RIFS DISCUSSION PAPER

Research Institute for Sustainability (RIFS)

Potsdam, July 2023

E-Participation in Post-Pandemic-Times: A Silver Bullet for Democracy in the Twenty-First Century?

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Summary

The COVID-19 pandemic has led to a surge in online communication, offering a unique burning glass perspective on the advantages of transferring formerly face-to-face conversations online as well as uncovering limitations of using technical applications to this end. These experiences are of great importance for the development of new e-participation instruments. So far, digital participation has failed to match the quality of real-world procedures. This paper discusses various emerging formats for online participation and their prerequisites. Blended participation models, in particular, appear to offer the most promise, enhancing negotiation processes between heterogenous social groups and facilitating responsive policy making.

Zusammenfassung

Die Corona-Pandemie hat die Nutzung der Online-Kommunikation stark befördert. Diese einzigartige experimentelle Situation machte die Möglichkeiten und Grenzen eines Wechsels der Kommunikationsmedien von Face-to-Face- in Online-Formate sichtbar. Die gesammelten Erfahrungen sind von erheblicher Bedeutung für die Entwicklung neuer Instrumente und Tools der Online-Beteiligung. Bislang allerdings sind Online-Beteiligungsformate den klassischen Offline-Beteiligungsformaten qualitativ nicht ebenbürtig. Daher werden in diesem Beitrag Ansatzpunkte für neue Formate und deren Grundvoraussetzungen diskutiert. Insbesondere Konzepte, welche sowohl Online- als auch Offline-Elemente verbinden (Blended Participation), erscheinen vielversprechend, da sie Austauschprozesse zwischen heterogenen sozialen Gruppen verbessern und die Responsivität des politischen Entscheidungsfindungsprozesses erhöhen können.

Contents

1. Introduction: The Limits of Digital Communication

1.1 A Step Towards a New Digital Era: The Increased Significance of Online Communication

With the Covid-19 pandemic and lockdown measures imposing strict and sudden limits to personal interactions, spring 2020 saw people all over the world turn to digital formats of communication in both personal and professional contexts. As a result, "onlineification" and digitization are seeing a drastic surge (Braun et al., 2020; Ting et al., 2020), capturing all spheres of society (Dwivedi et al., 2020). Against this backdrop, various concerns are discussed, e.g. a promotion of neoliberal tendencies (Burns, 2020) and increasing communication problems such as digital mis- and disinformation (Nguyen & Catalan, 2020).

Whenever possible, face-to-face communication was switched to online formats which, thus, for the first time became acknowledged as actual alternatives to offline, in-person encounters by a large number of users (e.g. teaching, Nuere & de Miguel, 2020; Rapanta et al., 2020). In the face of a new reality, digital spheres attained a new and considerably more substantial meaning. Simultaneously, the particular situation posed by the pandemic can be seen as a test balloon and outlook on future cyber worlds.

Thus, this emergency operation underlines the need to map personal face-to-face exchange and interactions of larger groups online. Both aspects - intimate face-to-face conversation as well as group meetings - were previously considered an exception to online communication. The Achilles' heel of digital communication lies in the current impossibility of adequately replacing real-world interaction, and therefore few attempts have been made to approach offline face-to-face encounters with the help of technical applications. For example, the video-telephony application Skype was first released in 2003 and reached millions of users in the following years, yet never came to be considered a genuine substitute for real-time meetings.

The real-time (and real-world) laboratory of the COVID-19 pandemic has exposed the crucial advantages and disadvantages as well as the opportunities and risks of online communication like never before (Back et al., 2020; Julka-Anderson, 2020). In lockdown, communities were forced to increasingly exchange information via digital media. Due to this, one could have expected a boom of various offers and tools for online communication. Today, however, few applications and providers have emerged as predominant, especially with regard to video conferencing. Although there is evidence of increased use of advanced digital communication options - such as sharing of screen views, joint editing of content or use of cloud services - these are well-established practices and do not represent any innovation. Certainly, the enormous growth in experience and dissemination, which ultimately lead to the replacement of face-to-face-meetings with video conferencing, is a milestone in the history of online communication. Even after the return to normality, online formats will have gained importance and will be used more frequently. Technical infrastructures such as high-speed networks (e.g. 5G standard) and high-performance end devices will advance, diversify and diffuse further in the future. Nevertheless, it may be doubtful whether this will actually lead to persistent and profound changes in communication behavior. On the one hand, video conferencing solutions are commonly known and have been in use for a long time (Daly-Jones et al., 1998). (However, they have not yet reached a level of diffusion qualifying them as convincing surrogates for in-person encounters.) On the other hand, many people long for a return to real-world social interactions. Thus, there are limits to online

communication's capacity to replace offline personal encounters, as shown by a multitude of studies (Dewdney & Ride, 2013; Dutton, 2013; Georgakopoulou & Spilioti, 2016; Mansell & Hwa, 2015; Merskin, 2019). Also, as reported by Beaunoyer et al. (2020), both access to digital devices and the skills required to use them appropriately (digital literacy) are unequally distributed across the population. Indeed, "Digital inequalities were already existing, yet the COVID-19 crisis is exacerbating them dramatically" (ibid., p.1). In the future, it will be indispensable to overcome imbalances between online and offline spheres as well as between passive citizens and those engaging actively in contemporary political discourse.

