstrating the future potential of each form. Interest was gauged through the question, to what degree would you be interested in taking part in the following activity? Activity was determined through the question, which of the following activities have you taken part in?

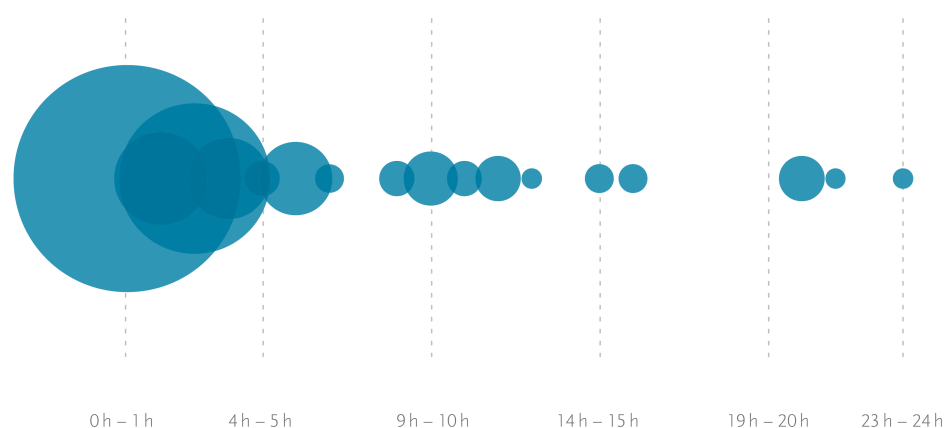
Interest and Participation on forms in the public sector

An especially large contrast was evidenced in the individual creation of online petitions: the number of people that expressed a very strong interest is the largest of all participation forms stated (96 people). The number of those that have actively started an online petition was the smallest (five people). The contrast between strong interest and less participation can be explained through the complexity of the given task. Signing online petitions (110 people) and deciding upon political issues (92 people) are the opportunities with the largest rate of participation. At the same time, these results show that in both cases fewer people expressed a very large interest than those that used these forms of participation. This high rate of participation in both forms is likely attributed to the fact that signing an online petition or participating in an opinion poll are comparatively easy and less time intensive to participate in.

Interest and Participation on forms in the private sector

The results for private sector forms of participation show a relatively homogenous picture: participatory interest in the private sector is relatively high, however only a few respondents actually participated in these forms. Respondents were most interested in crowdfunding (74 people), with only very few people who expressed no interest in crowdfunding. In contrast, the number of people indicating a strong interest in the further development of existing products or services was less. This form of participation also had the largest amount of people that reported disinterest in private sector participation forms.

Illustration 3: Users by by participation duration



n = 279 Participation activities

In the illustration above, people are represented by participation duration broken up into hour block intervals. The circle radii show the number of people relative to each time span. The first and largest circle represents 125 people that spent up to an hour on participating.

The average time of reported participation is one hour and 30 minutes. We used the median as an outlier resistant statistic. In general, the survey shows that participants spend a surprising amount of time on their participation activities. 15 people indicated over 24 hours spent. The time indicated relates to the participation form the respondent can best recall partaking in.

It is therefore likely that participants participated in other forms with varying duration.

