Assessing ICANN:

Towards Civil Society Metrics to
Evaluate the ICANN Experiment

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I. INTRODUCTION

The Internet Corporation for Assigned Names and Numbers (ICANN), the unique organization responsible for coordinating certain key Internet resources, has been the focus of much controversy. ICANN has devoted a significant part of its energy to answering questions about its structure and processes, and its sixteen-month old reform effort is now nearing completion. Nevertheless, nearly five years after its inception, a great deal of uncertainty continues to surround ICANN, and opinions diverge greatly regarding its activities and its role on the Internet. Some observers view ICANN dimly, citing shortcomings in its structure and activities. Others praise ICANN's stable coordination of naming and numbering to date, and its work to promote competition. Such discordant perspectives, shaped by the observers' varying priorities for ICANN, make a common understanding of ICANN difficult to achieve.

Moving forward, how can we measure whether ICANN is succeeding?

The ICANN community lacks a comprehensive framework for evaluating ICANN. As a result, efforts to understand and assist ICANN are hindered -- with potentially serious consequences. ICANN is approaching a number of important assessments, including the upcoming renewal of ICANN's Memorandum with the U.S. government, the ongoing establishment of its relationships with the Regional Internet Registries and ccTLDs, and continued debate about a more active role for governments or the ITU at ICANN. These evaluations would likely benefit from a well-understood framework to assess ICANN as it evolves.

This paper examines a number of key documents surrounding ICANN that have put forward, explicitly or implicitly, benchmarks or goals for measuring ICANN's work. We identify recurring themes in how prominent stakeholders have described and evaluated ICANN and determine which themes are most useful to developing a common evaluation framework for ICANN. Finally, using the themes found in past documents, we offer a set of ten "Civil Society Metrics" for use by the community in evaluating ICANN from a public interest perspective. This list of metrics is a work in progress, and the authors welcome feedback from interested parties about its contents and use.

II. BACKGROUND

ICANN is an unprecedented experiment in private-sector management and coordination for important global technical resources. Although many questions still surround ICANN, many observers (including CDT) continue to believe in the central idea of ICANN -- the private, bottom-up coordination of key Internet functions.

Evaluating the ICANN experiment is challenging, but necessary in order to recognize ICANN's strengths and properly address its weaknesses. The systems that ICANN coordinates -- elements of the Domain Name System (DNS), the root server system, the IP address hierarchy, and other technical databases -- are critical to Internet communication, and of great importance to Internet users. The global implications of ICANN's work have led to a general understanding that ICANN must be viewed as credible and legitimate in the global Internet community.

In many ways, ICANN has been successful. With a high degree of reliability, domain names resolve properly into IP addresses, IP addresses are duly assigned to network operators, and stable mechanisms for accrediting registrars have been created. Seven new gTLDs have been introduced, and several ccTLDs have been successfully redelegated. And new global policies have been developed in important areas. At a deeper level, however, serious questions exist about ICANN and its role on the global Internet. CDT offers this paper as an attempt to help frame those questions and promote a productive discussion of how to address them.

III.   RECURRING METRICS IN ICANN LITERATURE

Throughout its short existence, ICANN has been the focus of a wide range of commentary, research, opinion, and analysis. This attention, and the resultant body of work, stem partly from the importance of the activities ICANN performs. But ICANN is also interesting to commentators because of its uniqueness among global governance institutions.[1] As a private entity with authority over critical global systems, discussion of ICANN's structure and processes poses rich opportunities for observers interested in Internet governance and civil society.

ICANN commentators have come at their subject from a variety of perspectives. Some documents, such as those published by the Department of Commerce, helped to establish conceptual parameters in which ICANN's work could take place. Other work, such as that of many academics and NGOs, as well as a significant amount of ICANN's own work, has been aimed at improving ICANN's legitimacy through procedural and structural means. Still others list grievances with the substance of ICANN's decisions.

As is unsurprising to long-term watchers of ICANN, these papers typically reach different conclusions regarding the best path forward for ICANN. But although their endpoints diverge, their starting points -- the metrics they apply to evaluate ICANN's

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[1] ICANN is not, and it does not strive to become, a "government of the Internet;" its officers and staff have repeatedly disavowed any desire to expand ICANN's activities into areas traditionally reserved to sovereign governments. However, since ICANN's management activities affect end users (however indirectly) and have an unavoidable policy component, it is often scrutinized by students of Internet governance.

progress -- often draw from a common pool of priorities that the community has for ICANN.

By examining a number of representative works surrounding ICANN, we found repeated reference to priorities such as --

> **"Stability"** -- Stable and secure coordination of key Internet functions;
>
> **"Limited Activities"** -- Adherence to clearly defined scope of activities;
>
> **"Private Coordination"** -- The importance of ICANN's status as a private-sector entity;

and numerous others. In the space below, we examine a number of key documents and describe the evaluation themes found in each of them.

Documents Reviewed
U.S. Department of Commerce, NTIA Statement of Policy on the Management of Internet Domain Names and Addresses ("White Paper")
Memorandum of Understanding between the U.S. Department of Commerce and ICANN
ICANN At-Large Study Committee
Report of ICANN President Stuart Lynn
Committee on ICANN Evolution and Reform Blueprint and Transition Plans
ICANN Bylaws: Mission and Core Values
Country-code Top-Level Domain (ccTLD) Operators
ICANN GNSO Business Users' Constituency
ICANN GNSO Non-Commercial Users' Constituency
Council of the European Union
Centre for Global Studies Report
Tamar Frankel Report on Accountability
NGO and Academic ICANN Study Report
Center for Democracy & Technology Reports
David Johnson and Susan Crawford Article Series
Other Community Commentators

1. <u>U.S. Department of Commerce, NTIA Statement of Policy on the Management of Internet Domain Names and Addresses ("The White Paper")[2]</u>

Published by the National Telecommunications and Information Administration (NTIA) in 1998, the White Paper (and its precursor, the "Green Paper"[3]) laid out the notion that management of key Internet functions such as the DNS and the IP address hierarchy could be simultaneously privatized and globalized through the creation of a new non-governmental organization.

