

Chapter 15

What Difference Does the “E” Make?

Comparing Communication Channels in Public Consultation and Collaboration Processes

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Abstract Expectations have been high that offering online, that is, electronic or “e”-communication channels in public participation will improve its outreach and quality. However, so far, there is no empirical evidence that confirms these hopes. Applying a variety of research methods, this chapter presents empirical findings on the advantages and disadvantages of online communication compared to face-to-face communication in six consultation processes and seven collaborative citizen panels. To control for contextual differences, one of the consultation processes has been set up paralleling online and face-to-face meetings. In this case, organizers showed a preference for face-to-face meetings as regards the content of contributions and the style of discussion. For the citizen panels, collaborating with local governments to achieve climate targets, impacts in terms of carbon equivalents (CO_{2e}) savings, and dropout rates have been compared for parallel processes online and via telephone. These comparisons do not, however, deliver clear performance profiles of the communication channels or a generalizable assessment of their appropriateness for particular objectives. The factors influencing the choice of communication channels are complex, and the analysis shows that assessments depend on the type of participation and the role of an actor in the process as well as on time frames and contexts in which the assessments are made. Showing that none of the channels offers clear advantages over the other, we conclude that practitioners are well advised to follow a multichannel strategy and offer a media mix of online and traditional modes of participation.

15.1 Introduction

Whenever new communication technologies emerged, it was hoped that they would not only lead to economic growth but also enhance democracy by making access to information and active participation in political decision-making easier.

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This was the case for the radio, two-way or interactive cable television, the microcomputer revolution and, most recently, the Internet. The terms changed from teledemocracy to computer or e-democracy and cyber democracy, but the basic view and argument remained the same (Dutton 1999): Political engagement means efforts, and established forms pose certain barriers. New technologies have the capacity to overcome some of these barriers. As it turned out, neither radio nor interactive TV changed the degree and kind of political engagement. But with its newly emerging applications and social networks, the Internet is offering new opportunities, which may deepen certain kinds of engagement and/or extend the share of citizens taking political action. Scholars of Internet research, however, also point to the fact that access to the Internet is limited, that the technical means may be selective and produce biased results and at best lead to more intense engagement of those already active (Davis 2010). Others argue that factors such as socioeconomic status, values, experience, and peer groups are much more influential for political engagement than the technical means (Pratchett et al. 2009).

Ann Macintosh in a chapter of the *OECD Book on Promise and Problems of E-Democracy* provides a good summary of expectations of how information and communications technologies (ICTs) will improve public information, consultation, and participation processes by:

- Reaching and engaging with a wider audience
- Providing relevant information in a format that is both more accessible and more understandable to the target audience
- Enabling more in-depth consultation and supporting deliberative debate
- Providing relevant and appropriate feedback to citizens to ensure openness and transparency in the policy-making process (Macintosh 2003, p. 33)

Certainly, there are cases where these advantages could be observed. It is, however, also certain that they do not occur in every instance and are not perceived equally by all the people concerned with a particular issue nor by citizens in general.

Against this background, the research challenge from a practitioner's point of view is to develop guidelines for choosing the appropriate media for participation processes and, in particular, to answer the question whether or to what extent new electronic forms of participation should substitute or complement traditional modes of participation such as town hall meetings or telephone surveys. The challenge for academic research lies in the development of appropriate research designs for assessing the comparative advantages and disadvantages of these electronic forms with regard to certain success criteria, as mentioned in Chap. 2. These success criteria include the number of participants, quality of contributions, inclusion, and the building of trust, which can help to assess the meaning and effects of the "e" in participation processes with sound methods.

15.2 Basic Concepts and Research Questions

A first requirement is to be more precise with regard to what is compared and the terms that are used. In e-participation research, the alternatives are most often termed “online” and “offline” (-communication). “Online” clearly refers to a state where a computer or another electronic device is connected with other devices via a telecommunication network, even when devices are connected wirelessly without “lines.” The term “offline” has changed its meaning:

- In the early days of computing, offline referred to the exchange of data between two (host) computers by carrying magnetic tapes from one place to another.
- Since the digitalization of telecommunication networks, offline refers to a digital device, which can be connected but which, at the moment, is disconnected from the network. The term is also applied with a similar meaning to people who at some time are online but for the moment are not.
- In the context of political participation, “offline” is applied to face-to-face communication (e.g., in town hall meetings) but also to information exchange via telephone or mail (e.g., in contacting an elected politician).

Using the term “offline” as the only counterpart to “online” would ignore unquestioned differences between face-to-face communication in a physical meeting and a telephone conference and between oral and paper-based exchanges of messages. Therefore, in this chapter we will be more precise and, wherever appropriate, differentiate between “face-to-face” communication and communication by telephone and post (in short, “PTT” for post, telephone, and telegraph companies). Instead of “offline,” in contrast to “online” modes of communication, we use the term “traditional.” In many cases, online tools do not completely replace face-to-face or PTT communication but are complementary. For these cases, we use the terms multi-channel communication, media mix, or blended participation.

Research on communication channels applies either a macro- or a micro-perspective. Within the macro-perspective, two research questions have been in the foreground:

- Has or will e-participation become a substitute for traditional forms?
- Do e-channels increase the number of participants?

Although many opinions have been published on these questions with regard to participation in the form of public consultation and citizen–government collaboration, there has been no valid empirical research on this particular form of participation. However, research on the broader issue of political involvement of citizens supports a “mobilizing” hypothesis as well as a “reinforcement” hypothesis with regard to the number and the sociodemographic characteristics of online activists (Oser et al. 2012). While some studies show that the new online facilities draw previously less active citizens into the political process (Gibson and Cantijoch 2013), others come to the conclusion that the main social factors of political involvement also prevail in the digital world and that online tools are “weapons of the strong” (Schlozman et al.

2010). Based on the Oxford Internet Survey, Di Gennaro and Dutton (2006) compared survey data on political engagement in the form of seeking information and contacting politicians. They found no evidence for a substitution, but rather “online and offline political participation tend to reinforce each other but enable increased participation at the margins: ...53 % of those who had engaged in politics online had also engaged in offline politics” (p. 306).

Reddick (2005) comes to a similar result comparing citizen-initiated contacts with government via the telephone or web, based on a broad survey in the USA. There is no evidence for a general substitution of telephone contacts but only a displacement by particular kinds of citizens’ needs and for different occasions.

Therefore, there is a need to turn to the micro level and to two other research questions:

- Which factors influence people’s choice of communication channels, and what makes them prefer online channels to traditional ones?
- Does e-participation deliver the same results in the view of the consulting party, or is there a trade-off between a higher number of participants and poorer quality of contributions and impact?