The central question of this contribution is how existing and new forms of e-participation can be improved under changed conditions in the post-COVID-19 era. To this end, after presenting some elaborations on online communication, key questions of digital democracy will be discussed, accounting for a variety of existing online participation opportunities and their deficits. The main conclusion of the paper is that access to and functions of e-participation as well as linkages to offline formats must be improved considerably. Finally, promising starting points for improving online participation are presented.

1.2 Human Interaction Engages All Our Senses

When we communicate in video conferences, our experience differs considerably from face-to-face interactions (Garde-Hansen & Gorton, 2013; Kappas & Krämer, 2011; Sade-Beck, 2004). This is primarily due to sensory experiences: In a real-world get-together we not only hear and see our counterpart, but we also experience them with all our other senses (Kudryavtseva & Rotanova, 2018). In addition, we have to consider the spatial component: online communication usually confines us to a fixed place in front of a camera. We are sitting still, staring at a screen. Since ambient noise would disturb, we consciously suppress it much more than in real-world interaction settings. Although offline meetings are usually conducted in a predetermined place as well, participants are less confined to a certain spot due to technical imperatives, such as a camera's field of view or microphone sensitivity. The decisive factor for a frosty experience in online communication that does not get under one's skin is the fact that we cannot really feel our counterpart (Schraeder, 2019). In contrast, when we leave our place in front of the computer after an online meeting, we still move away from a technical device. Thus, online communication does not simply provide a replication of its real-world counterpart. And not only is it a different feeling, but the way it is accessed also impacts the nature and form of expression. For example, a higher level of concentration is required, and we cannot hide. Simultaneously, we can exert more control over communication: one may still be yelled at in a videoconference, but the volume can be turned down. This transforms the other person into an object that - comparable to voices from a television - can be muted or even switched off completely. If the audience remains abstract, as with mass media, this is probably less of a problem, but in the case of direct and immediate interaction we instinctively reject this one-sidedness of communication. Implicitly, however, we learn typical modes of one-way communication that media professionals are familiar with. We become increasingly depersonalized speakers, voicing our messages and viewpoints into a technical device. Indeed, recipients exist and reactions are transmitted, but their influence is minimized. In the end, Feedback cannot develop strong, immediate effects, as it is no more than a voice offstage. We usually feel exhausted after finishing online communication, and positive impulses remain short-term. Nobody gets up after an online meeting and feels refreshed. The positive effects of offline resonance spaces, which are typically created by non-verbal forms of interaction, such as gestures, touches, and more intensive eye contact, are eliminated (Vasseleu, 1999). In other words: individual charisma is diminished; everyone shrinks to a small picture on the screen and a distorted voice through the speakers. When the call is over, we want to be congratulated or comforted by a real person. Only in a dystopia, such as the novel Fahrenheit 451, would offline personal interaction have disappeared, leading to the ultimate nightmare of online-only communication.

1.3 Online Communication as an Opportunity for Greater Equality

Despite all its shortcomings, there are good reasons for making greater use of online communication, the benefits of which exceed containing the communication-inhibiting effects of the pandemic response measures. Among them are aspirations for climate protection and increasing sustainability, as well as family friendliness and stress reduction (Oeppen et al., 2020). A very important aspect concerns the social inequality of discourse brought about by and in itself reinforcing uneven distributions of power, which is reinforced by the presence and charisma of a person, since the personal way of communication is instrumental for how one is perceived – often more than the content. These factors of exchange and receptiveness have a decisive influence on social interaction (Bordalba & Bochaca, 2019). People with great charm are less able to convey it online. Conversely, more introverted people can be empowered and can choose low-threshold or less direct forms of communication (e.g. giving written text input without having to speak), which they cannot do in face-to-face situations. Thus, there is evidence that online discourses could create more equal opportunities to engage in conversation (Thurlow & Mroczek, 2011). However, differences can still be produced by language or the way people present themselves during video calls: for example, voices that are perceived as less pleasant cannot easily be compensated. Moreover, the image transmitted via camera can be influenced (staging), becoming an artificial construct, which in turn can generate more attention and thus inequalities.

In addition, spatial arrangements dissolve online: bad seating no longer costs participation in the discourse, some kind of egality is established. All in all, as less distraction and focusing on the screen increases attention, people are more turned towards each other online (Abrashkin et al., 2020). Some people with physical and mental impairments may be better able to take part. In addition, delays and cancellations in public transport no longer negate participation, and dependencies on the environment are generally reduced - apart from the technical infrastructure, however, which becomes a conditio sine qua non. In theoretical terms, this is an abstract reflection of a democratic dilemma: the trade-off between freedom and equality. The personal freedom of communication and interaction, which can be lived out more strongly in the real world with the help of all human senses, reduces equality, and vice versa. In contrast, it can be argued that online communication grants other forms of freedom of discourse - and even expands it by including new interaction formats. This may be true in theory, but practice shows that extroverted people thrive in the offline world. Conversely, introverted people are turning to online formats extensively because they can use them as bridges to communicate. Nevertheless, the phenomenon of some speakers dominating discourse applies equally to both online and offline forms of communication (Baskaran et al., 2018).