The White Paper stated that any such organization would need to satisfy four primary objectives in order to serve the interests of the global Internet community:

> Stability -- The underlying stability (including security and reliability) of the DNS and other key systems was to be the first priority of any management system.
> Competition -- Wherever possible, market mechanisms supporting competition and consumer choice were to be used in the Internet's management.
> Private bottom-up coordination -- Private coordination was preferable to government involvement. To the extent possible, such coordination would utilize the "bottom-up governance that has characterized development of the Internet to date"[4] as a means of assuring accountability.
> Representation -- Management of the Internet's key functions should take into account the broad diversity of Internet uses and users, and policy development should depend on input from the user community.

The White Paper also laid out the four major functions of the organization that would manage Internet addressing, granting it authority to:

> "1) set policy for and direct allocation of IP number blocks to regional Internet number registries;
> "2) oversee operation of the authoritative Internet root server system;
> "3) oversee policy for determining the circumstances under which new TLDs are added to the root system; and
> "4) coordinate the assignment of other Internet technical parameters as needed to maintain universal connectivity on the Internet."[5]

This is also viewed by many as an important delineation of ICANN's enumerated functions and mission statement.

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[2] United States Department of Commerce, National Telecommunications and Information Administration. *Statement of Policy: Management of Internet Domain Names and Addresses.* Docket No. 980212036-8146-02. June 5, 1998. Available at <http://www.ntia.doc.gov/ntiahome/domainname/6_5_98dns.htm>.

[3] United States Department of Commerce, National Telecommunications and Information Administration. "Improvement of Technical Management of Internet Names and Addresses; Proposed Rule." 63 *Federal Register* 8,825 (February 20, 1998). Available at <http://www.ntia.doc.gov/ntiahome/domainname/022098fedreg.htm>.

[4] White Paper.

[5] *Ibid.*

Key Themes: White Paper	
Stability	Bottom-Up
Competition	Representation
Private-Sector	Limited Activities
International	

2. Memorandum of Understanding between the US Department of Commerce and ICANN[6]

The Memorandum of Understanding (MOU) between Commerce and ICANN lays out specific responsibilities for ICANN. Originally signed in November 1998, the MOU had a term of one year. Since then, it has been amended five times and has had its term extended four times, each in one-year increments. The current MOU is set to expire on September 30, 2003.

The current MOU commits ICANN to a checklist of eleven activities, including:

> Continued pursuit of legal arrangements with the Regional Internet Registries (RIRs) and stable relationships with the operators of country-code Top Level Domains;
> Improved transparency;
> Improved accountability;
> Improved security of the root server system;
> Continued implementation of new TLDs;
> Continued efforts to promote competition and protect innovation; and
> Improved participation by the global Internet community.

Past versions of the MOU have included other checklist items, such as the creation of a system for the resolution of domain name disputes and the creation of a system of representation for Internet users. These items were removed upon agreement by Commerce and ICANN that they had been addressed.

The MOU is the most formal instantiation of the relationship between Commerce and ICANN. Because ICANN's authority over the DNS is largely dependent on its Department of Commerce authorization, Commerce is frequently viewed as the final arbiter of ICANN's success or failure and as the main tie still binding ICANN to traditional forms of public accountability.

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[6] United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers. "Memorandum of Understanding." November 25, 1998. Available at <http://www.icann.org/general/icann-mou-25nov98.htm>. Amended five times; amendments available at <http://www.icann.org/general/agreements.htm>. Current (2003) MOU is available at <http://www.icann.org/general/amend5-jpamou-19sep02.htm>.

Key Themes: MOU	
Accountability	Security
Transparency	Legal arrangements with key stakeholders
Participation/ Representation	Competition
Protection of innovation	New TLDs

3. ICANN At-Large Study Committee

Following the online election of five At-Large Directors, ICANN created the At-Large Study Committee (ALSC) to review the election and make suggestions for ICANN's future activities regarding membership. The ALSC's *Final Report on ICANN At-Large Membership*[7] largely emphasized:

Participation, proposing a new "At-Large Supporting Organization" to provide a user voice;

Representation, proposing a role for users in selection of the Board;

Accountability, proposing direct elections at some point in ICANN's future; and

Bottom-up, global decision-making, proposing a regionally distributed structure of local Internet communities.

Key Themes: ALSC Report	
Representation	Participation
Accountability	Bottom-up and Global

4. Report of ICANN President Stuart Lynn

Simultaneous with the ALSC's publication of its *Implementation Report*, ICANN's then-President Stuart Lynn published a report of his own, entitled "President's Report: ICANN -- The Case for Reform,"[8] citing three basic shortcomings at ICANN:

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[7] At Large Study Committee. *Final Report on ICANN At-Large Membership.* November5, 2001. Available at <http://www.atlargestudy.org/final_report.shtml>.

[8] Lynn, M. Stuart. "President's Report: ICANN -- The Case for Reform." February 24, 2002. Available at <http://www.icann.org/general/lynn-reform-proposal-24feb02.htm>.

