Designing more democratically, deliberating more systemically: A conversation between systemic design and democratic deliberation

Working Paper

David Kahane
Professor of Political Science
University of Alberta

Alex Ryan
VP of Systems Innovation and Program Director
MaRS Solutions Lab

Introduction

This working paper explores complementarities and tensions between systemic design and deliberative democracy, drawing on an ongoing conversation between David Kahane (a political theorist of deliberative democracy) and Alex Ryan (a systemic designer). We believe that our two fields have much to learn from each other, and offer this working paper as a contribution to a dialogue that we hope will draw in others.

Systemic design and deliberative democracy: definitions

Systemic design is a practice for innovating in extremely complex situations. Systemic design integrates the mindsets and toolsets of systems thinking and design thinking to understand and intervene in complex situations (Ryan 2014). By systems thinking, we mean a way of looking at, modelling, and intervening in the world as if it is composed of open, purposeful, complex wholes. By design thinking, we mean a normative, user-centred, iterative approach to innovation that extends the application of design beyond the design of symbols, objects, and interactions. Systemic design helps diverse groups rapidly make sense of complexity, and experiment and learn together about how to make positive change.

Figure 1. Systemic design integrates systems thinking and design thinking to understand and intervene in complex situations.
Alex was a co-founder and senior advisor with Alberta CoLab, a systemic design and strategic foresight team within the Department of Energy in the Government of Alberta. Over a four-year period, the team worked on 100 systemic design projects across government. This included using a systemic design approach to develop a 30-year energy strategy for the Government of Alberta, which has the third largest proven oil reserves in the world. The future of energy development and energy use in a province of 4 million people is not only complex, it is highly political. The strategy has not yet been implemented by the government. However, it remains an interesting case study of systemic design due to the process that was followed. Starting in November 2015, over a six-month period, 150 participants from across government departments engaged in the systemic design project. This included a three-day framing workshop, 10 half-day deep dives into key topics, and a three-day synthesis workshop. The strategy charted a course for Alberta to remain competitive in a low-carbon economy and developed a portfolio approach to hedge against uncertainty during the energy transition.

Democratic deliberation is a field of theory and practice aimed at improving political decision making and action by engaging diverse citizens in grassroots action and in contributing to decision making and action by government and other organizations. (Dryzek 2010; for practical examples see deliberative-democracy.net, NCDD.org, and participedia.org) It emphasizes the norm that what touches all should be decided by all, (Tully 1995, 74) uses mechanisms of selection and representation that reflect this norm, and works with a broad repertoire of method for designing and facilitating group processes. David was Project Director and Principal Investigator of Alberta Climate Dialogue (ABCD), a community-university research project that ran from 2010-2016, convening citizens to contribute to climate policy making and action in the oil-rich province of Alberta, Canada. (see albertaclimatedialogue.ca) The most significant project designed by the ABCD team in partnership with the City of Edmonton was the Citizens’ Panel on Edmonton’s Energy and Climate Challenges.\(^1\) The municipal government of Edmonton—a city of about a million people, the provincial capital, heavily dependent on oil extraction for its economy—was seeking to develop a climate change and energy transition strategy as part of an overall corporate sustainability plan. Faced with controversy around energy transition goals, the City partnered with ABCD to convene a panel of 56 citizens, using stratified random selection to represent the demographic diversity of the city, with additional screens to ensure that it included climate skeptics and people whose families were dependent on the energy sector for income. The Citizens’ Panel deliberated for six Saturdays spread over eight weeks in 2012. Participants learned about climate change, energy transition, and the policy levers available to the municipal government, focusing in particular on three potential trajectories for the city: business as usual, reduced carbon, and low carbon. Participants were supported in surfacing their values in relation to climate and energy policy, using these values to weigh trade-offs involved in different policies, and ultimately in developing and voting on recommendations to municipal government. In the end, ninety-four percent of participants recommended a low carbon trajectory for the City, offering guidance on the particular policies that could achieve this, and outlining principles and values that should guide implementation. Their recommendations were presented to Council in 2013, and fed into the development of an ambitious Energy Transition Strategy by City administration.\(^2\) The Panel’s support for a low carbon trajectory

---

1 See www.edmonton.ca/city_government/city_vision_and_strategic_plan/citizens-panel-energy-climate.aspx
was prominent in debate by City Council about the Strategy, which came to Council in 2015 and passed unanimously.

