INTERNET MULTISTAKEHOLDER PROCESSES AND TECHNO-POLICY STANDARDS

INITIAL REFLECTIONS ON PRIVACY AT THE WORLD WIDE WEB CONSORTIUM

NICK DOTY AND DEIRDRE K. MULLIGAN[1]

INTRODUCTION

In February 2012 the Obama Administration released a White Paper, "Consumer Data Privacy in a Networked World: A Framework for Protecting Privacy and Promoting Innovation in the Global Economy". The White Paper on privacy proposes a high-level Consumer Privacy Bill of Rights (CPBR) reflecting widely accepted fair information principles (FIPs) to guide the development of enforceable codes of conduct to govern corporate behavior and to serve as a baseline for federal law.

The Administration's approach of establishing high-level substantive standards, but delegating their translation into practice to multistakeholder (MSH) negotiations, reflects its ongoing commitment to flexible, market-driven responses to privacy. However, it continues a shift from self-regulatory to increasingly co-regulatory approaches. This shift to multistakeholder-driven privacy solutions occurs against a tumultuous international background in which the U.S. government, U.S. industry, and U.S. civil society organizations are struggling to maintain and expand open, consensus-based, multistakeholder models of Internet governance against pressure to relocate them in state-run institutions such as the International Telecommunications Union.

Internet technical standard setting bodies are one possible vehicle for multistakeholder activities to address privacy concerns under the Administration's initiative. These technical standard setting bodies have been held up, by some, as successful working models of multistakeholder governance. Yet little scholarly work explores the strengths and weaknesses of these bodies for policy work.

This paper explores two privacy *techno-policy* standard development processes, one past and one present, at the World Wide Web Consortium (W3C). A careful review of changes in the W3C's privacy standards work provides insight into the opportunities and challenges such activities present to addressing privacy. We document reduced barriers to participation, increased transparency, and other efforts to facilitate public and regulator input. We find increased interdisciplinary expertise and integration of technical and policy work in the more recent effort. We argue for additional efforts to improve the procedural legitimacy of such techno-policy standard setting efforts due

to their potential as *boundary organizations* to generate innovate solutions to advance the protection of privacy—and potentially other values. We consider the trend toward interdisciplinary expertise and integration of technical and policy work in relation to growing recognition and concern with the regulatory power of code. We conclude with a proposed research agenda to use the current W3C Tracking Protection Working Group and the recently announced first NTIA-led MSH process to explore stakeholder perspectives on process and outcome legitimacy in the field, and develop recommendations to inform the processes used in future MSH activities.

I. THE MOVE TO MULTISTAKEHOLDER PROCESSES FOR PRIVACY

As governments struggle with regulation of a fast-moving and complex sphere of policy issues related to the Internet—with global dimension and impact—effective self- and co-regulation is wanted as an alternative to purely state driven solutions. Nowhere is this more true than in the U.S. where the Administration has called for "open, multi-stakeholder process[es]"[2] to develop privacy codes of conduct to regulate businesses.

In February the Obama administration released "Consumer Data Privacy in a Networked World: A Framework for Protecting Privacy and Promoting Innovation in the Global Economy" ("White Paper").[3] The White Paper on privacy proposes a high-level Consumer Privacy Bill of Rights (CPBR) reflecting widely accepted fair information principles (FIPs) to guide the development of enforceable codes of conduct to govern corporate behavior and to serve as a baseline for federal law. The CPBR sets out seven core principles to advance consumer privacy. It provides individuals with the ability to control the collection and use of personal data by companies, and the right to access and correct personal data.[4] It also requires companies to be transparent about privacy and

---

2. *See, e.g.*, Internet Policy Task Force, Commercial Data Privacy and Innovation in the Internet Economy: A Dynamic Policy Framework 41 (December 16, 2010), http://www ntia.doc.gov/files/ntia/publications/iptf_privacy_greenpaper_12162010.pdf.

3. Executive Office of the President, Consumer Data Privacy in a Networked World: A Framework for Protecting Privacy and Promoting Innovation in the Global Economy (Feb. 2012), http://www.whitehouse.gov/sites/default/files/privacy-final.pdf.

