

Politics at a distance: Infrastructuring knowledge flows for democratic innovation

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Abstract

We study efforts at promoting deliberative mini-publics as a model of democracy. Our focus is on practices supporting the circulation of know-how for doing mini-publics. In this paper we center on the building of infrastructures for knowledge exchange in and around a network known as Democracy R&D. This is a network of mini-publics practitioners from around the world with the declared goal of adding momentum to democratic innovation by enhancing translocal connections, community building, and knowledge. We look at how the network is organized, how online communication platforms are installed, and how observatory devices draw dispersed practices together into a shared frame of mutual learning and collective action. How do such practices configure the ways in which knowledge can flow across sites? How do they constitute an *instrument space*, a translocal assemblage of knowing and doing democracy by means of deliberative mini-publics? Using concepts like *scopic media* and *centers of calculation*, we discuss these practices for how they enable and constrain the circulation of know-how, configure processes of mutual learning, shape the translocal innovation process, and thus, at a distance, also prefigure local ways of knowing and doing politics.

Keywords

political practice, democracy, circulation, translation, infrastructure, political imaginary, ontological politics

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Introduction

Recent debates about the globalization and transnationalization of politics focus on processes in which spaces of regulatory power are shifting, as transnational governance networks supplant nation states as arenas for the making and implementation of rules (Bache and Flinders, 2004; Djelic and Sahlin-Andersson, 2006). Meanwhile, issue spaces are also undergoing change: instead of taking shape within national spheres, topics of public concern are increasingly raised by transnational movements and become articulated in transnational publics forming around specific issues (Castells, 2008; Della Porta and Tarrow, 2005; Marres, 2007). This paper focuses on yet another, but less often treated dimension of spatial change in politics. We investigate the formation of *instrumental spaces* within which the know-how of doing politics is shared and developed.

We show how practices of facilitating knowledge exchange and learning shape a translocal space of doing politics. Channeling and formatting knowledge flows for easy connection and tamper-proof translations, they frame and structure translocal assemblages (Collier and Ong, 2005). This transforms fluid knowledge spaces into network spaces (Mol and Law, 1994) or technological zones (Barry, 2006). Using concepts like centers of calculation (Latour, 1987), scopic media (Knorr Cetina, 2009), and infrastructuring (Star and Ruhleder, 1996) we observe the ontological politics that are unavoidably involved in the design of infrastructures for translocal knowledge exchange and learning.

In earlier works, we have discussed transnationally expanding expert cultures that cater to specific functional models of doing politics as ‘instrumental constituencies’ (Simons and Voß, 2018; Voß and Simons, 2014). This article focuses on specific forms of spatiality connected with the circulation of instrumental knowledge across different sites of political practice (cf. Voß and Freeman, 2016: 22–23). These instrumental spaces co-extend with specific technologized forms of political discourse and practice. As such they perforate territorially bound political cultures and policy styles (see also Shore and Wright, 2011).

The case we investigate here is the promotion of deliberative mini-publics as a specific model of doing democracy (Grönlund et al., 2014). We have a closer look at the practical work undertaken within the Democracy R&D network founded in 2018 to connect geographically distributed ways of doing mini-publics and to support mutual learning and collective action. What is being done to circulate mini-publics knowledge – and how does it constitute a translocal space of knowing and doing democracy?

Knowing, doing, and innovating democracy translocally

In studying practices of innovating democracy, we build on a praxeological understanding. We abstain from defining politics and democracy, acknowledging that both are ‘essentially contested concepts’ (Connolly, 1983). Instead, the knowing of politics itself is an object of study (see Mannheim, 1995 [1929]). We thus investigate the practical ways in which specific versions of political and democratic reality are conceptualized and enacted.

Studying the ‘doing’ of democracy entails a focus on specific ways of making representative claims (Saward, 2006) on behalf of ‘the will of the people’ (or on behalf of

other collective subjectivities, such as the public, the nation, humanity, workers, women, the 99%). Such claims become performative, if constituencies adopt them as a valid descriptions of their collective self: they then bring this collective subjectivity into existence (Bourdieu, 1985; Disch, 2008, 2010, 2019; Latour, 2003; Seitz, 1995).

Against this background, democracy is a practical arrangement of representative claim-making that enables a *demos* to self-realize its power of agency (its *kratos*) by constructing the representations of its subjectivity on its own. Democratic forms of politics must therefore engage a diverse multitude in the process of articulating and adopting representative claims and collective subjects. Any specific ways this can be done, for example, through elections, surveying, negotiation, deliberation or esthetic affection, entail questionable modes of translating diversity into unity. Democracy thus hinges on a cultural belief in specific procedures to conduct this translation truthfully. 'Political imaginaries' play a key role here (Ezrahi, 2012). Liberal, corporatist, communitarian, or hegemony-oriented views of political reality, for example, entail different requirements for such truthful translations. As they are deeply embedded in practices, however, political imaginaries are seldom explicit and they are difficult to change.

For the ambition to expand specific forms of democracy translocally, this poses fundamental challenges. The instrumental belief in specific procedural models to translate truthfully a diversity of experiences into one collective will is anchored in different local political cultures that have taken shape over centuries. Successfully expanding functional models of doing democracy therefore requires a transformation of local political cultures. Merely installing ready-made procedures, like a simple transfer of technology, does not work.