1. "Too Little Participation by Critical Entities," including the ccTLDs, root server operators, RIRs, major users and ISPs, and national governments;
2. "Too Much Process," in that ICANN's focus on participation and representation had come at the cost of "substance and effectiveness" and
3. "Too Little Funding," and a lack of stability in funding, due to the fact that certain parties had not then contributed requested amounts to ICANN's operating budget.

The Lynn report proposed a drastically new structure for ICANN, with a significantly expanded role for national governments in ICANN's funding and direction and with less emphasis on direct representation.

Key Themes: Lynn Report	
Participation	Funding
Effectiveness	Appropriate role for governments

5. Committee on ICANN Evolution and Reform Blueprint and Transition Plans

The Committee on ICANN Evolution and Reform, appointed by the ICANN Board in response to the Lynn report, has published numerous documents shaping ICANN's present reform effort. The most substantial is *ICANN: A Blueprint for Reform*.[9] The Blueprint laid out a significantly new structure for ICANN policymaking with an emphasis on "effective decision-making."

Mission: The Blueprint's "Mission and Core Values" approach would provide guidance -- but not restriction -- to the ICANN Board in conducting itself.
Role of governments: Did not include the strong governmental ties envisioned in the Lynn report; however, it did create an expanded set of Government Advisory Council interactions with the ICANN Board and with other parts of ICANN.
Internet users: In lieu of direct representation for individual Internet users, tasked an At Large Advisory Committee with developing Regional At Large Organizations (RALOs) to participate in the nomination of Board Directors.
Accountability: Revised ICANN's accountability procedures by adopting a system of international arbitration for review of Board decisions and by creating an ombudsman for interactions with the community.
Acceptance: Emphasized importance of approval of key communities, particularly the ccTLDs and the RIRs.
Competition: Reiterated ICANN's commitment to pursuing competition.
Transparency: Continued ICANN's efforts at transparency.

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[9] Committee on ICANN Evolution and Reform. *ICANN: A Blueprint for Reform.* June 20, 2002. Available at <http://www.icann.org/committees/evol-reform/blueprint-20jun02.htm>.

Following the Blueprint's publication, the Committee issued a series of "Implementation Reports" and "Supplemental Implementation Reports" aimed at describing ICANN's transition from its existing structure to that described in the Blueprint.[10]

Key Themes: Blueprint	
Mission	Participation/ Representation
Accountability	Acceptance
Transparency	Competition
Appropriate role for governments	

6. ICANN Bylaws: Mission & Core Values

ICANN's current bylaws[11] describe ICANN's activities through a "mission and core values" document that pairs a broadly-stated mission with eleven non-binding "values" meant to guide decision-making. Interpretation of these values -- including cases where one value may conflict with another -- is left to ICANN. These values include:

"Preserving and enhancing the operational stability, reliability, security, and global interoperability of the Internet.
"Respecting the creativity, innovation, and flow of information made possible by the Internet by limiting ICANN's activities to those matters within ICANN's mission requiring or significantly benefiting from global coordination.
"To the extent feasible and appropriate, delegating coordination functions to or recognizing the policy role of other responsible entities that reflect the interests of affected parties.
"Seeking and supporting broad, informed participation reflecting the functional, geographic, and cultural diversity of the Internet at all levels of policy development and decision-making.
"Where feasible and appropriate, depending on market mechanisms to promote and sustain a competitive environment.
"Introducing and promoting competition in the registration of domain names where practicable and beneficial in the public interest.
"Employing open and transparent policy development mechanisms that (i) promote well-informed decisions based on expert advice, and (ii) ensure that those entities most affected can assist in the policy development process.
"Making decisions by applying documented policies neutrally and objectively, with integrity and fairness.
"Acting with a speed that is responsive to the needs of the Internet while, as part of the decision-making process, obtaining informed input from those entities most affected.
"Remaining accountable to the Internet community through mechanisms that enhance ICANN's effectiveness.

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[10] These reports, as well as other work product from the Committee, are available at <http://www.icann.org/committees/evol-reform/>.

[11] Available at <http://www.icann.org/general/bylaws.htm>.

"While remaining rooted in the private sector, recognizing that governments and public authorities are responsible for public policy and duly taking into account governments' or public authorities' recommendations."[12]

Key Themes: ICANN Bylaws	
Stability	Security
Limited Activities	Support for Innovation
Accountability	Minimal Rights Impact
Transparency	Competition
Participation/ Representation	Speed
Delegation of authority	Openness
Objectivity/Fairness	

7. Country-code Top-Level Domain (ccTLD) Operators

The operators of country code Top-Level Domains are among the most critical stakeholders at ICANN. The global DNS currently contains over 240 ccTLDs, with great diversity of viewpoints, priorities, and resources. This makes it difficult to speak of any homogenous "ccTLD" perspective at ICANN. However, groups of ccTLDs have published a number of notable documents commenting on ICANN's operations. These include:

World Wide Alliance of Top Level Domain-names' many documents, including its "Communiqué from Rio de Janeiro meeting," [13] "ccTLD Response to the Committee on Evolution and Reform's Blueprint for ICANN Reform," [14] and "Communiqué from Accra meeting;" [15]

Council of European National Top-Level Domain Registries' (CENTR) many documents, including its "CENTR Response on ERC 5th Supplemental Implementation report," [16] and "About the Administration of the Internet Domain Name System;" [17] and

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[12] *Ibid.*

[13] March 26, 2003. Available at <http://www.wwtld.org/communique/ccTLDRio_communique_26Mar2003.html>.

[14] June 2002. Available at <http://www.wwtld.org/meetings/cctld/Bucharest2002/ccTLD_response_ERC.html>.

