Beyond just politics: A systematic literature review of online participation

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Abstract

This paper presents a systematic literature review of the current state-of-research on online participation. The review draws on four databases and is guided by the application of six topical search terms. The analysis strives to differentiate distinct forms of online participation and to identify salient discourses within each research field. We find that research on online participation is highly segregated into specific sub-discourses that reflect disciplinary boundaries. Research on online political participation and civic engagement is identified as the most prominent and extensive research field. Yet research on other forms of participation, such as cultural, business, education and health participation, provides distinct perspectives and valuable insights. We outline both field-specific and common findings and derive propositions for future research.

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1. Introduction

A recent review of theoretical perspectives in communication and Internet research identified "online participation" as one of six emerging global themes (Rice and Fuller, 2013). Rice and Fuller found that the number of articles addressing participation increased dramatically in the previous decade — in fact, among the six identified themes, the topic of participation experienced the strongest growth in interest. Yet, many studies lack a clear understanding or definition of online participation. Furthermore, among studies addressing online participation, few subtopics dominate the agenda — most notably aspects of political participation and civic engagement. Such findings call for a differentiated, more comprehensive look at online participation and a further clarification of the concept. In this contribution, we present the results of a systematic literature review on online participation. We address the following research questions: *"Which forms of online participation can be distinguished in current research? What are salient discourses and the current state-of-research on each form of online participation?"*

Accordingly, the first goal of our paper is to distinguish different forms of online participation and identify relevant sub-discourses. Second, we discuss the current state-of-research for each identified form. Third, we conclude the paper by presenting some research propositions that may serve as guidance for future empirical research. Thereby, this study will serve to address the current lack of common understandings, definitions and conceptual frameworks in the field of online participation research — and allow for a more comprehensive perspective on the diverse forms and aspects of online participation.

2. Online participation: The concept

What is "online participation"? Despite its popularity, the concept still remains rather vague and ill-defined. To date, there is no established or widely accepted and applied definition of the term. In fact, many studies on online participation suffer from a lack of a clear conceptual and theoretical foundation (Hoffman, 2012). In a recent discussion of the concept of online political participation, Gadras and Greffet [1] note how difficult it is "to distinguish between participating, discussing, engaging and other activities such as reading, particularly, but not specifically, in an online context." Jenkins [2] proposes that participation — both on and off the Web — constitutes "a property of culture". Accordingly, a "participatory culture" is suggested to be one "1) with relatively low barriers to artistic expression and civic engagement; 2) with strong support for creating and sharing one's creations with others; 3) with some type of informal mentorship whereby what is known by the most experienced is passed along to novices; 4) where members believe that their contributions matter; 5) where members feel some degree of social connection with one another".

Although not expressly defining the concept of "online participation", Jenkins' description encompasses a number of elements or definitional dimensions frequently encountered in online participation research. We propose that three such dimensions are of critical importance to the concept of "online participation": (1) The *creative* dimension: online participation is commonly associated with the creation and sharing of content on the Web; (2) The *social* dimension: the creation and sharing activity is commonly embedded in some form of social group or community; and, (3) The *motivational* dimension: online participation is commonly associated with the pursuit of a social purpose.

In current definitions, one of these dimensions may feature more prominently than others. A number of contributions focus on content creation and sharing (Hargittai and Walejko, 2008). Its creative nature clearly distinguishes online participation from mere consumption or aimless surfing on the Web: Online participation entails an increased level of activity, effort, or action. It is more resource-intensive than mere consumption [3], it also requires a more extensive skill set (Hargittai, 2002; van Dijk, 2005).

Yet, it is easy to grasp the equal importance of the social and motivational dimensions of online participation if we consider the question of what Internet "participants" actually *participate in*. Whether Internet users sign political petitions on the Web, are engaged in fan groups, edit Wikipedia articles, create and upload artistic Vimeo videos, or answer a question on an online health forum; all of these activities can be seen as a form of online participation because they are geared towards a broader audience, some kind of social group or community (Schradie, 2011). Thereby, online participation goes beyond computer-mediated interpersonal communication (Hoffman, 2012). A definition provided by Wikipedia (2014) even focuses strictly on the social embeddedness of online participation: "Online participation is used to describe the interaction between users and online communities on the Web."

Finally, the concept of online participation implies a motivation to affect others, to influence or change the status quo, even if only in a very minor way. This dimension is the most apparent in the context of political participation. Verba, *et al.* [4], for example, define political participation as an "activity that is intended or has the consequence of affecting, either directly or indirectly, government action". In a similar vein, Park and Perry [5] define (civic) participation as "individual and collective engagement in public affairs". As Jenkins (2006) points out, online participants need to believe that their contribution matters, that someone or something will be affected by their contribution.

For the purpose of this paper, we propose the following definition of "online participation" encompassing all three dimensions discussed above: *Online participation is the creation and sharing of content on the Internet addressed at a specific audience and driven by a social purpose*. It should be noted that all three definitional dimensions are not necessarily equally salient in all forms of online participation. Users can, for example, participate online by e-mailing a complaint to a politician, which, at first glance, constitutes a mere act of interpersonal communication, but is clearly driven by a social purpose. Creating crowdsourced art, instead, may not follow an instantly apparent social purpose, but engages a social audience in a clearly creative act. Finally, running a blog on feminist culture may not address a very clearly defined audience, yet constitutes a both creative and purpose-driven use of the Internet.

Over the past years, many studies have shown that socio-demographic variables influence individuals' ability to access the Internet and use online media (DiMaggio, *et al.*, 2003; van Dijk, 2006; Hargittai, 2002, 2010; Hargittai and Hinnant, 2008; van Deursen and van Dijk, 2010; van Dijk, 2005; Zillien and Hargittai, 2009). Increasingly, though, research interest is turning to the question of what individuals actually *do* once they're online: How (inter)active, productive or capital-enhancing are various Internet uses? Which users are especially prone to using the Web in a capital-enhancing manner? In other words, research interest is migrating from the 'digital divide' to the so-called 'participation divide' (Blank and Reisdorf, 2012; Correa, 2010; Hargittai and Walejko, 2008; Schradie, 2011). Van Deursen and colleagues (2014) discuss how active and participatory Internet uses lead to increased economic, social and cultural benefits.

While these findings indicate that online participation can have important social consequences, recent studies also indicate that the effect of socio-demographic antecedents on online

participation (as well as its outcomes) may actually vary by the form of participation under observation (Blank, 2013; Hoffmann, *et al.*, 2014; van Deursen, *et al.*, 2014). In other words: The 'participation divide' may differ in width and shape depending on the social domain of participation. Accordingly, research is beginning to explore the multidisciplinary nature of online participation: A 2014 pre-conference on the current state of digital divide research organized by the International Communication Association (ICA) featured sessions focusing on domains of Internet use as varied as education, entertainment or health. In summary, all of these recent developments document the rising importance of the 'online participation' construct in Internet and communication studies. They also document the complexity of the issue at hand and the variety of perspectives applied to it.

By systematically reviewing the current literature on online participation, this study will provide an overview of the state-of-research on online participation. It will differentiate forms of online participation currently under observation and identify both distinct questions or findings and common themes emerging across disciplinary boundaries. Aside from suggesting promising avenues for future research, this study is also intended to contribute to the understanding and definition of the concept of 'online participation' and the development of a theoretical foundation or framework underlying this dynamic research domain (*cf.*, Rice and Fuller, 2013). Defining the concept is one important step in this direction. Identifying sub-fields of research and common themes is another.

3. Method: Systematic literature review

A systematic literature review requires the specification of conceptually guided keywords. These keywords are then used to search fitting databases and to reveal a holistic corpus of literature on a given topic. Out of this population, the authors select the relevant studies based on clearly defined criteria (Denyer and Tranfield, 2009; Jesson, *et al.*, 2011; Webster and Watson, 2002).

For the literature review presented in this paper, we searched four *databases*: ISI Web of Knowledge (WOK), ProQuest, EBSCOhost, and Mendeley. WOK is often used for systematic literature reviews because it is relatively comprehensive (Denyer and Tranfield, 2009). However, we opted for adding other databases to assure maximum coverage of current research. Both ProQuest and EBSCOhost allow the search of a number of distinct databases. We used the meta-search option that aggregates results across all databases. Finally, Mendeley was included to allow for a more user-centered literature selection.

Only peer-reviewed journal articles and conference proceedings in English were considered. Again, the four chosen databases were assumed to guarantee a broad and exhaustive overview of the peer-reviewed literature. Of course, focusing on the peer-reviewed literature necessarily excludes a number of more recent studies and important contributions contained in the grey literature. A more comprehensive overview of these contributions would be possible by employing tools such as Google Scholar. For an overview of the sub-domains of online participation research as well as salient discourses within these domains, the peer-reviewed literature was held to sufficiently represent the state-of-research.