But even transferring technology is never simple. Science and technology studies has amply investigated the challenges of moving, expanding, and replicating scientific knowledge and technological functions (e.g. Akrich, 2000; De Laet and Mol, 2000; Latour, 1990 [1986]; Law, 1986; Law and Mol, 2001). Studies of organizational change, development work, and transnational governance have articulated similar challenges for transferring institutional designs, organizational knowledge, and policy concepts (Berger and Esguerra, 2017a; Clarke et al., 2015; Czarniawska and Joerges, 1996; Gherardi and Nicolini, 2000; Rottenburg, 2009).

Such studies highlight the transformation of knowledge as it travels. Deeply embedded in practice, bodies of knowledge cannot simply move by diffusion, but must be translated. This involves three steps (e.g. Behrends et al., 2014): the isolation and de-contextualization of a few transportable elements of knowing in practice (e.g. a material artefact, a text manual, a skilled expert), their packaging into an abstract model of how they work together (e.g. a flow diagram, a set of instructions, the sketch of an experimental set-up), and the re-contextualization of traveling elements and models at their destination (e.g. re-connecting with locally available bodies, texts and materials for realizing instructions, interpreting texts, enacting skills, using tools, etc.). Thus any transferred knowledge and technology is a situated re-construction.

For innovators of democracy, leaving their models fully open to transformation may undermine them. Severely restricting their transformation, which amounts to standardizing models across sites, entails even larger challenges. For success, it might mean transferring practices and their contexts as self-contained sets (the spaceship approach),

or it might mean adapting contexts so that traveling elements plug into pre-configured local settings (the airport approach). Apart from immense challenges, these two approaches produce alien constructions at least somewhat detached from their local surroundings. They may have little connection with actual local life and they may be resisted as colonial strategies or caricatured as having a naïve faith in ‘instant democracy’ (Sloterdijk and Mueller von der Haegen, 2005).

The practices of innovating democracy that we study here mark a third path between letting democratic knowledge flow wildly and translate freely, and pre-emptively standardizing contexts for functional control. We study experts supporting processes of reciprocal knowledge exchange and learning across different sites of democratic practice, to facilitate the convergence of practices and to let standards emerge organically, from the bottom up.

Innovating democracy with deliberative mini-publics

Our empirical case is the promotion of deliberative mini-publics (Grönlund et al., 2014). Along with terms such as ‘citizen panels’ or ‘deliberative forums’, the term has been used since about 2000 as an umbrella for more specific methods such as citizens’ juries, planning cells, consensus conferences, deliberative polls[®], citizen reference panels, citizen assemblies, or World Wide Views. Since the 1970s, these methods have been developed for different issues and in different contexts of local, national, and transnational governance (Voß and Amelung, 2016).

All these methods share a basic procedure for representing the collective ‘will of the people’. Organizers define the issue beforehand. They recruit by lot a representative sample of ordinary citizens within selected strata of the population affected by the issue. They facilitate communications with a view to accommodating different concerns and to coming up with a consensual statement. They provide participants with information materials or expert statements, establishing the facts to take into account. The procedure produces a document to be published as a considered and informed view of the public (a collective policy recommendation or, in some cases, a post-deliberation poll).

In terms of actors, there is considerable diversity in this field (Amelung and Grabner, 2017). There are practitioners who organize mini-publics and there are academics studying them. They come from different traditions of thought and different professional fields, such as civic education, social movement activism, critical pedagogy, public administration and planning, technology assessment, change management, consulting, and public relations. These actors contest what the core functions of mini-publics are and how processes should be designed and steered. Issues of discussion include: methods of sampling and recruiting participants (random, stratified, or empowering marginalized groups), methods of moderating the debate and reaching closure (consensus, allowance of minority votes, or concluding poll), and methods of working up information about facts about the issue under debate (comprehensive expert assessment, competing expert testimony, or inquiry by participants themselves) (Amelung, 2015; Mann et al., 2014; Voß, 2016). Behind seemingly technical design questions are different nuances in how actors envision mini-publics and their roles, some leaning toward challenges of securing governability, others toward empowering marginalized concerns, for example.

Since the local development of mini-publics practices in the 1970s and 1980s, pioneers of this way of doing democracy have gradually expanded their activities to neighboring regions, administrative contexts, and issue domains. In the 1990s, a broader boom for public participation spurred the proliferation of the mini-publics model. It brought many new actors into the field and brought the limited reliability of methods and lacking protection against manipulation into critique. In response, increased efforts were undertaken to theoretically specify functions and comparatively measure the performance of mini-publics (Voß and Amelung, 2016). Linking up with theories of deliberative democracy, functional claims were explicated as the promise to actualize ‘public reason’ through ‘domination-free discourse’ (Habermas, 1971). The mini-publics procedure thus is claimed to achieve ‘non-hierarchical, egalitarian’ deliberation for articulating the will that a wider public would have, if it was well informed and oriented toward mutual understanding and the public good (Escobar-Rodríguez and Elstub, 2017: 3).

Infrastructures for translocal democratic innovation

Against the current background of rising populism and authoritarianism, mini-publics practitioners seek to combine their knowledge and resources to promote their models as a solution for the deficits of liberal-representative democracy. This involves simultaneously orchestrating local strategies and addressing issues of transnational governance.