In a socio-technical framework, mediated communication has a technical and a content dimension with different requirements for successful use (Kubicek et al. 1997, pp. 26 ff.). Within the content dimension, sender and receiver must share the same language, have some common knowledge on the subject, and some interest in the topic and/or the partner. Within the technical dimension, they have to have access to the devices and be able to use them for their purpose (see Fig. 15.1).

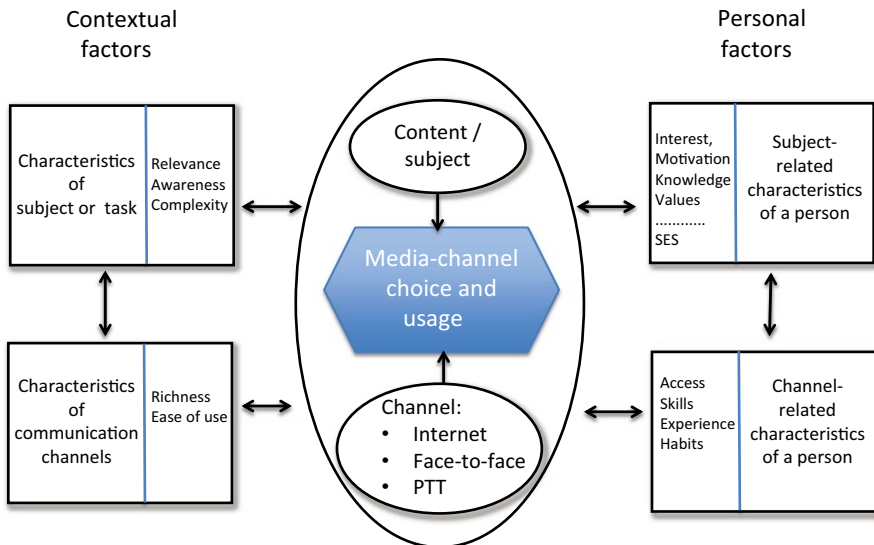


Fig. 15.1 Personal and contextual factors influencing media-channel choice. *PTT* post, telephone, and telegraph companies, *SES* socio-economic status

The aforementioned list of advantages of online communication is based on a comparison of the characteristics of the communication channels. In communication and media research, there are several theories which support this perspective (Kubicek et al. 2009; Pietersen and van Dyke 2007; Pietersen 2009). Media richness theory (MRT) compares communication channels according to the number of senses included, for example, by showing that telephone communication excludes visual senses. Text-related online communication compared to face-to-face communication is “poorer” because visual and acoustic senses are not involved (Daft and Lengel 1984). These characteristics of different channels can be related to the content of a communication act and the intentions of the communicating parties. Research on media-channel choice most often conceives the content dimension as a task which the users want to fulfill and assumes that people choose the channel which is considered most appropriate for the task they want to fulfill (Pietersen 2009, p. 63). For more complex or more effective tasks, richer channels are considered to be more appropriate. Johannessen et al. (2012) tried to establish general relations between communication channels and what they call genres of participation instead of tasks. Other scholars doubt whether such general relations can be established and point to the importance of personal factors as intervening variables (Pietersen 2009, p. 63).

Explaining the choice between telephone and e-mail or web sites for citizen-initiated contacts, Reddick (2005) refers to the “Uses and Gratification Theory,” which stresses the importance of personal factors and assumes that the Internet will displace functionally similar traditional media if people perceive it as superior in content, less costly, and/or more convenient (Kaye and Johnson 2003). In general, the uses and gratification theory asserts that people, when they have a choice, use the medium they perceive to be superior for meeting their particular needs in a given situation. But this does not provide much more insight than general choice theories as there is no distinct list of needs or gratifications people expect in different situations, for example, in using government services, contacting government or politicians, or taking part in a consultation. Pietersen and van Dyke (2007), therefore, refer to the “Social Influence Model” (Fulk et al. 1990) and the “Technology Acceptance Model” (Davis 1989), which address the influence of the social environment of the users, their habits and, for example, established communication patterns with their regular partners.

There are some attempts to test these assumptions about the different influencing factors by survey data and multivariate statistical analyses, for example, with regard to public services (Pietersen 2009), but the data show rather weak connections. Considering the different types of participation and the broad spectrum of technical tools as well as the many influencing factors on media use and on political engagement, one cannot expect clear-cut patterns of channel choice or advantages and disadvantages of e-channels in different kinds of consultations.

15.3 Frame of Reference and Comparative Research Design

In our own research, it was not possible to collect data on all the influencing factors mentioned in the different theories. But these theories provide ideas for developing hypotheses explaining the empirical findings. Figure 15.1 tries to integrate the elements and factors highlighted in the different theories into one conceptual frame of reference.

Media-channel choice by the target groups of a consultation or cooperation offer is conceived as a matching exercise between the content of the consultation and the channels offered, made by a person with preferences regarding the subject and communication channels. The decision to participate and use a certain channel is made in the light of the perceived characteristics of the consultation's subject, the task required, and the communication channels. The preferences are based on subject-related factors such as the interest and the knowledge related to the respective subject and with regard to access, skills, and habits in respect of the communication channels offered.

The e2democracy project applied different research methods and research designs for assessing effects of the "e" in different dimensions. This chapter draws on six cases of consultation processes (described in Chap. 5) on climate policy issues (Pamplona, Saragossa, and Bremerhaven), political program formulation (Bremen), neighborhood development (Wennigsen), and a citizen charta (Vienna). Additional case material stems from citizen panels in seven regions collaborating on climate protection with local governments (see Chap. 7).

- In all six consultation cases, participants were asked about perceived advantages of online communication, and in the case of the "Vienna Charta," also about their experience. In four cases (Bremen, Bremerhaven, Vienna, and Wennigsen), the assessments of organizers have also been collected. In the seven climate protection cases and a few other cities, organizers have also been asked about their perceptions and preferences regarding communication channels.
- The case of the consultation on the government program of the Social Democratic Party (SPD) of Bremen has been explicitly designed to compare the contents of online and face-to-face communication and allows for comparing the output.
- The seven citizen panels on climate protection even allow for comparing the impact of online and PTT communication with regard to carbon equivalents (CO_{2e}) savings and dropout rates.

The following three sections of this chapter will present the results of these comparisons.

15.4 Perceived General Advantages of Online Channels

If we assume that personal preferences play an important role in channel choice, it is relevant to learn how potential participants evaluate online channels compared to traditional modes of communication. In all the consultation processes described in

Chap. 5, participants and organizers have been asked whether they consider online or traditional ways of communication to be better or more favorable with regard to efforts and effects. These surveys took place in different settings and at different points in time within the consultation processes:

- In Pamplona and Saragossa, the surveys were integrated in the online consultation.
- In Bremerhaven and Wennigsen, questionnaires had been distributed in the kick-off meeting and were also offered in the online consultation.
- In the case of the Vienna Charta, participants were asked via the Internet and in local meetings to participate in an online survey at the beginning and the end of the process.
- Organizers in Wennigsen and Vienna as well as experts on participation and climate policies were interviewed in person, via telephone, or via an e-mailed questionnaire.