1.4 The Crux of the Matter: Group Communication in Virtual Spaces

Looking at group communication in video meetings, it is evident that the interaction does not occur under optimal conditions. Although standpoints can be expressed, reactions are clearly apparent, and the participants can be asked to speak in a certain, coordinated order - quite similar to a telephone conference -, quick and intuitive, situational interactions are scarce, as everything is more controlled (Cui, 2019). Indeed, this may lead to more objective, content-focused discussions as rules of conversation are likely more adhered to and group dynamics as well as prevailing alliances are levelled. However, almost the entire repertoire of non-verbal forms of interaction (facial expressions, gestures, laughter etc.) is omitted (Marra et al., 2020). This means that humor and slapstick in particular are reduced, although not completely excluded. Loosening up interactions and spontaneity are pushed back, communication is more strongly channeled, whereby meetings remain on track, but relaxed atmospheres have little chance. In addition, there is less of a flow of conversation, a dynamic that is collectively carried, unpredictably developed and spread iteratively without direction.

It is precisely these aspects of stress reduction through smoothing and harmonizing forms of communication that are of enormous importance for a healthy discourse. Moods can hardly be created or even transmitted. The virtual space of video conferencing remains dry and appears clinical. Every superfluous and spontaneous interaction or remark is eliminated. However, the effectiveness and efficiency of

exchange can be increased, small talk elements that fill breaks omitted and deviations from an agenda occur less frequently.

Obstructions to a target-oriented exchange can thus be minimized, while at the same time control over the course of conversation is significantly increased. Especially the discussion leader has a crucial role, as it must be decided who is allowed to speak and in what order. At the same time, however, the person speaking cannot be interrupted gently. Thus, strong moderation does not exercise direct influence, informal forms of intervention are hardly possible and everyone who is not in turn to speak is condemned to remain passive. Indeed, online meetings may allow for larger personal distractions, as what one does on their computer is hidden to the other participants. Obviously, (mental) absence occurs also during offline meetings, but direct access to a person has a stronger effect here, for instance when nudging colleagues. Therefore, online formats can only poorly account for intra-group interaction and non-verbal forms of expression. As a result, a reduction in personal freedom can be observed, as rationality outweighs emotionality more strongly.

2. Current Challenges of E-Participation

2.1 Challenges in Online Communication for Public Participation

By eliminating the option to engage spontaneously, instructions and unwritten rules encourage communication according to a given schedule. As a result, people sit stiffly at their desks. No one can exchange a meaningful glance with another participant as would be the case in real-life situations; the intra-group interaction is completely switched off. The advantage of this is that no direct influence of informal coalition formation is possible that could sabotage or capture the discourse. The disadvantage being that no strong ties at all bind the participants. In other words: the participants remain strangers to each other (if they are not acquainted with each other already). Here, a paradox becomes apparent: the binding force between those interacting is weaker despite increased individual focus on the conversation. The minimization of disturbances simultaneously causes the absence of emotionality, social proximity and cohesion. Conversely, these risks must always be taken into account in face-to-face formats. In principle, online communication translates to higher formality and conformity, while offline discourse is characterized by more informality and diverse forms of interaction.

Hence, it makes sense to supplement video formats with other online functions: These may be written input or chats, image-based content, animations or memes (Borup et al., 2015). Various predefined applications such as voting, ratings or queries can also be helpful. Such functions, however, can increase confusion among participations who are not familiar with them. New comprehensive platforms, which enable both permanent cooperation and exchange, are gaining popularity. Nevertheless, different functions are mostly used separately and context-specific, with conditions of exchange being dictated by the logic of the type of communication or interaction and the different providers and platforms. Although the goal of greater integration has been pursued by providers who are eager to expand their portfolio for a long time, to date, such efforts have failed due to low demand, lack of convincing offers or incapacity to compete with other market actors.

Finally, it should also be remembered that group interactions are among the most important social encounters, alongside close ties to partners and family. We need these interactions for a healthy and harmonious life – as to prevent loneliness, isolation and depression. Also, we use all our senses to make social experiences. Therefore, there are natural limits when transferring such interactions online. Although the approaches of augmented reality strive to replace the missing sensory impressions by introducing three-dimensionality, sound, tactility, and smell, so far, their success remains limited (Carmigniani et al., 2011). Some approaches, though, are promising (which will be discussed in more detail below), while others are still dreams of the future. However, in a few years, they could bridge offline and online spheres more comprehensively.

2.2 The Perspective of Education Research: Digital Literacy Matters

In education research, the participation of individuals and groups in educational settings in general, homeschooling and intragroup communication have been studied for decades. Various differences and inequalities between individuals, groups and genders have been identified (Caspi et al., 2008; Jaldemark, 2009; Livingstone, 2004; Normore & Blaylock, 2011). It has been shown that informal influences such as humor and places of communication exert crucial influences on communication that transcend formal settings (Goodboy et al., 2015). Sixteen years ago, Livingstone and Bober (2004)

observed "the emergence of a new divide, signaling emerging inequalities in the quality of Internet use, with children and young people being divided into those for whom the Internet is an increasingly rich, diverse, engaging and stimulating resource of growing importance in their lives, and those for whom it remains a narrow, unengaging if occasionally useful resource of rather less significance" (p.395). Such unequal conditions and differing communication skills are also well known in research on political communication (e.g. Mira Sotirovic, 2001). While many scholars emphasize the opportunities and the potential of participation through online learning environments, there are also critical assessments (Vician & Brown, 2001). First experiences in online education during the COVID-19 pandemic have already been documented and analyzed (Basilaia & Kvavadze, 2020; Bloom et al., 2020; Chick et al., 2020; Crawford et al., 2020; Daniel, 2020; Ferdig et al., 2020; Iivari et al., 2020; Jandrić et al., 2020; Kerres, 2020; Kim, 2020; Lopes & McKay, 2020; Neuwirth et al., 2020; Shahzad et al., 2020). The findings indicate that the importance of physical presence and competencies linked to that is continuously decreasing: spheres of exchange and studying which are not located at home are getting increasingly lost as learning processes are transferred online (Quay et al., 2020). Instead, children and adolescents learn at a very early age how to behave and adapt when cameras are omnipresent, and the creation of personal online profiles is becoming increasingly identity-forming. The current trend of voice messages downgrades writing skills, while the relevance of images and short, catchy phrases is constantly ascending.

