
Crowdsourcing Law and Policy: A Design-Thinking Approach to Crowd-Civic Systems

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Abstract

Crowdsourcing technologies, strategies and methods offer new opportunities for bridging existing gaps among law, policymaking, and the lived experience of citizens. In recent years, a number of initiatives across the world have applied crowdsourcing to contexts including constitutional reform, drafting federal bills, and generating local policies. However, crowd-civic systems also come with challenges and risks such as socio-technical barriers, marginalization of specific groups, silencing of interests, etc. Using a design-thinking approach, this workshop will address both opportunities and challenges of crowd-civic systems to develop best practices for increasing public engagement with law and policy. The workshop organizers will suggest an initial framework explicitly intended to be criticized by participants and reconfigured through a series of iterative cooperative small-group activities focusing on “diagnosing” the failures of past crowd-civic system efforts and the successes of online action around social issues. While the ultimate objective of the workshop is to develop a best practices guide, we see iterations on the guide as a mechanism for fostering community and collaboration among policymakers, technologists, and researchers around crowd-civic systems for law and policy.

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Introduction

Open government and data initiatives by states, municipalities, and parliaments have encouraged designers to build digital experiences that encourage public engagement with policy and law. These crowd-civic systems blend digital technology, design, and public data (e.g., government budgets, town council meeting minutes, police reports) to educate the public [4, 1], to inform decision-makers about public interests [2, 3] and to help crowds of people craft policy proposals that affect change in their governments [7, 5, 6]. Crowdsourcing may also function as a powerful tool of civic engagement by promoting the generation and discovery of relevant local information about issues of public concern, by fostering consensus and buy-in amongst members of the community, and by providing mechanisms and tools for measuring and assessing policy impacts.

In this workshop our focus is on crowd-civic systems that inform the policy-making process, when the policy itself is still ripe for change and input. The experience of existing systems raises several important questions about how crowdsourcing could be used as a tool for civic engagement in this context:

Whose views are prioritized? Many online communities depend on the contributions of high-frequency users. Crowd-public interests might be marginalized or hidden in the long-tail of less frequent (if not one-time) participants.

How could policymakers and participants use the results of a crowd-civic system? Crowd-civic systems might elicit thousands of contributions and user-activity logs as participants engage the policy material. Interpreting this mountain of data imposes a cost to policymakers and it is not clear what this data might mean to the public at large.

How can we compare the performance of various crowd-civic systems? In crowdsourcing research, the “workflow” is a typical device for communicating a systems design. What are the common terms and frameworks for conveying the design and experience of a crowd-civic system?

When is it not recommended to crowdsource law and policy? Crowd-civic engagement is an inherently political and contested activity. Are there issues or contexts for which it ought not be deployed? What risks are there to participants in terms of security and privacy? What ethical issues can we anticipate and perhaps ameliorate through the design process?

What can emerging online collective action teach us about crowd-civic system design? Crowd-civic system design has been approached in a one-off, ad hoc fashion. Conceptually, it has been viewed as parallel to, rather than intertwined with, private technologies, tools, and platforms adopted (or co-opted) by users engaged in emerging forms of online collective action for policy change. What are the opportunities for importing lessons from the private sphere to the public one?

What socio-technical factors, barriers and risks should policymakers and designers consider as we move toward a wider adoption of crowd-civic systems? What may prevent access to these systems? How steep is the learning curve for different groups of users? How well do these systems scale?

The workshop seeks to address some of these questions by gathering a diverse group of participants, with a broad range of perspectives, to work collaboratively toward the future of crowd-civic systems for policy and law. We will do so by developing a best practices guide for crowd-civic system design and research, drawing from both the public and private spheres, in an effort to promote crowdsourcing as an adaptive, viable, robust, and reliable tool for civic engagement.

Contribution to CSCW

CSCW's orientation toward interdisciplinary collaboration among researchers and practitioners and across different fields and disciplines marks this venue as the "right place" to engage in conversations around crowd-civic systems for law and policy.

The research interests of CSCW are broad and already encompass crowdsourcing, online deliberation as well as law and policy. In this workshop we aim to integrate these otherwise distinct research areas, in the short-term around a best practices guide and in the long-term toward fostering community.

Workshop Goals

The first goal of the workshop is to develop a best practices guide for crowd-civic system design that, together with participant essays and a jointly authored bibliography, will reside on the workshop website. As part of this effort, workshop attendees will identify "grand challenges," build competencies, foster collaborations, and engage in interactive design-thinking activities. As a secondary goal of the workshop, we hope to foster a community of policymakers, designers, and researchers interested in the intersection of crowdsourcing systems, civic engagement, and law and policy.