[15] March 13, 2002. Available at <http://www.wwtld.org/communique/ccTLDGhana_communique_13Mar2002.html>.

[16] May 12, 2003. Available at <http://www.centr.org/docs/statements/CENTR-Response-ERC.html>.

[17] February 28, 2003. Available at <http://www.centr.org/docs/statements/CENTR-ITU-Submission.html>.

Many comments submitted by both groups and individual ccTLD operators to various ICANN policy discussions.

Common themes emerge in these writings, including:

Continued stability of the Internet and its core functions;

Efficient, reliable performance of ICANN's key technical functions;

Continued "bottom-up" policy development at ICANN;

The limited nature of ICANN's authority and the importance of keeping its activities within a narrow scope;

Protection of local Internet communities' ability to direct their own activities and evolution;

Adequate representation of stakeholder groups in key ICANN bodies, and low barriers to participation;

Openness and transparency in ICANN decision-making; and

Continued productive advisory role for national governments, through the Government Advisory Council.

Key Themes: ccTLDs	
Stability	Local Autonomy
Technical performance	Participation/ Representation
"Bottom-up"	Transparency
Limited Activities	Advisory role for Governments

8. ICANN GNSO Business Constituency

The GNSO (formerly DNSO) Business Constituency has published numerous statements covering ICANN's structure and processes as well as various policy proposals. Notable documents incorporating evaluative themes for ICANN include "Business Constituency position on the ICANN Evolution and Reform Process September 2002,"[18] "Toward a Business Constituency Position on ICANN Restructuring and Reform,"[19] and the draft "A Differentiated Expansion of the Names Space."[20]

Themes in these documents include:

Technical stability;

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[18] Available at <http://www.bizconst.org/positions/BCpositionERC9-2002.doc>.

[19] Available at <http://www.bizconst.org/positions/BCpositionICANNEvolution.doc>.

[20] Available at <http://www.bizconst.org/positions/Differentiatednamespace.doc>.

Competition, at both the registry and registrar level;

Private, bottom-up decision-making;

Stabilized funding;

Relationships with ICANN's key stakeholders;

Advisory role for governments;

Adequate representation in key decision-making entities; and

Transparency

Key Themes: Business Constituency	
Technical stability	Advisory role for governments
Private, bottom-up	Representation
Stable funding	Transparency
Stakeholder acceptance	

9. ICANN GNSO Non-Commercial Users Constituency

The Non-Commercial Users Constituency has been a regular commentator at ICANN, though somewhat hampered by organizational and financial difficulty. The number of formal statements published by the constituency is considerably smaller than that of other entities; many of the NCUC's contributions to ICANN debate have been in the form of list traffic on its active discuss@icann-ncc.org mailing list.

Key themes to the NCUC include:

Accountability at ICANN for its actions;

Representation and participation by diverse stakeholders, including the public interest;

Promotion of competition;

Transparency and openness;

Acceptance by key stakeholders;

Respect for public values and human rights;

Limited mission and activities for ICANN;

Support for international ICT development; and

Private, bottom-up policymaking

Key Themes: Non-Commercial Constituency	
Accountability	Minimal Rights Impact
Representation/ Participation	Limited Mission
Competition	Support for Development
Transparency	Private, bottom-up
Acceptance	

10. Council of the European Union

The European Commission has been following ICANN's activities for several years. In 2002, the EU Council published several documents concerning ICANN: a "Note from the Presidency on ICANN Reform Issues" [21] and "Guidelines for Discussions" concerning ICANN. [22] These documents emphasize several priorities for ICANN:

True internationalization of Internet management, including transfer of US government responsibilities over the Root Zone File to ICANN;

Stabilization and limitation of ICANN's mission;

Continuation of bottom-up and consensus policy-making at ICANN;

Greater role for governments in issues that impinge on public policy questions;

Protection of the public interest through greater standing of government input;

Maintenance of the principles of geographic diversity and representation at ICANN; and

ICANN's continued independence from governments for funding.

Key Themes: EU Council	
Internationalization of root management	Government role in public policy questions
Mission	Geographic diversity
Bottom-up	Representation
Consensus	Independent funding
Participation/ Representation	

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[21] Available at <http://register.consilium.eu.int/pdf/en/02/st09/09526en2.pdf>.

[22] Circulated by e-mail, available at <http://www.dnso.org/clubpublic/ga/Arc10/msg02338.html>.

11. Centre for Global Studies Report

The Centre for Global Studies report, "Enhancing Legitimacy in the Internet Corporation for Assigned Names and Numbers: Accountable and Transparent Governance Structures," [23] sought out examples of "best practices" from other well-known NGOs as guidance for ICANN's reform. The report emphasized accountability/transparency best practices for ICANN. These included new practices for the Board of Directors, for promoting participation, for transparency, and for accountability. The report recommended a series of changes, including:

> "*Representation*: Increasing geographical diversity on the Nominating Committee and the Board by expanding the application of the accepted concept of constituencies;
>
> "*Participation*: Expanding consultation before decisions by publication early in the policy process, and by providing opportunities for feedback by the public on major issues, including regional workshops; and
>
> "*Accountability*: Enhancing the powers and independence of the Ombudsman Office beyond the Burr Charter; and strengthening provisions of the Reconsideration and Arbitration processes to make them binding on the Board in certain circumstances."[24]

The report also recommended that ICANN "embrace incremental change by widespread application of 'sunset clauses'" as a means of increasing transparency and accountability.[25]

Key Themes: Centre for Global Studies	
Representation	Transparency
Participation	Accountability

12. Tamar Frankel Report

Published in July 2002, Boston University School of Law Professor Tamar Frankel's report, "Accountability and Oversight of the Internet Corporation for Assigned Names and Numbers," [26] emphasized financial transparency and accountability for ICANN. Key recommendations for a successful ICANN included:

> Legitimacy, in that ICANN must gain the acceptance of the Internet community;
>
> Clarified power boundaries, to focus ICANN's attention and promote its acceptance;
>
> Clarification of ICANN's beneficiaries and the means by which they are represented;

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[23] Available at <http://www.markle.org/news/ICANN_Final_Sept18.pdf>.