Six keywords were employed in the search process and applied to the studies' titles: "(**online** OR **Internet** OR **digital** OR **social media**) AND (**participation** OR **engagement**)". The first four terms were intended to focus the search results on research addressing online or Internet phenomena, the second two terms further focused the search results on studies addressing any form of participation. Overall, the terms were chosen so as to yield as wide a choice of studies as possible potentially pertaining to online participation. Other, additional search terms, such as "Web" or "Web 2.0" were considered, but eventually dropped for the sake of parsimony as their inclusion did not add to the identified research corpus.

Applying the search terms to the studies' titles alone constitutes an important limitation of the review. A number of contributions would by necessity be excluded from the review if their titles did not indicate that they address some aspect of online participation. This approach was chosen because, first, it resulted in a number of hits large enough to be considered a reliable representation of the research field, and because, second, an application of the search terms to both the studies' titles and abstracts resulted in an exponential increase in hits overwhelmingly not pertaining to the issue at hand (*i.e.*, the quality of the search results was significantly lowered, necessitating even more selective interventions by the authors, rendering the analysis less replicable).

We conducted the literature search over a period of 10 days in mid-February 2013 and included all articles published between 1990 and 2013. The coding was subsequently conducted by three experienced communication and Internet researchers, with discussions and resolution of critical cases. A student assistant helped in the first phase of the literature review, downloading the papers and removing doubles, but was not involved in the synthesis of the results.

In a *first step*, we collected the meta-information of the identified population of articles. This search approach resulted in 1,788 hits (ISI: 500; EBSCO: 533; ProQuest: 463; Mendeley: 292).

In a *second step*, we merged the search results across the databases, in the course removing 840 multiple entries (remaining sample=948). In a *third step*, we scanned all titles and abstracts, removing 295 clearly irrelevant papers, *i.e.*, studies not addressing any form or dimension of online participation (remaining sample=653). In a *fourth step*, papers were categorized according to their overall field of inquiry, resulting in five distinct research areas: political/civic participation (286), business participation (63), cultural participation (21), education participation (219), and health participation (64). Overwhelmingly, studies could clearly be attributed to one of the areas both by keywords employed in their titles and abstracts (*i.e.*, "health", "school", "student", "music", "customer service", etc.) and by publication outlet. In some cases, studies featured a topical overlap, in which cases the research team scanned the entire article and assigned the study according to the field to which the study targeted its core contribution.

In a *fifth step*, we downloaded and analyzed the remaining papers. In this process, the number of papers was further reduced based on two aspects: One group of papers addressed Internet access in general, and preconditions of Internet use such as skills and literacy. We deemed these questions too broad to contribute to the research question at hand. Another group of papers focused very narrowly on ways and means to increase user engagement in specific online platforms. We deemed this understanding of "engagement" as "platform use" too narrow and excluded these papers. This left 194 articles, 132 of which are on political participation & civic engagement, 15 on business participation, 15 on cultural participation, 20 on education participation, and 12 on health participation ([Figure 1](#)).

Figure 1: Article sample according to participation category.

[Figure 2](#) shows the development of research on each form of online participation over time. It confirms that online participation has quickly gained attention in the past years. Yet our initial findings also document the dominance of political & civic participation in current online participation research.

Figure 2: Development of published articles on different forms of participation over time (articles of 2013 not considered for figure).

In order to address our research question, we will proceed to discuss each of the identified forms of online participation and describe the salient discourses and state-of-research for each field of inquiry, starting with political & civic participation.

4. Online political participation and civic engagement (OPP&CE)

With a total of 132 identified articles, this is by far the most extensive field of inquiry when it comes to online participation. This chapter will provide an overview of key findings on online political participation and civic engagement (OPP&CE). For the sake of clarity, not all identified articles will be discussed in detail, but a table listing all articles is provided in the [Appendix](#) (Table A).

4.1. Definitions and conceptual demarcations

While there is no generally accepted definition of online participation in this field, a number of the identified articles rely on a definition of participation provided by Verba, *et al.* [6], which conceptualizes the term as an “activity that is intended to or has the consequences of affecting, either directly or indirectly, government action”. Yet, many of the identified studies lack a systematic definition of participation. Some studies apply broader definitions that include acts like voluntary and community work. Such activities are frequently summarized as “civic engagement”: “Civic engagement refers to citizens’ individual and collective involvement in public affairs” [7]. We find that political participation and civic engagement are often investigated as a composite construct in empirical studies. Accordingly, we consider political participation and civic engagement a common field of inquiry.

A broad spectrum of online activities figures under the label of OPP&CE: In some cases, the mere search for information — such as googling a politician’s name — is already seen as a form of OPP&CE (e.g., di Gennaro and Dutton, 2006). Some studies address generic activities that are possible off-line as well as online, such as signing petitions, others look at forms restricted to the online world, like creating a political blog. OPP&CE is commonly operationalized as an index of several activities that may include (but is not restricted to): political information search and consumption, donating money, writing an e-mail message to a government representative or politician, connecting with like-minded individuals in online communities, sharing photos, videos or sound material, protests, boycotts, and e-voting (Best and Krueger, 2005; Calenda and Meijer, 2009; Cogburn and Espinoza-Vasquez, 2011; de Zúñiga, *et al.*, 2012; di Gennaro and Dutton, 2006; Emmer, *et al.*, 2012; Hoff, 2006; Hoffman, 2012; Jugert, *et al.*, 2013; Kahne, *et*

al., 2012; Kaufhold, *et al.*, 2010; Kavanaugh, *et al.*, 2008; Krueger, 2002; Livingstone, *et al.*, 2005; Oostveen and Besselaar, 2004; Oser, *et al.*, 2012; Rojas and Puig-i-Abril, 2009; Vissers, *et al.*, 2012; Ward, *et al.*, 2003). It is apparent that the activities covered by OPP&CE differ substantially in institutionalization as well as resource intensity. This provides a challenge to comparisons across studies or meta-analyses.

As [Figure 1](#) shows, the research corpus on OPP&CE is by far the largest of the five identified forms of online participation. In some cases, online participation is even equated with OPP&CE. Despite this apparent popularity in research, most empirical analyses find that OPP&CE is not a very common activity among citizens (di Gennaro and Dutton, 2006). Of course, the prevalence of OPP&CE depends upon its operationalization, *i.e.*, the activities subsumed under the concept — and also on the country surveyed. Most data on the prevalence of OPP&CE is available for the U.S. Here, 16 percent of the population have published political pictures or videos online during the last 12 months, and 34 percent have carried out one of these four activities online: signing a petition, contacting a member of parliament, writing a letter to the editor, or publishing a news or blog commentary (Smith, 2013).

Regrettably, such current numbers are missing for many other countries. However, some evidence indicates lower levels of OPP&CE outside of the U.S. A study by Emmer and colleagues (2012), for example, shows that German citizens' off-line political participation far outweighs their online participation. Most citizens are not engaged in political discussion and other forms of participation on the Internet. However, the authors also describe a notable increase for some of the surveyed activities between 2002 and 2010. Overall, the prevalence of most OPP&CE activities in Germany is still in the single-digit percentages (Köcher and Bruttel, 2011).

Many empirical articles focus on *traditional forms* of engagement, such as voting or donating money, *i.e.*, forms of engagement not exclusive to the online world. New(er) forms, such as writing blogs or sharing political videos, are less researched. Still we observe an increasing focus on OPP&CE through social media in the past five years. Of the 132 articles in this cluster, 92 analyze general Internet use, 20 focus on social media, and 20 consider applications, such as campaign Web sites (Park and Perry, 2008) or e-voting (Carter and Bélanger, 2012). The earliest article on social media applications in our sample dates back to 2008 (Breindl and Francq, 2008).

4.2. The Internet's effect on participation and the discourse on slacktivism

A key research focus in this field, covering disciplines such as political science, sociology, communication and Internet studies, is the Internet's effect on citizens' participatory practices. In general, we can distinguish three perspectives on the topic (Anduiza, *et al.*, 2009; de Zúñiga, *et al.*, 2009; Gibson, *et al.*, 2005; Uslaner, 2004; Ward, *et al.*, 2003): *Optimists* claimed that the Web would enhance engagement and encourage wider sections of the population to participate politically. Thus, the Internet would strengthen democracy and political engagement. This "mobilization thesis" concurs with early cyper-optimist views (Rheingold, 1993; Turkle, 1995).

Pessimists, on the other hand, warned that Internet use would displace time previously dedicated to political and civic engagement (Putnam, 2000). *Realists*, in turn, expect the Internet to have little effect on participatory practices (Bimber, 2001). Active citizens would embrace the Internet for their purposes, while those not participating off-line would not bother engaging online, either. Non-participants would tend to use the Internet for non-participatory purposes, such as entertainment. Instead of bringing new population segments (*e.g.*, lower educated, youth) to participate, the Internet could ultimately even reinforce existing divides (Norris, 2001). The *realist* perspective has also been termed "normalization hypothesis".