4. *Id.* at 1 (outlining the seven principles, "Individual Control: Consumers have a right to exercise control over what personal data companies collect from them and how they use it. Transparency: Consumers have a right to easily understandable and accessible information about privacy and security practices. Respect for Context: Consumers have a right to expect that companies will collect, use, and disclose personal data in ways that are consistent with the context in which consumers provide the data. Security: Consumers have a right to secure and responsible handling of personal data. Access and Accuracy: Consumers have a right to access and correct personal data in usable formats, in a manner that is appropriate to the sensitivity of the data and the risk of adverse consequences to consumers if the data is inaccurate. Focused

security practices; to match and constrain their collection, use, and disclosure of consumer's personal data to the context as understood by the consumer; to handle personal data securely and responsibly; and to have appropriate measures in place to adhere to those practices.[5] The White Paper encourages "the development of voluntary, enforceable privacy codes of conduct in specific industries through the collaborative efforts of multistakeholder groups. . ." A Privacy Policy Office within the Department of Commerce is responsible for convening and facilitating the creation of multistakeholder (MSH) groups "to develop voluntary but enforceable codes of conduct." These codes would be enforceable against companies that agreed to abide by them, inform enforcement actions more broadly, and if Congress accepts the Administration's recommendations, provide the basis of a safe harbor framework under new baseline privacy legislation.[6] Subsequently, the National Telecommunications and Information Administration (NTIA), part of the Department of Commerce, issued a request for public comments on its recent publication, "Multistakeholder Process to Develop Consumer Privacy Data Privacy Codes of Conduct."[7] The NTIA solicited recommendations for substantive areas in which the multistakeholder processes could be productive and input on the procedures that ought to guide such processes.[8]

The Administration's approach reflects an ongoing U.S. commitment to flexible, market-driven responses to privacy,[9] but couples it with substantive and procedural demands of how such solutions must meet the needs of the public. Flexible solutions are viewed as consistent with innovation and consumer-oriented, contextual responses to privacy concerns.[10] However, the embrace of the multistakeholder model for policy resolution has broader significance given current international debates about Internet governance.[11]

The U.S. and several other countries, many civil society groups, and

---

Collection: Consumers have a right to reasonable limits on the personal data that companies collect and retain. Accountability: Consumers have a right to have personal data handled by companies with appropriate measures in place to assure they adhere to the Consumer Privacy Bill of Rights.").

5. *Id.*

6. *See id.*

7. Request for Public Comments, 77 Fed. Reg. 13,098 (Mar. 5, 2012).

8. *See id.* at 13100.

9. See William J. Clinton & Albert Gore, Jr., A Framework for Global Electronic Commerce 4 (July 1, 1997), http://database3.com/download.php?id=1005.

10. *See* Executive Office of the President, *supra* note 3, at 2.

11. Internet Governance is a contested term, for our purposes we will use a definition offered by Laura DeNardis: "Internet governance generally refers to policy and technical coordination issues related to the exchange of information over the Internet." *See* Laura DeNardis, The Emerging Field of Internet Governance, YALE INFO. SOC'Y PROJECT WORKING PAPER SERIES 3 (September 17, 2010), http://ssrn.com/abstract=1678343.

industry wish to maintain current venues for addressing technical issues related to Internet governance, such as the Internet Corporation for Assigning Names and Numbers (ICANN), and the Internet Engineering Task Force (IETF),[12] and where possible expand the use of multistakeholder bodies to address Internet policy issues related to technical design. These players have a pressing need to document how MSH processes in such institutions address policy concerns that arise, and to demonstrate that they are both effective and preferable along a set of dimensions—including global interoperability of the outcomes, scalability, participation, transparency and time to development—that other players find compelling.