The phrasing of the items varied in detail. They had been discussed between the three research teams, then translated by each team into the language of the respective country. Before presenting the quantitative results of the surveys, the following quotation illustrates that no channel is perfect with regard to all requirements. Rather, each one has specific advantages and disadvantages, at least in the view of organizers of the consultation on the Vienna Charta. In interviews, they said:

There were lively discussions offline and online. But the offline discussions cannot be substituted through online debates when there are concrete personal matters at stake. Face to face discussions are more valuable when the sharing of experiences, social coherence and strengthening local democracy are the aim. For clearly defined questions online processes are also suitable, but I see problems with the anonymity of nick-names and formation of pressure groups which posted in an organized way.

The barrier to participate was lower in the online process, because there was less time and effort involved. But there was no argument between people about contributions, especially not between people with different views. In contrast, there were many very interesting arguments and exchanges of opinions in the face-to-face discussions.

A clear and unanimous vote in favor of offering both channels in future participation projects was taken. There was also a telephone hotline as a third channel. While there was mostly positive feedback in meetings and online, an organizer noted that people who called on the phone made negative comments throughout.

15.4.1 Efforts and Outreach

The most frequently mentioned advantage of e-participation compared to town hall meetings and other kinds of traditional face-to-face communication settings is that it means less effort for the participating citizens and offers more flexibility with regard to time and place, and thereby reaches a larger number of people. The opinion has also been expressed that online consultations require less effort on the part of the consulting party and, therefore, could be offered more frequently. The two

Table 15.1 Participants' assessments of participation channels regarding costs and effort

With regard to		Internet preferable (%)	Traditional ways preferable (%)	Both equal (%)	NA (%)
Costs for participant	Pamplona ^a	60.3	4.0	33.7	2.0
	Saragossa ^b	60.1	3.2	35.4	1.3
Personal effort	Bremerhaven ^c	67.3	3.5	27.4	1.8
	Wennigsen ^d	41.1	16.1	28.6	14.3

NA not applicable

^a $n = 199$

^b $n = 158$

^c $n = 111$

^d $n = 48$

Spanish consultations on local climate policy organized by the City Councils of Pamplona and Saragossa were conducted online only and included a link to an online survey (for more details see Royo et al. 2014). In Bremerhaven and Wennigsen, there was a combination of local meetings and online consultations, and the surveys were carried out at the kick-off meeting as well as linked to the online forum. Table 15.1 presents the results on the two slightly different questions (translated from Spanish and German).

Pamplona and Saragossa

This consultation has been implemented through the Internet, but it could also have been done using traditional means (telephone, post, or in person). Thinking about the following issues, which do you think is the most appropriate format for citizen participation?

Bremerhaven and Wennigsen

You can submit your ideas not only via the virtual pin board but also personally at the Environment Department, by phone, or at public events (in Wennigsen, personally in the working groups or at the town hall). What are, in your opinion, the advantages and disadvantages of submitting your ideas via the virtual pinboard as opposed to doing so via phone, at meetings, or at the town hall?

In the two Spanish cases, almost two thirds of the respondents agree with the common view that participation through the Internet is more appropriate with respect to personal efforts or cost. With the exception of a small minority of 3–4%, the other third says there is no difference. Responses in Bremerhaven show a similar distribution, whereas in Wennigsen less than half of the participants (41%) agree with the common view, while 16% say that participation on-site (local meetings) is better, and 14% did not answer this item. The differences are explained by the place of the survey and the characteristics of the participants.

It is not surprising that a high number of those participating online in the two Spanish cases say that online is better. In Bremerhaven, there was also a citywide consultation on local climate policy, but not only online. There, an even larger share prefers online communication with regard to efforts, although one third of the respondents answered the questionnaire at the kick-off meeting. In Wennigsen, even more citizens responded at the kick-off meeting, and there are other differences. As described in Chap. 5, the consultation was about the development of a local

Table 15.2 Participation in on-site meetings and online

	Bremerhaven (<i>n</i>)	Wennigsen (Hohes Feld) (<i>n</i>)
Residents	113,000	550
Participants in kick-off meeting	38	160
<i>Online idea collection:</i>		
Proposals	264	112
Comments	202	NA
Participants in second meeting	39	23

NA not applicable

neighborhood of inhabitants mostly aged above 60 years. The kick-off meeting took place within walking distance; and for those without their own Internet access, local meetings in fact mean less effort or they are unwilling to compare something they do not know personally. The two latter cases allow for comparing the reported preferences with the actual behavior (Table 15.2).

In Bremerhaven, the widespread assumption that more people can be reached online than by local meetings is confirmed: Only 38 people attended the kick-off meeting, but 264 proposals were submitted online, and 202 comments were received. In Wennigsen, it was the other way round: 160 inhabitants came to the kick-off assembly, but only 112 proposals were collected, including about 15 at the meeting.

In both phases, there was the possibility of submitting proposals in writing or by phone and of voting on paper in an office. While 16% of the respondents in the Wennigsen survey said voting in local ballots would be more appropriate, not a single citizen did take advantage of this opportunity. Everybody without online access found someone in his family or neighborhood for support.

In the case of the Vienna Charta, there was a mix of local talks and online fora, and participants have been asked to compare and assess both options before and after the participation process. This allows for comparing expectations and experiences (Table 15.3).

In this case, the share of respondents preferring the online channels decreased after they had experienced both ways, and the number of respondents who preferred local talks increased.

When establishing communication channels, organizers of consultation or cooperation processes consider the efforts or costs to the citizens targeted as well as the costs to their own institution. In the case of the Vienna Charta:

Table 15.3 Before and after experience comparison of consultation channels on the Vienna Charta

With regard to	Internet is better		Face-to-face is better		Both are equal	
	Before (%)	After (%)	Before (%)	After (%)	Before (%)	After (%)
Personal effort for participants	45.3	38.8	21.7	30.6	33.0	30.6

n before = 106, *n* after = 85

Table 15.4 Cost comparison of communication channels by organizers of local climate panels

With regard to	Online is better (%)	Traditional ways are better (%)	No difference (%)
Costs for public administration	85.4	12.5	2.1
Costs for citizens	70.8	25.0	4.2

n=48

- Nearly all organizers saw no difference regarding the efforts for the public administration; only one considered online to be better.
- As regards the personal efforts for participants, the organizers disagreed: Three said the Internet is better, two voted for local meetings, and to another one there was no difference.
- In a similar way, organizers disagreed on which channel would bring a larger number of participants.

By contrast, in the organizers' survey on local climate panels described in Chap. 14, a large majority preferred online channels in both respects (Table 15.4).