Empirical investigations tend to find a positive effect of Internet use on off-line political engagement (Bakker and de Vreese, 2011; di Gennaro and Dutton, 2006; Moy, *et al.*, 2005). This finding has proven robust across different cultural contexts (Hwang, *et al.*, 2006; Kwak, *et al.*, 2006; Wang, 2007). Also, civic engagement was found to be positively influenced by Internet use (Stern and Dillman, 2006). A meta-analysis by Boulianne (2009) of 38 studies in the field reveals hardly any negative effects but a clear and strong positive effect is not identified, either, lending support to the normalization hypothesis. Similarly, Anduiza, *et al.* (2009) discuss the effects of Internet use on both online and off-line political participation. Their literature overview suggests a stronger link between Internet use and online political participation than off-line political participation. In line with the vast majority of quantitative studies, the few qualitative or case-based investigations in the field indicate a positive relationship between Internet use and political or civic engagement (*e.g.*, Collin, 2008; Davis, 2010).

Increasingly, studies analyze political behavior on social media, for example social network sites or blogs (Conroy, *et al.*, 2012; de Zúñiga, *et al.*, 2012; Macafee and De Simone, 2012; Rojas and Puig-i-Abril, 2009). Consequently, a debate is emerging on which online activities should actually be considered "true" participation — and which ones can be considered mere symbolic participation or "slacktivism" (Ritzi, *et al.*, 2012). According to some voices, clicking a "like" button on Facebook does not constitute actual participation and merely serves to appease one's conscience — or even constitutes an act of self-staging (Morozov, 2011). Empirical results do not support the slacktivism thesis, though: Vitak, *et al.* (2011) show that low-threshold forms of political participation, such as liking political content on Facebook, are not only widespread among American students but also go hand in hand with more resource-intensive forms of

participation, like engaging in a political organization. Conroy, *et al.* (2012) find a positive connection between political group membership on the Internet and off-line political engagement. Generally, research on social media largely confirms previous findings on general Internet use, and finds a positive rather than negative effect of new media use on PP&CE (de Zúñiga, *et al.*, 2009; de Zúñiga, *et al.*, 2010).

Our analysis reveals a number of challenges in current research on OPP&CE: A methodological challenge for most empirical studies concerns the isolation of Internet effects, something nearly impossible to achieve with survey data. Additionally, early studies tended to apply very broad measures of Internet access and use, *e.g.*, time spent online. However, later research found that some Internet uses can be considered more participatory, social and active, than others (*e.g.*, information vs. entertainment). Thus, participation studies should differentiate Internet uses when analyzing participatory effects (*cf.*, Dutta-Bergman, 2006; George, 2005; Hampton, *et al.*, 2011).

Using the Internet for information purposes, such as news consumption, has been shown to be positively associated with both online and off-line participation, whereas consuming media for entertainment purposes is negatively related to participation (Bakker and de Vreese, 2011; de Zúñiga, *et al.*, 2012; Holt, *et al.*, 2013; Wang, 2007). In a similar vein, Moy, *et al.* (2005) identify seven types of Internet use: information, e-mail, household, political, consumer, social, and community uses. Of these, only information, e-mail, political, and community uses are positively associated with all forms of civic engagement. Active and social forms of using the Web also seem to foster and supplement civic engagement. Dutta-Bergman's (2006) study shows that users who were active in online discussion forums in the wake of 09/11 were more active in neighborhood and local communities.

4.3. Antecedents of OPP&CE

A range of studies show that a participatory use of the Web is unequally distributed in the overall population (Albrecht, 2006), leading to a participation divide (Hargittai and Walejko, 2008). Not all citizens are equally likely to participate politically or civically — a finding that is true for both off-line and online participation. Demographics are helpful in differentiating political interest and participation (Best and Krueger, 2005). Di Gennaro and Dutton (2006) find that while online and off-line participants share some similarities, they do not completely overlap. Online participants are more partisan and less trusting in traditional media than off-line participants (Kaufhold, *et al.*, 2010).

Looking at *gender* differences, most studies find that men politically participate more actively than women (Calenda and Meijer, 2009) — off-line as well as online (Albrecht, 2006; di Gennaro and Dutton, 2006; Gibson, *et al.*, 2005). The gender effect may well be moderated by political interest, though, as studies indicate that males score higher in this regard (Gibson, *et al.*, 2005; Wang, 2007). Age is another important predictor of online and off-line participation (Bridges, *et al.*, 2012; Burwell, 2010; Dahlgren, 2011; Jugert, *et al.*, 2013; Kissau and Hunger, 2008; Macafee and De Simone, 2012; Theocharis, 2011; Vromen, 2008). In fact, a number of studies in this research field focus on young citizens (Bakker and de Vreese, 2011; Bennett, *et al.*, 2011; Collin, 2008; Kann, *et al.*, 2007; Kaun and Guyard, 2011; Lariscy, *et al.*, 2011; Livingstone, 2008; Spaiser, 2012). Current debates on political apathy and insufficient knowledge among adolescents often serve as the starting point for such inquiries.

Since age tends to impact political participation positively (Wang, 2007; Gibson, *et al.*, 2005), but negatively impacts Internet use, the overall effect of age on online political participation is ambivalent. Di Gennaro and Dutton (2006) show that younger citizens rely more heavily on online than off-line participation. According to Oser, *et al.* (2012), among politically active citizens, those using the Internet for participation are younger. Institutional barriers to off-line participation (voting age, developmental correlates, political interest) may explain why young people's political engagement is strongly driven by the Web and its affordances (Collin, 2008).

Still, even among youth, male, higher status and better educated citizens are more politically engaged online than their female, lower status and less educated counterparts (Livingstone, *et al.*, 2005). Education and income, both indicators of SES, positively impact off-line and online political participation (Gibson, *et al.*, 2005; Kwak, *et al.*, 2006; Wang, 2007). The digital divide literature identifies social status as an important predictor of Internet use (Hargittai and Hinnant, 2008; Hargittai, 2002; van Dijk, 2006). Hargittai and Walejko (2008) find that those with higher social status tend to use the Internet more heavily for content production. Controlling for SES, Web experience positively affects online political engagement (Gibson, *et al.*, 2005). Experience and self-efficacy increase diversity of Internet use, also in terms of political content (Livingstone, *et al.*, 2005; di Gennaro and Dutton, 2006). Best and Krueger (2005) find that online political participation is best predicted by Internet skills and online mobilization, while civic skills and off-line participation do not foster online participation.

Table 1: Summary of literature on OPP&CE.

Definition	Online engagement in public affairs and online activities geared towards
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	influencing government action.
Conceptual foci	Internet effects; new forms of engagement; participation divides; online — off-line link (slacktivism).
Exemplary activities	Signing e-petitions; writing political blogs; donating money online.
Antecedents and prevalence	Despite extensive research attention only limited prevalence: single to low double-digit percentages, depending on country and operationalization. Focus on demographic and political antecedents; <i>Gender</i> : men show higher rates of OPP&CE than women; <i>Age</i> : ambivalent net effect; <i>Education and SES</i> : positive effect but (partly) mediated through online skills; <i>Political interest</i> : positive effect (possibly mediator for socio-demographic effects).
Outcomes	Internet use is weakly but positively related to off-line political participation and civic engagement; various forms of Internet use have differing effects on off-line engagement: active and information-rich uses most strongly affect the off-line sphere; newer, less institutionalized forms of OPP&CE offer opportunities for young citizens and those at the margins of the political system to engage.
Exemplary studies	Best and Krueger (2005), Calenda and Meyer (2009), di Gennaro and Dutton (2006), Moy, <i>et al.</i> (2005)
Number of studies	132

5. Online business participation (OBP)

5.1. Definitions and conceptual demarcations

A second cluster of studies addresses Internet users' online engagement in business affairs. Accordingly, online business participation (OBP) encompasses online participation geared towards corporations. Most articles on OBP focus on the relations between companies and customers — often from a corporate point of view. Therefore, studies in this area tend to have a marketing focus. The small number of publications in this field shows that the management and business literature on Web use is seldom framed within a participation discourse. Of the initial list of 63 papers in this stream, 48 papers were excluded because of a narrow focus on user engagement in specific platforms, or management opportunities to increase platform engagement. This finding documents a functional perspective — only few studies recognize that the subject at hand is part of a larger social phenomenon.

5.2. Customer participation: co-creation, prosumers and shifting power relations

Eleven of the identified papers focus on customer participation in business processes. Some of them address customer engagement in the sense of customer service improvements. These studies explore how new media can strengthen the exchange relationships between businesses and their customers in the vein of relationship marketing (Dabholkar and Sheng, 2012; Sashi, 2012). More extensive customer engagement has been addressed under labels such as "co-creation" or the "prosumer", combining consumption with productive input (Chaney, 2012; Ramaswamy, 2008; Sawhney, *et al.*, 2005). The underlying hypothesis states that digital media facilitate the interaction of producers and consumers and allow for collaborative value creation. Thus, such participation goes beyond a mere customization of products or services (*cf.*, Chang, *et al.*, 2009). New media enable creative customer input into the development ("open innovation"), design, and production of business offers (Franquet, *et al.*, 2011; Ramaswamy, 2008).

