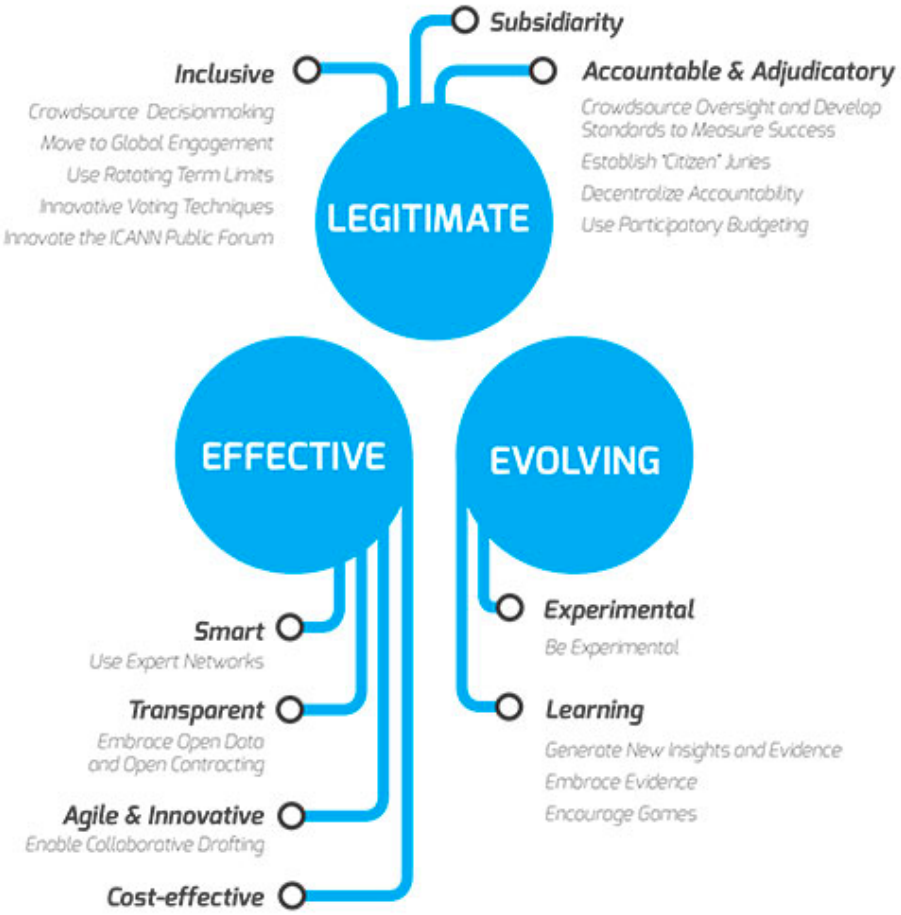
The Quest for a 21st Century ICANN

A Blueprint

ICANN Strategy Panel on Multistakeholder Innovation



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GOVLAB

A 21st century organization responsible for coordinating a global, public good such as the Domain Name System (DNS) that ensures the operability, stability and security of one global Internet has to abide by key principles embodied by the type of governance institutions to which we aspire, and which are possible in an era of ubiquitous information and communications technologies.

KEY PRINCIPLES

The 21st century organizations to which we wish to submit ourselves are characterized by three key principles. They are ***effective***, ***legitimate*** and ***evolving***.

Effective institutions solve problems well and in a timely fashion. They have the capacity to identify and implement approaches to tackle challenges while minimizing cost and unanticipated consequences. Such institutions need to be *smart*. Smart is not about having more information. Rather, smart institutions need to have access to the best possible ideas in forms and formats that are clear, useful and relevant to the decision at hand from sources inside and outside the institution. This means they have to have strategies for soliciting and absorbing input from those with relevant expertise, where expertise is understood broadly to include people with experiences, skills, interests as well as credentials that could be brought to bear. There must be a constant process of identifying who within and outside the organization knows what and for cultivating and developing the intelligence of the community to participate effectively. Effective institutions are *transparent* because they cannot obtain the best solutions if they aren't open about what the problems are, including through sharing in accessible ways and formats all data they possess relevant to the issue at hand. To be effective they also have to be *agile* and *innovative*, namely capable of identifying and deploying innovative, workable solutions in a timely fashion. Finally,

effective institutions allocate funds and resources toward solving problems in the most strategic and economically sound manner (i.e. they are *cost-effective*).