A key strategy is to enhance the circulation of know-how beyond the publication of reports and sporadic bilateral meetings. Arrangements for mutual learning across different local sites are expected to establish a shared understanding of practical challenges and the alignment of strategies for translocal projects of innovating democracy. The network Democracy Research & Development (DR&D) was founded early in 2018 to bring together practitioner initiatives, service organizations, consulting businesses, and experts who do mini-publics in different parts of the world. The title of the network insinuates a technology and innovation platform. In the following we focus on efforts at enhancing translocal learning pursued within the DR&D network.

In January 2018, about 40 people from 15 organizations met in Madrid to officially found the network. A network manager initiated and coordinated the meeting who was working as Associate Director for Research and Development for the Australian newDemocracy Foundation. The newDemocracy Foundation was set up in 2004 by Luca Belgiorno-Nettis, heir of a mighty industrial concern, who wanted ‘to find out if innovation in democracy was possible ... [to] find better ways to let leaders lead and for trusted public decisions to be made’ (newDemocracy, 2020). Together with Ned Crosby and his wife Pat Benn, Belgiorno-Nettis’ newDemocracy Foundation remains one of the key financial sponsors of Democracy R&D, closely followed by finance tycoon George Soros’ Open Society Foundations (Democracy R&D, 2020a). Ned Crosby and Pat Benn had already used their private fortune to raise the US-based Jefferson Center in 1974, which developed the citizens’ jury, one of the two oldest mini-publics methods.

DR&D’s goal is to build up momentum by forging an innovation network out of a dispersed field of innovation practices. Mini-publics initiatives are widely distributed across the globe. Locally embedded practitioners have developed their own

understandings and skills within specific cultural and institutional niches, so communication is important and challenging.

In December 2020, the network had as members 85 organizations and individuals from 30 countries on six continents (Democracy R&D, 2020). An internal note on ‘how to define DRD progress?’ suggests the following criteria:

- First, ‘network development’ meaning ‘more *connections* between members, and between members and allies outside the network’ and ‘more *members*, in more places, with more diverse perspectives and assets.’
- Second, ‘learning, improving practice’ with ‘existing *knowledge* gathered, organized, and shared,’ ... ‘*methods and tools* improved; new ones developed,’ and ‘development and adoption of *standards* for good practice.’
- Third, ‘reforming democracy’ by ‘*strategies* collected, synthesized, documented, tested, revised.’

The approach is to make connections, circulate knowledge, and support mutual learning within the organizational realm of the network. Emblematic of the wider orientations guiding these efforts is a statement by the network manager (our emphasis):

I facilitate exchange and want others in the network to know about it. It is important to share excitement. *It is important that they see others collaborating and cooperating*, like the ‘time banks’ where it is visible to all members, if just two get together to collaborate. Every time someone helps another, you see it. *This also gives you data on what is going on. ... The ambition is that everybody wakes up in the morning and sees the network.*

Connecting and making perceivable: Creating translocal social dynamics through scopic media

A key step for invigorating the network was the launch of a virtual forum at the 2020 annual network meeting in Manchester. To create a more intimate atmosphere for interactions via the digital platform, members were urged to sign up with a photo. Automatic alert and notification features kept members on track with the virtual life of the community. Like other social media, the platform entices users to stay updated, to follow up on and add to interactions. It displays summaries of activities, popular topics, and peers who are online. Like a cockpit to oversee and navigate the innovation space, it presents latest contributions, new topics, and unread messages. The virtual forum creates shared attention, builds up a special cosmos of relevance, and involves members in interactions on the shared project of innovating democracy. It demonstrates that there is an alive translocal mini-publics world and it effectively creates a feeling of being engaged with a worldwide dynamic (forum statistics show a total of 575 topics, 2800 posts, 230 users, and 671 likes by 16 February 2021).

Once or twice a month, the manager announces a ‘collaborative learning call.’ Via the network’s mailing list, he solicits proposals for topics and speakers. Via a scheduling poll, temporal resources of members are aligned, often separately for Atlantic and Pacific clusters of time zones. Via videoconferencing software, participants are put in a

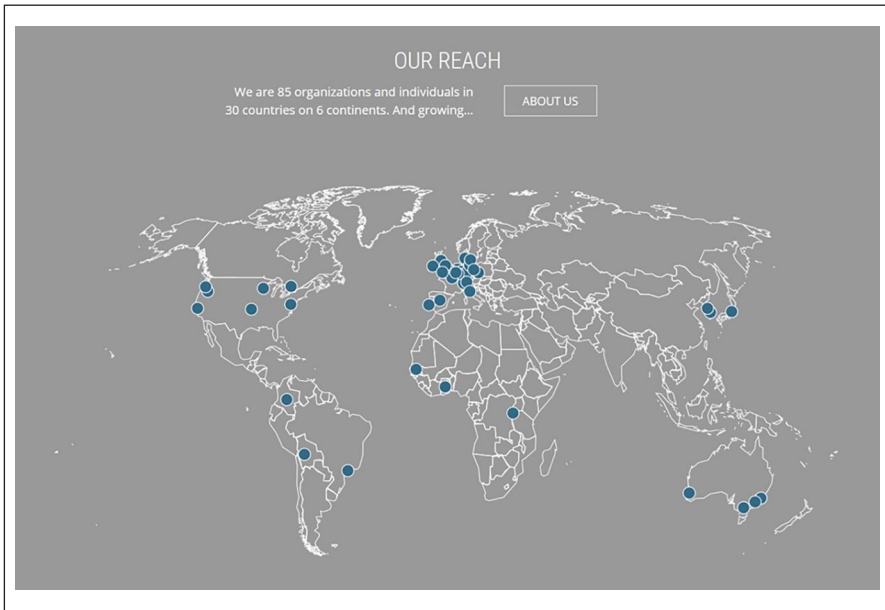


Figure 1. Mapping mini-publics initiatives (Democracy R&D Forum, 2020b).