![Diagram](image)

**Figure 2.** Democratic deliberation aims to improve political decision making and action by engaging and empowering affected citizens.

Systemic design and deliberative democracy each can be important supports for decision making and action on complex systemic challenges. Yet they stand in tension.

Seen from the perspective of democratic deliberation, systemic design can seem elitist, engaging small non-representative groups of participants in decisions that affect millions of lives. With its emphasis on prototyping early and often, systemic design can be fast and loose on propositional argumentation and validation, making it difficult to justify why particular ideas were selected over others.

Seen from the perspective of systemic design, the field of democratic deliberation seems to frame issues in ways congruent with dominant policy narratives, missing opportunities to engage citizens in examining and critiquing the systems within which they are embedded. So it too often ends up supporting changes that fall within dominant systemic dynamics—treating symptoms rather than causes. Moreover, it involves citizens in dialogue, but not in generative co-design and co-production of a more desirable future.

Intrigued by tensions and complementarities between systemic design and deliberative democracy, the authors helped to convene a meeting of 17 leading systemic design and public involvement researchers and practitioners. This group met for three days in the fall of 2016 at Brew Creek, British Columbia. The group shared methodologies and tools, surfaced principles and axiologies, and experimented with how the fields could cross-fertilize in addressing cases, and how tool-sets could be mashed up. In what follows, we lift some lessons out of this collective work. The analysis that follows is indebted to these colleagues, and in particular to the work of synthesis done by Robin Prest and Sebastian Merz in writing up a report from the workshop. (SFU Centre for Dialogue 2017)
What can these fields offer each other?

Both of us, as authors, find systemic design and deliberative democracy to have compelling strengths.

Systemic design, at its best, supports participants in understanding the complexity and ambiguity of challenges, and in reframing these challenges to support innovative responses. Whereas many deliberative democracy processes involve participants in making recommendations to others, systemic design processes tend to position participants as co-producing the future, for example by designing and implementing prototype interventions. In these ways, systemic design has the strength of aiming for deep structural change. This is not to say that every exercise travelling under the banner of systemic design, systems change or social innovation labs has these strengths; the cases shared at RSD6 ranged from ones that tweaked policy and action, to others that arguably had deeper systemic purchase.

Deliberative democracy, at its best, keys into powerful democratic norms that citizens should have a voice and agency in shaping the laws, policies, and structures that condition their lives. For these normative reasons and also strategic ones, decision makers can find the outcomes of well-designed deliberative democratic processes compelling as expressions of the considered views of citizens. (Chambers 2003, Lukensmeyer 2012) In contrast to the fickleness of polling data, outcomes of democratic deliberation reflect careful work by representative groups of citizens in weighing trade-offs and seeking alignment with values. (Fishkin and Luskin 1999) Moreover, good practices of deliberative citizen involvement can extend participation to large numbers of citizens—for example, complementing deep deliberative work by smaller groups of citizens with opportunities for wider populations to crowdsource ideas or weigh in on prospective recommendations. (Nabatchi and Leighninger 2015) Where there is success in building public awareness and trust in the quality of a deliberative democratic process, this can build momentum behind political decisions and actions that follow, and so sustainability and resilience for policy. (Gastil and Levine 2005; Lukensmeyer 2012)

Not every citizen engagement process shares these deliberative democratic qualities (Bherer et al. 2017; Lee 2015; Lee et al. 2015). There is both a deep scholarly literature on deliberative democratic norms and practices, and an extensive practice archive of methods, that can support good practice, showing qualities that processes need to harness the power of citizen deliberation, and also how power relations can skew democratic engagement, and some of the design choices that can exacerbate or mitigate power dynamics. The depth of research and experience in the RSD6 community around design and systems thinking is not yet matched when it comes to themes of democratic participation and policy innovation; much of the potential for bringing the strengths of innovation in democratic engagement to systemic design still lie ahead for this community of practice.
Given these strengths that we recognize in systemic design and in deliberative democracy, we are interested in how they might be blended—at the levels of axiology and methodology, and in application to particular cases. Along with the colleagues we conferred with at Brew Creek, we call this hybrid methodology ‘participatory systems change.’