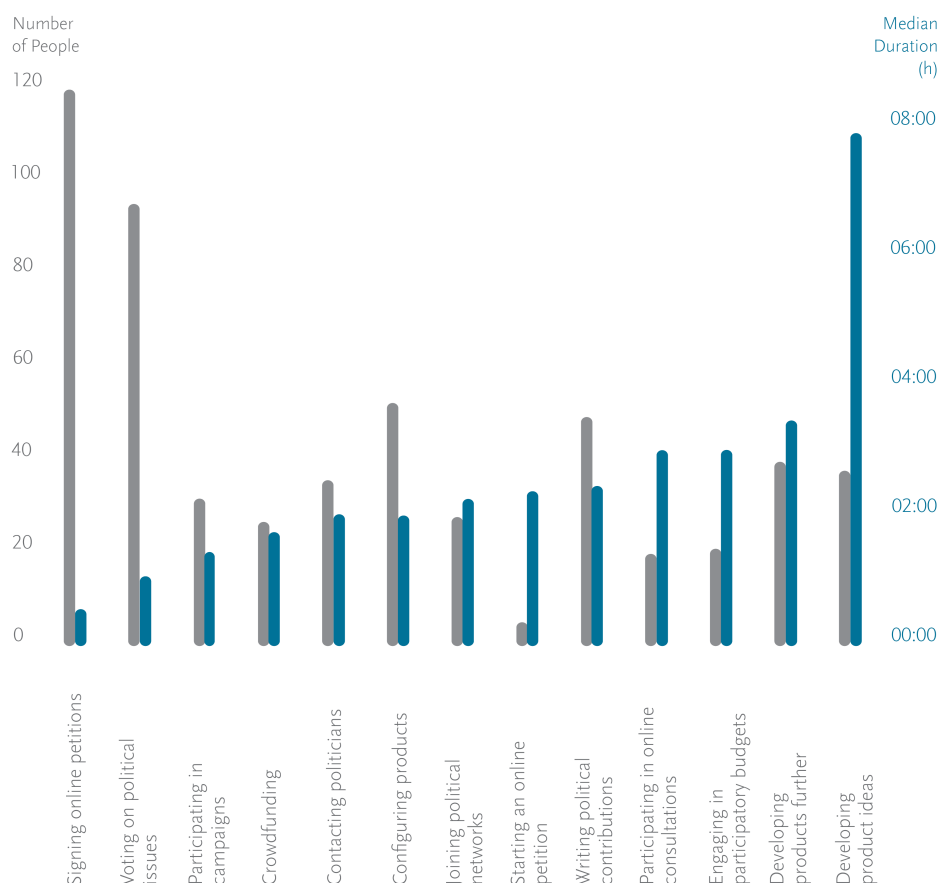


Illustration 4: Participation forms by duration and user quantity

The results show that people who participated in open product idea development invested by far the most time. Most respondents participated in

online petitions, spending a median of 30 minutes, which is a relatively short period of time comparatively.

<i>Activity</i>	<i>Time Expenditure</i>
<i>Write contributions.</i>	<i>8:58 h</i>
<i>Comment</i>	<i>5:58 h</i>
<i>Review</i>	<i>3:49 h</i>
<i>Read</i>	<i>1:17 h</i>

Table 9: Activity and Time Expenditure (n=279 participation activities)

For the online participation activities respondents could best recall, we asked what task they carried out specifically. The idea was to obtain information on whether or not the activities can be ordered by their respective quality. Differences are distinguished by four categories of activity: reading or consuming contributions, reviewing content or contributions, commenting on existing content, and producing individual content. Table 9 shows the average time spent on these concrete actions. The illustration is based on the question, how long were you occupied with this given activity? Along with the question, what exactly did you do for the activity?

3.3 Motivations and Incentives

In the third part of this study, we examine the factors of incentive for online participation. In doing so, we refer to the extended cognitive model of motivation (Rheinberg, 1989) inquiring about action-oriented, result-oriented and consequence-oriented motivations. Activity incentives revealed intrinsic motivation; therefore joy on the task itself was felt (The activity was fun). Outcome-oriented incentives describe the motivation to want to change something, for example (I want to represent my interests through my activity). Consequence-oriented incentives include motivations with regard to recognition, gaining knowledge, or networking (I gain recognition through participation in the activity). Additionally, we tried to understand the influence of creativity and self-efficacy as individual personality traits in the study.

3.3.1 Typology of Motivation

With a cluster analysis, five different types of relevant incentives were identified based on responses. In comparison, the groups show where evidently large and lower agreement was found. A comparison of the averages of different incentives is not possible, since agreement is dependent on respective question formulations.

Interpretation of different types of motivation

1. The Highly Motivated: Interest in the outcome and deriving pleasure from the act

In the first cluster, users indicated being motivated by many incentives in 59 cases. Statements 1 – 3 referring to the activity as fun receive a very high degree of agreement. In addition, statements 4 – 6, which refer to interest in shaping items also received a very high degree of agreement. This group indicated winning prizes to be of second least worth.

2. The Highly Motivated: Deriving pleasure from the act with personal profit

The second cluster is signified by a high degree of agreement on deriving pleasure from the act. However, users in 74 cases of this cluster are also strongly incentivized by gaining recognition, learning, networking, and winning prizes. Directly shaping outcomes through participation is less important to the first cluster (for example, influencing a collective participatory budget).

3. The Frequently Motivated: With broadly motivation, prizes are especially important

Compared to other clusters, the desire to win prizes had a high degree of agreement in the third group with 82 cases. The respondents found all other incentives to be moderately important.