Thus, the multistakeholder approach to privacy, which situates government as convener seeking to facilitate problem solving and the identification of consensus solutions among non-governmental experts, responds to perceived weaknesses of traditional "command-and-control" regulation of the Internet consistent with general "new governance" approaches to regulation favored by the Administration. At the same time, this approach fulfills the need to affirmatively and aggressively defend and advance MSH policy approaches to address Internet policy issues on the global stage. The potential international significance of the effort assists regulators in herding industry actors who might otherwise resist co-regulatory processes in the hopes of staving off additional regulatory limits on the use of personal information. Similarly, it tempers civil society organizations' resistance to self-regulatory efforts, and preference for government responses in the privacy area, due to the potential risks posed to privacy and other rights and freedoms by a

---

12. For background on this increasingly heated debate about Internet governance, see Gordon Crovitz, The U.N.'s Internet Power Grab, WALL ST. J., June 18, 2012, at A11; Center for Democracy and Technology, ITU Move to Expand Powers Threatens the Internet: Civil Society Should Have Voice in Internet Debate (March 12, 2012), https://www.cdt.org/files/pdfs/CDT-ITU_WCIT12_background.pdf (explaining ITU treaty renegotiation process and potential threats to individual freedoms and innovation). For a sense of the U.S. concerns, *see* H.R. Con. Res. 127, 112th Cong. (2011) (expressing the sense of Congress regarding actions to preserve and advance the multistakeholder governance model under which the Internet has thrived); Lawrence E. Strickling, Assistant Secretary of Commerce for Communications and Information, U.S. Chamber of Commerce, Keynote Speech at the Telecommunications and E-Commerce Committee Meeting (June 15, 2012) (transcript available at http://www.ntia.doc.gov/speechtestimony/2012/keynote-speech-lawrence-e-strickling-assistant-secretary-commerce-communication). For broader treatment of Internet Governance, *see* DeNardis, *supra* note 11; Viktor Mayer Schöenberger & Malte Ziewitz, Jefferson Rebuffed The United States and the Future of Internet Governance, JOHN F. KENNEDY SCH. OF GOV'T FAC. WORKING PAPERS SERIES (2009), http://ssrn.com/abstract=902374; Tim Wu, Esther Dyson, A. Michael Froomkin, & David A. Gross, On the Future of Internet Governance, 101 AMERICAN SOCIETY OF INTERNATIONAL LAW, PROCEEDINGS OF THE ANNUAL MEETING 1 (June 25, 2007), http://ssrn.com/abstract=992805; Pierre de Vries, The Resilience Principles: A Framework for New ICT Governance, 9 J. ON TELECOMM. & HIGH TECH. L., 137 (2011).

reduced role for civil society if Internet governance were to move into state-centric institutions.

Furthermore, the world is watching: MSH privacy efforts will send a signal about the commitment of the U.S. Internet community—government, corporations, and civil society—to multistakeholder processes. If such processes are embraced and successful, it will no doubt buoy the position of the U.S. Internet community in international debates about Internet governance. The intensity of the international debate dramatically raises the stakes of this process for the Administration, and indeed the Internet community as a whole.

II. INTERNET STANDARD SETTING BODIES, POLICY AND MULTISTAKEHOLDERISM

Technical standards bodies (a class of standards development organizations or "SDOs") play an important role in defining the functionality of Internet and World Wide Web technologies. Internet standard setting bodies—including but not limited to the IETF and the World Wide Web Consortium (W3C)[13]—provide a fertile institutional locale for examining policy debates among technologists and a promise of explicit discussions of policy values in architectural design. The W3C and IETF could be venues or models for the imagined multistakeholder processes.

Historically, W3C and IETF have viewed their role as primarily limited to technical protocols, that is, mechanisms, leaving explicitly political questions out of scope. These venues initially eschewed policy and politics, seeking to hone their activities to closely align with the skills and roles of computer scientists and engineers. However, both organizations accept in theory and practice that their protocols inevitably embed values and that they must consider the impact of their protocols on important societal outcomes. As the Internet and the web play an increasingly large role in the global economy and in social and political communication, policy discussions have been invited (and perhaps insinuated) more consistently into the standard setting process.

In recent years, Internet standard setting bodies have become more inclined to explicitly consider social values, opening up their fora for consideration of values and making their processes more actively inclusive of lawyers, academics, regulators, and advocates. While

---

13. We should emphasize that IETF and W3C, while prominent standard setting organizations for the Internet, are not the only relevant organizations. For simplicity we focus on these two bodies, but standardization work related to privacy is also present at the Organization for the Advancement of Structured Information Standards (OASIS), the Trusted Computing Group (TCG, formerly TCPA), and the Kantara Initiative (formerly the Liberty Alliance).

standardizing policy issues and sharing space with legal counsel and business analysts is still relatively unique ground for a standard setting body accustomed to largely technical debates among engineers, it occurs with increasing frequency. A small number of W3C working groups have been chartered specifically to consider interlinking technical and policy issues, defining what we might call a "techno-policy standard."[14] The broadening mandate to address policy questions through the standardization process poses unique challenges and questions; we believe it also creates opportunities to more flexibly respond to policy issues in a manner that scales globally and supports a diversity of user, corporate, and governmental policies.