15.4.2 *Quality of Contributions*

The second most frequently discussed aspect refers to the quality of the contributions, submitted in writing online without immediate feedback or delivered in a meeting among other people who agree or disagree immediately. In the consultations in Pamplona, Bremerhaven, and Wennigsen, about half of the respondents see no difference; in Saragossa, it was 39%. Again, the onliners in Pamplona and Saragossa say online is more appropriate for higher quality. In Bremerhaven and Wennigsen, where some of the respondents answered the survey in the kick-off meeting, traditional ways of communication receive higher approval rates (Table 15.5).

Table 15.5 Citizens' perceptions of communication channels regarding quality of contributions

With regard to		Internet is better (%)	Traditional ways are better (%)	Both are equal (%)	NA (%)
Quality of the contributions of the participants	Pamplona ^a	37.2	5.5	51.8	5.5
	Saragossa ^b	42.4	1.8	39.2	7.6
	Bremerhaven ^c	20.4	25.7	49.6	4.4
	Wennigsen ^d	14.3	17.9	53.6	14.3

NA not applicable

^a *n* = 199

^b *n* = 158

^c *n* = 111

^d *n* = 48

In the course of the Vienna Charta, the preference for face-to-face-communication with regard to the quality and relevance of contributions increased from 45% at the beginning to 67% at the end. Accordingly, the number of those who said the Internet is better in this respect decreased from 12 to 8%.

Organizers in Wennigsen were able to compare the suggestions made in the kick-off meeting and online. Four of them then said there was no difference in the quality of the contributions; three said the quality was higher in the local meetings, and only one voted for the Internet in this respect. Also, the organizers of the Vienna Charta rated the quality of contributions in traditional formats as clearly higher (four out of six).

15.4.3 Deliberation

According to Coleman and Götze (2001), deliberative participation is about changing preferences; it is more likely that people change their mind in face-to-face-communication in direct verbal and non-verbal interactions than in an online consultation. However, only in Wennigsen did the majority of participants take this position (Table 15.6). In Saragossa, 44% say online is more appropriate; in Pamplona and Bremerhaven, 51% and 40%, respectively, see no difference between the two modes of communication.

In the before and after assessments by participants in the Vienna Charta consultation, a clear majority considered on-site talks better with regard to important deliberative elements. Moreover, the share of those preferring on-site talks increased significantly (Table 15.7).

All six organizers of the Vienna Charta agreed that the intensity of exchange among participants was higher in the local talks. Half of the organizers in Wennigsen said the readiness to change one’s own position and to find compromises is higher in traditional modes of communication; only one of them voted for online communication, and three said there was no difference.

Table 15.6 Assessments of communication channels regarding deliberation aspects in consultation projects

With regard to		Internet is better (%)	Traditional ways are better (%)	Both are equal (%)	NA (%)
Revise and change personal attitudes and opinions	Pamplona ^a	36.2	6.5	50.8	6.5
	Saragossa ^b	43.7	13.3	34.8	8.2
Readiness to change own position and find a compromise	Bremerhaven ^c	23.9	31.0	39.8	5.3
	Wennigsen ^d	8.9	42.9	32.1	16.1

NA not applicable

^a $n = 199$

^b $n = 158$

^c $n = 111$

^d $n = 47$

Table 15.7 Assessments of communication channels regarding deliberation aspects before and after experience in the Vienna Charta consultation

With regard to	Internet is better		Local meeting is better		Both are equal	
	Before (%)	After (%)	Before (%)	After (%)	Before (%)	After (%)
Deliberating arguments and opinions of others	14.4	8.3	45.2	58.3	40.4	33.3
Reflecting and changing own opinion	18.3	9.5	49.0	60.7	32.7	29.8

n before = 106; *n* after = 85

15.4.4 Social Relations and Community Building

Participation processes may also change the social relations between participating citizens, making them more intense. Citizens may want to find support for their personal position or proposal. Some proponents of public consultation hope that such a process may foster common political engagement among participants and that they develop the feeling of being a part of an active community.

Again, between Wennigsen and Bremerhaven, there are some differences in the assessment of online channels regarding the support for one's own ideas. While in Bremerhaven only a minority says participation in local meetings is more appropriate, in Wennigsen 27% take this position (Table 15.8).

By contrast, in the consultation on the Vienna Charta the vast majority of the participants consider meetings on-site better to develop contacts with other participants (Table 15.9), both before and after the exercise.

Organizers in the Wennigsen case take a somewhat different view: They disagree on which format is more appropriate to make contact with other participants. However, a clear majority considers on-site meetings more appropriate to get support for one's own ideas and to develop a feeling of cooperation.

In the case of the Vienna Charta, all six organizers agree that local talks were better with regard to the intensity of exchange between participants and for community building. The results among the experts on climate change policy and participation

Table 15.8 Citizens' perceptions of communication channels regarding social relations

With regard to		Internet is better (%)	Local meeting is better (%)	Both are equal (%)	Undecided/not specified (%)
Getting support for own ideas from similar minded people	Bremerhaven ^a	40.7	15.0	40.7	3.5
	Wennigsen ^b	23.2	26.8	35.7	14.3

^a *n* = 109

^b *n* = 48

Table 15.9 Citizens’ perceptions of communication channels regarding contact potentials before and after usage in the Vienna Charta consultation

With regard to	Internet is better		On-site is better		Both are equal	
	Before (%)	After (%)	Before (%)	After (%)	Before (%)	After (%)
Getting into contact with other participants and organizers	6.7	9.6	81.7	81.9	11.4	8.4

n before = 106, *n* after = 85

are similar: Two thirds share this view and say that on-site meetings are better for community building; only 9% find online is better.

Altogether, the results from these different surveys do not present a clear and consistent picture of the advantages and disadvantages of different communication channels in public consultation and collaboration processes. One outcome is that media richness theory does not deliver sufficient explanations for the differences encountered. Therefore, we can conclude:

- The more or less objective characteristics of the communication channels are not decisive in the participants’ and organizers’ views. Although online consultations do not include nonverbal elements, they are considered as equal or even more appropriate for getting support, making contact, and other aspects of social relations by a smaller or larger part of respondents.
- The characteristics of the participants play a relevant role in such assessments. As regards the mostly senior participants in Wennigsen, we find the results of the survey in line with the supposed preferences for on-site meetings. But with regard to the voting phase, we notice a difference between the assessment in the survey and actual behavior later on. If there is a high motivation to participate, people find a viable way, even if in general they have other preferences.
- The most striking insight is the granularity of the spatial dimension. We thought of Wennigsen and Bremerhaven as local consultations. But to participants, it obviously makes a difference whether there is a meeting place within walking distance or whether they have to cross their city and perhaps change the bus or tram, in particular when meetings take place in the evening. It seems that preferences for online channels increase with the size of the spatial distribution of the target group.
- From a methodological point of view, we found that previous experiences influence the assessment. Responses by people who have only participated in an online consultation differ from those who take part in a kick-off meeting, and the assessment at the end of a process in some aspects is different from that at the beginning. Assessments are most valid if they are delivered by people who have just had the same practical experience.