We also recognize the value of having institutions that are ***legitimate*** in addition to effective. Legitimate institutions operating in the public interest are *inclusive* in that they involve the people who are affected by their decisions in the process of making those decisions. In the case of the Internet and of ICANN's legitimacy, inclusivity matters because the Internet impacts all corners of human activity around the globe, even to those who are not yet connected. Anyone must therefore have easy and equitable access to participate in the process of shaping the policies and standards of the Internet that ICANN helps facilitate. In this context, affected parties go beyond stakeholders whose immediate economic interests might be implicated by, for example, a contract, a license or a grant. They include the broader members of the affected community. Hence opportunities for participation must not only include those whose expertise is specifically likely to yield workable solutions to problems, but all members whether individuals or other groups and institutions. Participation must include undirected opportunities to deliberate as well as engagement focused on solving a particular problem. Legitimate organizations are *accountable* to their members both as a consequence of procedural fairness before the fact and *adjudicatory* processes after the fact that help ensure that decisions serve broader principles of the public interest. Legitimate governing institutions also embrace the principle of *subsidiarity*; they operate within a remit comprising only those responsibilities or tasks for which their centralized or authoritative position makes them best equipped and most competent to handle.

Finally, history and science both teach that rigid structures are more likely to break rather than bend. Successful and lasting institutions are those that are able to withstand unanticipated change as a result of their

flexibility. A 21st century institution must be ***evolving*** both in how it makes decisions and what it makes decisions about. To improve on its own practices over time, it has to be explicitly *experimental*, adopting such techniques as randomized and controlled trials, pilot projects and new initiatives. Organizations evolve by *learning*, done through the uses of quantitative and qualitative methods for rigorous assessment to figure out what works and in order to change what doesn't. Finally, a dynamic and living organization embraces *games* and supports serendipity and fun as part of its culture. For an institution to merit the people's trust, it first has to trust its people. While a 21st century global organization must take seriously the capacity of its own community, this does not mean that the practices by which it governs must be humorless. To the contrary, human beings learn through play, games and exploration. In the future, we need to eschew the kind of self-serious pomposity that gets in the way of change and embrace humility and fallibility as touchstones to progress.

ICANN'S PRACTICES

Designing 21st century institutions – and we can design them anew – requires paying close attention to practices as well as principles. It is important to keep in mind what an organization actually does, the subject matter it works on, and the ways it goes about identifying problems, scoping solutions and implementing policies. ICANN's role in governing the Internet is to coordinate the Internet's unique identifier system to ensure the operability, stability and security of one global Internet, and to balance these needs with innovation as the Internet evolves. This means that ICANN coordinates the DNS as well as number resources and protocol assignments. When Internet users connect to websites or other Internet servers, they do so by typing a domain name. A domain name is a unique, "human memorable" identifier such as www.icann.org. However, connected devices to the Internet do not

communicate via domain names, but communicate through Internet Protocol (IP) and IP addresses (www.icann.org's IP address, for instance, is 192.0.34.163). The way that domain names are "resolved" (mapped to their correlating IP addresses) is called Domain Name Resolution. These resolutions are performed through the DNS, a hierarchical, distributed database operated by millions of different entities around the world. ICANN coordinates both the names and the numbers of Domain Name Resolution.

The Internet plays an important role in all areas of political, economic, and cultural life across the globe. For the Internet to function well, the DNS has to work for everyone, and this means ICANN has to function well for everyone, too. But engaging people in meaningful and productive conversations about how to redesign the way ICANN runs itself is difficult because the conversation gets caught, on the one hand, between the scylla of broad generalities and geopolitics without regard to the specifics of ICANN's day-to-day work, and the charybdis of mind-numbing technical detail on the other. It is true that ICANN's remit is technical but the specificity of the subject matter combined with the importance of successful outcomes for the future of human creative and economic flourishing online should, in fact, make it far easier to go from broad principles to concrete practices.