Below, we discuss two privacy activities at the W3C. We start with a brief background on W3C and its approach to policy issues generally. We discuss the process of Internet standard development and the criteria used to evaluate success. We then describe and compare two specific W3C efforts, the Platform for Privacy Preferences and the Tracking Protection Working Group, documenting shifts in approaches to policy issues, shifting expertise in leadership, shifts in participation patterns, increased transparency, and efforts to engage non-technical stakeholders. We use this comparative data to ground our consideration of technical standard setting bodies as a site of multistakeholder policy development in section III.

A. World Wide Web Consortium (W3C)

The World Wide Web Consortium was founded in 1994 by Sir Tim Berners-Lee. The Consortium is made up of a few hundred Member organizations, which pay dues and participate in producing technical standards for the web. Any organization or individual may become a member. W3C gains public input on its work through specification reviews, the solicitation of use cases, and implementation feedback. While its work is facilitated by a professional staff, the members of the consortium collectively establish the agenda.

W3C, like other Internet standard setting bodies, judges the success of a consensus standard by its adoption. The adoption criterion is an essential motivator of the consensus model of standardization (in contrast to regulatory standards, for example).[15] Cargill's definition of a

---

14. We use "techno-policy standard" throughout for lack of a better term. Lorrie Cranor and Joseph Reagle used the term "social protocol" to describe the P3P work. *See, e.g.*, Lorrie Faith Cranor & Joseph Reagle, Jr., Designing a Social Protocol: Lessons Learned from the Platform for Privacy Preferences Project (Sep. 30, 1997), http://www.w3.org/TR/NOTE-TPRC-970930/. We might also consider the broader term "socio-technical standard."

15. Cargill, Carl F. INFORMATION TECHNOLOGY STANDARDIZATION: THEORY, PROCESS, AND ORGANIZATIONS. Newton, MA: Digital Press, 1989.

voluntary standard provides:

> A standard, of any form or type, represents a statement by its authors, who believe that their work will be understood, accepted, and implemented by the market. This belief is tempered by the understanding that the market will work in its own best interests, even if they do not coincide with the standard.[16]

Internet standards have a specific success criterion of demonstrated interoperability, enshrined in the canonical phrase "rough consensus and running code." Standards at the W3C must demonstrate multiple interoperable implementations of a specification in order to progress along the standards track. This ensures that a specification is practically implementable at all, that it's precise enough to enable basic interoperability, and that implementations fulfill all the features defined in the specification (what goes unimplemented is often recommended to be dropped as evidently unnecessary for interoperability). By this criterion, only a standard that is widely implemented and adopted in the marketplace can be considered successful.

By the late 1990s W3C had more formally taken on its standard setting role. At this time it created a "domain" to explicitly consider issues of public policy, that is, Technology and Society.[17] It was the first—and we believe only—Internet technical standard setting body to create a formal structure explicitly aimed at identifying and addressing what we call "techno-policy" standards. The Technology & Society Domain's mission statement reads:

> Working at the intersection of Web technology and public policy, the Technology and Society Domain's goal is to augment existing Web infrastructure with building blocks that assist in addressing critical public policy issues affecting the Web. Our expectation is not to solve policy problems entirely with technology, but we do believe that well-designed technical tools can lead to policy approaches that are more consistent with the way the Web should operate.[18]

The domain's positioning suggests direct confrontation of public policy issues and the applicability of Web technology and standards, while maintaining a humility about technical solutions. That humility may be a connection to the idea of neutral technical mechanisms we consider below.

---

16. *Id.* at 41-42.

17. Disclosure: Nick Doty is employed in part by W3C and works in the Technology & Society Domain.

18. *Technology & Society Domain*, W3C, http://www.w3.org/TandS/#mission (last modified Aug. 10, 2012).