[24] *Ibid.*

[25] *Ibid.*

[26] Available at <http://www.markle.org/news/ICANN_fin1_9.pdf>.

Even-handed treatment of intellectual property issues;

Standardized relationships with RIRs, ccTLDs, and registrars;

Accountability at ICANN for its decisions; and

Financial and managerial transparency.

Key Themes: Frankel Study	
Legitimacy/Acceptance	Fair treatment of IP
Clarified Power Boundaries	Accountability
Clarified stakeholder relationships	Financial/managerial transparency
Representation	

13. NAIS Report

The NGO and Academic ICANN Study (NAIS) report was published in mid-2001 as an independent analysis of the 2000 At-Large Election and proposal for user representation and participation at ICANN. The NAIS Final Report [27] emphasized:

Global participation from the broad Internet community in ICANN;

Effective representation at ICANN, particularly in the form of a direct At-Large election;

Transparency;

Accountability;

A limited mission for ICANN;

Private-sector coordination;

Support for innovation and development on the Internet; and

Promotion of a declaration of user rights.

Key Themes: NAIS Report	
Participation	Limited mission
Representation	Private-sector
Transparency	Support for innovation
Accountability	Declaration of user rights

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[27] Available at <http://www.naisproject.org/report/final>.

14. Center for Democracy & Technology Reports

CDT's project on domain names has been an active participant in and observer of ICANN, as part of the NAIS effort, in testimony before Congress, and in a variety of communications to the ICANN community. Representative samples of CDT's work on ICANN, available online,[28] include:

"Clarifying the Mission and Powers of ICANN";[29]

Testimony before the U.S. Senate Subcommittee on Science, Technology, and Space; [30] and

CDT's joint report with Common Cause, "ICANN's Global Elections: On the Internet, For the Internet." [31]

These works have emphasized a recurring set of themes for ICANN:

Importance of stability for the Internet;

Support for the model of private, bottom-up coordination;

ICANN's need for a limited mission;

ICANN's need for credibility and acceptance in the global community;

Participation and representation at ICANN;

Transparency;

Accountability;

Respect for Internet innovation; and

A minimal impact on key values such as free speech and privacy.

Key Themes: CDT Reports	
Stability	Transparency
Limited mission	Accountability
Credibility and acceptance	Support for innovation
Participation	Minimal impact on key values
Representation	Private, bottom-up process

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15. David Johnson and Susan Crawford Article Series

David Johnson and Susan Crawford are among ICANN's most enduring and thoughtful commentators.[32] Their numerous papers on ICANN's structure and processes include "ICANN 2.0," [33] "What Joe Sims Doesn't Get," [34] and "Why Consensus Matters." [35] These papers emphasize the importance of consensus to ICANN's bottom-up process and the risk of 'mission creep.' In their work, Johnson and Crawford emphasize several themes for ICANN:

The importance of consensus as a key part of ICANN's legitimacy;

The importance of stability;

The need for a clarified, limited mission;

Accountability;

Transparency;

Participation and representation;

Acceptance before the global Internet community; and

The importance of continued competition on the Internet.

Key Themes: Johnson & Crawford	
Stability	Transparency
Limited mission	Participation/ Representation
Consensus process	Acceptance by the community
Accountability	Competition

16. Other Community Commentators

A large number of other members of the Internet community have offered their own views on ICANN. A brief synopsis of some of the major works follows.

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[32] Johnson and Crawford wrote many of their collaborations while both were partners at the Washington, DC, law firm Wilmer, Cutler, and Pickering, during which time they periodically represented several parties in the ICANN space. Their article series has not been directly affiliated with any client. David Johnson is now a private consultant and programmer. Susan Crawford is now a professor at Cardozo University School of Law.

[33] Available at <http://www.icannwatch.org/essays/022602-johnson-crawford-icann2.htm>.

[34] Available at <http://www.icannwatch.org/article/pl?sid=02/06/16/212356>.

[35] Available at <http://www.icannwatch.org/archive/why_consensus_matters.htm>.

A. *Milton Mueller, Syracuse University*

Professor Mueller has been deeply involved in ICANN for several years, including serving in the Administrative Committee of ICANN's Non-Commercial Domain Name Holders' Constituency and as an editor of ICANNWatch.org. His book, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (Cambridge, Mass.:MIT Press, 2002), discusses ICANN's history and its difficulty in establishing credibility and trust with the Internet community. In his work, Prof. Mueller has especially cited the importance of competition and accountability for ICANN.

B. *A. Michael Froomkin, University of Miami School of Law*

Professor Froomkin has written extensively on ICANN, both in legal journals and in his capacity as an editor of ICANNWatch.org, a leading online resource for information and discussion of ICANN. His most recent article, *Habermas@discourse.net: Toward a Critical Theory of Cyberspace*, 116 HARV. L. REV. 749 (2003) [36] discusses ICANN and its reliance on consensus-based processes for decision-making.