**Participatory systems change**

**What kinds of situations require participatory systems change?**

Participatory systems change is not meant to be appropriate to every situation engaged by the two fields that constitute it. While it may be true that systemic design does not tend to be deeply democratic in the teams it assembles, not every systemic challenge is necessarily so political in nature or so wide-ranging in effects as to require these democratic foundations, or the democratic legitimacy that comes from broader citizen engagement. While it may be true that deliberative democratic processes tend to draw on established problem-solving frames and dominant understandings of the politically feasible, not every democratic challenge requires deep innovation, or is complex enough to require deep systemic work.

Participatory systems change is likely called for in situations that are complex, political, and that require extensive change.
Figure 4. Participatory systems change is intended for complex, political situations requiring extensive change.

Five characteristics of participatory systems change

What, then, are the features of participatory systems change processes? While our inquiry is at its beginnings, we do have six suggestions based on our work with peers at Brew Creek, analytical work that went into a subsequent report, and our preparation of our RSD6 presentation and our further learning within the space of RSD6. The six characteristics outlined below suggest the areas of innovation required to radically extend the participatory co-design typical of systemic design to enable the wide and deep citizen participation typical of deliberative democracy, in the service of deep systems change. (For these categories, we draw on SFU Centre for Dialogue 2017)

1. Convening teams, sponsorship, and governance bring in key stakeholders and also citizen representation

Both systemic designers and deliberative democrats recognize the importance of assembling the right conveners and sponsors for collaborative projects, and of fair and transparent project governance. There are clear advantages to bringing a range of influential players into convening roles, in order to be able to draw project participants from across the system, avoid bias or the appearance of bias, and build public legitimacy and reach for outcomes. Systemic designers and deliberative democrats aren’t always explicit about the principles or rationales that shape who’s on convening teams, and choices often are shaped by contingencies like funding, project initiators, capacity, and the politics of the moment. (Kahane and MacKinnon 2015)

Participatory systems change is oriented toward both systemic transformation and democratic legitimacy, and so seeks to assemble project sponsorship and governance in ways that key into both stakeholder diversity and democratic accountability. This could take many forms, tailored to particular purposes and contexts. At Brew Creek, participants broke into teams that prototyped participatory systems change projects, and their prototypes offer examples of the complex structures that might address these dual priorities. In the example on the left, the convening team includes diverse ‘citizens’ as well as representatives of stakeholder groups, and the boundaries of that team are permeable, allowing larger groups of citizens and stakeholders to move in and out. In the example on the right, democratic accountability is dealt with via civil society organizations and networks feeding into a stewardship council, with these groups closer to the core radiating out through media, amplifiers, and allies.
Another key feature of participatory systems change when it assembles convening teams, sponsorship, and governance is that it is sensitive to power differentials. Both systemic designers and deliberative democrats make such decisions in light of considerations of who can contribute resources, who has decision making power or influence, and whose buy-in is needed for effective action. The democratic commitment of participatory systems change adds a principled commitment to including marginalized groups, whose members may not have the power to derail outcomes because of a lack of influence and resources, but whose inclusion is nonetheless required by democratic norms.³

2. Issue framing is open and participatory

Given its roots in systems thinking and design, systemic design puts a premium on the ongoing openness of frames and on reflexivity about framing. Methods like critical systems heuristics (Ulrich, 1996), frame reflection (Schön & Rein, 2000) and GIGAmapping (Sevaldson, 2011) draw attention to the partial and contingent nature of the boundary judgements or frames within which we make sense of complex situations. The authors of these methods encourage iterative and participatory processes to draw and re-draw the boundaries of systems; visualize the elements of systems and their inter-relationships; and understand systems as entangled in wider contexts. Participants in a systemic design inquiry frequently “zoom in” and “zoom out” to appreciate the system at multiple scales of analysis to avoid becoming trapped within a single layer of analysis. Participants are also encouraged to adopt multiple perspectives (citizen, stakeholder, competitor, frontline worker, executive leader, unborn child, other species, etc.) so that improvement is conceived broadly and inclusively. Finally, participants appreciate system dynamics by mapping the historical, current, and potential future trajectories of the system over time.