Participants

We plan to recruit about 25 participants who have undertaken or are interested in pursuing research and/or practice related to crowd-civic systems and online collective action for policy change. Researchers, technologists, and practitioners are invited to submit a short essay (no more than 1000 words) that characterizes their work as it relates to at least *two* of the following topics:

1. Long-tail of participation: What are the trade-offs to fostering one-time vs high-frequency user contributions?
2. Ephemeral representation: What does representation mean when most only contribute once and briefly?
3. Newcomers: What are strategies to encourage newcomers to engage with the values and arguments of former members?
4. Macro-ambiguity: What are the trade-offs in making the macro-level objectives transparent or less ambiguous?
5. Biased contributors: How is a participant's viewpoint a barrier or resource in micro-task or coordination processes?
6. Unhinged crowds: What are the warning signs that a civic process has overrun by "mob rule"?
7. Forming consensus: When the crowd *is ready* to make a decision, what rules or thresholds do they use?
8. Experts & crowds: How do we make sense of/balance the contributions of experts in light of the sensibilities of the crowd?

9. Participation and authority: How do we manage or resolve the gap/disconnect between crowd engagement/participation and tangible policy outcomes?
10. Points of entry: How might the value/benefits/evaluation of crowdsourcing technologies shift at different points in the lifecycle of a policy/policymaking process?
11. Leveraging lessons from the private sphere: How might participatory policymaking in private online contexts (e.g., social media) inform the design or evaluation of crowd-civic systems?
12. Collective action and civic engagement: What lessons can we import from online collective action for policy change to the design of future civic systems?
13. What other questions does this workshop proposal elicit? What have the organizers missed?

Applicants to the workshop will post their short essay to the workshop website. The workshop website will also include a searchable bibliography of research related to crowdsourcing and public engagement with law and policy topics. One month before the workshop, accepted participants will be asked to contribute 3-5 favorite papers referenced by their submission essay to this online archive. Three weeks before the date of the workshop, all short essays will be made available to the participants as inspiration for the workshop discussions. Selection of the keynote speaker is in process at the time of this proposal. In addition, the activities discussed below shall be refined in light of participants' essays.

Workshop Activities and Schedule

We propose a full-day workshop with a maximum of twenty-five participants. Participants in this workshop will apply

a design-thinking approach to conceptualize the future of crowd-civic systems: (1) what the public can accomplish, identifying best practices, e.g., risks, strategies for evaluation, (2) how people (from policymakers to stakeholder interest groups) value in system processes and outcomes, and (3) when crowdsourcing law and policy poses more risk than potential value.

The first part of the day includes activities toward reaching a common ground around conceptualization of crowd-civic systems for law and policy. The second part of the day includes activities toward identifying best practices in design, research, and application of such systems.

Definitions and Theoretical Frameworks

The first half of the workshop will be focused on the "grand challenges" of crowd-civic system design. Activities include a keynote presentation, a discussion of definitions and theoretical foundations, and opportunities for participants to share viewpoints over lunch.

The group discussion will include challenging an initial framework proposed by the workshop organizers for crowd-civic systems in general terms and theoretical concepts, as a jumping-off point toward identifying salient features and pressing concerns of crowd-civic systems toward best practices guides on common terms and concepts. This initial framework identifies a number of dimensions along which crowd civic engagement systems could be conceptualized and designed:

- **Issue Stage:** e.g., political discussion, proposing policy, voting
- **Issue Context:** e.g., international regulations or platform protocols

- **System Outcome:** e.g., draft a constitution, identify the key conflicts in a political discussion
- **Public Engagement:** e.g., testimony, deliberation, decision-making

The workshop organizers will introduce these dimensions through brief presentations, and facilitate large-and-small discussions around them, integrating content from the preparatory essay submissions.

System Barriers, Failures and Controversies

After discussing the conceptual elements of crowd-civic policy systems, the workshop will move on to focus on discussing barriers and controversies of existing systems. The discussion will be structured around three main topics:

Getting the public engaged: Issues related to sparking public interest in policy-making, technical barriers, such as API access to social platforms, data barriers such as open government standards and formats, and Internet access limitations.

Designing for public participation: Difficulties in helping participants identify and express their views and values, social-psychological barriers around public influence on policy issues, and political barriers that limit the efforts success.

Moving from online engagement to offline action: Tradeoffs and challenges in making the process and procedures more (or less) transparent to the public and to policymakers, establishing procedures around participant voting and consensus processes, and automation vs. manual synthesis of the public engagement toward decision-making.

As with the definitions and theoretical framework, these questions are intended to inspire and scaffold creation of

the best practices guide.

Online Collective Action for Policy Change

The internet has expanded the platforms available for citizens to influence public perception and policymaking. It has also enhanced coordination and mobilization efforts around issues of public concern. As a result, we have witnessed an increase in online collective action for policy change that utilizes or co-opts private technologies, tools, platforms and systems. What lessons and principles might we derive from online collective action emerging in the private sphere and how might those insights inform the design of future crowd-civic systems?

During this activity participants will work in small groups to “diagnose” success in online collective action. The focus here is not on the substantive policy issues raised by a given case but rather the ways that technical design, social values and behaviors, and the policy environment interact. How does technology design influence communication patterns and interaction, power structures (i.e., level and type of moderation, administration, feedback loops, etc.), issue salience, and response and/or engagement with official channels of public deliberation?