An example of work undertaken under the Technology and Society Domain is the Platform for Internet Content Selection (PICS).[19] The PICS specifications enable self-labeling and third party labeling of web content, enabling systems like movie ratings or age-appropriateness levels for the web that would filter content on behalf of the recipient. Work on PICS was in part a response to the proposal and subsequent passage of the Communications Decency Act (CDA) by the U.S. Congress and broader public and regulator concerns that the lack of parental control over content available to children was impeding technology adoption. PICS offered an alternative to government regulation of web content, and its existence, along with the availability of commercial parental control software, played a substantial role in the Supreme Court's striking down components of the CDA as unconstitutional.[20] Although PICS was never widely used, web labeling technology has continued to find some interest,[21] and the existing of PICS played an important role in shaping regulatory approaches to objectionable online content.

The W3C's Web Accessibility Initiative (WAI) also directly addresses issues of public policy importance: the accessibility of content on the web to people with disabilities. Most notably, WAI has published two versions of its web Content Accessibility Guidelines (WCAG): different levels of requirements for developing web sites that are accessible to all visitors, including those using screen readers for example. WCAG 2.0 was published as a recommendation in 2008,[22] and national laws and regulations commonly reference those guidelines.[23] For example, the Australian Human Rights Commission has recommended satisfying Level AA of WCAG 2.0 for purposes of

---

19. *Platform for Internet Content Selection (PICS)*, W3C, http://www.w3.org/PICS/ (last updated Nov. 20, 2009).

20. *See* Tim Berners-Lee, *Philosophy of the Web - Filtering and Censorship*, W3C (Dec. 19, 1997), http://www.w3.org/DesignIssues/Filtering; *Trial Bulletin: Citizens Internet Empowerment Coalition Trial Update No. 9*, CTR. FOR DEMOCRACY & TECH. (Apr. 13, 1996, 5:30 PM), http://www.ciec.org/bulletins/bulletin_9 html; Reno v. ACLU, 521 U.S. 844 (1997); *The Net Labelling Delusion Saviour or Devil*, LIBERTUS.NET, http://libertus net/liberty/label html (last updated Jan. 23, 1999) (arguing some critics attacked PICS for itself enabling or easing governmental censorship as for example, in mandating self-labeling or outlawing mislabeling).

21. W3C's POWDER specifications, published in 2009, provides an updated framework for self-description of content. *Protocol for Web Description Resources (POWDER) Working Group*, W3C, http://www.w3.org/2007/powder/ (last updated Nov. 24, 2009). Similar labeling proposals have been discussed for Wikipedia images. *See* Larry Sanger, *What should we do about Wikipedia's porn problem?*, LARRYSANGER.ORG (May 29, 2012), http://larrysanger.org/2012/05/what-should-we-do-about-wikipedias-porn-problem/.

22. *Web Content Accessibility Guidelines (WCAG) 2.0*, W3C (Dec. 11, 2008), http://www.w3.org/TR/WCAG20/.

23. *E.g.*, *Policies Relating to Web Accessibility*, W3C, http://www.w3.org/WAI/Policy/ (last updated Aug. 25, 2006).

complying with the Disability Discrimination Act.[24]

In addition to explicitly addressing social and public policy issues through the web, W3C is beginning to explore the side effects on social phenomena from ongoing work in web standards. For example, in the privacy space, the Technical Architecture Group (setting high-level architectural aims for the web) has worked on a document for supporting privacy in application programming interface (API) design[25] and the Privacy Interest Group (PING) was recently launched to develop guidelines for considering privacy across other web specifications.[26]

An example of policy work arising more organically in a W3C standard can be seen in the area of geolocation. In response to the increasing capability of web-enabled devices to locate themselves, the Geolocation API[27] was developed to allow web sites to use the device's current location to provide location-specific information and services. The Geolocation Working Group's charter explicitly called out privacy-sensitivity as part of the group's mission, but addressing privacy was not the primary function of the work.

