Deliberative Technology:
A Holistic Lens for Interpreting Resources and Dynamics in Deliberation

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Abstract

Seasoned practitioners draw nimbly on a wide array of deliberative methods and resources to design and implement engagement projects. This article complements that knowledge by introducing the concept of ***deliberative technology*** as a holistic lens to encapsulate how facilitators and participants bring different resources into use in particular settings. This concept integrates related approaches regarding the design of deliberation, and skills and training for facilitators, with the complexity of co-produced processes. We develop the deliberative technology concept inductively through ethnographic analysis of three case settings. In the three cases, the deliberative processes and outcomes diverged widely, though the facilitators had undertaken the same training, used the same methodologies, and focused upon common goals, policy contexts, and participant populations. Through analysis of these cases, we show how the concept of deliberative technology provides a holistic way to observe, explain, and intervene constructively in the unpredictable dynamics of deliberation. We conclude with recommendations for practice, training, and ongoing research.

Public deliberative processes can create many positive results, including enabling participants to understand substantive issues, appreciate other perspectives, and build their abilities to develop or act upon solutions (Gutmann & Thompson, 2004; Jacobs et al., 2009; Mansbridge, 1999). To readers of this journal, this almost goes without saying. Yet, attempts to create these results often fail (Fung, 2006; Nabatchi et al., 2012; Quick & Feldman, 2011). And no single dimension explains success or failure; what results from deliberation emerges from a complex mixing of contextual and design features. However, as deliberation becomes an increasingly expected mode of governance (Leighninger, 2006), there is a thirst for more practical guidance about how to make deliberation efforts more successful.

Seasoned practitioners have a healthy skepticism of how-to guides. They know there is no "master recipe" or set of rules that will reliably produce successful public deliberation. Instead, they are aware that a variety of deliberative techniques exist to serve particular purposes (Creighton, 2005; Kaner, 2007; Leighninger, 2006), and are able to draw nimbly on a wide palette of them to design each deliberation to suit particular purposes (Bryson et al., 2013; Carson & Hartz-Karp 2005). A variety of modes of engagement emerge from the interactions among 1) the nature of the problem to be worked on; 2) the policy imperatives about participation (LeRoux, 2009); and/or the combination of the facilitator's skills and preferences with existing resources (Davies & Chandler, 2012). Yet as skilled practitioners think through how to accomplish the goals of deliberation, there's a diminishing return on investment for advanced planning in deliberation. Indeed, many find the unpredictability of deliberative processes not only inevitable, but also actually inherently desirable. As they gain more experience and judgment, they actively read, respond to, and shape emergent dynamics in deliberation to steward productive deliberation.

This article complements what seasoned practitioners already know by introducing the concept of **_deliberative technology_** to encapsulate how facilitators and participants bring different deliberative resources into use in particular settings. Developed from inductive theory building from ethnographic research of three deliberative processes, this concept provides a means for clearer understanding about the unpredictable dynamics of deliberation. The cases were selected from a unique field research setting in which hundreds of facilitators were trained in a particular deliberative approach (Quick & Sandfort, 2014). The projects illustrate differences in implementation despite the fact that all three involve a common aim, a single geographic region, and the same set of deliberation techniques.

After elaborating the concept of deliberative technology, we present data on what occurred during the three projects and how participants experienced them. We conclude the paper by exploring the implications of this new understanding for both training and practice. In our experience – as people who are simultaneously practitioners, teachers, and scholars of deliberation – understanding deliberative technology helps practitioners proactively design *and* adaptively manage deliberative processes.

DELIBERATIVE TECHNOLOGY AS A HOLISTIC LENS

We use the term "deliberative technology" intentionally as an adaptation of the concept of "organizational technology" (Goodman & Sproull, 1990; Hasenfeld, 1983; Perrow, 1967), which refers to the ways organizations accomplish their work through the operational processes that turn inputs into outputs. Research about organizational technology stresses how whole suites of resources, applied in context-specific and interactive ways, constitute organizational processes (Orlikowski, 1992; Roberts & Grabowski, 1999; Sandfort, 2010).

Applying a lens of deliberative technology helps to emphasize the significance of *how* resources are brought into use in the dynamic interactions of deliberative events and processes. We do not expect most readers of this journal to hold deterministic, formulaic beliefs that deliberative techniques will decide results. However, to the extent that there are lingering expectations in our field that particular deliberation methods should have predictable outcomes (or that getting your technique right will guarantee good results), deliberative technology is one remedy to this misunderstanding. It provides a holistic lens for observing, explaining, and intervening constructively so that practitioners can more successfully design and adaptively manage deliberative events and processes as they are unfolding.

Deliberative technology is holistic in that it integrates related yet distinct literatures and approaches about the judgment that practitioners exercise at various stages of deliberation. Specifically, we see it bringing together ideas about:

1. The design of deliberation, in which different methods are proactively selected and sequenced to accomplish various processes and outcomes;

2. Skills and training, in which the competence exhibited by practitioners to implement and adapt different methods or techniques during deliberation; and

3. Emergence and complexity, in which the dynamics of deliberative events are co-produced as they unfold.

Figure 1 is a visual representation of deliberative technology. It is non-linear because this holistic lens draws the elements and stages of design and enactment together. It brings attention to the dynamic, emergent nature of the interactions that occur throughout the planning, implementation, and adaptation of deliberative events and processes. Figure 1 also highlights a typology of some typical elements of deliberative method – techniques, material objects, and conceptual frameworks – which, when applied in particular contexts, create the distinct dynamics of co-production. Yet, these methodological components are only part of the picture. Integrating these pieces through a deliberative technology lens illuminates how methodological resources, policy contexts, and relationships among facilitators and participants interact to create any deliberation result.
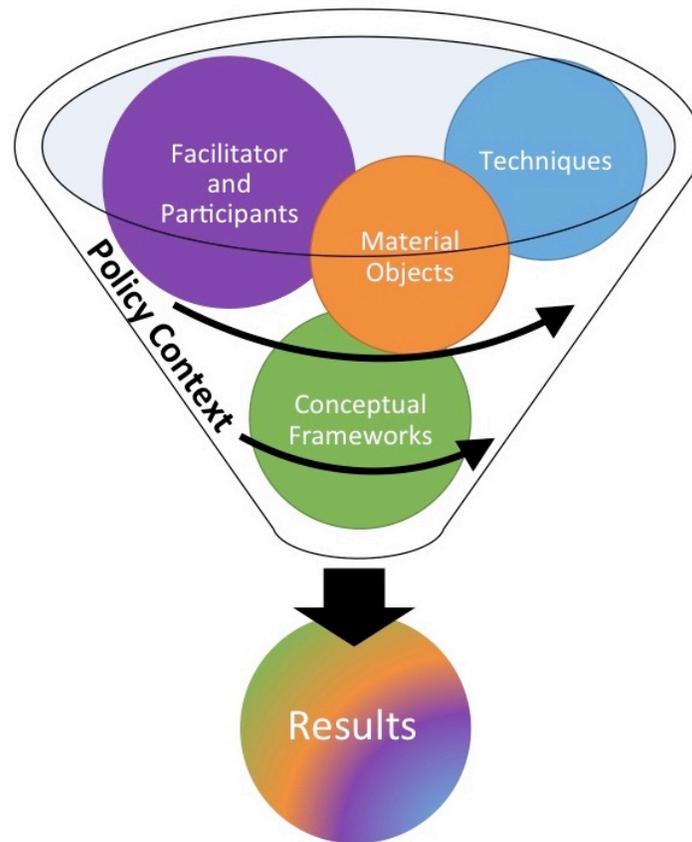
Figure 1. Deliberative Technology. Arrows show the co-production of deliberative technology emerging from interactions among various elements.