The literature tends to stress the benefits for businesses and consumers made possible by new media. Whether these changes also constitute a *shift in control or power* is barely problematized. This may be seen as surprising as consumer participation does appear to shift control from the

corporation to the consumer (Chang, *et al.*, 2009; Riegner, 2007). The accessibility of new media and their role as a public platform for interest groups require companies’ attention. Here, power asymmetries can be reduced and interactions can potentially become more dialogue-oriented (Sawhney, *et al.*, 2005).

As for empirical findings, new media are shown to allow for a wider variety of customer engagement, increasing interactivity and richness in the exchange relationships. Some studies notice that customer participation entails a shift in value creation — commonly increasing the benefit received by the customer, in some cases decreasing the benefit for the business (Chaney, 2012), in others providing new sources of value creation (Franquet, *et al.*, 2011). This shift does not need to be material in nature, as participation can also increase customer satisfaction and trust (Dabholkar and Sheng, 2012; Chang, *et al.*, 2009; Sashi, 2012). One study suggests that power realignments due to consumer participation may be moderated by consumers’ sense of belonging to the organization they engage with (“organizational citizenship”; Yen, *et al.*, 2011).

5.3. Stakeholder involvement and word-of-mouth

Only few studies investigate stakeholder groups beyond customers. However, we do find analyses of how critical stakeholder groups use new media to advocate for their interests via word-of-mouth communication (Riegner, 2007; Chaney, 2012). A number of studies address the concept of “advocacy” — but only in the sense of word-of-mouth promotion: it is achieved when “delighted or loyal customers share their delight or loyalty in interactions with others in their social networks and become advocates for a product, brand, or company” [8]. Only one study addresses potential dangers in businesses misusing or opposing customer word-of-mouth online (Campbell, *et al.*, 2012).

One article explores the potential of online media for stakeholder engagement in a more traditional sense: Adams and Frost (2006) analyze the use of online tools for communicating social and environmental performance to stakeholders in Australia, Germany and U.K. They find that businesses’ online tools and corporate Web sites are primarily geared towards customers and shareholders, but not towards other stakeholder groups. By contrast, stakeholder groups recognize the potential of new media to articulate their voice. They use social media to exchange information and critically monitor companies’ behavior (Kane, *et al.*, 2009). Social media, especially, allow communities to share knowledge and monitor corporate behavior, while simultaneously shortening the available response time for corporations. Finally, one study shows that frequent use of the Internet increases the likelihood of shareholder participation (Bogan, 2008). The Internet provides access to financial information and also facilitates access to the capital market (online banking/brokerage).

5.4. The creative industries

A small subset of studies focuses on creative industries, such as journalism or the music industry. Creative industries are especially receptive to changes in consumer-producer interaction caused by new media as their output consists of a combination of creativity and productive resources — the latter being directly affected by changes in media technology (Franquet, *et al.*, 2011). Therefore, digital and social media constitute a disruptive innovation for creative industries, including journalism (Nguyen, 2006). New media enable the creation and distribution of content to a broad public. Thereby, users become potential media producers (Chaney, 2012). This disruption of traditional business models is explored in the context of music piracy, the self-promotion of semi-professional producers and citizen journalism (Nguyen, 2006). Such activities lead to a shift of revenue streams from traditional players to new actors. New forms of creative participation do not have to be detrimental to established actors, though. Again, the inclusion of customers into the production process can increase their attention and loyalty — adapting the business model accordingly can open up new business opportunities and revenue streams (Chaney, 2012).

5.5. Antecedents of OBP

Studies on OBP rarely consider demographic antecedents of participation. Customer interaction, participation in co-creation, and the independent production of creative output depend on different interests, motivations, and skills. Psychological drivers play an important part in shaping user readiness to participate in business affairs. Information systems studies have shown that perceived usefulness and ease of use strongly affect users’ intention to adopt new media in a professional capacity (Davis, 1989; Venkatesh and Davis, 2000; Venkatesh, *et al.*, 2003). Furthermore, attitudes shape people’s willingness to engage. Those with an open-minded attitude towards technology and a playful approach should be more likely to interact with companies online than those riddled with concerns, *e.g.*, about online privacy. Finally, social-cognitive studies indicate that self-efficacy acts as an important driver in fostering online engagement (Compeau, *et al.*, 1999). Again, a number of studies apply these findings to the analysis of user engagement in specific online platforms — a field of inquiry not considered in this review.

Table 2: Summary of literature on OBP.	
	Online participation in business affairs and

Definition	engagement geared towards corporations.
Conceptual foci	Customer service; relationship marketing; co-creation, crowdsourcing and open innovation; word-of-mouth marketing; stakeholder engagement; creative industries.
Exemplary activities	Participating in open innovation and idea contests; co-creation; recommending or criticizing corporations on social media.
Antecedents and prevalence	No representative data on prevalence due to insufficient conceptualization; focus on psychological antecedents (e.g., self-efficacy) and perceived platform and Web site attributes (e.g., usefulness, ease of use).
Outcomes	Increased interactivity and richness in stakeholder relations can increase trust and customer satisfaction; new media provide new tools for critical engagement of corporations, but online engagement also creates buy-in effects (organizational citizenship); online participation constitutes a disruptive innovation for some business models (e.g., creative industries).
Exemplary studies	Chaney (2012), Sashi (2012), Kane, <i>et al.</i> (2009), Nguyen (2006), Campbell, <i>et al.</i> (2012)
Number of studies	15

6. Online cultural participation (OCP)

6.1. Definitions and conceptual demarcations

A number of studies address the creative self-expression of Internet users. We subsume these studies under online cultural participation (OCP). The activities considered in this field of inquiry are very diverse, ranging from the production and sharing of music to the shared creation of identity in online communities. Cultural participation is frequently related to productive Internet uses. In this domain, participants create something — although this “something” can vary drastically in nature. In most cases, creative engagement in this domain does not serve commercial purposes (Ryu, *et al.*, 2009). Some authors consider the creation of meaning, understanding or insights a creative act, with new media facilitating the processing or adaptation of content (Deuze, 2006). The question of what activity constitutes a creative act can be seen as contentious, since new media facilitate the reconfiguration of existing content (remixing, mash-ups, bricolage). Finally, cultural participation can be directed at a broad spectrum of objects — such as music, movies, philosophy, religion, or fandom.

6.2. Online communities: Belonging, identity and fan culture

Online communities are a key subject of studies in OCP. Empirical analyses find that engagement in creative communities tends to follow a power law distribution: Few very active users create the majority of content, some active participants complement this content with occasional contributions, and the vast mass of users just consumes content (Nov, *et al.*, 2009). Ewing (2008) provides a useful typology of participants in creative communities. It rests on established online terminology and describes six groups: lurkers, newbies, regulars, elders, legacy (former elders that gradually “retire” from the community but still command respect), and trolls. Of particular interest are elders, *i.e.*, community members at the upper end of the productivity scale who are essential to the order and vibrancy of a community. By moderating others’ contributions, they contribute to the identity and functionality of a community. They determine its purpose and tone (Ewing, 2008). With activity also comes power: decisions of censorship, exclusion of other members and the promotion of certain topics are mainly carried out by elders (Holt and Karlsson, 2011).

The longer members engage in online communities, the more important they perceive their membership: in time, social use motives supersede functional ones (Cook, *et al.*, 2009; Nov, *et*

al., 2009). A key purpose of creative online communities is seen in social support and identity formation — through mutual acts of self-assurance (Ewing, 2008; Rajagopalan, 2011). Such aspects of OCP are particularly important for marginalized social groups, such as sexual or religious minorities (Alon and Brunel, 2007). Their OCP can lead to higher levels of self-acceptance, more self-confidence, and the reduction of perceived isolation (McKenna and Bargh, 1998). In this sense, surfing the Web and the search for a fitting community can be regarded as acts of self-discovery and identity formation (Helland, 2002).

Yet, online communities also serve as a production and distribution tool for more tangible cultural artefacts. Here, friends, supporters and fans exchange ideas, support each other and organize. Thereby, functional use motives do play an important role, especially for initial engagement. An interesting example of the increasing importance of social uses for community members are online fan communities. Case studies show that fans perceive a strong feeling of belongingness to their community, even if they are far removed from their object of admiration (Bennett, 2012). Some communities tend to take on a life of their own, *i.e.*, the exchange, support and identification within the community become more important to its members than the initial object of discussion (Rajagopalan, 2011).

While communities play a key role in OCP studies, empirical analyses have found that online engagement is only rarely transferred to the off-line world (Nonnecke, *et al.*, 2006). Online communities have a thematic focus beyond which members share few similarities. Nevertheless, more active participants in online communities perceive themselves as more satisfied and more advantaged than passive members (Nonnecke, *et al.*, 2006). The positive outcomes of OCP — especially social benefits — are perceived more strongly by members of marginalized groups (Alon and Brunel, 2007), in some cases leading to higher activity levels (Helland, 2002).