2.3 Challenges of Democracy: Bringing Different People Together

In recent years, democracy is challenged by the rise of populism, a surge in extreme attitudes and increasing polarization between population groups (Mounk, 2018). One reason for this is seen in the use of digital media, by which individuals and groups can make themselves heard in a way that is completely novel historically (Gainous & Wagner, 2013). Compared to vibrant Twitter channels, multiply shared Facebook posts and colorful Instagram accounts, established politics and parties display a high degree of technocracy and formalism, which lessens their attractiveness for people to engage (Habermas, 2015). In addition, rather clinical discourse spaces have been cultivated between politics and the population as well as between politicians and civil society communities (Collins & Skover, 2005). Town Hall Meetings, for example, are of little use when dealing with highly polarized topics or seeking to reconcile oppositional groups (Field, 2019). Even on the local level, some conflicts are only poorly resolved, and opponents remain critical irrespective of debates which have been held (Cuppen, 2018). Consequently, participants feel disappointed and frustrated, losing faith in the problem-solving capacities of (local) governments and established actors such as political parties, civil society associations and companies (Hay, 2007). The official agenda is seen as a means to conceal the fact that elites do not make policies to their own disadvantage (Bell, 1992; Hayward, 1996). In a singularized society, individual living worlds are drifting further apart, as the extent of fragmentation and particularization is constantly increasing – a trend that may be intensified by online interactions (Reckwitz, 2020). For democratic politics, it is becoming increasingly difficult to reach everyone as implied by their catch-all claim. Some population groups are alienated and have thus turned away from politics, with their attitudes towards democracy being negative or even indifferent, while people engaging in voluntary associations often live within social bubbles constituted by their peer groups (van Ingen & van der Meer, 2015). The political regime is perceived as a system steered by social elites, and just like a self-fulfilling prophecy, this image becomes reality. Indeed, only increased social exchange and intersection could lead to greater equality and participatory justice, which is certainly intended, but not achieved in the end (Sostero et al., 2020).

2.4 The Logics of Digital Democracy

Individuals and market actors who conduct practices in line with logics of global capitalism and neoliberalism benefit particularly from digitization (Halupka, 2014/2018; Schumann, 2014). Attention is an important currency of the internet. Hence, a new standard for marketing and merchandising is set, which necessitates a certain degree of professionalism. Although the internet certainly allows for

short-time fame and success of laypersons, professional actors prevail in the long term, and temporary hypes usually lack lasting effects. As with one hit wonders in music industry, there is a constant coming and going. Democracy thrives on spontaneity and creativity, but requires stability, a functioning administrative apparatus and a long-term perspective (which can also counteract populism; see Agerberg, 2017). While outsourcing inherently political tasks to administrations and service providers is, to a certain degree, inevitably done in most democracies, such processes can lead to the external impression of merely symbolic politics as well as the (individual) experience of administrative actions as technocracy (Blühdorn, 2007; Miller, 2012; Sears, 1993). Therefore, an opening of public and political processes on the one hand (as to prevent the detachment of democratic politics from the population) and the facilitation of citizens' involvement on the other hand (in order to prevent passivity and resignation among rather deprived population groups as well as the overrepresentation of elites) must be encouraged, relying on both online and offline approaches.

3. Research Findings and Discussion

3.1 E-Participation in 2023: Rarely Innovative, Seldom Attractive

In order to include more people in political processes and to increase social justice in the digital age, e-participation is gaining importance. So, what do such strategies of participation look like in 2023? In contrast to applications developed by large internet corporations, instruments for online public participation are often less attractive and well-designed, while the innovative potential of online media is often not exploited either. Indeed, many tools seem rather monotonous and hardly motivate people to get involved, although there are of course some very convincing instruments as well. A large variety of cases have been described in research (Nabatchi & Leighninger, 2015; Silva, 2010; Simonofski et al., 2017; Steinbach et al., 2019). Studies show that mainly those who are engaged offline tend to get involved online, that is well-educated, more prosperous population groups (digital divide) (van Deursen & van Dijk, 2011; van Dijk & Hacker, 2003; Fuentes-Bautista & Olson, 2018; Norris, 2001; Warschauer, 2004) – even though online opportunities for participation bear potential to mobilize especially younger people (Beyer, 2014). In addition to one's interest in politics and getting involved in respective processes, skills required for understanding and using the participatory tools influence individuals' capacity and likelihood to join a participation procedure and contribute to the discourse (digital literacy) (Chipeva et al, 2018; Scheerder et al., 2017; Tirado-Morueta et al., 2018). This reveals an enormous gap between the technical usage potential and actual practice. However, as more user-friendly, context-specific instruments appear crucial to online participation's success, why are there only few such applications? One reason could be a lack of economic feasibility, as it may not be cost-efficient to develop highly situational solutions for a limited number of users. This applies to IT providers as well as public institutions and stakeholders who strive to use the tools. In case of governmental use, certain standards of data security must be adhered to, which adds to the complexity of designing eligible applications. On the other hand, it is up to the users – success in terms of reasonable demand is not guaranteed, especially not in the long term. At worst, few users take notice of a well-thought out (and correspondingly expensive) instrument for online participation. Conversely, less well-made tools can discourage users, which decreases user numbers (as well as users' interest and faith in online participation in general).