15.5 Comparing Perceptions and Observations of a Two-Channel Consultation

The perceived advantages of communication channels before and after usage represent the subjective preferences of the respondents. Our data so far show that these preferences are not stable and general but highly contingent on the subject, the role taken in the process, and the time of responding. In addition, respondents are overstretched if they are asked to compare two modes of communication when they have only used one in a particular process. When they have used both channels, the cases presented so far centered on different subjects, or participants were asked in different phases of the whole process. In other words, the usual methods of assessing the comparative advantages of online communication in participation processes by design do not deliver valid data, and, therefore, the research design has to be adapted. Accordingly, in the case of the consultation on the government program of the Social Democratic Party (SPD) in the German Federal State of Bremen, the following steps have been taken towards this aim: Firstly, the two phases of collecting ideas and drafting the program were carried out in meetings and online in parallel, and secondly, in addition to the perceptions of organizers and participants, we also compared observations made at meetings and content analyses of online discussions dealing with the same subjects.

As described in Chap. 5, the consultation process was organized by the party's subchapter office by nominating members as chairpersons of six working groups covering the different subject areas of the program. These working groups, open to party members only, were to elaborate basic points for the government program, which was to be presented in the forthcoming election campaign.

- In October and November 2010, these basic points were presented for discussion at seven local meetings open to the public and with invited representatives from civil society.
- In addition, seven online fora on the Internet were opened for public discussion of these basic points.
- Based on this feedback, in December 2010, the board drafted the government program, presented it at a press conference, sent the text via mail to the delegates of the coming assembly, and also published the text on the Internet with a request for comments.
- On February 26, 2011, the draft was presented to the party's state assembly for approval. Comments from the Internet discussion were treated in the same way as demands for revision put forward by the delegates in the assembly.

As in the case of the Vienna Charta organizers, working group members and participants in the local meetings and the online consultation were asked to compare the two modes of communication with regard to personal efforts, influence, contacts, and community building:

- All four groups of respondents say that the Internet is better with regard to personal efforts; participants of the online consultation do so to a notably higher degree than participants in the local meetings (80% vs 41%).
- The majority of organizers (70%), working group members (63%), and participants in the local meetings (66%) say the quality of contributions face-to-face is better, while 25% of the onliners say online is better and 40% see no difference.
- Between 65 and 76% of the organizers and working group members also say that local meetings are better with regard to contacts among participants and community building.
- Concerning the number and the representativeness of the participants, there is no clear preference for online or offline in any of the four respondent groups.

As well as these opinions from interviews and surveys in the consultation phase, it was possible to compare the discussion of the basic points in the meetings with the discussion of the same points in the Internet fora with regard to content-related criteria. Additionally, the organizers have been asked for their own assessment of the same aspects of the discussion in the meetings and the online consultation.

Drawing on Winkler (2007) for comparing the face-to-face and the online discussion of the basic points, a conceptual scheme has been developed. It focuses on aspects of the deliberative quality of discourses, such as rationality and reciprocity, on the length and tone of contributions as well as on personal concerns and more. These dimensions have been operationalized for observation of the face-to-face discussion in the local meetings as well as for text analyses of the online fora.

Observation was conducted in three of the meetings, which dealt with the issues of (1) ecological growth, (2) education, and (3) work and related basic points for the party’s government program. The situation in each case was quite similar. Members of the working group who had drafted the basic points chaired the session, with the public seated in front of them. Authors of the basic points and two or three invited experts presented and explained the points and answered questions put by participants. In the third meeting, the respective minister in office moderated the discussion. In the online fora, there was no moderation. Users were only able to write comments on each basic point.

As there was no registration for the online discussion, the number of participants is not known, only the number of contributions, which is remarkably low (Table 15.10). However, in October and November, there were 2800 visits to the

Table 15.10 Outreach of the consultation on the Social Democratic Party government program by communication channels

	Local meetings (LMs)			Online fora (OFs)		
	LM1	LM2	LM3	OF1	OF2	OF3
Topics	Ecological growth	Education	Work	Ecological growth	Education	Work
<i>n</i> participants	17	53	17	NA	NA	NA
<i>n</i> contributions	36	37	36	23	29	11

NA not applicable

Table 15.11 Rationality of contributions to the consultation on the Social Democratic Party government program

	LM1 (%)	LM2 (%)	LM3 (%)	OF1 (%)	OF2 (%)	OF3 (%)
Expression of opinion	5.6	5.5	2.8	52.2	24.2	9.1
Reasoned argument	86.1	81.1	94.4	43.5	72.4	81.8
Unclear	8.3	13.4	2.8	4.3	3.4	9.1
<i>n</i>	36	37	36	23	29	11

LM local meeting, *OF* online forum

web site, covering a total of seven fora. The survey at the public meetings showed that only half of the participants there also contributed to the online discussion, and in addition, very few people participated online only.

To assess and compare the degree of rationality of the contributions, these were classified by whether they were an expression of a personal opinion of the author or a reasoned argument (Table 15.11).

For all three themes, there was a higher share of reasoned arguments in the local meetings, while in one online forum there were more expressions of opinion than reasoned arguments. This finding shows that the two modes of communication should not be compared without reference to the respective subjects. Ten organizers were asked to assess the rationality of contributions on a five-point scale. Here too, the average score was higher for local meetings (3.6) than for online discussions (3.2).

There is a clear difference between the two modes of communication with regard to recursivity, that is, whether participants make reference to contributions by other participants and are open for multilateral communication (Table 15.12). The results show that it is the case to a much higher extent in local meetings than in online fora. This should be no surprise as in a local meeting each speaker has heard the contributions of others preceding him, whereas online you can write a statement without having read the other ones. However, organizers tend to have a different view. On a five-point scale, online discussions get an insignificantly higher score (2.6 vs 2.4).

As the consultation aimed to draft a government program, organizers preferred suggestions for concrete phrases to general comments on the basic issues. Once more, the differences between the three discussions within each group are greater

Table 15.12 Recursivity and concreteness of contributions to the consultation on the Social Democratic Party government program

	LM1 (%)	LM2 (%)	LM3 (%)	OF1 (%)	OF2 (%)	OF3 (%)
Contributions referring to other contributions	94.4	73.0	88.9	17.4	37.9	54.5
Concrete phrases	13.9	43.2	25.0	47.8	10.3	0
<i>n</i>	36	37	36	23	29	11

LM local meeting, *OF* online forum

than the difference between the two modes (Table 15.12). However, organizers, again using a five-point scale, rate the concreteness of the contributions in the on-line fora higher than that in the local meetings (3.5 vs 3.0).