6.3. Antecedents of OCP

Many studies in this field of inquiry rely on qualitative methods. There are only few quantitative studies of antecedents of OCP. Analyses have found a negative correlation between age and online engagement (Grace-Farfaglia, *et al.*, 2006; Ho, *et al.*, 2008). Higher levels of experience and self-efficacy, in turn, drive online engagement (Ryu, *et al.*, 2009). Cultural participation is often associated with high levels of use complexity, leading to a large participation divide in this area (Ho, *et al.*, 2008). Some studies apply established theories of media use to OCP, like uses and gratifications: Here, functional motives can be distinguished from social motives (Alon and Brunel, 2007). Because the creation of meaning plays an important part in OCP research, motives of identification and belongingness often figure prominently in such inquiries (McKenna and Bargh, 1998). Research shows that functional motives often explain users' first contact with online communities. Over time, however, they tend to develop a sense of affiliation, and social motives displace functional ones (Ewing, 2008). Users with a high sense of belonging engage more often in online discussions, and with increasing experience and duration of membership, the depth and richness of their contributions increases (Nov, *et al.*, 2009). Finally, cultural drivers of OCP have been identified. National cultures differ in their conduciveness to online participation (Grace-Farfaglia, *et al.*, 2006). Also, social marginalization is proposed as a driver of OCP: social pressure on marginalized groups increases their ideological polarization, corresponding with rising communication and mobilization needs (Farrell, 2011).

Table 3: Summary of literature on OCP.	
Definition	Participation in creative self-expression and engagement in predominantly non-commercial productive Internet uses.
Conceptual foci	Online communities; cultural artefacts; social identity; community roles; use motives; fan culture.
Exemplary activities	Creating and sharing music, movies or poetry online; expressions of social identity; participation in online fan communities.
Antecedents and prevalence	Power law distribution of activity: only few users are heavily engaged in online communities; <i>Age</i> : younger users show higher levels of OCP; <i>Use motives</i> : OCP is often initially driven by functional motives which are then gradually replaced by social motives; social marginalization is held to increase engagement/OCP.
	Social inclusion, belonging and identity formation are considered key outcomes of OCP — again, this outcome is held to be of heightened importance for members

Outcomes	of socially marginalized groups; functional outcomes may include attention of peers, critical feedback and public promotion; active participants perceive more benefits and higher levels of satisfaction than do "lurkers"; while social support is a key outcome of OCP, online relations prove difficult to transfer to the off-line world.
Exemplary studies	Nonnecke, <i>et al.</i> (2006), McKenna and Bargh (1998), Helland (2002), Grace-Farfaglia, <i>et al.</i> (2006), Deuze (2006)
Number of studies	15

7. Online education participation (OEP)

7.1. Definitions and conceptual demarcations

Online education participation (OEP) is the subject of the second biggest research stream in our analysis after OPP&CE. We understand OEP as individuals' participation in educational activities based on online media. A large number of studies in this domain analyze specific platforms or instruments of online learning. Our analysis, however, was geared more towards the overall participatory effect of new media in the domain of education. Optimistic observers expect a strong impact of new media on learning and education: "Providing learning anytime, anyplace and to anyone" (Robinson and Hullinger, 2008). A U.K. study shows that only 20 percent of the overall population use the Internet for educational purposes (White and Selwyn, 2012). At the same time, another study conducted in the U.K. finds that 90 percent of all students aged 9 to 19 use the Internet to look for information in a learning context (Livingstone and Bober, 2004). Internet use has been shown to be more widespread among students than among teachers (Erstad, 2006). An American study found that 76 percent of teachers use new media for teaching purposes, but mostly to understand their students' activities and to collect information (Asselin and Moayeri, 2011). Students, in turn, use the Internet for a wider variety of learning-related activities (Erstad, 2006).

7.2. Student-centered learning and institutional challenges

The Internet reduces barriers to information access and facilitates autodidactic learning (Robinson and Hullinger, 2008). Interactive media, especially, allow for new forms of learning, educational interactions and institutional settings. Computer-mediated learning can overcome some disadvantages of traditional (presence) learning, *e.g.*, social pressure or intimidation (Davies and Graff, 2005; Rambe, 2012). Overall, the Internet is held to weaken traditional hierarchies in learning institutions and empower the learners/students (Erstad, 2006; Kidd, 2011). These technological and social effects are reflected in current pedagogic theories.

Some authors describe teachers' new role as facilitators who only sporadically intervene in the students' largely self-regulated learning processes (Duncan, *et al.*, 2012). Student-centered learning has become an important keyword of pedagogy in the Internet age (Arbaugh, 2000; Hrastinski, 2008). New media support the exchange amongst learners and support collaborative forms of education (McBrien, *et al.*, 2009). Hence, new forms of co-created learning and knowledge sharing emerge, characterized by transparency and comparability. Not only are learners becoming more independent and self-reliant, "empowerment" may even turn traditional hierarchies on their heads, *e.g.*, when students start evaluating and grading their teachers in public online forums (Asselin and Moayeri, 2011). Accordingly, OEP can be said to imply a power shift in education.

7.3. OEP versus off-line learning

Studies on OEP show that the affordances of the applied technologies influence the effect of online learning. *Synchronous* platforms are distinguished from *asynchronous* ones. Synchronous communication has been shown to positively impact learning success (Duncan, *et al.*, 2012), leading to higher levels of involvement (Hrastinski, 2008). Furthermore, research indicates that students in online courses exhibit more engagement than those in off-line courses (Robinson and Hullinger, 2008). In many cases, online participation also leads to better test results compared to off-line courses (Davies and Graff, 2005; Stewart, *et al.*, 2011). The fact that online courses are more self-regulated and require more self-discipline might explain this finding. When online and off-line elements are offered simultaneously, the participation in online options has no negative effects on off-line participation (Stewart, *et al.*, 2011).

Many of these findings still imply a hierarchical learning relationship between teachers and students. More far-reaching consequences arise when existing structures are challenged, with

the Internet fostering the collaboration among learners. Students then create social capital in networks of learning (Hrastinski, 2009), with individual learners possessing significant autonomy (McBrien, *et al.*, 2009). Thereby, students, their decisions and collaboration, are shifted to the center of the learning experience (Arbaugh, 2000; Erstad, 2006; Hrastinski, 2008). The Internet allows for the mutual exchange between students even when it is not desired by the education providers, as recent controversy about online teacher or professor evaluations shows (Rambe, 2012).

Critical studies point to the Internet's potential for distraction and a reduction of attention spans (Rambe, 2012). Some investigate the question of whether online learning — without mutual exchange or presence learning — leads to *social isolation*. Students in online courses indeed experience less frequent personal exchange than their colleagues in off-line courses (Rabe-Hemp, *et al.*, 2009). Thanks to the affordances of more recent Web tools, however, distance learning is becoming more social and interactive than in the pre-digital age (McBrien, *et al.*, 2009).

7.4. Antecedents of OEP

Empirical studies find that young students participate more actively in OEP than older ones. This is especially true for creative or productive forms of Internet use (Correa, 2010). As for gender, male users report higher levels of perceived competence and self-efficacy than their female counterparts. This does not imply that OEP is a male-dominated field, though. On the contrary, women use online courses more often than men (Caspi, *et al.*, 2008). Female students also communicate more actively in online learning environments and make more use of collaborative functionalities (Arbaugh, 2000; Erstad, 2006; Robinson and Hullinger, 2008).

A specific challenge to OEP is the development of the necessary competencies or skills. Higher levels of self-efficacy and a playful attitude towards technology foster OEP (Spence and Usher, 2007). Aside from digital literacies, other important competencies include creativity and critical analysis — *e.g.*, of the quality and credibility of online content (Kimber and Wyatt-Smith, 2010). Because OEP depends on autonomy and independence, a "literacy of empowerment" — the ability to create, collaborate and critically participate — has been proposed as a key asset in OEP (Asselin and Moyaeri, 2011). Traditional *asymmetries in competencies* between teachers and students are challenged in OEP as teachers may be more reluctant to use new technologies (Erstad, 2006). Schools tend to be relatively inflexible institutions, with pedagogical concepts and curricula only changing slowly (Livingstone, 2010). Empowerment and participation do not necessarily correspond to how these institutions function (Kidd, 2011).

Table 4: Summary of literature on OEP.	
Definition	Participation in educational activities based on online media.
Conceptual foci	Student empowerment; student-centered learning; synchronous/asynchronous technologies; distance learning; literacy.
Exemplary activities	Taking online courses; using collaborative online tools in school.
Antecedents and prevalence	The prevalence of OEP is limited to the proportion of the population engaged in some form of educational activity; among students, the Internet can be shown to be a key learning tool; teachers are catching up in their use of the Internet. Some socio-demographic antecedents of OEP are considered: <i>Age</i> : young students participate more actively in OEP than older ones; <i>Gender</i> : higher levels of perceived competence and self-efficacy among males, but female students exhibit higher levels of engagement.
Outcomes	OEP is associated with high levels of learning engagement and has been shown to positively affect learning success; strengthening of student autonomy and facilitation of student-centered learning; studies have found only little substitution effects between online and off-line learning; purely online learning experiences are associated with reduced levels of social exchange, yet distance learning is becoming more interactive due to online media.