Debates over the best way to support user privacy in the API were extended and at times heated. Participants from the IETF GEOPRIV Working Group sought to include the same technology for attached user privacy preferences, a proposal ultimately rejected by the group. While the Geolocation API has been widely implemented by desktop and mobile browsers and commonly used by web sites, its support for privacy is less than ideal[28] and the Group has recently decided to discontinue work on future versions.[29]

B. Privacy at W3C

Although the issue of online privacy comes up across many web standards and technologies (hence the interest in cross-cutting organizational structures such as the Privacy Interest Group), W3C has

---

24. *World Wide Web Access: Disability Discrimination Act Advisory Notes*, AUSTL. HUMAN RIGHTS COMM'N (Oct. 2010), http://www hreoc.gov.au/disability_rights/standards/www_3/www_3 html#conformance.

25. *Data Minimization in Web APIs: Draft TAG Finding*, W3C (Sep. 12, 2011), http://www.w3.org/2001/tag/doc/APIMinimization.

26. *Privacy Interest Group Charter*, W3C, http://www.w3.org/2011/07/privacy-ig-charter html (last updated Feb. 17, 2012, 11:02 PM).

27. An Application Programming Interface defines how one piece of software talks to another, in this case a Web site's JavaScript code and the browser's geolocation functionality.

28. Nick Doty, Deirdre K. Mulligan, & Erik Wilde, *Privacy Issues of the W3C Geolocation API*, UC BERKELEY SCH. OF INFO. (Feb. 24, 2010), http://escholarship.org/uc/item/0rp834wf.pdf.

29. Posting of Lars Erik Bolstad, lbolstad@opera.com, to public-geolocation@w3.org, member-geolocation@w3.org (Mar. 21, 2012) (http://lists.w3.org/Archives/Public/public-geolocation/2012Mar/0023 html).

engaged in two high-profile privacy-specific standardization efforts in its history. Both the Platform for Privacy Preferences Project (P3P) and Do Not Track (DNT) standardization projects at W3C were prompted by external concerns. For P3P during the 1990s, pressure from the Federal Trade Commission and the desire for a cross-Atlantic safe harbor drove the design of the technology. For Do Not Track, both the Federal Trade Commission in the U.S. and the European Commission in the E.U. have called for multistakeholder private processes to address the privacy concern of online tracking.

We examine these two efforts below. We note that they both diverge from the typical standards process in significant ways. In both cases, the participant makeup was and is distinct from the traditional W3C membership profile: including advertisers, industry trade associations, consumer advocates and regulators not commonly involved in technical standardization. In addition, both working groups made efforts to be more transparent about their activities. We also highlight shifts in how P3P and Tracking Protection Working Group (TPWG) approached their work, noting the increase in participants (including leadership and staff) with interdisciplinary training and a move from separate processes to address mechanism and policy in P3P to integrated processes in TPWG. We note the enhanced efforts by the TPWG to reduce barriers to participation, enhance the diversity of participants, and adopt transparent processes.

1. The Platform for Privacy Preferences Project

The Platform for Privacy Preferences Project was a multi-year standardization effort around web privacy and data practices. Initially described as a "PICS for privacy", the P3P project developed standards for machine-readable representations of site privacy policies. Having a standardized language for such metadata would enable users, browsers and other web services to take automated actions based on the particular privacy policies of a site. Although P3P saw significant adoption among major web sites, the lack of browser implementations decreased its practical impact on the marketplace.[30]

Both the technical design and the working process of P3P reinforced

---

30. Fran Maier, *Let's talk P3P*, TRUSTe Blog, Sept. 13, 2010 http://www.truste.com/blog/2010/09/13/lets-talk-p3p/ (last visited March 25, 2013) (reporting that less than 12 % of the sites TRUSTe, a self-regulatory program for privacy, certifies use P3P compact policies, and explaining that lackluster adoption as a product of limited consumer use and browser implementation); Ari Schwartz, *Looking Back at P3P: Lessons for the Future*, Ctr. for Democracy and Tech., November 2009, https://www.cdt.org/files/pdfs/P3P_Retro_Final_0.pdf. (last visited March 25, 2013) (discussing limited browser implementation, and complexity of specification as barriers to adoption, but noting the increasing use of P3P by web sites using third-party cookies).