somewhat thick social situation, interacting with voices, gazes, and movements, even at distance.

Another gaze on the mini-publics world is afforded by geographical mappings of activities, projects, and organizations as they are spread out around the globe. In 2013, Participedia started as a crowd-sourced monitoring and mapping project for all kinds of participatory politics (Smith et al., 2015). Following up on this, the DR&D network has started its own mapping of relevant people and organizations specifically for doing mini-publics. Its website welcomes visitors with a world map demonstrating the global reach of the network (Figure 1).

All of these activities enable translocal knowledge flows by establishing connections and creating representations of the network itself. They list and map relevant individuals, activities and organizations, provide communication platforms, and organize meetings. Dedicated facilitation efforts and the material infrastructures generate and moderate knowledge flows. They bring mini-publics practices from different parts of the world into a shared space of interaction and embed them into a translocal dynamic that constitutes a translocal discourse and establishes mini-publics as a worldwide innovation.

How are interactions mediated to allow knowledge flows across geographical distances and to constitute a translocal space of innovation? How is the meeting place furnished? What is the infrastructure that constitutes the virtual college and that allows social dynamics and learning to unfold at a distance? With a view to the mediatization and the designed artificiality of the translocal encounters in DR&D we find it helpful to reflect on our observations with the help of the concept of ‘scopic media’ and how they

create ‘synthetic global situations.’ The concept was originally developed in studies of finance trading (Knorr Cetina, 2003; Knorr Cetina and Bruegger, 2002), and was extended to study different kinds of geographically dispersed social worlds and dynamics (Knorr Cetina, 2005). The concept captures arrangements that allow social dynamics to unfold based on shared perceptions and alignments in practical orientations, even without any direct face-to-face interactions being involved. Empirically, the focus is on networked communication technologies and audio-visual media that ‘enable translocal imports from the outer world to be collected, projected, and augmented on-screen’ (Knorr Cetina, 2009: 69). A key analytical contribution is that such media can constitute a ‘synthetic situation’ equivalent to what social theory calls a ‘situation’: a coming together in interaction giving rise to particular social realities. ‘The audience may start to react to the features of the reflected, represented reality rather than to the embodied, pre-reflexive occurrences. ... [T]he screen content instantly places those observing it ... into an identical world’ (Knorr Cetina, 2014: 43). Attention to scopic media highlights the effect of specific forms of mediated communication, enabling the emergence of a translocal context as a primary frame of interaction. Orientations, identities and feelings of participating subjects are then shaped by relating with a world that is constituted in translocal interactions infrastructured by scopic media. Scopic media thus allow the formation of translocal forms of sociality decoupled from specific places and direct encounters: ‘When scopic systems are systematically used they may have ‘world-making’ effects that lead to the creation of parallel realities ... thick context[s] that situates individual activities, emotional commitments, and interpretive frameworks’ (Knorr Cetina, 2014: 44).

As scopic media create settings in which actors define situations on bases of technologically mediated interactions, the concept draws attention to the affordances of the infrastructures that make these translocal interactions possible. Scopic media do not neutrally represent worldwide movements, but selectively make some elements part of a synthetic situation. They therefore configure translocal social dynamics and the collective understanding that may emerge from them. Screening and mapping technologies allow for observation and interaction at distance, but they necessarily have a specific selectivity built into their design. While they ‘stitch together an analytically constituted world made up of ‘everything’ potentially relevant to the interaction’ (Knorr Cetina, 2014: 48), it is exactly those decisions on ‘potential relevance’ that have to be made for configuring scopic media and making them work. Specific ideas about what kind of interaction they should enable and to what purpose, ideas about what should be observed and shown and interacted with are inscribed into the design of such technologies’ affordances. This pushes us to reflect on how they infrastructure knowledge flows and thus not only enable but also channel and shape translocal learning. We will come back to this later.

Collecting and synthesizing: Ordering heterogeneous practices through centers of calculation

In addition to bringing mini-publics practices together and inciting social dynamics across geographical distances, DR&D also pursues more ambitious goals. Several

strands of activity aim at systematically collecting information, comparing practices and ordering the knowledge that is to be shared. This starts with a survey among members on their expectations of DR&D. Translating answers into five categories, the network manager formulated collective goals as (a) information and learning, (b) relationships and support, (c) credibility and publicity, (d) funding, and (e) collaboration. Dedicated working groups were set up for realizing the goals, each guided by an agenda distilled from the survey responses. Diverse expectations embedded in the contexts and histories of network members were thus translated into abstract categories so that they could be integrated for a shared strategy.