FROM DELIBERATIVE METHODS TO DELIBERATIVE TECHNOLOGY

Public deliberation involves a variety of topics, methods, and settings (Bryson et al., 2013; Carpini et al., 2004; Nabatchi et al., 2012; Roberts, 2004). For example, there are important variations in whether the deliberation involves the general public or a small group of invested stakeholders. It may involve consulting with people to gather their preferences on a policy issue that others will decide or vesting decision-making and implementation power in them. What unifies the various forms of deliberation - and distinguishes them from other forms of democratic decision-making - is that they involve semi-structured processes focused on exploring the problem, presenting and critiquing arguments, and evaluating options for policies or programs to address the problem (Gastil, 2000). The three cases we study here have these features.

Under this broad umbrella, many distinctive features of particular deliberative processes and events shape their course and outcome. One prominent explanation of results of deliberation focuses on the performance of the people involved, including whether facilitators are neutral and competent (Nabatchi et al., 2012; Schwarz, 2002) as well as the level to which participants

utilize reason and evidence to drive arguments and solutions (Gastil & Dillard, 2006). The speed and sequencing of the process are also noted as important (Bryson et al., 2013; Hoppe, 2011). Sometimes political features of the context are relevant, including the legal structures within which the deliberation is occurring (Brody et al. 2003), whether the participants are expected merely to be informed of or to shape policy decisions (Quick & Feldman, 2011; Thomas, 2013), or the structural conditions shaping the level of legitimacy given to decision-making (Young, 2000). Features of the specific policy or management problem are also significant, including the extent to which stakeholders consider the problem area important (Kingdon & Thurber, 1984), and whether it is a routine or emerging problem (Rowe & Frewer, 2004).

While scholars assert these features of the deliberation context are all important for good design and outcomes, in practice, practitioner training and professional development still all too often stress a single dimension of deliberation: the techniques and methods that are available. The message that methodological choices are central is so commonplace and problematic that it is important to reorient the discussion to the more holistic lends of deliberative technology. There is a complex, non-determinative relationship between methodological choices and outcomes in deliberative events.

Reframing Technology

To reorient attention from deliberative methods to deliberative technology, we also need to reframe technology. "Technology" is commonly understood as the hardware and software supporting all kinds of social interactions and information communication. Among scholars, the proliferation of social media and advances in new information technology have inspired a wave of investigations, focused largely on describing how these new tools are being deployed (Diamond, 2010; Evans-Cowley & Hollander, 2010; Slotterback, 2011) or their efficacy (Macintosh & Whyte, 2008). While this attention is useful, a narrow definition of technology obscures the actual interactions among such information technology tools and other methods of engagement, such as face-to-face interactions at deliberative events. Pfister and Godana (2012, p.2) recommended a broader conceptualization of technology in deliberation. In a play on the term "liberation technology," they suggested that democratic social movements and building civil society requires "deliberation technology" to encourage "not just information circulation, but discussion and debate." Like us, they identified a broad array of elements by suggesting, "Deliberation technologies focus not just on the hardware of communication, but on the software and the practices that support a broad-based conversation among affected citizens."

Deliberative Resources

By integrating theories about organizational technology into how we define deliberative technologies, we focus attention to ways various resources are assembled to enact deliberative processes and generate results. Resources, rules, and objects are given meaning as they are brought into use in particular contexts (Feldman, 2004; Orlikowski, 1992). Thus, deliberative technologies are rarely stable and predictable; instead, deliberative technology is created dynamically as facilitators and participants bring elements into practice in particular contexts.

To think systematically about a broad array of elements and dynamics that constitute deliberative technology, we reviewed the literature and analyzed our ethnographic observations of deliberative events. We then created a typology of resources used in these deliberative projects.

Engagement techniques are obviously essential. Lee's (2011) extensive analysis documents that practitioners see the existence of many techniques as proof of innovation in the public deliberation field. And, there certainly is a wide array of approaches, for example deliberative polls, citizen juries, online competitions, dialogue circles, 21st-century town meetings, open space technology, and World Café (Baldwin & Linnea, 2010; Bingham et al., 2005; Brown & Isaacs, 2005; Owen, 1997). As noted earlier, considerable training activities focus on teaching practitioners how to understand and deploy particular techniques. And, while there is considerable variety, research suggests there are significant pressures for practitioners to standardize their approach through trainings and credentialing programs, often advocated by a particular developer (Jacobs et al. 2009; Lee, 2011).

Material objects are another type of component of deliberative technology. They both support interactions and document results. Material objects can include the physical setting, supplies, and products. Deliberative practitioners pay considerable attention to selecting and preparing the physical setting. The accessibility of the space, light in the room, and arrangement of chairs and tables are all props on the deliberative stage that are potentially significant for the process of deliberation that unfolds. Practitioners often come with butcher-block paper, colored markers, sticky notes, or hand-held bells as inputs to the technological process (Girard & Stark, 2007). Material products also document what comes out of a deliberative event. Visual models, meeting minutes, or graphic reports become records of what occurred, documenting what participants learned, or the progress being made. Sometimes these materials can alter subsequent events by inviting deeper engagement around particular issues of concern or consensus, or conversely by constraining further work on what is not included in the official record of the event.

Conceptual frameworks are another component that shape deliberative technology. They offer models or schema for practitioners to structure their planning and to interpret what is unfolding during a deliberative event. Conceptual frameworks can be tactical, providing assistance for understanding and navigating group dynamics by offering heuristics (such as, forming, norming, storming and performing (Tuckman & Jensen, 1977)) or step-by-step accounts of project phases. They may also be more fundamental, offering an ontological position that references an overarching theory of being. For example, the Australian Citizen Parliament used appreciative inquiry (Cooperrider & Whitney, 2000) as an orienting stance for a deliberative gathering, which researchers found to significantly shape the process and result (Curato et al., 2013).

RESEARCH METHODS AND FIELD SETTING

Our research approach used ethnographic methods to construct a thick account of deliberative processes in three field-projects. Our data sources include participant observation, extensive field notes, semi-structured interviews with facilitators and participants, participant observation and

materials from the facilitator training, and records (minutes, photographs, policy documents, etc.) from the deliberations.

To pursue our interest in how deliberative technology is enacted, here we compare the process and results from three cases that shared a number of commonalities. However, early in our data analysis, the divergences among them caught our attention. The common resources, policy settings, and process goals of the three case studies, combined with a shared general approach to organizing deliberation, provide an excellent foundation for studying how similar resources and goals played in out in very different ways.