4. The Barely Motivated: Prizes are crucial

A clear picture demonstrates the fourth cluster: The desire for prizes has a high degree of agreement besides a comparatively low degree of agreement towards the desire for recognition, which is significant in 41 cases. The respondents here don't act with a great interest in shaping outcomes.

5. The Barely Motivated: Results-orientation and learning

All factors of incentives find less to very little agreement in the last cluster with 46 cases. A comparatively weak interest in outcome of participation and a similarly weak interest in the activity of learning appear to be just enough to trigger participation at all.



Illustration 5: Typology of Motivation

	<i>Creativity</i>	<i>Self-efficacy</i>
<i>Did not participate</i>	8.71	9.18
<i>Participated in one form</i>	9.72	9.87
<i>Participated in several forms</i>	11.01	10.58

Table 10: Creativity and Self-efficacy (n = 504)

To understand why users of online participation participate, we asked about their agreement towards statements to reflect on creativity and self-efficacy. Self-efficacy is a commonly studied concept in participation research.

The table shows the average worth of reported degrees of creativity and self-efficacy (index value is based on questions on a scale from 0 to 16) of three groups of respondents: first, by people that do not participate in any form of participation. Second, by people that participated in exactly one form and third, by people that participated in at least two forms of participation. With an

increasing number of participation forms used, the average degree of self-efficacy and creativity also grew. The difference in means is very significant, however, the only significant difference in the creativity values is between both outer averages.

4. Discussion and Future Research

4.1 Participation and Awareness

It was unexpected that respondents would have such a high participation and awareness rate of online participation forms. In this study, we wanted to describe the composition of online participants and user activity in Germany, therefore as filter criteria for the sample recruitment, we established that respondents had to know of or have used at least one form of online participation. Only 30 cases out of 504 respondents did not contribute to the analysis on the basis of this criterion.

Forty-nine percent of respondents actively participated in online participation according to our defined forms. This number seems high in relation to the 1 percent of internet users that write original content and the 9 percent of commentators expected in most online communities according to Nielsen's (2006) frequently cited essay. The large proportion of active users in our study can be explained through the number of activities stated even though every individual online community consists of a very small proportion of active users respectively. The small proportions add up through the fact that every online community has their own slightly different group of active users. This finding answers a second question on if the same comparatively small group of people dominate the discussion in most online participation forms, therefore making up only a small proportion of online participants within the larger the digital population. Based on the numbers, we can establish that the saying, *Netzgemeinde* or Internet community is in fact mislead. The participation of different sub-groups can be activated depending on the interest at hand and the platforms used.

Therefore, the pareto distribution speaks to the display of the number of participation forms used per person (Illustration 1). Most respondents (200) use a few specific forms, only 48 percent use more than three forms of participation.

The selective, but frequent use of one or two online participation forms means that there is no small *Netzgemeinde* dominating the discussion on all platforms. However, the possibility still exists that a form of participation used by a small group of people is not representative of the general public. Operators of online participation platforms should carefully observe and discuss user

composition not only for organizational purposes but also for the benefit of their users.

Our sample is too small to make any definitive statements about the preferences of different online participation groups for different platforms. For this reason, a renewed research effort with a larger sample size would be desirable.

4.1.1 Socioeconomic sector data

In our data set, the use of online participation increases with the user's level of formal education. This finding is consistent with political participation research in that people need certain resources in order to afford the effort participation requires.

Normally, participation is advantageous to people with a higher income and more education, making up a classical composition of participants whose interests are more strongly represented.

However, in relation to household income, our data set suggests that income levels do not have a strong association with the extent to which online participation forms used. A possible explanation lends itself to the negative association between household income and free time available. There is a clear negative association between age and the participation rate of people. This association is likely due a decrease in Internet competence with age. The additional free time of older people seems to have a smaller effect than declining Internet competence.

4.2 Activities and Interest

The prominence of inquired political online participation forms is on average bigger than private sector participation forms. The lower degree of awareness surrounding participatory budgets and online consultations can be explained by the restriction of time and locality of such opportunities – even if citizens become more fond of participatory budgets, they are only a small fraction of community practice.

Regarding private sector forms, of the total amount of respondents that are aware of an online participation form, a high proportion of those have already

actively participated in one. In this way, political forms are less well targeted: By way of media coverage and public interest, larger groups can be reached since different sections of the population are represented. However, this group also contains sections of the population, which are not as easy to mobilize as active participants online. In contrast, the private sector appears to be able to create opportunities to participate that capture the interest of a smaller yet more intensely engaged group of people.