The working group on ‘information and learning’ was pivotal for the overall project of creating a translocal innovation network. It called itself the ‘toolkit group’ when it was constituted on 14 February 2020. It described its role within the network ‘as potentially being the ‘research team’ – the folks who would actually go and try to compare, for example, what exactly different organizations do on demographic representation ... and then provide that information back to the network.’ Its first self-set task was to establish a repository of relevant information, a virtual library for all network members in form of a Google Drive. Before relevant materials were gathered and stored, the group had to decide on how to select and organize them. Wanting to systematically collect and synthesize circulating texts on different aspects of doing mini-publics, the group faced the challenge of constructing a system of categories. One could collect and sort materials, for example, by how they addressed fundamental legitimation problems (such as defining the problem, claiming representativeness, moderating for consensus, distinguishing facts and values) or by how they addressed practical tasks (such as acquiring funding and sponsors, deciding on panel size and duration, recruiting participants, preparing materials, setting up the venue, facilitating the process, evaluating outcomes, working with media). Any specific order would foreground some concerns and knowledge interests for doing mini-publics and background others.

The toolkit group recognized this in a post on ‘the organizational structure for the info we gather.’ A week after the inaugural meeting the coordinator raised issues ‘on how we organize the actual information we collect. Spreadsheets, wiki, tag, categories.’ He recognized that ‘it’s a bit of a balancing act. Like, organic is great. But ... structure can also be motivating. ... I think the organization of this information is possibly even more important than the information itself – because the problem that exists at the moment isn’t that there isn’t content; the problem is that content is horribly disorganized and in a million of PDFs scattered all around the internet. So this is as much an architecture problem as anything else.’

The design of a knowledge repository for doing mini-publics touches on basic understandings of mini-publics and what the doing of them needs to prosper. This is relevant, because there are different orientations at work. Mini-publics practices are driven by political ends, epistemic curiosity, or business opportunities. Some tend to foreground concerns for governability and others for empowerment, some pursue democratic innovation against the background of autocratic regimes and some against liberal regimes. These different orientations make specific kinds of knowledge more relevant than others. A general system of categories for gathering and sorting materials can only reflect one specific conception of relevance. This will also affect the ability to find and access

0 – General Materials
0a Basic Principles
0b The Pitch (presentations, brochures)
1 – Pre-Deliberation Materials
1a Commissioning & Planning (project timelines, MoUs)
1b Staffing (facilitator recruitment & training)
1c Governance (steering cmtes, advisory boards)
1d Participant Selection (mailings, software, selection procedures)
1e Evidence & Witnesses (briefing docs, experts, stakeholders)
1f Media Relations & Event Marketing (press releases, media kits)
2 – In-Deliberation Materials
2a Logistics (info for attendees, room layout, tech specs)
2b Process Materials (toolkits, manuals) (see also 3a)
2c Online Tools & Materials
3 – Post-Deliberation Materials
3a Final Reports & Case Studies (may contain process details)
3b Evaluation (participant surveys, staff debrief procedures)
3c Outcomes Research (impact on policy, participants, or public)
Other Materials

Figure 2. Categorizing mini-publics knowledge according to technical challenges (Democracy R&D Forum, 2020).

respective information. Any systematic order of archiving, by channeling communications, will also influence the way by which the collective knowledge base of doing mini-publics develops.

Several proposals for an organizational structure of the knowledge repository were discussed, then the toolkit group settled on a version that reflects the mini-publics process as a sequence of phases (Figure 2). This categorical system establishes the doing of mini-publics as a technical challenge decomposed into specific design tasks.

Apart from gathering and sorting ready-made materials, the toolkit group also sought to produce original data on the doing of mini-publics ‘to help us all better understand the diversity of our mini-public deliberations – so that we can all understand, research, discuss, and design deliberative processes better. ... The more data we collect, the more comprehensive a picture we’ll all have.’ The aspiration was a systematic overview by asking network members to give a pre-structured account of ‘general practices – and the rationales behind them’ so that ‘the results – summarized by the Collaborative Learning Group – will form the basis of a new internal Democracy R&D Wiki and will help us

1. Basic information: Organization, location(s), year of first practice
 2. Why and what: purpose, why important, does cost play role
 3. Prior commitment by decision-makers
 4. Selection and definition of issue
 5. Final product and distribution
 6. What are steps for random selection process
 7. Methods of demographic stratification
 8. Number of participants
 9. Decisions on who presents information and how
 10. Payments to participants
 11. Facilitation
 12. Duration and sequencing of meetings
 13. Venue and room layout
 14. Preparatory materials
 15. Standardization and custom design
 16. Online engagement features
 17. Impact
 18. Evaluation
- [Items 3-18 ask for description and then an answer on 'why important?' and 'do budget considerations play a role?']

Figure 3. Surveying and comparing mini-publics practices according to a general model of their components (Democracy R&D Forum, 2020).

choose future discussion topics for collaborative learning calls.' A draft questionnaire for the 'DR&D Mini-Public Practices Survey 1' asked for descriptions of basic constituting elements of mini-publics practices (Figure 3). For each question an exemplary answer was listed, connected to the specific kind of mini-publics practice with which the author of the questionnaire was engaged.