Field Setting & Case Selection

In this study, we took advantage of the investment in large-scale training in a particular deliberative approach across one state. The particular approach is called the Art of Hosting Conversations that Matter (hereafter, the "Art of Hosting"). While the Art of Hosting resembles other approaches to deliberation, it is a particularly apt context for this research in several ways. First, trainees learn a range of engagement techniques to enable high quality conversations, including circle process (Baldwin & Linnea, 2010), Open Space Technology (Owen, 1997), World Café (Brown &Isaacs, 2005), and appreciative inquiry (Cooperrider & Whitney, 2000). Second, it transparently involves participants (Wheatley & Frieze, 2011). The Art of Hosting orients practitioners to co-production, such that hosts and participants work together in deliberative projects to shape the content and process. Third, while the approach draws upon a standard set of techniques, one of its hallmarks is training which encourages practitioners to customize it to particular settings (Authors' paper). Similarly, it encourages practitioners to work in teams to design, respond to emergent dynamics, and debrief.

Like promoters of all deliberative approaches, Art of Hosting practitioners assert there are numerous benefits of their work, including supporting more efficient processes, enhancing relationships, increasing participants' satisfaction and commitment to implementation, and producing higher quality decision results (Authors' paper). Yet, these aspirations are not realized in every deliberative event or process, including in the three cases we analyze here. This makes the three cases a rich foundation for theorizing differences in how closely related deliberation styles are enacted.

There were potentially many cases to include in an empirical study. We selected these cases because of three commonalities:

- *Available deliberative resources*: All facilitators went through the same three-day training in facilitation methods, and thus had access to a shared set of techniques and conceptual frameworks. We exploit access to this shared toolkit to observe how they are deployed in particular combinations and settings. In a previous study, of all training participants, 89% consider the training to have been useful to their practice, and similarly, facilitators had good recall of the techniques and conceptual frameworks introduced in

the training (Quick & Sandfort, 2014). As a result, it is fair to assume that all facilitators had good access to the same available resources.

- *Deliberative setting*: All cases concerned the structure and effectiveness of public service systems and focused on explorations of system redesign. All involved professionals and citizens from intentionally diverse perspectives. They occurred in a single state in the Midwestern United States, and each drew upon public or philanthropic funding.
- *Purpose of deliberation*: In each case, the sponsors believed that a deliberative process could achieve a number of important objectives: to create systems redesign, to build relationships among participants, and to develop innovative solutions.

Ethnographic Research Methodology

In the tradition of other deliberative scholars (Hajer & Wagenaar, 2003; Lee, 2011; Mansbridge et al., 2006), we relied upon ethnographic data and analysis to shed light on how processes to advance collective action are dynamically crafted. We utilized multiple data collection methods to construct a thick account of the settings, a key foundation for the validity of interpretive research (Geertz, 1973; Lin, 1998; Schwartz-Shea & Yanow, 2013).

First, we conducted semi-structured interviews with 30 people from the three cases, between two and eight months after the conclusion of the deliberative events. We interviewed "participants" (people invited to participate in these processes), "sponsors" (i.e., conveners), and "facilitators," and hereafter refer to them in these ways. All are identified by pseudonym here. In the interviews, we probed the nature of the engagement design, implementation, and results; we audio recorded the interviews, summarized them, and used NVivo for thematic coding.

Second, in two of the cases, members of the research team were participant observers. In the third, we viewed videotapes of the engagement processes. These sources of data were incorporated into the NVivo database.

Third, having been trained with the facilitators studied in this paper, we employed our participant observer position to identify and problematize the logics and practices in use in this community (Fortun, 2001; Marcus, 1998). We enhanced the validity of our analysis by intentionally sustaining some skepticism about the claims made by trainers regarding the impacts of their work. We looked at an array of factors present in the cases before narrowing in on the significance of techniques, material objects, and conceptual frameworks and doing comparative analysis of particular instances (summarized in Table 2). We also enhanced reliability by making a discipline of considering alternative interpretations, having multiple members of the research team independently conduct data analysis, and carefully examining the convergences and divergences in our interpretations (Adcock & Collier, 2001).

We analyzed these data inductively using thematic coding in a grounded theory development process through iterative analysis that engage relevant concepts from the literature (Glaser & Strauss, 1967; Schwartz-Shea & Yanow, 2013). Through multiple, iterative rounds of data collection, analysis, and literature reviews, we fleshed out patterns and themes. We also realized

this analysis had a potential for revealing a more complete understanding that we now articulate in terms of the deliberative technology lens.

For each case, here we describe the activities and design of the process, paying particular attention to the deliberative techniques, material objects, and conceptual frameworks that were used. We then briefly describe the results in terms of policy or management decisions that were reached and reflections by the study participants on how the deliberative methods played.

This systematic analysis led us to name deliberative technology as an integrative lens useful in helping practitioners better understand the application of resources as well as the dynamics between and among facilitators and participants in deliberative projects. Again, while it is not surprising that similar techniques can be associated with very divergent results, practitioners and scholars do not necessarily have a lens or language for organizing the observations, thoughts, and surprises that occur in implementation.

CASE STUDIES

To enable robust comparison, we focus on how particular components of the technology were used in relation to the goals and results of the cases (see Table 1). Each of these deliberative processes used a common engagement technique and created material objects. Each also involved multiple facilitators trained in the same Art of Hosting conceptual frameworks. These are all elements important to deliberative technology. Of course, in spite of these similarities, there were important differences as well. The deliberative processes varied in substantive policy topic, the politics surrounding the events, and scope of engagement. As other scholars note, these factors provide the larger context within which a particular deliberative event or process must be designed (Bryson et al., 2013; Nabatchi, 2012). Our purpose here is not to explore the influence of these features on deliberation, but rather to delve into the enacted process to reveal what can be learned about bringing deliberative technology into use.

Table 1. Goals and Results from Deliberative Processes in Study Cases

	Case Studies		
	Local Government Innovation	*HIV/AIDS Field Realignment*	*Resilient Regions Planning Process*

Sponsors' Goals	Exchange information about, inspire, and publicize local government innovation; Strengthen political momentum and legitimacy to preserve state funding for local government; Build relationships among local government officials.	Enable leaders in the HIV/AIDS sector to build trust, connections, and knowledge; Consider needs of the field; Explore strategies for system change and re-alignment of the field.	Produce a 25-year strategic sustainable development plan for the region; Break down silos to enable integrated approaches to social, economic, and environmental domains; Create a grassroots driven, inclusionary process so that the participants could "co-create" significant change through shared learning, discovery of converging views, and commitment to action.
Results	Legitimated local governments' capacity to innovate to state policy makers through the glossy final report. No shared sense of ownership among participants.	Aligned activities among participants, including centralized client intake, policy advocacy tactics, joint funding proposals, and email list-serve. Equalized some knowledge of systems-change and systems-level issues. No consensus on next coordinated steps of larger systems redesign.	Implemented new region-wide projects consistent with goals: homeless shelter, trails, and transit options. Created sense of momentum, understanding, and shared ownership among most participants who held significant ideological differences.

Local Government Innovation

Our first case engaged government officials across the state in a series of discussions about sustaining a wide range of public services at the local level. Undertaken during significant state-level budget shortfalls, it was believed the meetings could spark dialogue about promising solutions to operational problems. State legislators had created a bipartisan Redesign Caucus, which, by working together with other groups, secured local foundation support. Together, these groups identified several goals for the proposed meetings: alleviating gridlock through enabling the exchange of ideas about collaboration already happening; generating political momentum and legitimacy for state support of local government; and strengthening relationships and trust among all kinds of local elected officials. The sponsors approached and hired Cindy, a facilitator trained in Art of Hosting with whom some had worked before. She led the design, which incorporated extensive outreach to invite participants, a brief informational presentation, and a

form of World Café discussion. Six meetings were held throughout the state, involving more than 400 staff and elected officials.