PROPOSALS

The below are blueprints for sixteen concrete proposals for how ICANN can transform how it governs itself over the next five years. These proposals were developed from contributions shared and vetted during the Panel's "Idea Generation" stage of work via an online engagement platform (http://thegovlab.ideascale.com/); the collective input from our Panel; and those ideas shared during interviews and conversations

conducted with ICANN insiders and through independent research. We thank people who gave their time and ideas to inform our work.[1]

While these proposed initiatives could all be rolled out within a one-year time frame after approval, it is important to let them run long enough to gather data about what works. It is also critical that ICANN test these experiments in a manner that allows people to participate without the need to know specific jurisdictional boundaries as they currently exist. Just as citizens around the world may not necessarily know which government agencies make decisions that affect them (e.g., in the United Kingdom, the public may not know which agency regulates their food – the Department for Environment, Food and Rural Affairs or the Food Standards Agency or both; in the United States, the differences between the sixteen different federal agencies tasked with financial literacy are not publicly well-known; and in Kenya, the differences and overlaps between the National Environment Management Authority, the Kenya Forest Services and National Land Commission may similarly puzzle citizens), as it stands the global Internet public may not understand the specific remits of the various Internet governance organizations.

ICANN should therefore consider establishing an Internet Governance Laboratory. iGovLab would function as a Governance Experimentation Collaborative aka a Skunk Works among all the Internet governance organizations, including those at the national as well as the supranational level, to try these and other experiments. Doing this means ICANN could test what works with a broader audience than its currently active members. ICANN must also produce and prepare clear, jargon-free

[1] Some ideas shared with us have been passed along to other Strategy Panel Chairs to whose work those suggestions were more applicable.

visual materials about the kinds of decisions it makes both as a policy development facilitator and as a contracting authority – materials that can be understood by both engaged and active participants and newcomers (an issue identified by many contributors on the engagement platform). Without an understanding of those specifics, we will remain at the level of principle and never get to practice.

Toward Effectiveness

Smart

1. Use Expert Networks – ICANN together with other Internet governance organizations should adapt expert networking technologies for identifying and making searchable technical expertise worldwide. Expertise should be measured, not only on the basis of credentials such as formal engineering and computer science degrees but on the basis of technical experience and skills (e.g., as evidenced by GitHub commits or answers on Q&A sites), as well as interests (e.g., as measured in response to questions on Quizz.us). ICANN should pilot the use of different techniques for targeting those with relevant know-how and evaluate what works and what doesn't.

Transparent

2. Embrace Open Data and Open Contracting – ICANN should make all of its data from all sources, including its registry and registrar contracts, freely available and downloadable online in machine-readable, usable and structured formats. Owen Ambur on the engagement platform emphasized this suggestion.[2]

[2] Mr. Ambur highlighted in his submission that structuring data (e.g., through the StratML format) enables "potential performance partners [to] more easily discover each other and work more effectively together in pursuit of common objectives."

Consistent with learnings on the value of open data since the movement began in recent years, ICANN should foster an ecosystem of users for this data including independent, academic and corporate developers interested in helping spot and solve problems relevant to ICANN's work through using the data to make apps, models and other products of use to ICANN and the Internet community. For example, as one participant suggested, ICANN could build an "acronym helper application" that combines all three datasets that allow the public to look up ICANN acronyms to facilitate easier search and provide "a quick method to use if you are in a conference or . . . using a tablet or a phone." Layering new gTLD applicant data with publicly available corporate ownership data (to help understand application trends and the level of diversity in new gTLD program applicants) is another idea for how open data would improve both transparency and engagement.

As for opening contract data, this could increase and diversify opportunities to participate in monitoring for contractual compliance, and would enable a deeper understanding over time of the roles of ICANN vs. contracted parties, problems or areas for improvement to the procurement process at ICANN, and opportunities and/or needs for contract evolution. In a related suggestion, one participant proposed that ICANN could also experiment with an open procurement platform that allows the crowd to suggest, rank, vote and evaluate purchase options within ICANN.

Agile & Innovative

3. Enable Collaborative Drafting – As Bertrand de la Chapelle suggested at ICANN 48, ICANN should test the use of online tools that enable people in different parts of the world to collaborate on work (e.g., using a

wiki to draft working group reports) at different times in ways that allow individuals to make genuine contributions in a variety of forms (e.g., providing edits, research, data or comments), which are seen and deliberated on by others. Coupled with more formalized document management procedures (a need identified online by "Chris"), ICANN could experiment with new techniques for streamlining timely workflow.