C. *David Post, Temple University Law School*

Professor Post is an editor of ICANNWatch.org and a longtime participant at ICANN. He has written several articles on ICANN, including "Governing Cyberspace, or Where is James Madison When We Need Him?" [37] and "ICANN ver. 2.0 and 'Mission Creep,'" [38] calling for reform and new limits on ICANN's powers.

D. *The Heathrow Declaration*[39]

Authored by Elliot Noss and Ross Wm. Rader (Tucows) and Tim Denton, an Internet consultant, "Heathrow" was written as response to ICANN's March 2002 meeting in Accra and the release of the Lynn report. The paper offers principles and suggestions for ICANN reform.

E. *Karl Auerbach*

Simultaneously one of ICANN's Directors and a commentator on ICANN's activities, Karl Auerbach has offered numerous ideas for ICANN reform, including "A Plan to Reform ICANN: A Functional Approach." [40]

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[36] Available at <http://www.law.miami.edu/~froomkin/discourse/ils.pdf>.

[37] Available at <http://www.temple.edu/lawschool/dpost/icann/comment1.html>.

[38] Available at <http://www.icannwatch.org/article.pl?sid=02/02/28/064529>.

[39] Available at <http://www.byte.org/heathrow>.

[40] Available at <http://www.cavebear.org/rw/apfi.htm>.

F. *Esther Dyson*

Since her term as Chairman of the Initial ICANN Board of Directors, Ms. Dyson has remained involved in creating a public voice at ICANN. Her most recent article was entitled "Public Domain: Getting Regular Users Involved in ICANN." [41]

G. *Wolfgang Kleinwächter/ICANN-Studienkreis*

Since 1999, Professor Kleinwächter has organized periodic conferences, discussions, and publications regarding ICANN, collectively known as the "ICANN-Studienkreis." [42]

IV. PROPOSED CIVIL SOCIETY METRICS FOR ASSESSING ICANN

In our review of the literature, we found repeated reference to certain values and priorities for ICANN. In order to assist the community in measuring ICANN's success, we have restated those priorities as ten metrics to be used for evaluating ICANN.

These metrics are aimed at assessing ICANN, particularly from a public interest/civil society perspective. Our hope is that these metrics will be widely applicable, however, and may be used by other communities in their evaluations of ICANN.

This set of metrics comprises most of the themes occurring in the literature we examined (see Table 1 below). We have used broad definitions to encompass some of the more specific objectives we found in the literature. We have also stated these metrics to emphasize ends, not means, for ICANN. For this reason, process and structural objectives such as "consensus-based processes," "stabilized funding sources," and "private-sector control" have been absorbed into more general goal-based metrics like "accountability," "representation," "acceptance by key stakeholders," and "support for innovation." Finally, this chart seeks to represent the metrics chosen by ICANN's commentators in their discussion of ICANN -- it is not a comprehensive overview of priorities for key interest groups at ICANN.

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[41] Available at <http://www.edventure.com/conversation/article.cfm?Counter=837907>.

[42] Available at <http://www.icann-studienkries.net>.

Table 1 - Civil Society Metrics Applied in ICANN Literature

Group	Source	Secure, Stable Coord.	Limited Activities	Accountability	Transparency	Participation & Representation	Security	Support for Innovation	Acceptance	Minimal Rights Impact	Competition
U.S. Government	"White Paper"	X	X	X		X		X			X
ICANN & ICANN-related	MOU	X		X	X	X	X		X		X
	ALSC Report			X	X				X		
	Lynn Report	X			X				X		
	Evolution & Reform Committee		X	X	X	X			X		X
	ICANN Bylaws	X	X	X	X	X	X	X		X	X
	ccTLDs	X	X		X	X		X	X	X	
	Business Constituency	X		X	X		X	X			X
	Non-Commercial Constituency		X	X	X	X		X	X	X	X
EU	EU Council		X		X				X		
Academic	Centre for Global Studies			X	X				X		
	Frankel Report		X	X	X				X		
NGO	NAIS Report		X	X	X	X	X		X	X	
	CDT	X	X	X	X	X	X		X	X	
Other	Johnson & Crawford	X	X	X		X		X		X	X

Each metric includes indices that could be directly reviewed for evidence of ICANN's progress in that area. Such indices are of great utility in applying metrics and rooting evaluations of ICANN in reality. At this early stage of ICANN's development the range of indices on which to draw is somewhat limited. Many refer back to evaluations from ICANN stakeholders, rather than to independently-collected statistics. Nevertheless, it is hoped that they will be useful both in clarifying the metrics and in using them for evaluation.

1. **<u>Stable and secure coordination of key Internet functions</u>**

ICANN's primary responsibility and the basic rationale for its existence is to perform top-level coordination of three key Internet systems -- the DNS, the IP address hierarchy, and the database of technical parameters used by IETF and other technologists for port and protocol assignment. Its success at performing such coordination in a secure manner that promotes the technical stability[43] of the network is the primary criterion to evaluate ICANN. Evidence that the technical stability of these systems, or the security of their coordination[44] has been in any way compromised by ICANN would be a grave mark against ICANN's competence as manager.

KEY INDICES

Record of DNS root server uptime -- indicates whether this critical service has been reliably available to Internet users.

Record of availability of accurate root zone file data, with consideration for the timeliness of updates -- indicates ICANN's success at providing this core functionality.

Record of IP address block allocation, with consideration for timeliness -- indicates the effect of ICANN's interactions with the RIRs on a core Internet function.

Record of new gTLD creation -- indicates whether ICANN's management of the root zone file has resulted in anticipated expansion.