a separation between mechanism and policy. The goal of separating mechanism and policy emerged from work rejecting systems designed to embed a particular security model, because the rigidity of a single security model limited the use of the system across diverse environments and reduced its adaptability as threats evolved.[31] In the context of system architecture, mechanisms were defined as the capabilities necessary to protect an object, and policy as the rules informing how to use those mechanisms.[32] By providing a set of mechanisms that could be deployed in different ways engineers could allow end users to determine the security "policy."[33] In the context of protocols, this same principle is often attributed to Robert Schieflier and the X Window protocol, a maxim intended to give flexibility in user interfaces and control for users.[34] As discussed more fully below, years later Clark et al. drew on this engineering concept to argue more broadly for system architects to recognize and design for "tussle" — "the ongoing contention among parties with conflicting interests"[35] or in another word politics — in technical architecture. Such conscious design could protect the architecture from being a casualty of tussles run amok and empower users to make their own policy choices by avoiding the urge to hard-code policies into the architecture.

As a matter of technical design, Cranor and Reagle (both deeply

---

31. "This unfortunate situation indicates that the main problem in the design of a multiprogramming system is not to define functions that satisfy specific operating needs, but rather to supply a system nucleus that can be extended with new operating systems in an orderly manner." Per Brinch Hansen, *The Nucleus of a Multiprogramming System*, 13 COMM. ACM 238, 238 (1970).

32. "The protection mechanism is at the heart of the HYDRA design. In describing the mechanism it is important at the outset to distinguish between *protection* and *security* and to determine what is to be protected and against what. In our view, protection is a mechanism; security is a policy. A system utilizing such a mechanism may be more or less secure depending upon policies governing the use of the mechanism (for example, passwords and the like are policy issues) and upon the reliability of the programs which manipulate the protected entities. Thus the design goal of the HYDRA protection mechanism is to provide a set of concepts and facilities on which a highly secure system may be built, but *not* to inherently provide that security." W. Wulf et al., *HYDRA: The Kernel of a Multiprocessor Operating System*, 17 COMM. ACM 337, 340 (1974).

33. "*Separation of mechanism and policy*. Among the major causes of our inability to experiment with, and adapt, existing operating systems is their failure to properly separate mechanisms from policies. (Hansen has presented cogent arguments for this separation.) Such separation contributes to the flexibility of the system, for it leaves the complex decisions in the hands of the person who should make them—the higher-level system designer." *Id.* at 338 (construing Hansen, *supra* note 31).

34. As formulated in RFC 1013: "It is important to keep in mind that the protocol is intended to provide mechanism, not policy." Robert W. Scheifler, *RFC 1013*, NETWORK WORKING GRP. (June 1987), http://www.armware.dk/RFC/rfc/rfc1013 html. But just the phrase "mechanism, not policy" is commonly used to identify the pattern; Clark et al. trace the phrase at least as far back as 1975. David D. Clark et al., *Tussle in Cyberspace: Defining Tomorrow's Internet*, 13 IEEE/ACM TRANSACTIONS ON NETWORKING 462 (2005).

35. Clark et al., *supra* note 34, at 462.

involved in the P3P project) note that P3P facilitates separation of mechanism and policy through defining a descriptive (rather than subjective) vocabulary, "layering" (similar to modularity) in the protocol, and leaving defaults open.[36] As a procedural matter, separate working groups dealt with the architecture, which controlled how statements were communicated among web sites and browsers, and the vocabulary, which while descriptive (not normative) established the semantics of privacy: what statements could be made, and how they were to be interpreted. Eventually a single Specification Working Group replaced these distinct efforts on technical and "policy-oriented" questions.[37]

In P3P concerns over presentation to the end user were initially addressed through a set of non-normative Guiding Principles contained in an appendix to version 1.0 of the specification.[38] Espousing the goals of flexibility and diversity in both implementations and policies, the Guiding Principles expressed the "intentions of the members of the P3P Working Groups when designing" the specification and offered suggestions of how to use it "most effectively in order to maximize privacy and user confidence and trust on the Web."[39] Version 1.1 of the P3P specification includes "User Agent Guidelines."[40] These guidelines constrained the design space left to implementers in order to "promote consistency among user agent implementations and to assist implementers in designing user agents that will be both usable and useful."[41] The User Agent (UA) Guidelines responded to concerns that the manner in which P3P statements were displayed—truncated, layered, etc.—could impact users' perspectives of the sites privacy practices. The specification shifted the power of presentation from web sites to user agents; thus, web sites were concerned with the potential image[42] and

---

36. Lorrie Faith Cranor & Joseph Reagle Jr., *Designing a Social Protocol: Lessons Learned from the Platform for Privacy Preferences*, *in* Telephony, the Internet, and the Media: Selected Papers From the 1997 Telecomm. Policy Research Conference 215 (Jeffery K. MacKie-Mason & David Waterman eds. 1998).