The survey design demonstrates an ambition to systematically compare mini-publics practices, but the final questionnaire was not distributed. Instead, the toolkit group went for an online wiki. Systematicity was relinquished for user-centeredness: '[W]e'll be providing a practitioner-oriented resource of methodologies – technologies, techniques, and specific best practices.' The challenge of digitalizing mini-publics was regarded a key challenge to start with, as Covid-19 measures precluded physical meetings. The wiki was set up on an internal part of the website for all members to add content. About a dozen articles were added on topics such as 'comfort and information interaction,' 'online facilitation,' and 'political legitimacy.' They contained keywords, short comments, links to video tutorials, or other online sources. Initially, the wiki format worked well as an open platform for crowdsourcing information among members. As it allowed them to introduce and use own categories and formats, however, redundant subtopics were opened and content was added in different formats. The wiki quickly frayed, got messy and participation went down. The plan was that two interns would take care of editing and

completing the wiki over the course of the year, as a measure to reintroduce ‘structure’ into the ‘organic.’

Latour’s (1987) concept of ‘centers of calculation’ seeks to capture how translocal knowledge gets composed as a synthetic re-presentation of distant, distributed, and diversely embedded forms of existence. It suggests (p. 223) that this is the result of three operations: (1) the mobilization of knowledge by producing abstract, reduced and de-contextualized accounts of embedded phenomena, by reporting forms and measurements (producing data), (2) the stabilization of circulating knowledge by regulating, materially fixing, and interrelating de-contextualized accounts (compiling databases), and (3) the extension of knowledge by combining, aggregating, classifying, comparing and systematizing accounts in diagrams, tables, maps, texts, and equations (analysing data for patterns).

For this process, diverse forms of existence are framed as part of an ordered whole. The frame that makes them commensurable, however, is a frame imposed by the center, with a view to drawing things together and making them observable and manipulable at a distance (Latour, 1990 [1986]). When such centrally ordered accounts feed back into locally embedded processes, they may come to substitute for local accounts and framings of what is going on (Latour, 1987: 245). Abstract systematics may thus shape the orientations by which mini-publics are done. This is how centers of calculation not only observe and re-present, but also shape and control diverse and distant forms of existence. The concept thus sensitizes us to observe how centrally devised frames, categories, comparative descriptors, indicators, and other standards for producing combinable accounts may become performative, over time configuring and shaping local practices according to categories by which practitioners are urged to report on themselves and be accountable to the center.

Infrastructuring knowledge flows: The politics of an emerging instrument space

Our look at practices exposes hands-on challenges of making knowledge flow. It shows creative design work and the ongoing trialing of socio-technical devices. All this contributes to facilitating connections between, and constructing compatibility and commensurability of, different forms of practical knowledge of how to do mini-publics and democratic innovation. It gradually adds up to form a translocal infrastructure allowing knowledge to flow smoothly across distantly located practices.

We usually think of infrastructure as provisions enabling some focal activity (e.g. transport, communication, cultural life, politics). The *infra* refers to such material-cultural provisions being sunken below ground. This may literally be the case, but key is that they are sunken out of attention, becoming taken for granted as part of the landscape within which options are devised and pondered, and paths of action are taken. This is how infrastructures configure ongoing processes of social interaction. They enable and subtly order the continuous production of social realities. This specific power of ‘conducting conduct’ (Foucault, 1982) is appreciated by ‘infrastructural inversion’ (Bowker, 1994), by bringing infrastructures back above ground by means of focusing attention on

their construction and ordering effects (Barlösius, 2019; Bowker et al., 2009; Bueger, 2015; Opitz and Tellmann, 2015; Shove and Trentmann, 2018).

Infrastructures for research and innovation, like integrated data systems, serve ‘to bring together communities of practice with very different approaches.’ They constitute ‘a kind of super-laboratory stretched over the entire scientific community’ and facilitate communication ‘despite very different practices, technologies and skills’ (Star and Ruhleder, 1996: 112). As ‘epistemic infrastructures,’ they enable and configure ‘the global flow of knowledge and the epistemic practices that sustain it’ (Bueger, 2015: 2). For studying the innovation of democracy, this means shifting attention from specific products and events, like concepts and practices of doing mini-publics, to the infrastructures enabling their translocal articulation. In a parallel context Knorr Cetina suggests ‘a shift of sociological attention: from the construction of products and events to the construction of construction machineries and the construction designs that contribute to the creation of these very products and events’ (Knorr Cetina, 2008: 46).

Here, a key process of social and cultural ordering is going on. Reconstructing how ontological assumptions and theoretical definitions and classifications are inscribed into infrastructures of translocal learning means ‘recognizing the depths of interdependence of technical networks and standards, on the one hand, and the real world of politics and knowledge production on the other’ (Bowker and Star, 1999: 34). Establishing translocally employed categories, meta-codes and metrics makes locally embedded practices commensurable; it enrolls them into an overarching frame (Deville et al., 2016; Espeland and Stevens, 1998; Heintz, 2016; Rottenburg, 2009; Rottenburg et al., 2015). Inscribed into organizational routines, communication systems, and observational devices, the framing is not only symbolically and cognitively effective, but also materially and practically.