2. **<u>Adherence to clearly defined scope of activities.</u>**

The functions coordinated by ICANN are of significant public importance, and create a mechanism of centralized administration for the decentralized Internet. A key concern for some civil society stakeholders is that ICANN's authority over these systems could be leveraged into greater policy-making authority beyond its intended scope -- even with good intentions. It is important that ICANN's activities remain tightly constrained to the

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[43] For this metric, we define technical stability in the narrow and ministerial sense of keeping these systems operational and responsive for members of the Internet community who use them. Other, more normative views of "stability" -- e.g., procedural stability, fiscal stability, political stability -- are covered by other metrics.

[44] Similarly, this metric limits consideration to whether the <u>coordination</u> of these systems is secure, not the degree to which the systems <u>themselves</u> may be secure (i.e., robust, resistant to attack, etc.).

technical activities for which it was designed. Failure in this area could diminish ICANN's credibility as a limited technical entity.

KEY INDICES

Adoption and maintenance of charter and bylaws describing ICANN's mission and limited activities -- indicates whether ICANN has made limits on its activity an institutional priority.

Record of ICANN activity showing adherence to limited mission and activities -- indicates whether ICANN has respected limits on its activities.

Absence of instances showing activity overstepping the enumerated functions of ICANN -- indicates whether ICANN has leveraged its authority over key systems into inappropriate areas.

3. Accountability to affected stakeholders, including effective independent review procedures

ICANN's model of private sector coordination can only truly succeed if ICANN remains accountable to key stakeholders through non-governmental means. Mechanisms for such accountability have been the subject of frequent discussion throughout the ICANN community. Effective procedures for independent review of controversial decisions is a consistent theme, including in ICANN's own bylaws and its arrangements with the U.S. government, as is increased transparency (see below). Evidence that ICANN is accountable, and particularly that it has effective independent review procedures, is critical to evaluating ICANN's overall success.

KEY INDICES

Adoption and maintenance in charter and bylaws of independent review procedures, best practices for selection of officers, and other accountability procedures -- indicates whether ICANN has made accountability an institutional priority.

Record of independent review panel activity and acceptance of its decisions -- indicates whether ICANN has respected its accountability mechanisms.

Record of community participation in accountability mechanisms such as the Nominating Committee, Manager of Public Participation, ALAC, and Ombudsman -- indicates whether the community has accepted ICANN's proposed accountability mechanisms.

4. Transparency, including procedural and financial transparency

The links between transparency and accountability are well understood throughout the governmental, commercial, and non-profit sector. The importance of transparency to ICANN is especially high, due to the unique relationship between ICANN and its stakeholders -- a relationship based more on trust than on financial, legal, or political ties.

KEY INDICES

Adoption and use of best practices for public access to key financial and long-term planning documents -- indicates whether ICANN has made transparency an institutional priority.

Record of key transparency practices such as public, open and accessible meetings, timely public access to agenda and minutes of key ICANN meetings, and other transparency mechanisms -- indicates whether ICANN has respected the importance of transparency in its activities.

5. Representation of key interest groups, including the public's interests.

ICANN's coordination activities affect a large number of interest groups, some more directly than others. These groups include retail and wholesale vendors of domain names, individuals and groups who register names, trademark and copyright holders, operators of domain name registries, Internet service providers, and technical standards and coordination bodies. ICANN's activities also affect the Internet-using public as a whole, for example through the availability of TLDs and the enforcement of registration rules. ICANN therefore demands a representation structure that reflects the broad impact of its activities, including its impact on the public interest, and that creates a meaningful role for affected groups in ICANN's operation and policy development.

> *KEY INDICES*
>
> Record of diverse participation at ICANN and representation in its governing entities, including: geographical, gender, technological, ideological, demographic diversity -- indicates whether ICANN has respected the importance of diversity in its activities and indicates the community's response.
>
> Public record indicating whether stakeholder participation has been effective in shaping ICANN's activities -- indicates whether ICANN has been successful at promoting effective participation.
>
> Record of effective outreach and participatory opportunities by the At-Large Advisory Committee (ALAC) -- indicates whether ICANN's premier organ of end-user participation has been successful in its activities.

6. Acceptance by key stakeholders, ccTLDs, RIRs, etc.

Though many of its legal obligations are to the U.S. government, ICANN's coordination authority ultimately derives from the faith placed in it by key stakeholder groups. This includes groups directly affected by ICANN -- the operators of country-code and global TLDs, domain name registrars and registrants, Regional Internet Registries, and the Internet's technical community -- as well as the broader Internet-using business community and public. Evidence that these groups have accepted ICANN's authority, and resolution of doubts or concerns they may have about ICANN, is a measure of ICANN's success.

> *KEY INDICES*
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> Stable, documented relationships with key operators such as RIRs, registries, registrars, and root server operators -- indicates whether ICANN has achieved necessary levels of trust from mission-critical network operators.
>
> Record of acceptance by impacted parties -- indicates whether ICANN is perceived of as legitimate by key parts of the Internet community.

7. Minimized impact on user rights, such as privacy and free speech; consideration of impact on LDCs, etc.

ICANN's coordination activities have inevitable implications for the Internet-using public. It is therefore important to evaluate the form and degree of ICANN's impact on public values since its inception. These include ICANN's impact -- if any -- on universal

public values such as free expression, privacy, rights of association, and 'consent of the governed,' as well potential effects on international development in the digital age. Ideally, ICANN should have <u>no</u> impact -- positive or negative -- on these values.

KEY INDICES

Record of ICANN sensitivity to user and LDC interests in policy formation -- indicates whether ICANN has made consideration of such rights an institutional priority.