Exemplary studies	Livingstone (2010), Livingstone and Bober (2004), Correa (2010), White and Selwyn (2012), Hrastinski (2008; 2009)
Number of studies	20

8. Online health participation (OHP)

8.1. Definitions and conceptual demarcations

We conceptualize online health participation (OHP) as the engagement in health-related issues on the Internet. In questions of health, the Web has become a crucial information source — users can easily access an enormous variety of health information at any time. A large part of the population searches for health information at least occasionally (Schubart, *et al.*, 2011). Hence, users can improve their understanding of their own health — and thus their judgment of sensible treatment methods — due to online media. Some individuals have taken to describing their own health-related experiences online, others comment on or rate health services. At the same time, active participation in self-help groups is still an exception (van Uden-Kraan, *et al.*, 2011), possibly because certain syndromes that stimulate the need for active online exchange have only limited prevalence.

8.2. Patient empowerment and self-help

Empowerment is an important keyword in the discussion on OHP, with users being empowered in a number of ways: On the one hand, OHP increases patients' level of information. They also obtain new options for judging their own health situation. Thus, Internet users can take on a more active and self-determined role in the treatment of diseases. Critical voices note that empowerment of patients can also be risky, *e.g.*, in the case of self-diagnosis and -treatment. Some health professionals perceive the new self-confidence and the Internet-supported knowledge of their patients as irritating (van Uden-Kraan, *et al.*, 2008). On the other hand, empowerment not only occurs in the exchange with health services providers, but first and foremost among affected patients. Studies on OHP often focus on examples of self-help. Similar to OCP, online communities receive significant attention. Only a small minority (less than 10 percent of users) has been shown to use online self-help groups — still, these groups constitute an interesting case of online engagement (van Uden-Kraan, *et al.*, 2011), as interactive self-help on the Internet leads to new forms of health care: decentralized and bottom-up.

In OHP — like in OCP — functional use motives can be distinguished from social motives. Users often turn to the Internet in search of information, while motives of support and exchange are far less widespread (Ginossar, 2008; van Uden-Kraan, *et al.*, 2009). Users suffering from a disease or from subjective social isolation are most likely to engage in online self-help groups (Rodgers and Chen, 2005). Subjective insecurity, low self-competence and a lack of information also motivate users to participate actively on the Internet (Han, *et al.*, 2012). Since some diseases entail social stigmata, the affected users perceive the mutual help and emotional support provided in self-help forums as a strong benefit. These patients appreciate the opportunity to express their thoughts and experiences (Ginossar, 2008; van Uden-Kraan, *et al.*, 2009). Patients engaged in OHP often possess a certain expert status and take a stand for their health-related interests. The more actively they engage online, the likelier they are to report good coping with their disease, a better general mood, and more optimism in the evaluation of their health expectations (Høybye, *et al.*, 2010; Rodgers and Chen, 2005). By contrast, less engaged users tend to avoid confronting their disease and perceive more fatalism (Høybye, *et al.*, 2010).

Empowerment is not only an objective consequence of online engagement, but also a matter of attitude. Engaged patients often feel they make better health-related decisions and demand more autonomy in their treatment (van Uden-Kraan, *et al.*, 2009), they become more informed consumers (Sandaunet, 2008). These positive outcomes of OHP are facilitated by social Internet uses. Thus, the social dynamics of online community membership impact individuals' sense of self (Sandaunet, 2008). Sometimes, forms of activism can emerge out of such dynamics, for example when group members propagate their interests to the outside world (Ginnosar, 2008; van Uden-Kraan, *et al.*, 2008).

Finally, some studies also consider online offers for relatives and friends of patients. Here too, engaged users report higher levels of subjective well-being than non-users (Tanis, *et al.*, 2011). Studies find that in the realm of OHP, online contacts are rarely transferred to the off-line world (Rodgers and Chen, 2005). While online, a mutual cause may suffice to create a feeling of belongingness, this may not be a sufficient basis to form friendships in the off-line world. This finding is especially relevant since users who look for and find their support network primarily on the Internet tend to retreat from off-line relationships (Epstein, *et al.*, 2002).

8.3. Antecedents of OHP

Age has been found to be an important driver of OHP, with young users engaging more frequently than older users. Similarly, the more experienced users are, the more active their engagement (Han, *et al.*, 2012; Rodgers and Chen, 2005; Steinmark, *et al.*, 2006). Users' attitudes towards the Internet also affect their OHP. The Web lowers access barriers to self-help offers — and anonymity makes it easier to use such options. However, to use them, users need to trust the medium Internet. The higher their levels of online privacy concerns, the lower the likelihood of OHP (Han, *et al.*, 2012).

In OHP, gender seems to act in the reverse direction compared to other forms of participation, such as OPP&CE, with women participating more actively than men (van Uden-Kraan, *et al.*, 2011). SES has been shown to affect individuals' chances of healing — independently of their Internet use (Høybye, *et al.*, 2010). Lower SES patients report lower levels of well-being due to their illness compared with their high SES counterparts (Epstein, *et al.*, 2002). Higher SES also corresponds with more online participation. Thus, OHP may compound pre-existing inequalities in health care and healing probabilities. At the same time, lower SES users profit more from their online participation: They value the information and communication options of the Internet particularly highly (van Uden-Kraan, *et al.*, 2009). The effect of household size on OHP remains unclear. Young users from single households tend to exhibit high levels of activity (Han, *et al.*, 2012). At the same time, users tend to be more strongly engaged when they are encouraged by their social environment (van Uden-Kraan, *et al.*, 2011).

Table 5: Summary of literature on OHP.	
Definition	Engagement in health-related issues on the Internet.
Conceptual foci	Health information; patient empowerment; treatment outcomes; self-help and support forums.
Exemplary activities	Seeking out health-related information and information on treatment options; discussing health-related issues in self-help forums; participating in support groups; online engagement in campaigns (e.g., breast cancer awareness).
Antecedents and prevalence	While information seeking is a widely accepted practice, only few users engage in online forums and support groups. Some demographic antecedents are considered: <i>Age</i> : younger users engage more frequently than older users; <i>Gender</i> : female users engage more often than males; <i>SES</i> : higher SES leads to more OHP; <i>Attitudes towards the Internet</i> : trust positively affects OHP while privacy concerns inhibits OHP; <i>Motives</i> : functional motives are important in the initiation of OHP; subjective insecurity is also a driver of OHP; subjective suffering from a health issue increases likelihood of OHP.
Outcomes	Lower SES users perceive more subjective benefit from OHP than higher SES ones; patients are empowered to play a more active role in their health care; medical professionals feel that OHP makes patients more critical and demanding; OHP fosters coping with diseases and decreases fatalism.
Exemplary studies	van Uden-Kraan, <i>et al.</i> (2008; 2009; 2011), Sandaunet (2008), Rodgers and Chen (2005)
Number of studies	12

9. Conclusion

9.1. Synthesis

Online participation is a thriving research area that — like its object of study — is constantly evolving. Thus, our analysis should be understood as a summary of the *current state* of research on the matter. We were able to differentiate forms of online participation considered in current research and identify differing foci, discourses and findings. By differentiating and exploring distinct forms of online participation, this study provides an overview of the research field and allows for a more comprehensive approach to the social phenomena related to online participation. It should help facilitate common understandings and conceptualizations of these phenomena across the identified research streams — and thereby further accelerate the academic exploration of crucial questions such as antecedents, activities, levels and outcomes of online participation.

To date, the various research streams identified in our analysis remain largely unconnected. Disciplinary boundaries prevail and disciplinary perspectives dominate the respective analyses. Researchers in each field show little interest in transferring previous findings from other domains. There is no identifiable common research program on online participation — we expect that researchers do not identify primarily as participation scholars, but rather as management, education or health communication scholars. Accordingly, we find a wide variety of definitions and conceptual frameworks applied to the issue. We also find some redundancy, as findings from one domain are replicated in other domains. At the same time, the differentiation of research streams provides opportunities to learn from specific insights generated in one area or the other. We will highlight four overarching or recurring issues identified in the identified domains.

(1) One recurring discourse we found in a number of research streams is the one on "*empowerment*". Empowerment entails user access to online information and conversation. By sharing and discussing information, users not only gain knowledge, but also self-confidence. Accordingly, established authorities — such as doctors, teachers or politicians — are called into question. Traditionally hierarchical relations, e.g., in health care or education, are shaken up by increasingly self-confident and self-organizing users. We find that OPP&CE and OBP researchers, especially, could profit from these findings by considering more subtle forms of empowerment. Like medical professionals and teachers, government officials, politicians and managers may well face ever more informed, engaged and demanding stakeholders in the future — a change that may not become instantly apparent when focusing on voting behavior, engagement in traditional political parties or customer service issues alone.