Recent research on e-participation has focused on analyzing e-participation practices in Europe (Tiina & Veiko, 2022), design and enabling factors (Höchtl & Edelmann, 2022), and the dimensions of e-participation (specifically levels of participation and citizen configurations) (Sundberg & Gidlund, 2022) as well as different application types (Leible et al., 2022). While some research (Bellò & Downe, 2022) does examine the drivers and effectiveness of e-participation practices, many influencing factors, contextual factors and effects remain unexplained. Recent studies have acknowledged the role of hate and false metaphors as influential factors in emerging e-participation environments (Alathur et al., 2022), and have examined social media as a source of citizens' communicative power as well as the diffusion of e-participation applications (Arayankalam & Krishnan, 2022). Key challenges identified in recent research include the organization of e-participation in contexts involving a multiplicity of actors (Randma-Liiv, 2022b), effects on shadow economies (Sacchi et al., 2022), transparency (Bisogno et al., 2022), and trust in e-government (Abdulkareem et al., 2022a/b).

Other research examines relations between the spheres of politics and government and citizens' use of media-based online tools. This research shows that e-participation can help to build connections to e-government initiatives (Adnan et al., 2022) and support efforts to stem declines in voter turnout

(Klačmer, 2022). A study on the interaction between citizens and politicians found that the content and type of communication are crucial for the success of online participation via email, microblogs and online meetings (Yao & Xu, 2021). When the quality of information shared in participation processes is perceived to be high, interaction and engagement flourish and citizens show considerable interest in continuing to use the information and exchange channels. In other words: online participation processes supported by rich content are more likely to succeed in facilitating engagement and communication between citizens, policymakers, and government. These initial findings suggest that complex links exist between the spheres of politics and government, on the one hand, and the online communication channels that citizens use, on the other. However, these findings are not sufficient to make a conclusive assessment. Overall, there is a need for more empirical research on these aspects and the effects of online participation. Building on this, future research should also seek to synthesize the findings of existing research and draw theoretical conclusions from the results.

Studies of e-participation generally focus on two areas of interest: management and organization (Randma-Liiv & Lember, 2022; Randma-Liiv et al., 2022), and social media, civic education and cybersecurity (Ahangama, 2023). The core functions of e-participation (combating corruption, increasing accountability and public engagement, strengthening the effectiveness of government and administration) continue to play a significant role in research on participation in general (Waheduzzaman & Khandaker, 2022).

Research conducted in the context of smart city projects, urban planning and regional development continues to focus on efforts to enhance the uptake of e-participation tools, civic engagement and influences on outcomes (Akmentina, 2022; Hovik et al., 2022; Kopackova et al., 2022). Diverse case studies examine formats of institutionalized e-participation such as Decide Madrid (Pina et al., 2022), the Estonian citizens' initiative portal (Vooglaid & Randma-Liiv, 2022) or the German one-stop participation portal meinBerlin (Pruin, 2022), with a particular focus on drivers and barriers and the influence of organizational factors. Further research is needed to synthesize the findings of such case studies and harness their insights to improve e-participation more broadly.

Beyond the classical studies of measuring and explaining performance or deliberative assessment of e-participation applications (Gupta & Das, 2022; Kabanov et al., 2022), another research perspective looks at bottom-up e-participation processes in terms of empowerment, engagement and innovations of the public administration (Duarte Ferreira & Ritta Coelho, 2022; Ludzay & Leible, 2022; Müller, 2022), resourcing for influencing public policy-making via e-participation platforms (Coelho et al., 2022). However, this important dimension of e-participation needs to be linked to theoretical assumptions and models in order to test the validity of theories of democracy, decision making and consensus-building as well as theoretical approaches in communication, media, governance, and policy studies, and to overcome the significant gap between empirical findings and theory building.

A number of studies acknowledge that further case studies on adoption are likely to merely confirm existing findings and suggest that the institutionalization of e-participation should be a focus of future research (cf. Randma-Liiv, 2022a). Emerging digital technologies such as the Internet of Things, artificial intelligence, augmented reality, cyber-physical systems, and blockchain and token technologies should also be considered in future research on e-participation. A study by Porwol et al. (2022), for example, explores possible use of artificial intelligence and virtual reality technologies to enhance collaboration and communication in e-participation.

3.2 Summary of Research Findings: The Need for a New Direction

In conclusion, the existing research on online participation offers little insight into how participation formats might be improved or what could be done to make online participation more attractive. Moreover, much of the technology used in practice is relatively unsophisticated and is often not suitable for online formats. As a result, users perceive many participation processes / formats as "old school" or "old fashioned" and out of step with the standards set by online environments used in everyday life for

communication and professional purposes.

Although case studies do highlight individual examples of successful online participation in specific contexts, the key factors and conditions for successful online participation are under-researched: Organization and coordination, capacity building and human resources, costs, barriers to digital inclusion, and competencies (digital literacies) for participation. Factors that influence the dissemination and uptake of online participation (beyond small-scale and one-off formats) as well as its institutionalization are of outstanding importance.