Examples might include SOPA/PIPA and similar efforts related to copyright in the EU. Additionally, we will draw examples from the sharing economy (e.g., Uber, Airbnb), hashtag activism (e.g., #BlackLivesMatter, #GamerGate) and online harassment on Reddit or other platforms. Other examples will be drawn from participant essays.

Diagnosing success in online collective action for policy change will help us surface new observations, insights, and considerations about crowd-civic engagement across the policy spectrum and move us closer to our ultimate goal of developing best practices and design recommendations

for crowd-civic systems. The focus on breaking apart and understanding successes in this context also serves as a counterpoint to the earlier activity which focuses on barriers.

Synthesis and the Way Forward

Each workshop activity will include a 10-15 minute presentation by the organizers and a series of small group activities (about 3-4 groups per activity). The small group activities will be coordinated such that some participants will be active “discussants” and others will be “synthesizers”, noting their observations, e.g., best practices, risks and ideas as the discussants engage each other. Participants will swap roles several times so that everyone has a period of talking and reflective listening, and an organizer will be assigned to facilitate each small group.

At the conclusion of each activity, the small groups will review their noted observations and create 3-5 topics that encapsulate the range of their discussion, using their observations to characterize each topic. The topics and observations will be posted on to the walls of the workshop conference room, using poster board and sticky notes, at the end of each small group activity—creating an “artifact” of the activity. Throughout the day this practice will generate 9 to 12 activity artifacts.

The last activity of the workshop will be to synthesize the information from the activity artifacts. Participants will be asked to spend several minutes walking around the workshop conference room, exploring the artifacts, reflecting on their discussions during the day. When they identify the artifact that they find the most exciting, they will stop and stand by it—this activity will cluster participants into small groups with shared interests. Each cluster will be asked to diagnose their artifact to identify best practices, risks and potential evaluation strategies. Participants in each cluster

will add their diagnosis, in real-time, to an online outline for the best practices guide, and report to the group. During this phase some artifacts may be abandoned by the participants. At the end of the workshop, the organizer assigned to a small group that created an abandoned artifact will attempt to integrate the material into the guides’ outline.

Participants will immediately have online access to the guide outline and the synthesis activity will lead into a discussion about further work on the guide, potential collaborations, and fostering community after the workshop.

Schedule

09:00-09:30: Introduction and Orientation

09:30-10:30: 2-3 minute participant *boasters*

10:30-11:00: Keynote talk about crowd-civic systems

11:00-12:00: Definitions and Theoretical Frameworks

12:00-01:00: Lunch and discovering participant viewpoints

01:00-02:30: System Barriers, Failures and Controversies

02:30-04:00: Online Collective Action for Policy Change

04:00-04:45: Synthesis and the Way Forward

04:45-05:00: Call to action and closing remarks

Organizers

Brian McInnis is a PhD candidate in Information Science at Cornell University. He studies how groups of people talk about public policy issues through technology, with an emphasis on synthesizing policy deliberations into information that is useful for policymakers. This research focuses on the policy context of online crowd labor market design and independent contracting law. Prior to joining Cornell, Brian researched predictive policing, national security and K-12 education policy at the RAND Corporation.

Alissa Centivany is an Assistant Professor at Western University’s Faculty of Information Media Studies. She studies online participatory policymaking and the relation-

ships among intellectual property laws and sociotechnical transformation. Prior to joining Western, Alissa was a Research Fellow at the Centre for Innovation Law Policy at the University of Toronto's Faculty of Law and a Microsoft Research Fellow at the Berkeley Center for Law Technology at UC Berkeley Law School.

Juho Kim is an Assistant Professor in the School of Computing at KAIST, and directs KIXLAB (the KAIST Interaction Lab). His group designs interaction-at-scale systems for a large group of people to learn, plan, discuss, and make decisions in a distributed manner. Specifically, his group has been exploring ways to raise the public's awareness in budgetary issues via an augmented news reader, make links between trending social issues and budget programs with crowdsourcing, and bring offline NGO practices to an online space for lightweight, microtask-driven collective action.

Marta Poblet is an Associate Professor and VC's Senior Researcher at RMIT University (Graduate School of Business and Law). She is doing research on crowdsourced methods to leverage citizens knowledge and open data in different areas (law and policy, disaster management, citizen science). She is also interested in the connections between these empirical approaches and the different theories of democracy.

Karen Levy is an Assistant Professor in Information Science at Cornell University and Associated Faculty at Cornell Law School. Her research focuses on relationships among law, technology, and social life. Prior to joining Cornell, Karen was a postdoctoral fellow at NYU School of Law and the Data Society Research Institute.

Gilly Leshed is a Senior Lecturer in Information Science at Cornell University. She studies the design of online spaces for civic participation in public policymaking to benefit both

the policymakers seeking input and the citizens who participate in the discussion. This includes supporting deliberative discussions in which individuals and stakeholders engage with each other to learn and voice their experiences about policy issues, and collaborate around creating and summarizing the knowledge that has emerged in the discussion.

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