(2) In some cases, empowerment also *calls established business models into question*. We find this effect in education, health, business and cultural participation. Examples such as citizen journalism show that the Internet provides users with new opportunities of self-directed value creation. Established providers, in turn, find that the provision of services is no longer their prerogative. Just as lay users start reporting and commenting on current affairs, students self-organize their learning experience and patients find information and support online. These developments need not be disruptive alone, as some institutions strive to incorporate stakeholder input into their value proposition. Findings in OBP indicate that engaging stakeholders may lead to increased identification, loyalty and satisfaction. It remains largely unclear how political, medical or educational institutions will adapt to the empowerment of their stakeholders, though.

(3) A third recurring topic concerns the *antecedents of online participation*. Here, we noticed differing perspectives depending on the research area. Whereas demographic characteristics, user skills, interests and self-efficacy are crucial antecedents in the OPP&CE and OHP clusters, other areas focus more on user interests and use motivations, e.g., in OCP and OEP. In certain areas, the discourse on the antecedents of participation is more pronounced (OPP&CE) than in others, that, in turn, focus more on consequences (e.g., OEP). Here, we see learning potential for all the identified clusters. Research on OPP&CE could profit from a stronger consideration of user motivations and perceptions. Research on OEP, OBP or OCP, on the other hand, could focus more on users' backgrounds, education, or social capital. Overall, debate on the "participation divide" should be differentiated by the identified areas of online participation as antecedents may have different effects depending on the form of participation under consideration.

(4) Finally, we find significant interest in the question of the *online — off-line* transfer of participation, i.e., the question of whether users can transfer their online participation beyond the digital sphere. The empirical results provide weak positive evidence in favor of an off-line impact, especially in OPP&CE (Boulianne, 2009). In many cases, online participants report benefits from their engagement, e.g., in the context of patient support forums that help individuals cope with illnesses, or in the education area, where participation in online courses allows for more individualized and flexible learning. Yet, a number of case studies found that social relations or support networks created online are difficult to transfer to the off-line sphere, as common interests may be sufficiently strong to support an online community, but not to nurture real world friendships. So in some respects, online participation appears limited to the digital sphere.

9.2. Limitations

When interpreting the findings from our analysis, some limitations should be taken into consideration. First and foremost, the findings presented in this study are determined by the applied research process, including the choice of keywords and databases. These specifications

are necessary to structure and distill the extensive literature. While we are confident that the four chosen databases provide a comprehensive overview of the peer-reviewed English literature, and the chosen search terms allow for a broad access to the issues addressed in various disciplines, the application of the search terms to the studies' titles clearly limits the scope of the search results. We acknowledge that a number of important contributions in the respective fields are not included in this overview simply because their titles don't make them instantly recognizable as pieces of online participation research. The research process was designed to allow for a broad overview of the current state of research, to allow for an identification and differentiation of research fields and sub-discourses. Thereby, in each individual field discussed in this review, breadth was chosen over depth. Experts in the respective fields will easily identify individual studies missing from the review. In fact, each individual field identified in this analysis would warrant its own systematic literature review.

Since — as we have seen — the topic of online participation is attracting significant attention and the overall research field is growing at a dynamic pace, the existing body of literature is already too large for us to provide an exhaustive overview. However, due to the standardized research process, we managed to identify a broad selection of pertinent studies, included in the analysis independent of the publication outlet, authors' origin or position within the field. For the less developed research fields, such as business or cultural participation, this approach is necessary in order to gain a clear understanding of the relevant discourse. For other, more established fields, such as political participation, future reviews might want to weigh search results by centrality or citation frequency (which would also allow for a broader approach, such as applying search terms to titles and abstracts).

Another limitation of our study is its focus on peer-reviewed journal or conference proceedings publications. In some domains, other publication formats, such as books, constitute important contributions to the field and should be considered in field-specific reviews. Choosing peer-reviewed publications only allowed for a comparison across various disciplines, with the consideration of conference proceedings ensuring that more recent, evolving discourses were not being neglected. Finally, we only analyzed publications in English, neglecting other important (research) languages, such as French, Spanish, or German. This language selection may result in a cultural bias — more specifically a distinct Anglo-centric perspective on the issues at hand.

9.3. Propositions for future research

Finally, we derive a number of propositions from our analysis that may serve to guide future research into online participation. We try to identify propositions that are applicable across all five forms of online participation identified in the review. As we have seen, some research fields are more coherent and advanced than others (most notably the field of OPP&CE). Accordingly, current research interests vary from field to field. In the case of OPP&CE, we find that, due to techniques applied in recent election campaigns, opportunities provided by big data analyses are increasingly gaining attention (Ausserhofer and Maireder, 2013; Bruns and Burgess, 2011; Conover, *et al.*, 2013). Yet, this research interest has not yet spilled over into the other identified research fields. In other words, we will focus on propositions that we deem salient to the overall research domain of online participation — across all the identified forms of participation. Many of these propositions concern the development of a robust theoretical framework necessary for online participation research in all current and further, future domains and disciplines.

Proposition 1: Online participation should be clearly defined as an activity distinct from information and communication.

A surprising number range of studies do not provide a definition of online participation. In fact, we did not find any conceptualization that is equally considered in various research fields. Frequently, acts of information search or communication are subsumed under participation or engagement (Hoffman, 2012), while, again, these concepts are not clearly differentiated. One notable approach is to conceptualize online participation as online content creation and sharing. Several studies on the participation divide have applied this understanding (Correa, 2010; Hargittai and Walejko, 2008). Future studies should strive for a clear(er) conceptual understanding and definition of online participation. We provide a working definition of online participation in this study that we deem applicable to all the identified fields. Yet, further conceptual and empirical work should serve to further refine our understanding of the concept.

Proposition 2: Research on online participation should be aware of its diversity and consider various forms or areas of participation.

A rather obvious conclusion of this literature review is that research on online participation could benefit from a more multi- or cross-disciplinary perspective. In many respects, academic institutions (including journals and conferences) are not conducive to cross-disciplinary research. Yet we find that the fragmentation of online participation research into distinct fields or streams leads to both unnecessary gaps within fields and redundancies across fields. To date, online participation strictly adheres to disciplinary boundaries with OPP&CE dominating the overall picture. Yet research from the other identified fields could help interpret existing findings and generate ideas for new research opportunities. Researchers of online participation from various disciplines still have to create mutual awareness of their work — and foster an understanding of

their common research agenda.

Proposition 3: Research on online participation should apply more mixed methods, relational and longitudinal approaches.

Most studies reviewed either rely on quantitative, explanatory methods based on survey data (mostly regression) or on qualitative, descriptive approaches (mostly case studies). Few conceptual studies complement this rather uniform picture. Therefore we find a lack of mixed methods approaches and data sources beyond surveys and interviews. We detected only few studies analyzing observational data. Social network analysis could be a valuable framework to research participation within a relational perspective that transcends actor-centric views and accounts for individuals' social embeddedness. Finally, a systematic process-oriented perspective based on longitudinal data could complement the cross-sectional studies currently dominating the field.

Proposition 4: Research on online participation should be more theory-based and cumulative.

Research on online participation is seldom based on strong social theories, such as social exchange theory, Bourdieu's concept of *habitus*, Foucault's genealogical approach, rational choice/game theory, social cognitive theory, or social capital theory. This lack of a strong theoretical foundation inhibits an overarching and cumulative research agenda and inhibits the interpretation and transfer of results. Of course, the research field can still be considered relatively young, so many studies are explorative in nature. Still, in order to further flourish, the field should strive for a more distinct theoretical basis.

Proposition 5: Research on online participation should transgress geographical boundaries.

Until now, most research on online participation published in English and in peer-reviewed journals has focused on the English-speaking world — or at least on the "Western" world. At the same time, initial findings show that online participation depends heavily on the specific social, political and cultural context (Calenda and Meijer, 2009; George, 2005). National cultures can be more or less conducive to online participation. Therefore, the field could profit from a more cross-cultural perspective that compares online participation in different social contexts. Comparisons could also serve to contextualize overly optimistic or pessimistic perspectives on the issues at hand.

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Notes

1. Gadras and Greffet, 2013, p. 260.

2. Jenkins, 2006, p. 7.

3. Hoffman, 2012, p. 219.

4. Verba, *et al.*, 1995, p. 7.
5. Park and Perry, 2008, p. 191.
6. Verba, *et al.*, 1995, p. 7.
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8. Sashi, 2012, p. 264.