The emergence of more broadly accessible digital technologies in the 1980s and 1990s was accompanied by high hopes for a digital democratization of society facilitated by the broad use of the Internet. The so-called “pirate parties” later developed various concepts for a digitally enhanced democracy in which citizens would be able to access information, and contribute to and participate in the spheres of a liquid democracy (this is the positive hypothesis of an enhanced digital democracy). At the same time, Joseph Weizenbaum and others have long warned of the dangers posed by digital technologies and technological hegemony. These debates currently focus on the use of AI and a possible loss of control to technological systems (negative hypothesis of a digital apocalypse). To date, there is no evidence that online technologies have or are likely to bring about a far-reaching or profound democratization of society. There is no denying the uptake of online participation technologies, the improvements in their utility or other innovations. Nevertheless, the experience gained during the pandemic and extensive empirical research on online participation show that online formats are no substitute for real-world environments such as meetings, workshops, and roundtables. It is also clear that online formats are not so attractive, helpful or practical that the majority of citizens would choose to participate.

Future studies should therefore address the following research questions: What can be done to lower entry barriers and make online formats more attractive? What can be done to make online participation both more accessible to more people in everyday life and deliver benefits that conventional offline formats do not? And finally: How can offline participation formats and digital formats be better connected ("blended participation")? Efforts to improve public participation must consider both offline and online participation in order to harness their respective advantages to bridge gaps and compensate deficits. Overall, the research points to the need to improve standards across both real-world participation and in online tools / formats in order to develop a landscape of diverse opportunities for participation that speaks to citizens’ abilities and interests and facilitates creative engagement and democratic input that can be integrated into political decision-making processes.

3.3 Offline Participation Is Important – And Loaded With Wicked Difficulties

On site participation events suffer from various problems, of which only three shall be discussed here: First, there is often symbolic participation. Elaborate marketing strategies advertise public participation with big announcements, but as the event is actually conducted, it all too often consists of an inconclusive debate or a mere series of inputs, with the output being reminiscent of a press conference (Field, 2019). Secondly, offline participation is not representative: usually, mainly better-off people participate, and eloquent and rhetorically trained participants can assert themselves better (asymmetrical power and discourse structure). Thirdly, next to open and inconclusive events, there are also those whose setting is controlled through strong moderation and streamlining of the participation process. Implicitly, their results are already predetermined, yet sometimes, the carefully guided participants do not notice that they are being manipulated (game-show participation). In addition to information and dialogue formats, there are also explicitly collaborative instruments, in the course of which participants are supposed to get involved as equal partners. Still, even such formats are not free of pitfalls: for instance, participants’ knowledge on the discussed issues differs considerably, with better-informed experts dominating debates (especially when topics are complex). Also, prejudices must be dispelled – for example, ideas about climate change and climate protection or motives to support new roads or

high-speed networks can differ considerably. Such diverging standpoints need to be understood and accounted for; yet, mutual comprehension requires a lot of effort and time, which are hardly allowed for during most participation procedures. All too often, such events achieve rather modest results, with crucial discussions being postponed repeatedly. The second problem lies in the fact that no consensus can be reached if there are only two alternatives. Of course, democratic negotiations should always strive for the golden mean, but with some choices, e.g. to build or not to build, it can prove difficult to find a compromise, as even if planning is modified, most projects are still realized eventually, and citizens may feel betrayed (Karpowitz & Mansbridge, 2005; Niemeyer & Dryzek, 2007; Robertson & Choi, 2012; van de Kerkhof, 2006).

Even newer, more innovative formats of citizen participation can do little about basic problems. They often only conceal the fact that the exchange does not work (as it is meant to). Nevertheless, on site participation remains important. On the one hand, it is the only way to actually bring different together and have them discuss controversial matters. On the other hand, it is often precisely unpredictable situations that serve as icebreakers and bridge-builders. For example, through humor, unexpected commonalities and bonding experiences (for example through agreeing on something that is not on the agenda) and spontaneity, social ties can emerge and suddenly offer a window of opportunity for interpersonal comprehension and mutual sympathy. However, such developments are much more unlikely to occur in the course of online participation procedures (Delborne et al., 2011).

3.4 How Can Major Issues of E-Participation Be Addressed?

Online participation instruments are applied all over the world, and there are proven formats that are used intensively and proved beneficial to local communities. Most insights discussed in this contribution stem from studies on participation in Western democracies. Pioneer states such as Brazil experimented with e-participation at an early stage. Indeed, in some countries such as South Korea, online communication is already more advanced than in Europe. In Germany, where the main research foci of the author lie, public participation is being transferred online by initiative of the federal states, and mobile applications are introduced in various cities, by the use of which the population can obtain information and submit inputs and vote on new public facilities, e.g. whether a new swimming pool should be built. At first glance, one could get the impression that e-participation is widespread and successfully applied in various contexts. However, to date, the number of users is usually not high and little can be said about the quality of discussions. Basically, low-threshold participation such as information or voting is relatively unproblematic, while high-quality discourses, which are more in line with the ideal of deliberation, are scarce (Albrecht, 2006; Coleman & Gotze, 2002; Coleman & Moss, 2012; Davies, 2009; Davies & Gangadharan, 2009; Friess & Eilders, 2015; Graham & Witschge, 2003; Hartz-Karp & Sullivan, 2014; Manosevitch et al, 2014; Price & Cappella, 2002; Strandberg & Grönlund, 2012/2018; Witschge, 2004). There are significant differences between online and face-to-face deliberation, which align well with the observations on communication in times of COVID-19 (Baek et al., 2012; Min, 2007). This is often the case on social media (Halpern & Gibbs, 2013) and does only differ sporadically, when a higher level of deliberation can be achieved at a certain moment (Esau et al., 2020; Rowe, 2015). As a result, a new agenda for online deliberation and respective requirements for platform design have been discussed repeatedly (Wright, 2012; Wright & Street, 2007). Thus, while numerous case studies draw a promising picture, shortcomings and limits of such tools remain neglected in contemporary academic debate. Indeed, applications often disappear after being received enthusiastically at first. Continuously successful examples of e-participation mark a needle in a haystack, all the more as new formats are constantly invented, quickly rendering formerly innovative approaches irrelevant. Furthermore, the digital divide is also a spatial divide, although digital tools are no longer bound to space (Warren, 2007): it is especially prosperous cities and regions which can provide their inhabitants with high-end, expensive online participation formats, such as 3D models of cities. Looking at the current situation of online media, some technologies and providers have clearly prevailed and dominate the market. For example, most people use only one search engine, a single dating platform and one messenger service. This has led to the supremacy of a few large corporations. Also, the importance of few very popular applications creates a standard, which is, one the one hand,