Regarding standards of civility, there was not a single case of offending contributions in the local meetings, and only 2 out of 29 in online forum number 2, but no case in the other two online discussions. Accordingly, organizers were very content in this regard and rated the politeness of the contributions in the on-site meetings slightly better than the online contributions (4.4 vs 4.1). In the interviews, they admitted that they had expected greater problems with offending contributions as there was no registration and no moderation.

Finally, we asked for the innovativeness, that is, whether the consultation has yielded any new ideas which had not been considered when drafting the basic points. This aspect could not be assessed by observation, only by asking the organizers. The resulting score was the same for both communication modes (3.0 on a five-point scale) and suggests that neither channel is superior when it comes to eliciting new ideas.

Altogether, the comparison of three consultations on the same subject with the same goals does not show clear differences between the two modes of communication. Rather, the differences within each mode with regard to most aspects are greater than the ones between them. This may be because the basic points for the different subjects (ecological growth, education, and work) may have been of different quality, have attracted people with different communication styles, and due to minor differences in the moderation in the three local meetings.

The comparison so far is related to the first phase of the consultation, that is, on collecting comments on the basic points. We did not compare the different modes of communication in the second phase, when there was a request for changes to the draft program before and at its final enacting at the official party assembly. In an interview, the chairman of the Bremen chapter summarized his view on the additional value of the online consultation in three points:

- The main objective of the first consultation phase was to see how the basic points were likely to be accepted by the electorate in the forthcoming election. The board had hoped that via the additional online channel, people could be involved who certainly would not come to one of the public meetings. But this happened only to a very small degree. Although online participation requires less effort than attending a meeting, this is not sufficient reason to participate if there is no general interest in politics and, in particular, in the program of the SDP.
- For the working group chairmen, it was much easier to get a feeling of approval for the proposed points in the meetings by looking at the nonverbal reactions of all participants on every single contribution than by browsing through the written comments with little discursivity in the online fora. Therefore, some of the working group chairmen did not see any additional value to the online channel.
- In the second phase, requesting comments on the draft before the final ballot, there was an unexpected advantage as people who were not delegates to the assembly checked the text online and reported contradictions and mistakes in the

detailed phrasing. One point in particular saved the party from an unintended mistake. One of the program points was the equal treatment of same-sex partnerships with matrimony in legal terms. But in the draft program, it read the SDP would adjust matrimony to same-sex partnerships, that is, take the same-sex partnership as the rule and adapt matrimony with regard to legal regulations.

Most important to the chairmen was the high degree of final acceptance of the program by the delegates of the assembly without a single dissenting vote. In his view, the online consultation leads to a higher level of legitimation because it reaches more people and leads to a greater diversity of opinions, has a lower level of social control than meetings and therefore allows for more critical comments, and comments are much easier to write online than putting a written request for change at the assembly.

As the comments submitted online have been introduced to the assembly in the same way as requests by delegates, they thought that any item which had not received critical comments should not be questioned by them.

In summary, the organizers who were actively involved give a mixed assessment on the cost–benefit relation with regard to the content-related aspects, while to the political leader the unanimous approval of the assembly is the most important benefit, which in his view justifies the additional efforts.

15.6 Comparing the Impact of Climate Protection Panels

Comparing observations instead of or in addition to reported perceptions is an advance with regard to validity—even if it does not yield clear-cut results. The observations reported in the previous section still include a certain degree of subjective interpretation by the observer, in this case by two different members of the research team. Observer influence can be avoided when the comparison relates to aspects which can be definitively counted. Such a research design has been developed within the e2democracy project with the climate protection panels, as described in Chap. 7. In this case, we can compare the impact of the collaboration in terms of emission savings measured in CO_{2e} as well as the dropout rates in online and PTT mode panels over time.

We may expect higher achievements and less dropout for the PTT mode of participation, that is, being called regularly to collect the data via telephone by a member of the project team and receiving the scores by mail. Thaler and Sunstein (2008), referring to a similar experiment carried out by Schultz et al. (2007) in California, argue that social control by being compared to other citizens has an impact on the saving behavior. In a similar way, panelists might feel under control by the project team when they are called personally on the phone and are asked to report their consumption data in a two-way communication with a knowledgeable person instead of entering the data in a database. The database gives an immediate feedback on the individual scores, shows where there is an improvement or a deterioration,

and puts these scores in relation to other panelists. But this feedback allows for rational self-control, while the telephone mode includes social control by another person with some authority. In other words, if panelists report their consumption data to a person, they may wonder what this person thinks about their performance and therefore try to achieve some savings and to report positive results in order to avoid disappointing this person. However, the longer the monitoring period, the less likely a higher effort will be maintained by a panel member just because of this sort of control by reporting to an external person.

15.6.1 Comparison of Emissions

As for the general impact analysis, we can compare the savings in relation to the communication channels both on a collective and an individual level. On the collective level, we compare the average savings in the two subgroups in each regional panel (Table 15.13).

The data do not yield a clear-cut picture, and the low number of cases at this level of disaggregation forces us to take the results with caution. In Bregenz, Bremen, Wennigsen, and Pamplona, onliners were more successful; in the three other panels, PTT communication (telephone and mail) is associated with higher savings. In the general impact analysis, the number of flights by panelists played an important role, and therefore a comparison was also undertaken without considering the emissions of flights. With regard to the mode of communication, the distribution slightly changes: PTT communication yields better results in four of the seven panels.

Another way of assessing the impact of the collaborative participation process is comparing the number of panelists in each case that achieved the 2% savings target and of those who at least improved their personal CO_{2e} balance. Because of the small sample size of some panels, we present the absolute number of panelists who

Table 15.13 Carbon equivalents (CO_{2e}) savings^a achieved in citizen panels on climate protection by communication channels

Region	Total savings		Savings with- out flights	Total savings		Savings with- out flights
	Online (<i>n</i>)	Online (%)	Online (%)	PTT (<i>n</i>)	PTT (%)	PTT (%)
Bregenz	9	-11.2	-12.1	12	-3.8	-5.4
Mariazell	10	+3.3	+15.6	11	-8.3	-1.5
Bremen	36	-4.0	-7.2	13	+14.2	+7.5
Bremer- haven	16	-3.6	-2.3	13	-10.6	-5.4
Wennigsen	23	-9.1	-3.4	15	-0.4	-5.6
Pamplona	26	+8.4	-2.6	47	+10.4	+0.6
Saragossa	86	-4.4	-1.8	93	-8.8	-3.4

PTT post, telephone, and telegraph companies

^a Change rates of average emission levels over full participation period (means)

Table 15.14 Success of citizen panels on climate protection by communication channels

Region	Panelists that achieved the 2% target		Panelists that improved their balance <2%	
	Online (<i>n/N</i> /%)	PTT (<i>n/N</i> /%)	Online (<i>n/N</i> /%)	PTT (<i>n/N</i> /%)
Bregenz	5/9/55.6	8/12/66.7	2/9/22.2	2/12/16.7
Mariazell	5/10/50.0	6/11/54.5	1/10/10.0	2/11/18.2
Bremen	21/36/58.3	2/13/15.4	4/36/11.1	2/13/15.4
Bremerhaven	10/16/62.5	11/13/84.6	1/16/6.3	0/13/0.0
Wennigsen	18/23/78.3	10/15/66.7	1/23/4.4	3/15/20.0
Pamplona	6/26/23.1	13/47/27.7	3/26/11.5	2/47/4.3
Saragossa	36/86/41.9	39/93/41.9	8/86/9.3	7/93/7.5

PTT post, telephone, and telegraph companies, *n* target size, *N* corresponding subpanel size

have achieved the respective target (*n*) and the size of the corresponding sub-panel (*N*) as well as the percentage of successful panelists (see Table 15.14).