Each meeting followed a pre-established agenda. Participants were assigned to tables to bring together people from different organizations. After the sponsors encouraged them to "courageously consider redesign," the small groups shared a meal and introduced themselves by describing the value of their own pathway to public service. After a presentation by the state demographer about economic and demographic changes in the state and the urgency and significance of the evening's work, the groups began a dialogue. They first brainstormed public services or programs that could be redesigned and then explored opportunities for implementing change. Facilitators supported each table. They were given written ground rules for civil discourse, detailed agendas including discussion questions, and explicit direction about the forum's purpose. Because of time and logistical constraints, Cindy modified several typical features of the World Café technique for these discussions, notably by having participants stay at their tables instead of re-mixing into new groups. Cindy assigned a note taker to each table focused on document the conversation using written templates provided by the facilitation team; participants also were encouraged to informally jot down or draw on large paper with markers.

Results. Afterwards, the meeting sponsors created a number of products. One was a glossy report that highlighted some examples of public service innovations shared by participants. The report asserted that through creating "spaces to build and strengthen relationships among local government leaders," the process had unleashed insight about redesign necessary in the political environment. In the minds of the sponsors whom we interviewed afterwards, this process was a significant improvement over past approaches. They felt it was a more "open" format than classic facilitation because it provided "respondents the opportunity to answer however they would like to answer as opposed to a more directed approach that might ask a very specific question." The report was used at a press conference and posted on the government association's new web-page focusing upon innovation and redesign. On this same site were two five-minute videos that framed the topic and showed footage of the interactive process at the gatherings and interviews with officials about the challenges of innovation.

Uniformly, the sponsors and facilitators interviewed asserted that the primary purpose of the gatherings was building relationships and trust across jurisdictional boundaries so that leaders could learn from each other. They also observed that mutual learning had occurred. Sponsors, facilitators, and participants reported enjoying interacting with others with whom they typically did not have a chance to exchange ideas. Yet, building more durable relationships across jurisdictions takes time. One participant reflected, "I don't think the [sponosors] realized what the turf issue was and how strong it is. People say we should work together, but it just never happens." Others expressed similar observations.

Participants whom we interviewed generally appreciated the opportunity to share problem-solving strategies with other people in local governments, and to have a chance "to dream and to be idealistic." But the execution of the techniques for stimulating dialogue, creating material objects, and drawing upon the conceptual frameworks offered by Art of Hosting did not yield the results participants desired. They did not feel attached to the report and videos that were produced. One city council member, who had appreciated the execution of the gathering,

registered skepticism about the long-term consequences, observing, "The only problem is with the brainstorming and the ideas and everything, with personnel and financial resources lacking, are the agencies able to even do some of this stuff? Or was it sort of a gathering in futility?"

In the estimation of more seasoned facilitators whom we interviewed, there were some limitations in the implementation of some methods (See Quick & Sandfort, 2014). Specifically, the World Café technique was not implemented with fidelity. Although they had been told there was an intention to support co-hosting by the facilitators, in actuality the process did not draw upon the table facilitators to develop, debrief, or refine the process as a team. Instead, a single consultant (Cindy) designed the process to be consistent for all six statewide meetings and straightforward enough to allow a rotating group of pre-trained facilitators to quickly pick up and implement. It was not open to adaptation and modification by the facilitators or participants.

HIV/AIDS Field Realignment

Our second case also involved the redesign of public services. When HIV/AIDS erupted as a public health crisis in the U.S. in the early 1980s, nonprofit agencies began developing to advocate for more responsiveness and to help people die with dignity. In recent decades, advances in prevention and treatment have significantly reduced disease transmission and enhanced survival, changing the services needs of infected people. When the state nonprofit association offered an opportunity to explore service redesign, four leaders of HIV/AIDS service providers stepped forward to convene a strategic conversation about realignment of their field. They worked with three people trained in Art of Hosting practices to design multi-day gatherings, developing significant questions and deciding on the engagement techniques to use. They invited other individuals from advocacy and service nonprofits, health care providers, state and local public agencies, and some of their clients. Ultimately, 26 people attended the gathering.

The first day focused on building relationships among this diverse group and planting ideas for changes. The gathering began with the circle process. Seated in a circle, over 90 minutes, participants took a turn sharing a concrete object and story that represented what motivated them to work with persons with HIV/AIDS. Other activities focused on co-creating a timeline of key moments in their field, briefing documents about policy and fiscal issues in triads, and engaging in small group World Café conversations about possibilities for field redesign. The next two days were structured by another technique, Open Space Technology, where participants develop the small group session topics in response to critical questions.

Throughout, participants were encouraged to help guide the process. On the first day, a host introduced a conceptual framework, convergence-divergence. When participants asked for clarification about a related concept of the project, realignment of the field, the hosts invited a guest to share a research-based diagram that laid out a spectrum of realignment options used by nonprofits. The hosts also solicited volunteers for a team to focus on maintaining the space and beauty of the meeting setting, and another to document activities and results. They encouraged the latter "harvesting team" to be creative about their methods. For example, as people told stories about their interactions with their clients, the harvesting team placed key words on a large drawing of a human figure to help capture those stories and symbolically bring the service

recipients into the room. On another occasion, the participants used red yarn to construct a web to represent the network of HIV/AIDS providers, funders, and clients present (See Table 2 for a more detailed description).

Results. Some results of the initiative were already becoming evident on the third and final day of the process, which occurred 10 days after the second day of meetings. The day began with a check-in on the action steps people had identified at the last gathering. One group had talked about creating a consolidated, centralized client intake process to enable better inter-agency coordination and service; a public manager from the lead state agency reported already beginning to implement this idea. Responding to an expressed need for training on coping with stigma, another participant invited others to a relevant training being held at her agency. Another had organized an advocacy meeting with legislators, which he offered to reschedule to allow anyone interested to participate.

A month after the gatherings, the harvest team and hosts sent out a colorful newsletter. In addition to discussion highlights, it incorporated photos of the group interacting, including the network they had built with yarn and the story harvest recorded on the hand-drawn figure symbolizing a client. Participants whom we interviewed affirmed the usefulness of those objects in facilitating conversation and providing a memorable visual of what they had done together. They indicated that other objects, such as the briefing materials on policy and finance, and the realignment spectrum, had enhanced everyone's knowledge and created a common base that enabled all to engage in system-level discussions. They even used the conceptual model of convergence-divergence, which had been introduced during the deliberation, to explain their overall assessment of the event.

Some coordinated actions emerged from the ideas and relationships fostered at the events, such as joint funding applications, policy advocacy coordination to heighten legislators' awareness of their highest priorities and shared concerns, and the development of a centralized client intake process. A new email listserv for the participants was created to support the potential of sustained connections. Yet, these tactics fell far short of the larger goal of considering needs and opportunities for new networks or models to address fundamental changes in client needs and the new context of the HIV/AIDS services field. During interviews, people recalled how the group struggled for large, clear action steps. The gatherings had focused their attention on clients' changing needs and generated "really good questions," helping the field to "start thinking innovative and big." However, participants also left feeling uncertain about how change might happen, its implications for their organizations, and whether participants could "keep connected and moving forward" once the process ended. One service provider reflected:

> While the introductions [using the circle technique] were clear and powerful, during the small group time things fell back to 'business as usual.' There wasn't a lot of intervention happening in those groups. I think the techniques needed to make us feel *uncomfortable* for a while, by getting things out in the open. Then, real solutions could [have been] accomplished.