Toward Legitimacy

Inclusive

4. Crowdsource Each Stage of Decisionmaking – Using a variety of web, SMS-based and in-person participation tools, ICANN should test a wide array of alternative mechanisms for getting broad-based input in identifying and framing issues, crafting solutions, gathering relevant information to translate solutions into implementable policies as well as commenting after the fact and participating in oversight and assessment. For example, ICANN staff or working groups could use an open brainstorming tool like Google Moderator to vet the importance of issues to the community, get input on recommendations, and encourage community discourse around specific topic areas before and throughout policy development, expanding engagement opportunities while simultaneously making participating in ICANN in new ways easier for a broad and busy global audience.

ICANN should also leverage other multi-stakeholder governance fora, like IGF, to crowdsource input, consult on ICANN issues and broaden involvement outside of the traditional internal channels. As a related suggestion, one contributor suggested an app that categorizes open participation opportunities at ICANN via topic (to help spot engagement opportunities by area of expertise).

5. Move from "Stakeholder" Engagement to Global Engagement – As Elliot Noss noted, "ICANN has largely failed in its goals of broad involvement. This is structural, not the fault of participants." ICANN should therefore experiment with running parallel processes for one year side by side with existing stakeholder groups to prepare for their possible phase-out in some cases. For instance, ICANN could pilot organizing participants topically rather than by currently existing constituency groups (defined by interest). Within such an experiment, the crowdsourcing practices described above can be used as alternatives and complements to existing stakeholder group practices. ICANN could then test empirically which organizing principles are more legitimate, inclusive and efficient, and which seem to lessen the need for gatekeepers or decision-makers as opposed to facilitators or coordinators.

6. Impose Rotating Term Limits – As a way to increase and diversify engagement in existing ICANN voting bodies, ICANN should experiment with imposing rotating term limits over the course of the next year for all voting positions within ICANN. This will require that new representatives be selected, which ICANN could use alternative voting methods such as preferential or ranked-choice voting to accomplish. Craig Simon suggested that ranked-choice voting could be "an attractive solution for any scale of participation" and noted that "done right," the method has the "potential to empower massively scalable venues for online discourse and priority selection." There was discussion during the public consultation about whether this proposal should apply to consensus-based working groups, a question we will put out for further comment.

7. Experiment with Innovative Voting Techniques – ICANN should run experiments with different voting methods for decisionmaking, such as

Elliot Noss's suggestion to use liquid democracy (e.g., proxy or delegated voting), or preferential or ranked-choice voting. This would enable ICANN to test the effect of organizing around specific issues rather than around specific constituencies when and where voting occurs within ICANN.

8. Innovate the ICANN Public Forum – ICANN could experiment with running a virtual public forum in parallel to the physical one conducted during ICANN meetings. As Mickey O'Connor suggested, ICANN could pilot the use of virtual reality to enable face-to-face interactions online to encourage participation from "people who will never be able to afford to travel to face-to-face meetings."

Accountable & Adjudicatory

9. Establish "Citizen" Juries – To enhance oversight of ICANN officials, ICANN should use randomly assigned small public groups of individuals to whom staff and volunteer officials would be required to report over a given time period.

10. Crowdsource Oversight and Develop Standards to Measure Success – ICANN should identify opportunities to engage a broader audience in overseeing and measuring the impact, effect and level of community compliance that results from ICANN's decisions. For example, within the United States, there have been crowdsourced projects to measure throughput of broadband connections that ICANN could learn from, as well as crowdsourcing efforts that engage a distributed crowd in monitoring stimulus spending by the federal government. Developing success metrics – an initiative already underway at ICANN – should progress in a manner that engages the global public to help define what success in the public interest looks like. It should also make certain to leverage the unique experiential knowledge of those responsible for

implementing ICANN policies and of those familiar with the implementation challenges (cost or otherwise) that result.

11. Decentralize Accountability – ICANN should facilitate the development of standards for what it means for national Internet governance organizations (for example, the Brazilian Internet Steering Committee) to be "open" organizations in the 21st century (e.g., those that are transparent, enable easy and equitable access, and are supportive of innovation and civic participation).

12. Use Participatory Budgeting – ICANN should experiment with different methods for directly involving the global public in certain budgeting decisions (e.g., deciding how to use funds received from "last resorts auctions" in the new gTLD program). Learning from best practices from the participatory budgeting movement around the world, ICANN could test different approaches for eliciting community input on identifying and prioritizing community needs and for enabling public voting on spending decisions. This is also a mechanism for devolving accountability and infusing public interest considerations more directly into ICANN's work.