In practice, most systemic design methods are optimized for the use of small groups of 10-40 participants, which severely limits who is empowered to reframe the inquiry and re-draw the

---
³ This is a dominant line of inquiry with deliberative democratic theory: see Mansbridge 1999; Williams 2000; Young 2005; and for a critique of representation in deliberative democracy see Lee 2017.)
system’s boundaries. Moreover, the participants are often highly non-representative of the diversity of the affected population. Non-representativeness can occur because representativeness is not a core value underpinning the practice of systemic design. It can also occur because systemic design often demands a degree of experience and expertise in complex topics and sophisticated mapping techniques from participants. It can often occur because of structural constraints. For example, participation in the Government of Alberta’s energy strategy was limited to public servants because the process occurred during an election period, during which public engagement is prohibited by law.

Deliberative democracy’s contribution to the approach to framing in participatory systems change is a concern with democratic openness and accountability. In practice, however, this democratization of framing is limited. Deliberative democrats are framing for citizen deliberation, so there can be sophistication in calibrating the language and scope of framing to the diversity of citizen perspectives and needs. (Calvert and Warren 2014; Friedman 2007) In most deliberative processes, though, this framing tends to be done by experts and elites before citizens are actually in the room. (Blue 2018) The rhetoric of deliberative democracy invites participants to challenge the framing they’re provided, but the dynamics of deliberation tend to favor the framing constructed for them. Moreover, where citizen deliberation feeds into recommendations to governments or other organizations, those convening the process tend to put a premium on recommendations that will find purchase with decision makers, given their sense of the space of reasonable and possible intervention.

Here participatory systems change needs to break new methodological ground, preserving the systemic reflexivity and openness characteristic of systemic design, but squaring this with meaningful democratic participation in framing, and with influence on relevant decision makers.

3. Sequencing and iteration
Systemic design has at its heart an emphasis on iterative cycles of action and learning. Deliberative democracy, on the other hand, can tend to be a more linear process of planning, framing, recruitment, participant education, deliberation, recommendations, and implementation. (Kahane 2018) Participatory systems change’s allegiance is with an iterative approach, since systems-focused learning and action requires such cycles of learning. But more than this, the blending of systemic design and deliberative democracy will have moments for experts, for stakeholder representatives, and for broader groups of citizens, and it is by iterating these that the benefits of each can enter the process.4

4 In Participatory Systems Change: A Primer, there are useful examples of what this sequencing might look like: a conventional deliberative democratic process is seeded with moments for systems mapping by elites (30), and a conventional systemic design process phases in moments of citizen participation (31).
4. Power-sensitive democratic exchange

As already noted in discussing project convening, sponsorship, and governance, participatory systems change holds a normative commitment to including the range of those affected, with sensitivity to power relations that persistently marginalize some groups. This challenges dominant practices within both systemic design and deliberative democracy.

The design roots of systemic design foreground user experience, which tends to be explored through rapid ethnographic inquiry based on systems maps, designerly prototypes, and so on. These exchanges between designers and users, though, are elicitive without being particularly democratic. There is an enduring power relationship between those who build and test maps or prototypes, and the users with whom they’re tested.

Deliberative democracy is more directly focused on empowering diverse groups of citizens to enter into dialogue about means and ends, facts and values, and points of convergence and divergence, all on the way to developing plans for collective action or collective recommendations. There is a vibrant critical conversation within deliberative democracy, though, about the impact of power relations between groups (along lines like race, gender, sexuality, education, and age) on deliberative dynamics and outcomes. (Mansbridge 1999; Williams 2000; Young 2005) This reflection on power dynamics—how to adequately empower the voices of all affected—extends to questions about the language of ‘citizen’ deliberation, since many complex issues implicate those beyond the borders of particular nation states, non-citizen residents of nation states, and the very construct of the nation state. (Gaventa and Tandon 2010) And there is a newer literature on the ‘professionalization of public participation’ that suggests a complicity of deliberative democratic practice in general in the power configurations of neoliberalism as it shapes contemporary states, societies, and spaces of political possibility. (Bherer et al. 2017; Lee 2015; Lee et al. 2015)

So participatory systems change must draw critically on the best these two fields’ practices to construct collaborative processes that deal sophisticatedly with power differentials. And because there is no pre-existing shared understanding of the power asymmetries that matter or how they matter, the tools of both fields will be needed to build good practice.
5. **Strong tools for understanding systems and political possibility**

Participatory systems change turns mainly to systemic design for tools of participatory systems mapping and analysis, deployed in cycles with action learning. As noted earlier, it is a deficit in most deliberative democratic approaches that they do not inquire deeply into systems boundaries and dynamics in building their processes. From this point, though, there are deep questions about how democratic participation can be phased with systems inquiry by stakeholder representatives and experts, and where tools of systems understanding and definition might usefully be put into the hands of democratic publics in participatory systems change processes.