In the end, because the powerful interpersonal connections were not leveraged, system-level change was not created. Virtually all participants were reluctant either to consider substantial

service redesign or to challenge their relationships with government agencies on which they depended for fiscal, political, and policy support.

Resilient Regions Planning Process

The final case documented the creation of a 25-year regional sustainable development plan for five rural counties. Facing challenges from the economic recession, elevated unemployment, eroding natural resources, and out-migration, the sponsors felt urgency to forge new approaches by breaking down the "silos" separating government agencies and other stakeholders. The deliberative process originated with the regional Economic Development Commission (EDC), a public agency whose executive director engaged others to apply for resources from the new federal Sustainable Communities Initiative. The organizers dedicated two years for engagement to launch the implementation. Rather than just create the plan, they wanted it to be "grassroots driven" and "inclusionary."

The community received a sizable grant drawing upon resources from several federal agencies, and ultimately involved hundreds of people in creating the regional plan. Just five weeks before the initial kick-off meeting, the core team of facilitators (Karla, Mark, Nate, and Ken) attended an Art of Hosting training. That experience profoundly changed the way they envisioned and organized the engagement process. Karla later reflected on the kick-off meeting with the community, "Much of my speech was literally… taken from the Art of Hosting workbook!" The facilitators transformed themselves into hosts, incorporating a variety of techniques, conceptual frameworks, and material objects from their hosting training throughout the planning process. They also developed a robust structure focused on engaging various stakeholders, including introducing procedures to ensure proportional representation of typically marginalized groups. The 220-member consortium met five times, punctuated with four sessions of thematically defined work groups focused on key issues. Most meetings were held around small, round tables to allow people to talk in an intimate way. The work groups intentionally combined people with specialized knowledge of the topic with others having no expertise.

At the first large consortium meeting, everyone was asked to write down one word about what they hoped for from the process. The facilitators subsequently created a visual word collage, reflecting the frequency of each word expressed; this object became a reference, to remind participants what was important throughout the process. The facilitators, though, were resistant to using many formally prepared materials, suggesting that, "PowerPoints and pamphlets and data dumping, instead of storytelling and gathering the information from the people in the room, is not co-creating anything. If we're really trying to create change, co-creation is the way to go."

The facilitators also used conceptual frameworks. In the opening speech, the EDC director acknowledge the necessity for orienting the participants to the work, to enable them to make sense of a complex process in which some phases would be difficult but productive if they could persist. Karla explained:

> In our very first kick-off, there were 200-plus people in the room from all over the
> region. I had five minutes for an opening, [I said] "This is a distributed leadership

opportunity, we are going to co-create this. We are going to walk through … a groan zone....” The facilitators and other people picked up on that right away. They referred back to it in the work group settings, where they'd say, ”Well, this must be that groan zone part, 'cause I'm not digging this right now.” I brought it up intentionally right away…if you've got just one meeting, it doesn't matter. But if you've got a large project, [it can be helpful] to acknowledge.

Simply bringing people with diverse perspectives into the room or even making sure each individual voiced their opinions would *not* accomplish the results they had desired; instead, the facilitators implemented a deliberative process designed to enable cross-fertilization and exchange of ideas. At the consortium meetings, they used whole group reports, combined with small group planning and World Café for analysis. They also incorporated other techniques, including Open Space Technology and circle process, to insure the appropriate engagement given the presenting issues.

Results. At the conclusion of the planning process, sponsors created a video featuring six ideologically diverse participants sharing what happened through the process. Implementation of the plan began immediately. The first small but significant changes included private employers pooling resources to build a homeless shelter, the creation of trail projects developed at military training facilities, and a new transit system between two community college campuses.

Several months after the process concluded, facilitators offered accounts of how participants were applying the new relationships, insights, and learning to other aspects of their lives and work, in addition to concrete policy and program results. Several participants attested to the value of the word cloud collage as a reference point for the process. As a participant who was a building contractor told us, it provided "cohesion" among the people to see what they were collectively hoping for and enabled a chance for everyone to contribute, because "Everybody's voice was in that collage." They also emphasized the value of the World Café approach where cumulative questions, small group discussion, and lots of cross-fertilization of ideas produced a sense of momentum, connection, and ownership. Describing the work group he assisted, Ken, a host, observed:

Using Open Space Technology and World Café is helping people understand they are not as far apart as they seem to think they are [or] as you've been told; they start to understand that there is more commonality. That has been the benefit in facilitating conversations and letting *them* talk to each other, and solve their own problems, and work through some of these issues, and create recommendations together. In a typical approach, where we just did lecturing and nobody spoke to each other, they wouldn't see how close together they were.

Yet, the deliberative process did not create universally positive feelings and impressions. We learned from interviews that for some participants, the open-ended flow from work group to consortium and back, without a clear set of decision points at each step, was disconcerting.

These cases illuminate how deliberative technology is brought into use and suggest some ways in which scholars and practitioners might use deliberative technology as a holistic lens for interpreting and shaping deliberative processes. Certainly, the cases illuminate the well recognized dynamic mentioned in the opening of the paper, namely that using the same deliberation techniques, in different contexts, does not have predictable impacts (Karpowitz & Raphael, 2014; Lee, 2014). Beyond that, however, they shed new light on *how* the different outcomes emerge. To demonstrate how the lens of deliberative technology provides more systematic insight into deliberative settings, we begin by probing the particular deliberative resources – the techniques, material objects, and conceptual frameworks – used in *all* three cases. Table 2 summarizes these common, shared deliberative resources, which we compare to make sense of their different outcomes.

Table 2: Deliberative Methods in Use Across All Study Cases.

Commonly Used Techniques	*Local Government Innovation*	*HIV/AIDS Field Realignment*	*Resilient Regions*
World Café: A technique for opening discussion of a topic that encourages lots of participation and exchange. It occurs as a series of dialogues around café-sized tables of four to six people. Participants work through a set of questions, which shift from a foundational question to a narrower scope. They move to new tables for each question to cross-fertilize ideas and interact with many people. Participants are encouraged to use markers and paper arrayed on the tables to make notes, sketch, and find connections among the emerging ideas. One individual at each table volunteers to stay in place and welcome each new group. Process concludes with a full-group discussion of key ideas or questions that emerged. (Brown & Isaacs, 2005.)	Limited fidelity to model because no movement of participants among tables or cross-fertilization of ideas.	Used with full fidelity to model.	Used with full fidelity to model.
Commonly Used Material Objects			
Setting: The intentional preparation of the meeting space is an important	Meals, socializing, and	Naturally lit, open room and	Meals, socializing, and