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Appendix

Table A: Article overview OPP&CE.					
Authors	Title	Year	Journal/Outlet	Volume	Number
Albert, I.O.	Whose e-governance? A critique of online citizen engagement in Africa	2009	<i>African Journal of Political Science and International Relations</i>	3	4
Albrecht, S.	Whose voice is heard in online deliberation? A study of participation and representation in political debates on the Internet	2006	<i>Information, Communication & Society</i>	9	1
Anduiza, E.	Online political participation in Spain: The impact of traditional and Internet resources	2010	<i>Journal of Information Technology & Politics</i>	7	4
Anduiza, E.; Cantijoch, M. and Gallego, A.	Political participation and the Internet	2009	<i>Information, Communication & Society</i>	12	6
Bakker, T.P. and de Vreese, C.H.	Good news for the future? Young people, Internet use, and political participation	2011	<i>Communication Research</i>	38	4
Balnaves, M. and Allen, M.	E-governance as digital ecosystem: A new way to think about citizen engagement and the Internet?	2009	<i>Fifth International Conference on e-Government (ICEG), Boston (October)</i>		
Bateman, P.J.; Gray, P.H. and Butler, B.S.	Community commitment on participation in online communities	2010	<i>Information Systems Research</i>	22	4
Bean, C.	The Internet and democratic engagement in Australia	2011	<i>Social Alternatives</i>	30	3
Bennett, W.L.	The personalization of politics: Political identity, social media, and changing patterns of participation	2012	<i>ANNALS of the American Academy of Political and Social Science</i>	644	1
Bennett, W.L.; Wells, C. and Freelon, D.	Communicating civic engagement: Contrasting models of citizenship in the youth Web sphere	2011	<i>Journal of Communication</i>	61	5
Best, S.J. and Krueger, B.S.	Analyzing the representativeness of Internet political participation	2005	<i>Political Behavior</i>	27	2
Black, L.W.	Blog, chat, edit, text, or tweet? Using online tools to advance adult civic engagement	2012	<i>New Directions for Adult and Continuing Education</i>	2012	135
Borge, R.	Online and offline participation at the local level	2009	<i>Information, Communication & Society</i>	12	6
Boulianne, S.	Does Internet use affect engagement? A meta-analysis of research	2009	<i>Political Communication</i>	26	2
Breindl, Y. and Francq, P.	Can Web 2 .0 applications save e-democracy? A study of how new Internet applications may enhance citizen participation in the political process online	2008	<i>International Journal of Electronic Democracy</i>	1	1

Bridges, F.	Young adults' online participation behaviors: An exploratory study of Web 2.0 use for political engagement	2012	<i>Information Polity</i>	17	2
Brunsting, S. and Postmes, T.	Social movement participation in the digital age: Predicting offline and online collective action	2002	<i>Small Group Research</i>	33	5
Burwell, C.	Rewriting the script: Toward a politics of young people's digital media participation	2010	<i>Review of Education, Pedagogy, and Cultural Studies</i>	32	4
Calenda, D. and Meijer, A.	Young people, the Internet, and political participation	2009	<i>Information, Communication & Society</i>	12	6
Carrara, S.	Towards e-ECIs? European participation by online Pan-European mobilization	2012	<i>Perspectives on European Politics and Society</i>	13	3
Carter, L. and Belanger, F.	Internet voting and political participation: An empirical comparison of technological and political factors	2012	<i>Advances in Information Systems</i>	43	3
Chadwick, A.	Explaining the failure of an online citizen engagement initiative: The role of internal institutional variables	2011	<i>Journal of Information Technology & Politics</i>	8	1
Chen, Y.-C. and Dimitrova, D.	Electronic government and online engagement: Citizen interaction with government via Web portals	2006	<i>International Journal of Electronic Government Research</i>	2	1
Christou, G.	Internet-mediated participation beyond the nation-state	2011	<i>Perspectives on European Politics and Society</i>	12	1
Cogburn, D.L. and Espinoza-Vasquez, F.K.	From networked nominee to networked nation: Examining the impact of Web 2.0 and social media on political participation and civic engagement in the 2008 Obama campaign	2011	<i>Journal of Political Marketing</i>	10	1
Collin, P.	The Internet, youth participation policies, and the development of young people's political identities in Australia	2008	<i>Journal of Youth Studies</i>	11	5
Conroy, M.; Feezell, J.T. and Guerrero, M.	Facebook and political engagement: A study of online political group membership and offline political engagement	2012	<i>Computers in Human Behavior</i>	28	5
Dahlgren, P.	Young citizens and political participation: Online media and civic cultures	2011	<i>Taiwan Journal of Democracy</i>	7	2
Davis, A.	New media and fat democracy: The paradox of online participation	2009	<i>New Media & Society</i>	12	5
de Zúñiga, H.G.; Jung, N. and Valenzuela, S.	Social media use for news and individuals' social capital, civic engagement and political participation	2012	<i>Journal of Computer-Mediated Communication</i>	17	3
de Zúñiga, H.G.; Puig-i-Abril, E. and Rojas, H.	Weblogs, traditional sources online and political participation: An assessment of how the Internet is changing the	2009	<i>New Media & Society</i>	11	4

	political environment				
de Zúñiga, H.G.; Veenstra, A.; Vraga, E. and Shah, D.	Digital democracy: Reimagining pathways to political participation	2010	<i>Journal of Information Technology & Politics</i>	7	1
de Zúñiga, H.G. and Valenzuela, S.	The mediating path to a stronger citizenship: Online and offline networks, weak ties, and civic engagement	2010	<i>Communication Research</i>	38	3
Di Gennaro, C. and Dutton, W.	The Internet and the public: Online and offline political participation in the United Kingdom	2006	<i>Parliamentary Affairs</i>	59	2
Dutta-Bergman, M.J.	Community participation and Internet use after September 11: Complementarity in channel consumption	2006	<i>Journal of Computer-Mediated Communication</i>	11	2
Dutta-Bergman, M.J.	The antecedents of community-oriented Internet use: Community participation and community satisfaction	2005	<i>Journal of Computer-Mediated Communication</i>	11	1
Dutta-Bergman, M.J.	Access to the Internet in the context of community participation and community satisfaction	2005	<i>New Media & Society</i>	7	1
Earl, J.	Private protest?	2012	<i>Information, Communication & Society</i>	15	4
Effing, R.; Van Hillegersberg, J. and Huibers, T.	Social media and political participation: Are Facebook, Twitter and YouTube democratizing our political systems?	2011	<i>Proceedings of ePart 2011</i>		
Emmer, M.; Wolling, J. and Vowe, G.	Changing political communication in Germany: Findings from a longitudinal study on the influence of the Internet on political information, discussion and the participation of citizens	2012	<i>Communications — European Journal of Communication Research</i>	37	3
Evans, H. K. and Ulbig, S.	Social butterflies and politics: Exploring the link between sociability and political engagement, online and off	2012	<i>Journal of Information Technology & Politics</i>	9	4
Evans-Cowley, J. and Hollander, J.	The new generation of public participation: Internet-based participation tools	2010	<i>Planning Practice and Research</i>	25	3
Fenton, N. and Barassi, V.	Alternative media and social networking sites: The politics of individuation and political participation	2011	<i>Communication Review</i>	14	3
George, C.	The Internet's political impact and the penetration/participation paradox in Malaysia and Singapore	2005	<i>Media, Culture & Society</i>	27	6
Gibson, R.K.; Lusoli, W. and Ward, S.	Online participation in the UK: Testing a 'contextualised' model of Internet effects	2005	<i>British Journal of Politics and International Relations</i>	7	4
Grant, W.J.; Moon, B. and Busby Grant, J.	Digital dialogue? Australian politicians' use of the social network tool Twitter	2010	<i>Australian Journal of Political Science</i>	45	4

Hagemann, C.	Participation in and contents of two Dutch political party discussion lists on the Internet	2002	<i>Javnost</i>	9	2
Haller, M.; Li, M.-H. and Mossberger, K.	Does e-government use contribute to civic engagement with government and community?	2011	<i>APSA 2011 annual meeting paper</i>		
Hampton, K.N.; Lee, C.-J. and Eun J.H.	How new media affords network diversity: Direct and mediated access to social capital through participation in local social settings	2011	<i>New Media & Society</i>	13	7
Hand, L. and Ching, B.B.	"You have one friend request"	2011	<i>Administrative Theory & Praxis</i>	33	3
Hargittai, E. and Walejko, G.	The participation divide: Content creation and sharing in the digital age	2008	<i>Information, Communication & Society</i>	11	2
Hoff, J.	Virtual capital? Internet competence and political participation in Denmark	2006	<i>Politik</i>	9	2
Hoffman, L.H.	Participation or communication? An explication of political activity in the Internet age	2012	<i>Journal of Information Technology & Politics</i>	9	3
Holt, K.; Shehata, A.; Stromback, J. and Ljungberg, E.	Age and the effects of news media attention and social media use on political interest and participation: Do social media function as leveller?	2013	<i>European Journal of Communication</i>	28	1
Hwang, H.; Schmierbach, M.; Paek, H.-J.; de Zúñiga, H.G. and Shah, D.	Media dissociation, Internet use, and antiwar political participation: A case study of political dissent and action against the war in Iraq	2006	<i>Mass Communication and Society</i>	9	4
Iglezakis, I.	The development of e-governance and the issue of digital inclusion in Greece with particular regard to the constitutional right of e-participation	2008	<i>Journal of Information, Law & Technology</i>	1	1
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Jensen, M.J.; Danziger, J.N. and Venkatesh, A.	Civil society and cyber society: The role of the Internet in community associations and democratic politics	2007	<i>Information Society</i>	23	1
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