As regards the 2% target, only in Bremen and Bremerhaven are there larger differences of about 40 and 22 percentage points between the two modes of communication, but in different directions. In Bremerhaven, more panelists using the PTT mode were successful, while in Bremen, a much higher percentage of panelists using the online channel achieved the 2% target. For panelists who improved by less than 2%, there are only small differences in both directions.

This mixed pattern leads us to conclude that the communication channel does not have a direct and distinct influence on the impact of the collaboration in terms of CO_{2e} reduction, in whatever way this is measured. If we consider our hypothesis, the perceived control by the project team members when reporting consumption data does not seem to be so strong that it leads to changes in CO_{2e}-relevant consumption behavior. This is in line with the general conclusion that the Thaler and Sunstein theory of changing behavior through norm control and competition refers to an important but not sufficient factor for changing consumption patterns (see also Chaps. 11 and 12).

15.6.2 Comparing Accuracy

Another aspect where the mode of communication may have an influence is the accuracy of the data reported by panelists. A check for differences in accuracy levels has been made by comparing the number of total entries and the number of valid entries at the beginning and at the end of the monitoring period. Validity has been assessed in terms of plausibility and consistency (see Chap. 8).

The comparison of the seven panels showed that at the beginning, in five of seven panels, there were up to 16% invalid measurements among those reporting online, but in only one panel among the reports in PTT mode, there were 6% invalid entries. This may be due to the possibility that reporting data to a project member by phone offered the opportunity to clarify questions, which onliners did not have.

However, the final measurements with no invalid entries left shows that onliners have improved their measurements during the project. So, the conclusion is not that online reporting in general delivers less valid results, but that data collection by an interviewer from the beginning provides support for valid measurement, while onliners have to learn over time.

15.6.3 Comparing Dropout Rates

Almost all panels lose some of their members over time. For studies with an annually repeated data collection, a dropout rate (“panel attrition”) between 2 and 50% has been observed (Lee 2003). A research design requiring data collection on a bimonthly basis over up to 2 years without or with only very modest financial incentives certainly makes still higher demands on panel members. Therefore, according to the literature, an attrition rate of more than 50% had to be expected (see Chap. 7). Most important factors influencing continuous participation are the benefits received and the efforts connected with participation. In this particular case, a high number of panelists was already lost before the baseline measurement, that is, many people registered but did not enter any consumption data even after a reminder. The different communication channels are supposed to have great influence on this development. Online registration was easy, but there was no direct support when entering data for the first time. So, onliners either did not try to enter data at all or gave up when they encountered problems with the online entry form. By contrast, those opting for PTT communication have been called by the project team after leaving their phone number at the kick-off meeting or having sent a postcard. Thus, they would have to say “no” when the project team called and asked for the data. Accordingly, in the PTT communication mode group, the loss before the first data entry in most panels was only one third of the loss among onliners; in Bregenz, even as low as one tenth (Table 15.15).

Similarly, it was much easier for onliners to stop entering data. They received an e-mail reminding them that a new measurement was due. But they could just ignore this and drop out without any justification, while the panelists in the PTT mode were called by project team members with whom they were in contact for some time. They would have had to declare that they would no longer participate and certainly would have had to give some reasons. So, the barrier to dropping out was much higher for them than for onliners due to the mode of communication.

For measuring the dropout, we can relate the number of panelists who participated in the final measurement to the number of participants at registration or at the baseline measurement.

As expected, in all panels, the dropout rate of onliners is significantly higher. The rates are up to 86% in relation to the number of participants registered and still up to 61% in relation to the real panel members who have started entering data. Among those communicating in PTT mode, however, dropout rates were less than half as big; in the German subpanels, even extremely low.

Table 15.15 Dropout rates of citizen panels on climate protection by communication channels^a

Region	Registered		No data entered after registration		Dropout in relation to registration		Baseline		Dropout in relation to baseline	
	Online (<i>n</i>)	PTT (<i>n</i>)	Online (%)	PTT (%)	Online (%)	PTT (%)	Online (<i>n</i>)	PTT (<i>n</i>)	Online (%)	PTT (%)
Bregenz	46	18	50.0	5.6	80.4	33.3	23	17	60.9	29.4
Mariazell	42	20	40.5	35.0	73.2	45.0	25	13	56.0	15.4
Bremen	181	32	37.0	31.3	77.9	37.5	114	22	64.9	9.1
Bremerhaven	32	16	34.4	12.5	50.0	18.7	21	14	23.8	7.1
Wennigsen	92	22	34.8	18.2	71.7	22.7	60	18	56.7	5.6
Pamplona	186	74	64.0	27.0	86.0	36.5	67	54	61.2	13.0
Saragossa	278	120	34.5	10.0	68.3	22.5	182	108	51.6	13.9

PTT post, telephone, and telegraph companies

^a % = Percentage in relation to *n* in corresponding subpanel

Of course, there are many factors influencing dropout rates (see Chap. 13), but it is obvious that the mode of communication has a strong influence. The claim that online participation attracts a larger number of people and keeps them active may apply to consultations which are carried out at one or two points in time, but as these figures show, not for a cooperation process which lasts for a whole year or even longer. The practical conclusion from this analysis is that panels which include the reporting of data can reduce the dropout rate when they use a proactive approach by calling the panelists via the telephone, even if the feedback may be provided by e-mail online.

15.7 Conclusions

Most of the sources quoted in the introduction at least implicitly maintain that the advantages of the “e” in e-participation with regard to the number of participants as well as the quality of the process, and the results are universal. In the e2democracy project, we have employed a mix of different research methods and designs to test these claims, that is, surveys on preferences and comparative assessments, observations of discussions, document and content analysis, and quantitative measurements of tangible impacts. Based on evidence from six cases of three different kinds of consultations and seven collaborative citizen panels, we found no single qualitative advantage of online communication compared to traditional modes of communication that occurred in all processes. Rather, where we looked at two or more similar participation processes, the differences between the outcome and impact of online communication most often were bigger than those between online and traditional modes. This points to a great influence of person- and role-related characteristics in the conceptual framework presented in Sect. 15.3. While this is already known from the literature, we found that the details of the measurement itself contribute to

additional variance. One should not generalize research findings without reflecting the methods by which they have been generated.