There is an interesting contrast in the number of online petitions started and signed. The signing of online petitions has the second highest reach (measured as the sum of participation and awareness) and the highest rate of those who are aware of this participation form and actually use it. This can be explained through the multitude of well designed petition platforms, which represent a wide spectrum of interests through expansive content appealing to diverse groups of the population. In addition to the formally defined e-petition processes through the German Parliament and some state-level platforms, several privately operated platforms have also been established.

These petitions not only expand the spectrum of possible issues that could be brought to the table, but rather offer a lower barrier opportunity to participate with less rigidly defined hurdles. Considering this backdrop, it is astonishing that out of 256 people aware of the ability to sign petitions, less than half indicated being aware of the possibility to create one.

Even though not everyone may have a present concern worthy of an online petition, the low level of awareness evident makes improving communication on the matter a useful recommendation.

It is fascinating that special forms of interaction like crowdfunding and online product configuration have such a noteworthy reach over the online population despite being costly and effort-intensive. Out of 504 respondents, 85 had heard of crowdfunding (17 percent) and 97 product configuration (19 percent), which are partly understood as niche phenomena.

It is likely that the amount of online participation opportunities will increase further. However, as the growing number of opportunities to participate increase, contributions of active users will be even more distributed over different platforms. The frequently used success criteria of participation in obtaining a certain percentage of the population (e.g. broad societal

involvement), is thus, not very reasonable and is increasingly difficult to achieve. For example, if the citizen dialogue for Chancellor Merkel in 2015 has less participants than it had 2012, it doesn't necessarily mean that the opportunity was inferior to that in 2012, but rather that there is now more competition.

4.2.1 Interest profile

The idea behind displaying an interest profile is to estimate how interested the digital population is in different online participation opportunities to begin with. In connection with current use of opportunities, we can assume that there is large potential for stronger activation of more participants. All forms of online participation had a much greater number of people that reported very strong interest than the number of people that also take up the opportunity to participate with the exception voting/polling on political issues and signing online petitions.

In the political participation forms voting/polling political issues and signing of petitions, there is a larger number of active users than very interested users. On the other hand, there is a discrepancy in participation compared to the remaining six participation forms. The strong interest of respondents demonstrates the huge potential of user participation to materialize in these forms.

A drastic discrepancy in participation and interest is shown in the creation of online petitions, considering 173 out of 504 respondents reported a very large interest, yet only five people actually created an online petition themselves. Furthermore, since only three percent of people with a large interest in the opportunity actually use it, we can assume that there is significant potential to convert interest and awareness into action. Again, private sector forms of participation have a comparatively good ratio between participation rate and number of interested people. According to these observations, we can draw two conclusions. Firstly, we can presume that some forms of participation present hurdles that keep highly interested people from participating. Secondly, the numbers illustrate the potential for future participants. Organizations that use online participation should be excited about the growing interest in online engagement. This development suggests that many will feel compelled to participate in the future.

It was not possible to ascertain which specific obstacles kept highly interested Internet users from engaging in respective opportunities within the framework of this study. Considering the high amount of potential users, addressing this question in the future would be a worthy endeavor.

4.2.2 Motivated idea disseminators:

The survey shows an extremum of high reach where participation is of short duration, which is the case in signing online petitions. In the other extremum, where free idea development for products is the case, an astonishingly long processing time and less reach is evident.

In the design of platforms, organizers can decide between the goal of large reach and the goal of comprehensively and intensively analyzing the subject of participation. Our data suggests that reaching both goals simultaneously will only lead to a trade-off in which both metrics will equate to midfield value.

The two political opportunities with the shortest participation duration reported (signing online petitions and voting/polling on political issues) are also the only opportunities, where the answers reveal a higher number of participants than people who are strongly interested in it. Therefore, we can assume that the time duration required is an important resource, which is impeding the translation of interests into activities.

The two largest median values of participation duration are found the private sector: free idea development and the further idea development. It is probable that set incentives such as notable prizes and interesting, creative tasks are decisive in motivating participation.