method in deliberation. Facilitators learn to arrange rooms, integrate food, and attend to "space and beauty" to create a meeting environment conducive to deliberation. Agendas are shared in large, artistic posters, and music, flowers, or other visuals are often used to create an unexpected, generative environment.	facilitated dialogue at round tables.	outdoor space. "Space and beauty" committee of participants created a welcoming environment. Artistic landscape of agenda posted on wall.	facilitated dialogue at round tables. Met consistently at same conference facility with windows. Good dialogue guidelines posted around room, with results from prior meetings.
Documentation of events: Documenting can take many forms, including photographs, drawings, personal journaling, songs, or visual minutes, as well as more conventional minutes and other records. Frequently hosts invite participants to form a team to document what occurs.	Glossy report and videos promoted message about local government needs and successes, but were not created or embraced by participants.	A 5-page newsletter featured photos of the group and synopsis of decisions. Novel objects were memorable and helpful to work (e.g., briefing documents, yarn model of network, drawn human form to capture results of stories).	Novel artifacts (e.g., word cloud) provided cohesion and voice. Ongoing notes, formal plan and videos about the process were produced.
Commonly Used Conceptual Frameworks			
Hosting: Hosting practitioners are trained to actively de-center their authority and invite the participants to co-produce the process and results. Hosts' role is to "hold the space" for the group to do its work, observe and interpret the unfolding process, and draw flexibly upon various resources to help guide it.	Not implemented. Process was pre-determined, not emergent. Facilitators led participants.	Implemented. Hosts adapted the process to support emergent needs and dynamics (e.g., inviting a guest to provide needed content), and purposefully	Implemented. Hosts determined overall design, but used open space, World Café, and harvesting to generate topics for subsequent discussion and

		attempted to facilitate systems change.	action plans.
Co-hosting: Practitioners prefer to work in teams both to capitalize on individuals' strengths and sustain the emergent deliberative process. The ideal co-hosting routine includes gathering before the event to design it loosely and debriefing afterwards to support individual practitioners' learning and to improve the subsequent steps of the process. During the event, co-hosts take complementary roles of actively hosting and observing, and work together to guide and interpret the unfolding group dynamics, consulting with one another to improvise and adjust as appropriate.	Not implemented. Majority of facilitators were trained in hosting, but they were not involved in designing, were not permitted to improvise or adapt implementation, and did not debrief.	Implemented. The hosting team designed, adapted as they went, and debriefed.	Implemented. The hosting team designed, adapted as they went, and debriefed.
Divergence-convergence: A conceptual framework practitioners use to make sense of group processes. Resembling other formal theories of group dynamics, it is presented in an intuitive way, frequently through a diagram showing three typical phases: an initial phase of many divergent ideas; a "groan zone" (Kaner, 2007) when they are overwhelmed by abundant information, indecision, or conflict; and a period of convergence among choices about the most appropriate actions.	Not used, either by hosts or participants.	Used heavily by hosts (e.g., to attempt to prompt convergence around system redesign). Referenced by participants, but not used by them to change actions. Convergence not accomplished.	Used heavily. Hosts explained concept at outset to participants, who used the "groan zone" to interpret and get through rough spots. Hosts chose techniques to facilitate divergence and convergence.

Bringing Deliberative Resources into Use

As summarized in Table 2, there are commonalities in the resources used but variation in how they were used. One might conclude that the variation in the results of the deliberations results from variations in how well, or properly, or intensively, a particularly resource was used. But that would be only a partial explanation. Similarly, timelines are an important differentiator

among the cases. The HIV/AIDS and Resilient Regions deliberative processes brought participants together for several hours at a time, repeatedly, over an extended period for analysis and discussion. Greater time – to permit reflection and in-depth work – does seem to support opportunities for systemic change, as the literature suggests (Bryson et al., 2013; Nabatchi et al., 2012). Again, however, this is only a partial explanation of the different courses and outcomes of the cases.

The more powerful explanation comes not from *which* potential resources were used but rather from *how* they were used. The techniques, material objects, and conceptual frameworks interacted and became different kinds of resources, to create the enacted deliberative technology.

Thus, the methods available to facilitators – the techniques, creation or deployment of material objects, the conceptual frameworks that come from training programs – are better conceptualized as potential resources than as formulas or failsafe approaches with predictable consequences. The utility of any one method is not fixed but depends upon how they are brought into use by facilitators in each particular instance, including how they interact with other resources and features of the context (Feldman, 2004; Howard-Grenville, 2007; Sandfort, 2013). They must be selected from potential resources, in particular combinations and intensities appropriate to the context. The nuances that determine their appropriateness to a context cannot be predicted. Ultimately, the context is not fixed either: deliberative technologies influence their own conditions.

The use of materials objects across the cases illustrates how deliberative resources are brought into use to create deliberative technology, and how the lens of deliberative technology can be used to interpret and shape deliberative settings holistically. Material objects often act as what other scholars of deliberation have characterized as "boundary objects" (Feldman & Khademian, 2007) because they help participants play with solutions or provide visual traces of emerging ideas or decisions made. Like any part of deliberative methodology, however, an object does not inherently do that kind of boundary work, nor does it inherently produce a "good" or "bad" impact. Instead, its impact depends on how it is brought into use, and how that aligns with what the facilitators mean to accomplish. Reference materials are a good example. The Resilient Regions hosts determined that "PowerPoints and pamphlets" would not "co-create" knowledge and action in the ways they wanted for their process. In contrast, the HIV/AIDS field realignment effort used handouts to fuel reflective dialogues on the state of their field. In the first instance, facilitators viewed handouts as static mechanisms for uni-directional information transmission, but in the second, they were enlisted as boundary objects to ground and spur dialogue. This distinction underscores that, although commonly recognized tools of the trade, these objects do not have *intrinsi*c importance or consequence. Rather, material objects become significant artifacts when they are used to alter relationships and results (Latour, 2005).

The alteration of relationships is key, which brings us to the final element of the model of deliberative technology presented in Figure 1: ***interactions of participants and facilitators with each other and with other features of the context.*** By their design, deliberative processes can be considered "people-changing" technologies (Hasenfeld, 1983). They are focused on altering the minds, attitudes and actions of participants through dialogue and engagement. Many deliberative processes evoke the ideal of co-production (Bovaird, 2007; Denhardt & Denhardt, 2000), in

which facilitators and participants co-develop the questions for deliberation, the process, and the results. So while the processes are designed to affect substantive issues, such as local government services, HIV/AIDS service delivery systems, or economic development, they also intend to influence participants' own sense of agency. In this regard, deliberative processes are seen as a way to support democratic ideals for sharing authority, build individual and collective deliberative capacity, and facilitate emergent decision-making (Quick & Feldman, 2011; Roberts, 2004). The Art of Hosting application in these cases share this aspiration. However, just because facilitators intend to co-produce a process, it does not mean that it will be. Inclusive co-production also requires participants to recognize and make use of their agency to shape what occurs and what results (Quick & Feldman, 2011).

As illustrated by these accounts, participants' own agency – their attitudes and opportunities for influence – play a part. Sometimes participants engage fully, owning the process and what is created, and at other times they engage up to a point, undertaking only minor follow-up actions, such as setting up list-serves or new operational routines. At still other times, they are more passive. Participants observe various exercises, discussions, and social dynamics, and interpret them, drawing their own conclusions about their legitimacy. When reflecting about a deliberative event or process, they consider a variety of issues: Were the right questions asked? Was sufficient time spent to make them comfortable with other participants? Were the sources of power in the room interrogated? If participants feel their agency is confined, and they do not have much power to guide the process or results, they may simply go through the motions. Afterwards, while they acknowledge a good conversation occurred, they find things did not change much; it was not successful as a people-changing technology. In the words of one of the Local Government Innovation participants, such a process may be "a gathering in futility."