Observing practices of infrastructuring and standardization raises attention to ongoing efforts at directing and ordering knowledge flows. It provides a specific angle for studying the making of ‘translocal assemblages’ (Clarke et al., 2015; Collier and Ong, 2005). Assemblages research often foregrounds heterogeneity and dynamics, pointing out how circulation involves translation. The focus on practices of infrastructuring instead foregrounds the practical-cultural ordering of knowledge flows and show how translocal assemblages may gradually and precariously transform into ‘technological zones’ as ‘a space within which differences between technical practices, procedures and forms have been reduced, or common standards have been established’ (Barry, 2006: 239).

Infrastructuring for the doing of mini-publics contributes to a translocal instrument space: a discursive and mental ‘synthesis’ of differently located experts, texts, and materials into a shared conceptual space, a practical and material ‘spacing’ by mobilizing these elements and bringing them into circulation across different sites of practice, and the installation of channels for systematically ordering communication and interaction (Löw, 2008). This recursively establishes a translocal cultural and material arrangement to connect, translate and align locally embedded democratic innovation practices within the frame of an overarching techno-logic of doing politics: a specific theory (i.e. logic) of the capacity to produce (i.e. *techne*) legitimate and performatively effective representations of the will of the people (i.e. *politics*).

Aligning a scattered instrument for collective learning and action is valuable for giving mini-publics momentum. Realizing benefits from systematically ordering translocal knowledge flows and standardizing translations comes at a price, however. It entails disembedding innovations from specific local contexts and reducing diversity within the innovation ecosystem (Chilvers and Kearnes, 2016; Chilvers et al., 2018). It also entails a concentration of power at the sites where infrastructural devices are designed. As much as they help to make knowledge flow and to smooth collaboration through a shared systematic logic of democratic innovation, they do so at the cost of streamlining for a particular version of such a logic, as ‘one person’s standard is in fact another’s chaos’ (Star and Ruhleder, 1996: 112). While homogenization works much more subtly by configuring infrastructures of mutual learning than by directly prescribing a specified design for doing mini-publics, responsibly dealing with these ordering decisions is even more challenging, because they are concealed by an overt openness for exchange and learning. At first glance, maps, networks, platforms, meetings, collections of materials, etc. enable emergence rather than preclude it. Only on a second look does it become apparent that this is achieved by applying constraints, by channeling and formatting knowledge flows, and by centrally installing specific frames for translating differences and making them compatible.

DR&D realizes synergies by silently adopting a technological orientation toward problems of governability. While mini-publics ideally serve as mediators between government and society, practical requirements make governments the more powerful stakeholders in the innovation process. Their support is vital for the business of doing mini-publics, both as formal authorities to adopt recommendations and as financial sponsors. Civic activist or social movements, with their view of the crisis of representation, cannot bring to bear similar resources to influence the framing of innovation challenges. Thus a bias toward governability, rather than empowerment, gets built into the infrastructure of the translocal instrument space.

Alternative ontological orientations and functional purposes come up in discussions about collaborations with civic activists instead of governmental leaders, in proposals for exploring relations with theories of radical democracy, and in concerns about involving disinterested citizens for creating artificially tame publics instead of empowering articulated civic standpoints. Other recurring questions are, for example, whether powerful and resourceful organizers or citizens themselves should define problems to be deliberated, and whether the boundary between factual information and debatable viewpoints is not itself a politically loaded construction. Such questions, however, are like waves rippling around a pontoon city; they never break over the decks and into the engine room of the collective learning system. The specific technological orientation around which DR&D is built effectively filters out such ontological questions and fundamental concerns.

Like this, DR&D intensifies interconnectivity and enables organically evolving metaphors, frames, and shared knowledge interests at the intersection of dispersed local practices of democratic innovation. It also subtly selects and directs the ways in which learning may happen. As a method of translocal learning it is performative: It constitutes the very object of knowing. Definitions of the purpose and functioning of mini-publics are built in the design of infrastructures and shape the future course of the democratic

innovation. Seemingly technical design decisions thus modulate the emergence of future political realities. By indirectly configuring locally embedded ways of doing politics, the infrastructuring of knowledge flows for innovating democracy works as a form of politics at distance (Latour, 1987; Rose and Miller, 1992). Distance here is constituted through a chain of displacements:

First, politics as a matter of representing the will of the people is technologically articulated as a method to produce such representations by running deliberative mini-publics (Voß, 2016). This displaces politics to processes of knowing it, here to the epistemic and technological work of mini-publics experts (Voß and Freeman, 2016).

Second, the knowledge work among experts of politics again is configured by paradigmatic commitments, practical approaches and tools as they are developed in specific research traditions (Knorr Cetina, 1999). This displaces politics once more, now to the development of specific approaches by which knowledge on politics is produced, here to specific ways of theorizing and modeling mini-publics and developing methods for observing, experimenting, describing and evaluating them (Knorr Cetina, 2008: 46).

Third, connections, communications and learning between different local cultures of knowing politics are configured by infrastructures for exchanging knowledge and relating different approaches for a translocally integrated understanding and coordinated innovative action (Star and Ruhleder, 1996). This displaces politics, now in a third turn, to the infrastructuring of translocal knowledge flows, here the decisions within DR&D for specific approaches of mapping and recruiting network members, designing platforms for interaction and exchange, surveying and aggregating mini-publics practices and collecting and storing information.