Toward Evolutionary

Experimental

13. Be Experimental – The proposals discussed here should be designed explicitly as pilot projects that sunset with the analytics and tools put in place to gather robust data about what happened, what worked, what did not and why. In addition, experimentation on what incentives work best could be designed and baked into approaches (including the concept of federated participation by national entities that abide by a set of principles and practices that qualify them for participation in setting the

agenda. Including national-level entities allows nation states to play a role through their relationship with the Internet governance organization in their home country while avoiding direct management by national governments.).

Learning

14. Generate New Insights and Evidence – Today a patchwork of Internet governance mechanisms operates under the oversight of many different public and private bodies and institutions. A distributed governance structure, that integrates and improves the current patchwork, seems the only sustainable and feasible path forward to avoid harmful fragmentation of the Internet. To achieve trust and interoperability at an international scale and develop a blueprint of how global coordination can take place, however, requires serious research on distributed governance structures and identification of those topics and functions that can be regulated at a supranational level. New insights and evidence are needed on how to provide for the necessary incentives and responsibilities to achieve governance objectives effectively without undermining the potential for adjusting its mechanisms to accommodate new findings and developments. Such incentives may include for instance technical requirements, consumer expectations, and others. We need to understand better how to identify issues and areas that demand national intervention or guidance and develop options, through a common framework, for when and how such global guidance or intervention would support global information exchange, allowing for a devolved implementation and adjustment. Global responsibilities may involve harmonization and compliance requirements, reporting on metrics, and others. Identifying a toolbox of leverage points, incentives and responsibilities that may allow for effective yet flexible ways of governing is another useful research product.

15. Embrace Evidence – ICANN should create an institutional assessment network that develops current benchmarks for existing practices. Enabling a more formalized R&D function within ICANN would make evaluating ICANN's work and procedures with both foresight and hindsight and responding to change a more attainable and sustainable goal.

Games

16. Encourage Games – Use prizes, games and challenges to solve problems. For example, an open data initiative should be complemented by the use of prizes to create incentives for developing useful tools. Contests – of the kind employed by the X-Prize or Challenge.gov to help solve such wicked problems as sequencing the human genome or protecting astronauts from radiation exposure in space – can be set up to attract the best possible solutions to hard technical problems ICANN tackles. Consider using "grand challenges," highly compelling, very measurable, super specific competitions with large prize purses to solve extremely hard problems, e.g., minimizing abuse of the DNS infrastructure, identifying the best technique for mitigating name collisions or dealing with IPv4 exhaustion. A currently running example of a grand challenge is the Progressive Auto X-Prize to design a 100-mile-per-gallon production-ready vehicle.

ICANN should make the complexities of Internet governance and ICANN's work more open, accessible and interesting to people with games and activities aimed at the next generation. For instance, we could practice taking ourselves less seriously by crowdsourcing the "translation" of ICANN's webpages into plain English (and other languages). As Mikey O'Connor suggested, "setting goals and rewarding people who help" at ICANN might inspire greater engagement. We believe challenges and games may be one way to effectively do this.

Mr. O'Connor also added that "people need to develop a clearer understanding of the many different roles that people play as they progress toward becoming an effective participant in the [ICANN] process." To help deepen that understanding and create resources and processes for capacity building, ICANN could run contests to design short videos, graphics and other strategies to engage a more diverse audience to the end of making ICANN's work more accessible to everyone – from newcomers to active technologists. ICANN Learn could serve as the appropriate platform to help experiment with such contests.

RESULTING PARADIGM SHIFTS

These proposal ideas are explicitly experimental and should all be tried, assessed and evolved against current practices. Hence it is important to take a baseline today and then to measure the effectiveness, legitimacy and evolutionary quality of decisionmaking and problem solving before and after.

While ICANN is sometimes critiqued as being excessively unaccountable, inaccessible, inefficient, complex, opaque, and coopted by entrenched interests – we believe that by testing these experiments and others, and adopting those that work, ICANN can fluidly transform itself into an expertise-based, open, responsive, streamlined, simple, legible, global, diverse and collaborative organization accountable to the global public. ICANN can serve as the paradigmatic example to the rest of the Internet governance community for how 21st century governance of a shared, global public resource can work and evolve.