While facilitators' skills do shape the way deliberative methods are brought into use, how participants respond also shapes their consequences. In the HIV/AIDS case, for example, the facilitators demonstrated high competence. They prepared and delivered the methodological makings of a co-produced process that could have supported movement towards field-based systems change. But, deliberative methods meant to unleash participants' agency and ability for joint problem solving for field redesign did not do so. The deliberative methods could not neutralize the power dynamics present among participants – differences of racial and positional authority, which controlled funding. That circumstance created a conundrum for the sponsors and facilitators, who had meant to create an inclusive, co-productive environment. But participants did not perceive the activities of the deliberative methods as significant enough to change the established social patterns. The Resilient Regions case had different results where the deliberative technology was brought into use with participants with divergent ideologies. Working over time, in incremental steps, the deliberative technology actually became people changing (Hasenfeld, 1983). It led to a shared understanding of redesign that was captured in the formal sustainability plan and used to guide regional investments in the years ahead.

Analysis of these cases lead to a generalizable conceptual model – the holistic lens of deliberative technology – represented in Figure 1. Facilitators draw upon and bring into use deliberative resources, such as engagement techniques, material objects, and conceptual frameworks. Yet, the results of a particular deliberative process are also directly shaped by the

actions of participants, namely how they react to, understand, and engage with what facilitators offer.

CONCLUSION

Analysis of these three cases enabled us to articulate the concept of deliberative technology as a holistic lens. Here, we highlight how it can be used to help interpret and shape deliberative processes in practice and improve our theories.

For one, while facilitators engage in many important design choices when planning group processes, they are merely inputs to effective deliberative processes. The lens of deliberative technology brings into focus ways in which design, implementation, and social dynamics are inter-related and relevant to what results from engagement. The deliberative technology lens draws multiple elements together into a dynamic system, in which the deployment or uptake of techniques, material objects, or conceptual frameworks are parts of an interacting whole.

When a particular process falls short of ideal implementation or results, observers may be hard pressed to identify the cause of the challenge. Was the engagement technique poorly matched to the problem or setting? Did the facilitator possess the requisite skills? Were the participants engaged in the process and resulting decisions? The lens of deliberative technology goes beyond recognizing the fact that problems can rarely be pinpointed so narrowly, to illuminate how they can be more holistically and dynamically understood. Effective deliberative processes are neither static nor dependent upon adherence to some idealized standards, but practitioners can be more skillful with this type of framework at their fingertips. For example, we find the typology of elements in Figure 1 – techniques, material objects, conceptual frameworks, policy context, and facilitator-participant interactions – provides a useful mental checklist for assessing what is present and absent, what is working, and what might need adjustment. The deliberative technology lens thus facilitates observation, analysis, and intervention in practice.

Second, this lens has implications for the training of practitioners. Most existing training programs press practitioners to adhere to the *fidelity* of technique or conceptual frameworks. Yet this analysis makes clear that these elements are merely inputs. Drawing upon the deliberative technology lens suggests that training should help practitioners learn to *design for fit* to all of the anticipated elements of the context and to make *skillful adjustments* given what emerges during projects. Since deliberation is people-changing, it must be tweaked or fundamentally reoriented in real time as the nature of the needed change among the participants comes into focus. Training programs that merely describe methods, or even workshops that allow people to practice them, will not be as effective if they do not prepare people to take a more adaptive stance. We recommend that training also include case studies and simulations to give facilitators experiences of seeing and making adjustments. This allows them to be trained in enacting deliberative technology rather than merely using deliberative methods. Additionally, practice communities that allow facilitators to regularly analyze their experiences with other practitioners could hone understandings of what is involved in making skillful adjustments in the face of the emergent dynamics. These pragmatic adjustments to training processes are essential in a dynamic, co-productive field like deliberation.

Finally, this lens suggests new avenues for scholarship. As a generalizable model created through grounded theory development, it emphasizes the importance of better understanding how the conditions and configurations of components in the typology create particular desirable results. It also points to the significance of social dynamics and emergent understanding in particular projects. Future research should focus on what might influence participants' interpretations of events and take-up of processes when they are offered.

REFERENCES

Adcock, R., & Collier, D. (2001). Measurement validity: A shared standard for qualitative and quantitative research. *American Political Science Review,* 95(3), 529-546.

Baldwin, C., & Linnea, A. (2010). *The Circle Way: A Leader in Every Chair*. San Francisco: Berrett-Koehler.

Bingham, L., Nabatchi, T., & O'Leary, R. (2005). The new governance: Practices and processes for stakeholder and citizen participation in the work of government. *Public Administration Review,* 65(5), 547-558.

Block, P. (2009). *Community: The Structure of Belonging*. New York: Berrett-Koehler.

Bovaird, T. (2007). Beyond engagement and participation: User and community co-production of public services. *Public Administration Review,* 67(5), 846-860.

Brown, J., & Isaacs, D. (2005). *The World Café: Shaping Our Futures Through Conversations that Matter*. San Francisco: Berrett-Koehler.

Brody, S., Godschalk, D., & Burby, R. (2003). Mandating citizen participation in plan making: Six strategic planning choices. *Journal of the American Planning Association,* 69(3), 245-264.

Bryson, J., Quick, K., Slotterback, C., & Crosby, B. (2013). Designing public participation processes. *Public Administration Review,* 73(1), 23-34.

Carson, L., & Hartz-Karp, J. (2005). Adapting and combining deliberative designs: Juries, polls, and forums. In J. Gastil and P. Levine (Eds.) *The Deliberative Democracy Handbook* (pp. 120-138). San Francisco: Jossey-Bass.

Cooperrider, D. & Whitney, D. (2000). *Appreciative Inquiry: A Positive Revolution in Change.* San Francisco: Berrett-Koehler.

Creighton, J. (2005). *The Public Participation Handbook: Making Better Decisions through Citizen Involvement*. San Francisco: Jossey-Bass.

Curato, N., Niemeyer, S., & Dryzek, J. (2013). Appreciative and contestatory inquiry in deliberative forums: Can group hugs be dangerous? *Critical Policy Studies,* 7(1), 1-17.

Daft, R. (2006). *Organizational Theory and Design*, 9th edition. Boston: South-Western.

Davies, T., & Chandler, R. (2012). Online deliberation design: Choices, criteria, and evidence. In T. Nabatchi, J. Gastil, G. M. Weiksner, & M. Leighninger (Eds.). *Democracy in Motion:*

Evaluating the Practice and Impact of Deliberative Civic Engagement (pp. 103-131). New York: Oxford University Press.

Denhardt, R., & Denhardt, J. (2000). The new public service: Serving rather than steering. *Public Administration Review,* 60(6), 549-559.

Delli Carpini, M. X., Cook, F. L., & Jacobs, L. R. (2004). Public deliberations, discursive participation and citizen engagement: A review of the empirical literature. *Annual Review of Political Science*, 7(1), 315-344.

Diamond, L. (2010). Liberation technology. *Journal of Democracy,* 21(3), 69-83.

Evans-Cowley, J., & Hollander, J. (2010). The new generation of public participation: Internet-based participation tools. *Planning, Practice & Research,* 25(3), 397-408.

Feldman, M. (2004). Resources in emerging structures and processes of change. *Organization Science,* 15(3), 295-309.