Conclusion

Studying practices that make knowledge travel brings attention to the ongoing infrastructuring of translocal knowledge flows. The work undertaken to build and expand the Democracy R&D network as a translocal knowledge exchange and learning platform sheds light on the making of a specific type of space little recognized in debates about spatial reconfigurations of politics. Political globalization, transnationalization, etc. are usually studied with a view to spaces of rule-making and compliance (regulatory spaces) or to spaces of raising and articulating public problems (issue spaces). By following the articulation of instrumental knowledge for democratic innovation across different localities, however, we come across a space in which a specific type of technologized know-how for doing politics is developed and used. Such *instrument spaces* incorporate practices embedded in different localities across the globe. Certain functionally oriented conceptions of what it is to do politics and how it is to be done effectively perforate national container spaces of political culture and policy styles. Other than regionally embedded political cultures and policy styles, such functional conceptions are developed in translocal networks where they take shape as a specific expert culture (Knorr Cetina, 2007). They compete with historically grown local political cultures in providing imaginaries, skills, and evaluative criteria for performing political action (see also Shore and Wright, 2011). Such expert cultures for technologized forms of political know-how have been conceptualized as 'instrument constituencies' comprising a range of different

practices related to the development and promotion of a specific functional model of doing politics (Voß and Simons, 2018).

Our study of knowledge practices within DR&D focused on the development, trialing, and installation of specific devices to build and integrate such an instrument constituency. This sheds light on how translocal instrument spaces are reflexively constituted and shaped. They do not evolve spontaneously. The translocal knowledge space does not emerge from a wild circulation of different elements of know-how and their wayward translation with different local contexts where they are freely adopted. Instead the space is constituted and shaped through dedicated practices of mapping initiatives, recruiting members, articulating categories for gathering information materials, connecting mini-publics practices around the world, setting up communication platforms, convening working groups, organizing conferences and online meetings, circulating survey forms, and providing archiving systems and wiki-tools. Together, these practices create a translocal space that is conceptually and materially ordered by a functional meta-code which frames diverse practices within an overarching systematic and makes them commensurable (Rottenburg, 2009).

What is at work here is not simply a busy bazaar of decentral encounters, a scape of flows, or a bubbling repertoire, but a translocal knowledge order. Even if this is not pursued by directly asserting a specific substantial definition of mini-publics and prescribing its use, the design and installation of an infrastructure for easing and effecting knowledge circulation and learning works subtly toward a convergence of conceptual understandings and an alignment of practices. This ordering by way of infrastructuring knowledge exchange and learning adds to studies of policy mobilities and translocal policy assemblages that emphasize loose connections, heterogeneous translations, and a great degree of fluidity (Berger and Esguerra, 2017b; Clarke et al., 2015; Collier and Ong, 2005; Peck and Theodore, 2010). It shows that, even if gradually and precariously, translocal assemblages of discourse and practice may become structured more like a network (a grid of pipes and channels with standardized conditions of carriage) than like a fluid (an organically evolving pattern of meandering and mixing streams) (see Mol and Law, 1994).

This is an effect of implicitly or explicitly making decisions for certain ontological assumptions and categorical distinctions in the design of infrastructure to connect local practices and to enable knowledge exchange and to facilitate collective learning. Yet, as with any technology, there is a 'tension between local, customized, intimate and flexible use on the one hand, and the need for standards and continuity on the other.' The inherent paradox of technology is that it is 'both engine and barrier for change' (Star and Ruhleder, 1996: 112). While DR&D's achievement is the constitution of an integrated innovation project, it is at the same time narrowing down the ways in which the innovation of democracy and the doing of mini-publics may be understood and performed. By filtering out and excluding articulations of concerns and know-how that do not fit the infrastructural provisions because they relate with other ontological assumptions and categorical divisions than those inscribed in it, the instrument constituency and the knowledge space that it constitutes becomes detached from a variety of concerns and historically emerged and contextually bound purposes of doing mini-publics. Integration comes at the loss of diversity and the exclusion of specific forms of know-how. This is the ambivalence of

infrastructuring that is linked with the inevitable selectivity of any systematic order and standardization for assuring compatibility. In this sense, infrastructuring translocal knowledge flows and collective learning for democratic innovation entails a specific form of politics at distance. It indirectly and from far away shapes the way politics is done across a range of geographically dispersed and differently embedded sites. With the gradual displacement of politics from the sites of actually doing it to sites of knowing it and to sites of collectively learning how to know it, and finally to sites of configuring the infrastructures for doing this, comes a gradual concentration of power (Everts, 2016: 60). This political dimension of infrastructuring demands a high degree of reflexivity and responsibility in promoting translocal learning. Considering how ‘existing infrastructures for valuing, learning, and governing participation can be reconfigured, sensitized, and imbued with a more responsible disposition’ (Chilvers and Kearnes, 2020: 363) asks for opening the black-box of infrastructuring as a supposedly neutral endeavor of functional enhancement and for explicitly deliberating and negotiating ontological inscriptions and ‘collateral realities’ that may emerge from them (Law, 2012). Currently ongoing work for translocal democratic innovation is a special case within the broader field of STS inspired infrastructure studies, because it is the knowledge of politics itself that becomes systematized and concentrated.

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