a great asset for e-participation, yet on the other hand, can be difficult to achieve. With regard to the idea of crowd intelligence and open source software, one would expect that various tools to be either available for the integration of citizen input into planning processes or developed by citizens using a co-working approach (civic tech) (Boehner & DiSalvo, 2016; Gilman, 2016/2017; Lukensmeyer, 2017). However, with the state often hosting civic participation formats, certain standards must be guaranteed (such as data protection and measures against discrimination, trolling, manipulation etc.), and ensuring accessibility remains a crucial challenge. Therefore, professional (and costly) state applications are indispensable. Often, however, there is a trade-off between adherence to predefined standards and openness, creativity and innovativeness. To this end, adding further informal formats appears promising, as known from formal and informal offline participation opportunities which complement each other. Here, however, rather than aiming for a large amount of participatory instruments, a manageable number of high-quality applications marks a good starting point to establish basic standards – similar to the fixed range of options and functions offered by writing programs, internet browsers and video platforms. Depending on the participation context, it can be determined which applications are useful (toolbox approach).

Still, what about the fundamental challenges posed by inequality of access on the user side as well as low usage rates? Effectively, e-participation can only meet these shortcomings up to a certain extent, that is by offering formats adaptable to different user groups. Some tools are more suitable for certain population groups or individuals than others. Thus, there should be miscellaneous opportunities to participate in terms of functions and complexity of applications: Those who only seek to obtain brief information should be able to do so just as easily as participants who strive to immerse themselves deeply in the matters of question and get involved in an elaborate participation format.

4. The Future of E-Participation: In Search of New Strategies

4.1 A Creative Space for New Technologies and Collective Intelligence

One way to upgrade e-participation may be to create new formats with innovative options. In this context, augmented reality technologies paired with standard online services and offline events (mixed reality) are particularly noteworthy. Indeed, it can be very useful to virtually depict the objects debated during participation procedures (such as buildings, landscapes and infrastructures) to render possible future experiences more tangible as well as to make the spaces of interest more accessible and designable. Technology aids to overcome abstract and static environments, illustrating and thereby clarifying what the participation procedure is about as well as the options that can be decided upon. However, these technologies entail a classic trade-off: their use is costly, it can overwhelm some (older) end-user devices, and there are no bridging technologies yet: for instance, how can individual inputs be convincingly integrated in the process? As intriguing as a virtual flight above a future image of an existing city might be, it holds merely entertaining value if participants cannot influence crucial decision-making processes. Only ten years ago, these technologies of virtual images were expected to spread much more widely (e.g. smart glasses). However, so far, the obligatory efforts and costs seem to be out of proportion with regard to the benefits. Instead, other technologies such as autonomous systems, artificial intelligence and voice user interfaces have become crucial for data entry and processing. These technologies can also enhance e-participation. In addition, numerous improvements could be achieved through applications which enable increased involvement and co-design in line with the civic-tech approach (Capdevila, 2015; Horne et al., 2016; Møller et al., 2019). Diverse collaborative approaches such as crowd funding (Ordanini et al., 2011), crowd sourcing (Brabham, 2013) or applications relying on collective intelligence (Surowiecki, 2004) offer manifold possibilities to sensibly link different formats. When dealing with clearly predefined spaces such as municipal districts or villages, various activities could be transferred online, as to revitalize community life – which may entail the introduction of new ideas as well as the reactivation of existing civil society structures. This way, support and advice for decision makers can be generated, enhancing the responsiveness and legitimacy of (local) political decisions. In such a space allowing for creativity and innovation, new tools and features could be tested, with those showing the most promising results finally being applied in established participation procedures.

4.2 Making Existing Technologies Better: Create a Common Space!

Realizing such potentials requires an overarching baseline tool to manage various options (such as chat functions, question-answer schemes, mapping, online meetings, voting, 3D visualization, etc.). However, this necessitates a standard commonly agreed upon, ensuring broad compatibility with different IT infrastructures and operating systems. Again, there seems to be a lack of key players who could provide and enforce such a comprehensive solution. In addition to (local/regional) government

activities (which encompass a large amount and variety of parallelly conducted procedures and applications being developed that hardly ever take notice of each other), alliances between the state, companies and civil society associations seem most promising. For example, the European Commission could create a common basis for the European area (Sostero et al., 2020).