Feldman, M., & Khademian, A. (2007). The Role of the Public Manager in Inclusion: Creating Communities of Participation. *Governance,* 20(2), 305-324.

Feldman, M., & Quick, K. (2009). Generating resources and energizing frameworks through inclusive public management. *International Public Management Journal,* 12(2), 137-171.

Fortun, K. (2009). Advocacy, ethnography, and complex systems. In *Advocacy after Bhopal: Environmentalism, Disaster, New Global Orders* (pp. 1-24). Chicago: University of Chicago Press.

Fung, A. (2006). Varieties of participation in complex governance. *Public Administration Review,* 66(S1), 66-75.

Gastil, J. (2000). *By Popular Demand: Revitalizing Representative Democracy through Deliberative Elections*. Berkeley: University of California Press.

Gastil, J., & Dillard, J. (2006). Increasing political sophistication through public deliberation. *Political Communication,* 16(1), 3-23.

Geertz, C. (1973). *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

Girard, M., & Stark, D. (2007). Socio-technologies of assembly: Sense-making and demonstration in rebuilding Lower Manhattan. In V. Mayer-Schonberger & D. Lazer (Eds.). *Governance and Information Technology: From Electronic Government to Information Government* (pp. 145-176). Cambridge: MIT Press.

Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing.

Goodman, P. S. and Sproull, L. S. (1990). *Technology and Organizations*. San Francisco: Jossey-Bass.

Gutmann, A., & Thompson, D. (2004). *Why Deliberative Democracy?* Princeton: Princeton University Press.

Hajer, M., & Wagenaar, H. (2003). *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge: Cambridge University Press.

Hasenfeld, Y. (1983). *Human Service Organizations*. Englewood Cliffs: Prentice Hall.

Hoppe, R. (2011). Institutional constraints and practical problems in deliberative and participatory policy making. *Policy & Politics,* 39(2), 163-186.

Howard-Grenville, J. (2007). Developing issue-selling effectiveness over time: Issue selling as resourcing. *Organization Science,* 18(4), 560-577.

Jacobs, L., Cook, F. L., & Delli Carpini, M. (2009). *Talking Together: Public Deliberation and Political Participation in America*. Chicago: University of Chicago Press.

Kaner, S. (2007). *Facilitator's Guide to Participatory Decision-Making*, 2nd edition. San Francisco: Jossey-Bass.

Karpowitz, C. & Raphael, C. (2014). *Deliberation, Democracy, and Civic Forums: Improving Equality and Publicity*. Cambridge United Kingdom: Cambridge University Press.

Kingdon, J., & Thurber, J. (1984). *Agendas, Alternatives, and Public Policies*. Boston: Little, Brown.

Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. London: Oxford University Press.

Lee, C. (2011). Five assumptions academics make about public deliberation, and why they deserve rethinking. *Journal of Public Deliberation,* 7(1), 1-48.

Lee, C. (2014). *Do-It-Yourself Democracy: The Rise of the Public Engagement Industry*. London: Oxford University Press.

Leighninger, M. (2006). Is everything up to date in Kansas City? Why 'citizen involvement' may soon be obsolete. In *The Next Form of Democracy: How Expert Rule is Giving Way to Shared Governance and Why Politics will Never be the Same* (pp. 44-68). Nashville: Vanderbilt University Press.

LeRoux, K. (2009). Paternalistic or participatory governance? Examining opportunities for client participation in nonprofit social service organizations. *Public Administration Review,* 69(3), 504-517.

Lin, A. (1998). Bridging positivist and interpretivist approaches to qualitative methods. *Policy Studies Journal,* 26(1), 162-180.

Macintosh, A., & Whyte, A. (2008). Towards an evaluation framework for eParticipation. *Transforming Government: People, Process, and Policy,* 2(1), 16-30.

Mansbridge, J. (1999). "On the idea that political participation makes better citizens" In S. Elkin & K. Soltan, (Eds). *Citizen Competence and Democratic Institutions*. University Park: Pennsylvania State University, 291-326.

Mansbridge, J., J. Hartz-Karp, M. Amengual, & J. Gastil. (2006). Norms of deliberation: An inductive study. *Journal of Public Deliberation,* 2(1), 1-47.

Marcus, G. (1998). *Ethnography through Thick and Thin*. Princeton: Princeton University Press.

Nabatchi, T. (2012). A Manager's Guide to Evaluating Citizen Participation. Washington, DC: IBM Center for the Business of Government.

Nabatchi, T., J. Gastil, M. Weiksner, & M. Leighninger (Eds.). (2012). *Democracy in Motion: Evaluating the Practice and Impact of Deliberative Civic Engagement*. New York: Oxford University Press.

Orlikowski, W. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science,* 3(3), 398-427.

Owen, H. (1997). *Open Space Technology: A User's Guide*. San Francisco: Berrett-Koehler.

Perrow, C. (1967). A framework for the comparative analysis of organizations. *American Sociological Review,* 32(2), 194-208.

Pfister, D., & Godana, G. D. (2012). Deliberation technology. *Journal of Public Deliberation,* 8(1), 10.

Quick, K., & Feldman, M. (2011). "Distinguishing participation and inclusion. *Journal of Planning Education and Research,* 31(3), 272-290.

Quick, K. & Sandfort, J. (2014). Learning to Facilitate Deliberation: Practicing the Art of Hosting. *Critical Policy Studies,* 8 (3), 300-322.

Roberts, K., & Grabowski, M. (1999). Organizations, technology and structuring. In S. Clegg, C. Hardy, & W. Nord (Eds.). *Managing Organizations: Current Issues* (pp. 159-173). London: Sage.

Roberts, N. (2004). Public deliberation in an age of direct citizen participation. *American Review of Public Administration,* 34(4), 315-353.

Rowe, G., & Frewer, L. (2004). Evaluating public-participation exercises: A research agenda. *Science, Technology, and Human Values,* 29(4), 512–556.

Sandfort, J. (2013). Analyzing the practice of nonprofit advocacy: Comparing two human services networks. In R. Peckham & S. Smith (Eds.), *Nonprofits and Advocacy: Engaging Community and Government in an Era of Retrenchment* (pp. 222-253). Baltimore: Johns Hopkins University Press.

Sandfort, J. (2010). Human service organizational technology. In Y. Hasenfeld (Ed.). *Human Services as Complex Organizations*, 2nd edition (pp. 269-290). New York: Sage.

Schwarz, R. (2002). *The Skilled Facilitator: A Comprehensive Resource for Consultants, Facilitators, Managers, Trainers, and Coaches*. San Francisco: Jossey-Bass.

Schwartz-Shea, P., & Yanow, D. (2013). *Interpretive Research Design: Concepts and Processes*. New York: Routledge.

Slotterback, C. (2011). Planners' perspectives on using technology in participatory processes. *Environment and Planning B: Planning and Design,* 38(3), 468–485.

Thomas, J. (2013). Citizen, customer, partner: Rethinking the place of the public in public management. *Public Administration Review,* 73(6), 786-796.

Tuckman, B. & Jensen, M. A. (1977). Stages of small-group development revisited. *Group and Organization Management*, 2(4), 419-427.

Wheatley, M., & Frieze, D. (2011). *Walk Out, Walk On: A Learning Journey into Communities Daring to Live the Future Now*. New York: BK Currents.

Young, I. 2000. *Inclusion and Democracy*. Cambridge: Oxford University Press.