Because deliberative democratic theory has important connections to the discipline of political science and because much deliberative democratic practice happens as a relationship with governments, there is a sophistication in these approaches in relation to the pragmatics of power and influence. This opens room for a useful dialogue, within participatory systems change, between the innovation-centred emphasis in systemic design on prototypes, pilots and niche innovations; and the preoccupation in at least some deliberative democratic approaches with the politics of public mobilization and political influence.

6. **Connecting participatory systems change processes to broader publics**

As just noted, deliberative democrats are attuned to the politics of large-scale change, including through public mobilization. Deeply deliberative processes are time-intensive, and this tends to limit the size of participating groups. Processes like citizens’ assemblies, citizen juries, and citizen panels typically involve fewer than 100 participants in processes that last for days. (Gastil and Levine 2005) Approaches like 21st Century Town Halls shorten participation to a day in order to involve thousands of participants in deliberation. (Lukensmeyer 2012) In many contexts, however, large-scale change might require mobilizing tens or hundreds of thousands of citizens: some deliberative democrats have been exploring how to blend these deeper modes of deliberation with forms of participation that can enlist much larger groups for shorter amounts of time. One example of this was *Text, Talk, Act*, part of a US national dialogue on mental health launched by President Obama in 2013 in collaboration with a number of deliberative democracy organizations. Anyone could participate in *Text, Talk, Act* by gathering with a group of friends or peers, texting ‘start’ to a widely-publicized number, then being led through multiple choice and discussion questions; these discussions raised awareness, and the answers collected from tens of thousands of participants in all 50 states fed into other elements of the dialogue process. (See http://creatingcommunitysolutions.org/texttalkact)

Experimentation and prototyping around how to engage mass publics in participatory processes addressed at complex systemic problems will be important to the development of participatory systems change methodologies. In addition to drawing on innovations in deliberative democracy for this work, there also is experimentation (drawing on Frank Geels’ work) with practices of systemic design around how ‘niche’ innovation can connect to and build ‘landscape’ level changes to cultural narratives as routes to deep systems change. (Geels 2002; for a practice example see energyfutureslab.com)
Building toward participatory systems change

The collective reflection and practice at Brew Creek in 2016, and the discussion around our presentation at RSD6, represent very early forays in shaping methodologies of participatory systems change.

We are convinced of the importance of moving in this simultaneously participatory and systems-oriented direction to address our most pressing and complex challenges. Systemic design in its current instantiations tends strongly toward elitism and expertise, which deprives it of the mobilizing possibilities of democratic participation, as well as a normative grounding in the norm that what touches all should be decided by all. Deliberative democracy in its current instantiations engages with questions of democratic mobilization and with how to make good on democratic norms, but without adequately addressing the dynamics and boundaries of whole systems: so it tends to play a reformist role within existing systems.

Moving the agenda of participatory systems change forward will require exchange between the communities of practice associated with systemic design and deliberative democracy. It also needs to bring a third area of research and practice into the conversation: work around social movements and radical social change, which has not been prominent in either of the fields we canvassed here.

Moving this agenda forward also invites the full and creative use of the tools of each field. We need to map the systems that surround our interventions and our influence as systemic designers, deliberative democrats, and participatory systems change practitioners. We need to engage broad publics in building participatory systems change methodologies and evaluating their democratic legitimacy in different contexts. Attempting this at Brew Creek, practitioners had fun mashing up methodologies of the two fields. Mash-ups included:

- **Mass learning journeys**, which involve large groups of leaders, public officials, and community members in sensing and sharing problematic situations and spaces of solutions.
- **A prototyping carousel**, which enables large numbers of participants to build and engage with prototype interventions.
- **A demagogue inoculator**, which brings angry publics and social movements together with experts, using the tools of citizen engagement and systemic design, with the goal of generating viable policy solutions.

This spirit of play should inform the development of participatory systems change. We look forward to opportunities for exchange and experimentation with readers of this paper, and across communities of practice in systemic design, deliberative democracy, and other fields.
References