Surveys of preferences for different communication channels are most frequent but deliver the least valid and least reliable results as they are highly volatile.

- Reported preferences and perceptions of advantages are biased if respondents have practiced only one of the two modes which they are asked to compare.
- Before and after comparisons show that the assessment changes due to the actual experience.
- Reported preferences do not allow for conclusions on future action. For example, in the Wennigsen and Bremerhaven cases, respondents who reported the advantages of on-site voting did not choose this option and voted online instead.

Comparing the quality of online and face-to-face discussions by observation and content analysis delivers more valid but still no clear-cut results. There are too many influencing factors, for example, the rationality, the concreteness, the discursivity, or the length of contributions that cannot be controlled to isolate the influence of the communication channel.

The same is true with regard to the influence on the impact in terms of achieving CO_{2c} savings. The only general effect in all of the seven climate protection panels is the lower dropout rate when panelists are called by the telephone instead of taking their own initiative to report their bimonthly consumption data online. However, only a minority was ready to participate this way.

Against this background, we cannot provide clear evidence for the general claims that online communication is superior to traditional ways and helps to overcome barriers in political engagement and participation. Rather, we would not encourage any organizer to substitute traditional modes of communication completely by an online channel only. However, an additional online channel is necessary for exhausting the participation potential.

Accordingly, the vast majority of the organizers interviewed in the e2democracy project said that in the future they would offer a combination of communication channels, a media mix, a so-called blended participation. This preference is not based on any well-founded cost-benefit analysis but only on the hope of getting more people involved and achieving a higher degree of representativeness of participants and, thereby, a higher legitimation of the results. Offering a media mix is undoubtedly more expensive than offering an online channel only, and there may be a demand for justifying additional expenses.

We cannot encourage the authorities deciding about budgets for participation to expect well-founded empirical evidence which informs them exactly in which cases which kinds of channels should be offered. Rather, we recommend blended participation as the rule. When organizers are to decide which communication channels they should offer in a particular consultation or cooperation process, they have to make assumptions about the channel choice of the members of their target group. The model presented in the first section of this chapter supposes a high degree of complexity of the task-related and person-related factors influencing this choice. It is unlikely that further research in the future will discover stable relations between

these factors, which allow for a good prediction of the channel choices of a heterogeneous group of people addressed. On the contrary, all the data presented in this chapter show that there are always some participants who prefer one channel and others who prefer the other one. So, the simple conclusion is that if both groups are to be involved, both channels have to be offered.

References

- Coleman S, Gøtze J (2001) *Bowling together: online public engagement in policy deliberation*. Hansard Society, London
- Daft RL, Lengel RH (1984) Information richness: a new approach to managerial behavior and organization design. *Res Organ Behav* 6:191–233
- Davis FD (1989) Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Q* 13(3):318–340
- Davis A (2010) New media and fat democracy: the paradox of online participation. *New Media Soc* 12(5):745–761
- Di Gennaro C, Dutton WH (2006) The internet and the public: online and offline political participation in the United Kingdom. *Parliam Aff* 59(2):299–313
- Dutton WH (1999) *Society on the line: information politics in the digital age*. Oxford University Press, Oxford
- Fulk J, Schmitz J, Steinfeld CW (1990) A social influence model of technology use. In: Fulk J, Steinfeld CW (eds) *Organizations and communication technology*. Sage, Newbury Park, pp 117–140
- Gibson R, Cantijoch M (2013) Conceptualizing and measuring participation in the age of the internet: is online political engagement really different to offline? *J Polit* 75(3):701–716
- Johannessen MR, Skiftenes Flak L, Sæbø Ø (2012) Choosing the right medium for municipal eParticipation based on stakeholder expectations. In: Tambouris E, Macintosh A, Sæbø Ø (eds) *ePart 2012*. Springer, LNCS 7444, pp 25–36
- Kaye BK, Johnson TJ (2003) From here to obscurity? media substitution theory and traditional media in an on-line world. *J Am Soc Inf Sci Technol* 54(3):260–273
- Kubicek H, Schmid U, Wagner H (1997) *Bürgerinformation durch 'neue' Medien? Analysen und Fallstudien zur Etablierung elektronischer Informationssysteme im Alltag*. Westdeutscher Verlag, Opladen
- Kubicek H, Lippa B, Westholm H (2009) *Mediennix in der lokalen Demokratie*. edition sigma, Berlin
- Lee U (2003) Panel attrition in survey data: a literature review. CSSR working paper no. 41
- Macintosh A (2003) Using information and communication technologies to enhance citizen engagement in the policy process. In: OECD (ed) *Promise and problems of e-democracy: challenges of online citizen engagement*. OECD, Paris, pp 19–142
- Oser J, Hooghe M, Marien S (2012) Is online participation distinct from offline participation? A latent class analysis of participation types and their stratification. *Polit Res Q* 66(1):91–101
- Pietersen WJ (2009) *Channel choice: citizens channel behavior and public service channel strategy*. Thesis. University of Twente
- Pietersen WJ, van Dyke J (2007) Channel choice determinants. An exploration of the factors that determine the choice of a service channel in citizen initiated contacts. In: *Proceedings from the 8th annual international digital government research conference*, pp 173–182
- Pratchett L, Durose C, Lowndes V, Smith G, Stoker G, Wales C (2009) *Empowering communities to influence local decision making: a systematic review of the evidence*. Department for Communities and Local Government, London. <http://www.ict-21.ch/com-ict/IMG/pdf/1241955Empowering-communities%20to-influence-local-decision-making.pdf>. Accessed 28 July 2015

- Reddick CG (2005) Citizen-initiated contacts with government. *J E-Gov* 2(1):27–53
- Royo S, Yetano A, Acerete B (2014) Perceptions about the effectiveness of e-participation: a multistakeholder perspective. In: Rodríguez-Bolívar MP (ed) *Measuring e-government efficiency*. Springer, Berlin, pp 257–275
- Schlozman KL, Verba S, Brady HE (2010) Weapon of the strong? participatory inequality and the internet. *Perspect Polit* 8(2):487–509
- Schultz PW, Nolan JM, Cialdini RB, Goldstein NJ, Griskevicius V (2007) The constructive, destructive, and reconstructive power of social norms. *Psychol Sci* 18(5):429–434
- Thaler RH, Sunstein CR (2008) *Nudge—improving decisions about health, wealth, and happiness*. Yale University Press, New Haven
- Winkler R (2007) *Electronic participation: theoretical reflections and empirical assessment—the EU’s online platform ‘Your Voice in Europe’*. Thesis. University of Vienna, Vienna