CONSTRAINTS & CHALLENGES

Many of the proposals articulated herein touch on harnessing the power of new and innovative technologies to engage a wider network of participants in ICANN decisionmaking. However, access to technology is not equal across communities or regions, and high-speed bandwidth is not the global norm. Recognizing this constraint, we stress that ensuring all individuals affected and interested in ICANN have easy and equitable access to participate in decisionmaking will require consideration of the disparate and unequal connectivity that exists across the globe. As we build out designs for piloting these proposals, therefore, we acknowledge that low-bandwidth solutions must be considered and promoted.

Additionally, many of governance and institutional challenges ICANN currently faces are issues that technology alone will not solve. Therefore, piloting these proposals at ICANN will require attention to human-centered design. We recognize that true progress will involve developing the needed support mechanisms within ICANN to experiment with new ideas. With that in mind, we acknowledge that piloting and implementing these proposals will require a concerted commitment to shifting cultural norms in order to build the requisite mutual trust and ownership that the outcomes of these proposals demand.

NEXT STEPS

1. We will develop each of these suggestions into 1-2 page proposals with supporting examples, illustrations and case studies.
2. We will again invite comment on each proposal from Panel members, the ICANN community and the wider public as we did

during the initial "Idea Generation" stage of the Panel's work (Phase 2).

3. We will finalize the proposals into a blueprint that we post on a wiki for further comment (Phase 3) before concluding and submitting the work of the Panel.

We believe that the work of the Strategy Panel on Multistakeholder Innovation should then be transitioned into one or more working groups that turns the 2-pagers into implementable proposals, working with ICANN experts to develop concrete plans for applying these suggestions to the workings of ICANN and the Internet governance ecosystem. The GovLab will bring the capacity of its diverse and international network to bear on finishing this important work.

ABOUT THE PANEL

The Strategy Panel on Multistakeholder Innovation is an international, seven-member, external advisory group formed to bring fresh insights and outside perspective to ICANN's ongoing process of planning its own evolution.

The Panel has been specifically tasked by Fadi Chehadé, President and CEO of ICANN to:

- Propose new models for international engagement, consensus-driven policymaking and institutional structures to support such enhanced functions; and
- Design processes, tools and platforms that enable the global ICANN community to engage in these new forms of participatory decision-making.

The Panel is chaired by Dr. Beth Simone Noveck, co-founder and director of the Governance Lab at NYU, and former United States Deputy Chief

Technology Officer (2009-2011). The Panel's members include:

- Alison Gillwald – Executive Director, Research ICT Africa
- Joi Ito – Director, Massachusetts Institute of Technology Media Lab
- Karim Lakhani – Lumry Family Associate Professor of Business Administration, Harvard University
- Guo Liang – Associate Professor, Institute of Philosophy, Chinese Academy of Social Sciences
- Geoff Mulgan – Chief Executive, National Endowment for Science Technology and the Arts
- Bitange Ndemo – Former PS of the Ministry of Communications

The Panel receives research support from the Governance Lab at NYU. The support team includes:

- Stefaan G. Verhulst –GovLab Chief of Research
- Jillian Raines - GovLab Legal & Policy Fellow
- Antony Declercq - GovLab ICANN Research Fellow

PANEL RESOURCES

Primers on ICANN:

- "Primer on the Internet Corporation for Assigned Names and Numbers." The Governance Lab @ NYU. October 13, 2013.
- "Understanding the Technical and Business Functions of the Internet Corporation for Assigned Names and Numbers(ICANN)." The Governance Lab @ NYU. (October 2013).

The GovLab SCAN – Selected Curation of Articles on Net-governance: Issues 1-10.

Relevant Panel Posts to The GovLab Blog:

- "ICANN Strategy Panels Launched." July 15, 2013.
- "The GovLab's Living Labs: Experiments in Smarter Governance." October 7, 2013.
- "NEW Publications: Primers on the Internet Corporation for Assigned Names & Numbers (ICANN)." October 21, 2013.
- "Envisioning a 21st Century Organization to Coordinate the Internet Addressing System: A Shared, Global Public Resource."October 21, 2013.
- "Talking Strategy with Panel Chairs at ICANN48." November 18, 2013.
- "A Call to Action – Help Us Design a 21st Century ICANN." November 19, 2013.
- "The Brainstorm Begins." December 9, 2013.

Video:

- Designing a 21st Century ICANN.

The GovLab's Open Governance Knowledge Base.