Absence of policies violative of the UN Declaration of Human Rights; for example, absence of ICANN-related rules abridging Internet expression or the diverse use of domain names -- indicates whether ICANN has respected in its actions key human rights.

8. <u>Support for competition and, when possible, reliance on market mechanisms.</u>

ICANN's management responsibilities over the DNS and other key systems make its support for competition and market-based solutions critical if a healthy market in domains names and related services is to emerge. Since the "White Paper," many have considered support for competition a central function of ICANN. While the White Paper was issued in an era of great concentration within many components of the domain name marketplace, that concentration has changed and we expect the metrics for success in competition will change over time as well.

KEY INDICES

Diversity of providers in both registrar and registry services and record of market concentration-- indicates whether ICANN has avoided anti-competitive activities

Reduced/stable retail prices for domain name registration -- indicates whether the domain names market has been destabilized during ICANN's management.

Market concentration data in the registry/registrar markets -- indicates whether the domain names market has been consolidating/diversifying during ICANN's management.

9. <u>Increased security of the root server system.</u>

Question surrounding security of the root server system have attracted significant new attention since ICANN's inception. As use of and dependency on the Internet increases, the costs of an attack on the root server system become increasingly serious. ICANN's responsibility to improve security of the root server system features prominently in its agreements with the U.S. government.

KEY INDICES

Record of attacks on the DNS root servers and corresponding responses -- indicates whether the root server system, with some coordination from ICANN, has been adequately prepared for attacks.

Record of steps taken to preempt likely attacks on ICANN-administered systems -- indicates whether the root server operators, with some coordination from ICANN, are likely prepared for future attacks.

10. Support for long-term Internet and ICT evolution and innovation.

While ICANN has no direct responsibility to actively promote Internet or international development outside the narrow frame of its coordination activities, it should avoid creating barriers to the evolution and innovation occurring in other contexts. The extent to which ICANN is able to successfully strike a balance between performing its narrowly-construed duties and permitting -- but not directing -- the natural evolution and innovation of the Internet and ICT is an important index of its success.

> *KEY INDICES*
>
>> Absence of ICANN-related impediments to continued technological, commercial, and social innovation in areas related to ICANN's mission -- indicates whether ICANN has obstructed important innovation activities.

V. CONCLUSION

CDT believes that a robust set of commonly-accessible metrics is critical to evaluating ICANN's strengths and shortcomings. The civil society metrics we offer in this document are intended to focus on the aspects of ICANN that the community has found most important, in the form of recurring themes in the literature. Our hope is that these metrics can be used by other groups at ICANN to form the basis of a multi-sectoral agreement about how to best measure ICANN's success.

The original vision of ICANN -- a private, non-governmental organization, responsive to the needs of the community -- has the potential to be a highly beneficial feature of the Internet's administration if it can be made to work. If it fails -- either in its effective functioning or its appropriate accountability -- the affects will be broadly felt and will need to be addressed by the Internet community. That community therefore needs good tools for identifying and understanding ICANN's strengths and weaknesses as it evolves.

We hope that these metrics prove valuable to others in the ICANN community in assessing this unique and important organization. We look forward to feedback of others interested in ICANN's evolution, and hope that this assessment will assist in creating stronger and improved Internet administration mechanisms.

<center>**Table 2 - Civil Society Metrics for ICANN**</center>

Stable and secure coordination of key Internet functions	Record of DNS root server uptime Record of availability of accurate root zone file data, with consideration for the timeliness of updates Record of IP address block allocation, with consideration for timeliness Record of new gTLD creation
Adherence to clearly defined scope of activities.	Adoption and maintenance of charter and bylaws describing ICANN's mission and limited activities Record of ICANN activity showing adherence to limited mission and activities Absence of instances showing activity overstepping the enumerated functions of ICANN
Accountability to affected stakeholders, including effective independent review procedures	Adoption and maintenance in charter and bylaws of independent review procedures, best practices for selection of officers, and other accountability procedures Record of independent review panel activity and acceptance of its decisions Record of community participation in accountability mechanisms such as the Nominating Committee, Manager of Public Participation, ALAC, and Ombudsman
Transparency, including procedural and financial transparency	Adoption and use of best practices for providing public access to key financial and long-term planning documents Record of key transparency practices such as public, open, and accessible meetings, timely public access to agenda and minutes of key ICANN meetings, and other transparency mechanisms
Representation of key interest groups, including the public's interests.	Record of diverse participation at ICANN and representation in its governing entities, including: geographical, gender, technological, ideological, demographic diversity Public record indicating whether stakeholder participation has been effective in shaping ICANN's activities Record of effective outreach and participatory opportunities by the At-Large Advisory Committee (ALAC)
Acceptance by key stakeholders, ccTLDs, RIRs, etc.	Stable, documented relationships with key operators such as RIRs, registries, registrars, and root server operators Record of acceptance by impacted parties
Minimized impact on user rights, such as privacy and free speech; consideration of impact on LDCs, etc.	Record of ICANN sensitivity to user and LDC interests in policy formation Absence of policies violative of the UN Declaration of Human Rights
Support for competition and, when possible, reliance on market mechanisms.	Diversity of providers in both registrar and registry services and record of market concentration Reduced/stable retail prices for domain name registration Market concentration data in the registry/registrar markets
Increased security of the root server system.	Record of attacks on the DNS root servers and corresponding responses Record of steps taken to preempt likely attacks on ICANN-administered systems
Support for long-term Internet and ICT evolution and innovation.	Absence of ICANN-related impediments to continued technological, commercial, and social innovation in areas related to ICANN's mission