Undoubtedly, there is a large amount of discarded applications. Still, a fair number of these instruments is worth reconsidering, as many rejections are highly situational, and the applications may well prove useful in a different context. This, again, underlines the widely acknowledged importance of a shared basis, offering a selection of field-tested applications for various purposes, contexts, and user groups. The development of computer programs shows that in theory, countless operating systems and programs are conceivable, yet in practice, simple but well-thought out programs persist regardless of certain trends. As to account for innovation and bottom-up co-design, online participation should remain open to contemporary trends, while maintaining a common pool of reliable tools and functions that are constantly being ameliorated to ensure high quality, yet can be easily accessed by everyone.

4.3 Best of Both Worlds: Linking Online and Offline Spheres Comprehensively

It is of crucial importance to sensibly link and blend online and offline formats (Alrushiedat & Olfman, 2013; Annese & Traetta, 2013; Kersting, 2013). After all, even a superiorly designed online application may turn out irrelevant if it fails to capture real-world challenges, account for actual discourses and include offline communities, as it would then only be a virtual bubble, an isolated echo chamber. Since citizen participation usually refers to real-world phenomena, the aim is to both use people's digital activities to interest them in offline occurrences and planning processes affecting the (local) community as well as to better transmit the real-world places, conditions and dynamics to the online world. In this way, an offline visit to the local council can be useful at one point, and conversely, accounting for the council's recommendations and day-to-day insights when developing and applying an online tool can greatly enhance the instrument. So far, these links and intersections have hardly been considered and thus rarely taken advantage of. To this end, more automated solutions may prove helpful, for instance as to display important online activities to members of municipal councils and, conversely, upload the results of elected representatives' work to online participation platforms. The ideas and approaches commonly subsumed under the label of transparency and open data are of little help in this respect, because the point is not to create huge databases (as, honestly, very few people voluntarily work through endless amounts of data and documents in their limited spare time). Indeed, AI technologies could be particularly helpful to structure and organize such enormous data bodies in the future. Ideally, sensible linkages as well as a comprehensive exchange of information enhances both spheres: any online format will be of higher interest to the (local) population if it is publicly recognized and its outcomes are received by responsible committees and politicians or companies and associations. Similarly, (local) parliaments' decisions gain higher legitimacy if, for example, a considerable share of the (local) population has voted in favor of a new public pool via an app.

4.4 Conclusion: What Can Be Learned From the COVID-19 Pandemic for E-Participation?

The boost of digital communication technologies as induced by the lockdown serves as an excellent starting point for the further development of new e-participation opportunities. As they had to cancel participation events, many cities and municipalities became increasingly interested in online formats. However, as they could not find convincing solutions, many of them eventually decided to simply wait until things are back to normal. Actually, there are plenty of applications for a large variety of contexts, yet many are not well-known. Generally, e-participation has not developed a broad impact on social living environments to date. Few overspill effects have occurred, no profound regime change has been triggered – rather, online participation marks a background noise, a tremor which occurs from time to time. Frankly, most e-participation tools are not particularly innovative compared to the rest of the

online world. There are only very few actually new and innovative formats, and these more advanced technologies and approaches are hardly used. Elaborate and professional tools are mostly created in rather isolated settings, for example by ambitious cities, of whose residents only a technology-savvy share benefits (as the applications are so complex that they are too difficult to use for some people). Conversely, overly simple, often static input tools are only used by those who have a pronounced interest to contribute (such as their protest), not promoting any further activity or involvement. Therefore, joint initiatives are needed to overcome the striking disparities between individual applications and regional contexts. It is less a question of supply and demand, market or political influence. Rather, it is a new era of elaborated e-participation taken seriously, overcoming its roots as a technological playground for a small share of the population which holds a personal interest. This requires committed frontrunners who act in concert to effectively address this issue of digital democracy. Such a crucial venture should not be left to deal with by large IT corporations, the more or less progressive mayors of cities around the globe or individual patrons (Sadowski & Pasquale, 2020; Zuboff, 2019). Instead, an alliance recruited from the whole of society is needed to address the necessary and important sustainable digitization of citizen participation. The 21st century is a digital age – and will continue to be that to an extent which is still unimaginable. Now it is about time to realize the manifold potentials of digital democracy and to set the course for the future.

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6. About the author

Jörg Radtke currently leads two research projects on community energy and digital public participation in energy transitions at the Research Institute for Sustainability in Potsdam. After completing his studies in Social Science, Geography and German philology, he obtained his PhD with a thesis on community energy in Germany. In addition to studying Germany's *Energiewende*, his research focuses on the governance, politics and policies of sustainability transitions as well as modes and pitfalls of public participation and democracy, with a special focus on online collaboration, coordination and participation.

The **Research Institute for Sustainability (RIFS)** conducts research with the aim of investigating, identifying, and advancing development pathways for transformation processes towards sustainability in Germany and abroad. The institute was founded in 2009 as the Institute for Advanced Sustainability Studies (IASS) and has been affiliated with the Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences under its new name since 1 January 2023 and is thus part of the Helmholtz Association. Its research approach is transdisciplinary, transformative, and co-creative. The Institute cooperates with partners in science, political and administrative institutions, the business community, and civil society to develop solutions for sustainability challenges that enjoy broad public support. Its central research topics include the energy transition, climate change and socio-technical transformations, as well as sustainable governance and participation. A strong network of national and international partners and a Fellow Programme supports the work of the Institute.

RIFS Discussion Paper

July 2023

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DOI: 10.48481/rifs.2023.022