The very long participation duration of free idea development and further development stood out in our study. Future research should examine how these opportunities have managed to motivate such detailed engagement with the subject of participation. Another important unanswered question for research is how very active users (with up to nine of 13 stated activities) distribute their limited time across different activities. The other follow-up question pertains to the scale of contribution a person provides compared to that of people who only participate in one activity and thus, have more time to spend.

4.3 Motivation and Resources

4.3.1 Typology of Motivation

The question of motivation regarding the use of Internet applications consumes many researchers and practitioners. An answer to this question would enable better targeting of incentive structures helping to avoid setting unnecessary incentives.

In the evaluation, five different motivation clusters are seen, elaborated upon in the descriptive part of this study. The clusters strongly reflect motivational psychology in which there is a traditional distinction between intrinsic and extrinsic factors of motivation. Intrinsic motivation describes an incentive that lies within the action itself. For example, a person works on an oil painting because he or she finds painting in itself pleasant. In contrast, extrinsic motivations are those that stem from an external incentive. In this right, a person could paint a picture perceiving it to be an unpleasant activity, but be motivated by the payment that will follow after. Intrinsic motivations are in this perspective often come with a positive connotation, whereas extrinsic motivations tend to be negatively connoted. This unnecessary negative classification is due to the fact that under uncommon circumstances, extrinsic motivation through payment can displace its intrinsic counterpart (Cameron et al., 2001).

The first cluster is strong and especially intrinsically motivated over all. Clear extrinsic motivation is the case in the fourth cluster, making up 12 percent of all cases. The fifth cluster is difficult to interpret, since users assigned low value to all questions about motivation raising the question of what users are motivated by. It could be that important motivation may have been omitted by the closed questions. Such question formats were necessary to keep research efficient. It is more likely that in the online participation cases, users are only motivated enough to participate and thus, do not make any effort-intensive contributions. It is limiting to take into consideration that the number of given cases makes a detailed analysis of any cluster impossible. The cluster analysis of this study serves as a prototype or pattern of online participation motivation, which is interesting in its interpretation, but due to the small number of cases used cannot be generalized to the online population at-large.

The roughly even sized clusters have very different motivational patterns indicating that all stated factors of motivation are important for large user

groups. In the design of online participation projects, organizers should check if factors of motivation to activate users could be conducive. While prizes are effective in encouraging users to participate, their function in rewarding incentives should be thoroughly considered before implementing in political contexts.

Through our research, we cannot make any statements on the actual contributions of users with respect to online participation forms used. In further research, it would be important to examine how contributions within clusters vary in quality and size.

4.3.2 Creativity and Self-efficacy

With the number of online participation forms used growing, average values of creativity and self-efficacy commensurately increase supporting the findings of research in both of these areas. The stronger a person's expectation of self-efficacy is, the more likely he or she will participate in online or offline forms of participation. The person will also have the expectation of being able to achieve something. For those that don't anticipate an impact to result from their actions appear to perceive the action as not being worthwhile. The heightened value of creativity reported can be interpreted slightly differently. Online participation signifies collective reflection and resolving of societal challenges. It's not easy. The more creative a person is, the less strenuous the participation will be since creativity and problem-solving are similar concepts. Furthermore, individuals with a pronounced sense of creativity may derive pleasure in carrying out creativity-boosting activities. At the same time, the task is likely to be less strenuous as well as enjoyably demanding.

4.4 Limitations

Representativeness in relation to the drawing of the whole sample size of the entire German online population has been achieved in this study. Evaluating these results with such a low number of people are only representative with limitations. For this reason, we cannot provide demographic data on the composition of users for individual online participation forms. Thus, another survey with a larger volume in sample size would be advantageous. The data is based participation forms respondents could best remember using. This way, more in-depth statements relating to participation activities could be more easily recalled by memory. All statements on activities must be interpreted with the background information that these people could have likely participated in other online participation forms with less intensity. Since participation is seen mostly in a positive light, social desirability as a response tendency could have had an influence on the behavior of respondents.

The online participation forms surveyed display a selection of known online participation activities in public and private sector contexts. For example, cultural online participation forms were not surveyed and should be accounted for in future research.

6. Explanations

1. An invalid case was excluded from the total sample size (n=504)
2. The mean values show a comparative distribution of income brackets with the results of monthly net household income of private households (2012) from the income and consumption sample (EVS) and the ongoing household budget surveys (LWR) of the German Federal Statistical Office (Statistisches Bundesamt, 2012).
3. This difference is refined and slightly altered by Deci and Ryan (2000), for example.

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