37. LORRIE FAITH CRANOR, WEB PRIVACY WITH P3P 43 (O'Reilly Media eds., 2002).

38. Lorrie Cranor et al., *The Platform for Privacy Preferences 1.0 (P3P1.0) Specification* (W3C, Recommendation, 2002), *available at* http://www.w3.org/TR/P3P/#guiding_principles.

39. *Id.*

40. Lorrie Cranor et al., *The Platform for Privacy Preferences 1.1 (P3P1.1) Specification* (W3C, Working Group Note 13, 2006), *available at* http://www.w3.org/TR/2006/NOTE-P3P11-20061113/.

41. *Id.*; *see also Future of P3P Workshop: User Guidelines and Conformance*, W3C Technology and Society domain (Nov. 13, 2002), http://www.w3.org/2002/p3p-ws/minutes/conformance.html ("websites don't have control of presentation of their policy through the user agent. Based on discussions, need to revisit that. P3P defines an expert level of privacy, precise definitions. Thus UA implementers, try to make fewer choices, thus more accessible. May create inconsistencies as seen by users.").

42. For example, Dan Schutzer of Citigroup (speaking on behalf of financial service companies more broadly) stated, "How your (*sic*) group things change impression of content." Ian Jacobs, "UA should not be doing interpetration (*sic*) work." Marty Abrams of Hunton and

legal issues[43] that might arise as specific statements about data collection or use were decontextualized[44]and made more visible to users.[45] In the words of one P3P WG chair, "UA implementers are making tons of value judgments."[46] The User Agent Guidelines aimed to reduce the variance in implementations arguing that "consistent implementations serve to reduce the uncertainty web site operators have about how their policies will be displayed by P3P user agents."[47]

In response to the potential public policy impact of P3P, barriers to participation were relaxed to ensure participation by relevant stakeholders. Outside experts participated in the P3P process and were privy to all relevant communications. Participants included academics, regulators (chiefly staff from data protection authorities outside the United States) and non-profit organizations including advocacy organizations such as the Center for Democracy and Technology and self-regulatory organizations such as TRUSTe.[48] Invited experts from universities and regulatory agencies were involved in the process (a common, and now more common, W3C technique for increasing expertise).

Consistent with many W3C Working Groups at that time, internal communications for the several P3P Working Groups were kept

---

Williams, "role of UA, need to think of separating conveying of information and view or value about the information." *Future of P3P Workshop: User Guidelines and Conformance*, W3C Technology and Society domain (Nov. 13, 2002), *available at* http://www.w3.org/2002/p3p-ws/minutes/conformance html.

43. *Future of P3P Workshop: Legal Panel*, W3C Technology and Society domain (Nov. 13, 2002), *available at* http://www.w3.org/2002/p3p-ws/minutes/legal html (discussing concerns about reducing lengthy policies to short notices, liability for representations rendered by user agents, and general legal status of P3P notices).

44. *Id.*; *see generally Future of P3P Workshop: User Guidelines and Conformance*, W3C Technology and Society domain (Nov. 13, 2002), *available at* http://www.w3.org/2002/p3p-ws/minutes/conformance.html.

45. Ari Schwartz, "Looking Back at P3P: Lessons for the Future," November 2009, (Last visited March 25, 2013 https://www.cdt.org/files/pdfs/P3P_Retro_Final_0.pdf.)(discussing industry critique of P3P as providing too much transparency to users, citing paper by Citibank employees expressing "concern that Pep would let ordinary users week in full gory detail, how their personal information might be misused" citing Kenneth Lee and Gabriel Speyer, "White Paper: Platform for Privacy Preferences Project (P3P) and Citibank" http://www.w3.org/P3P/Lee_Speyer html).

46. Lorrie Cranor, Remarks at Future of P3P User Guidelines and Conformance Workshop (Nov. 13, 2002), *available at* http://www.w3.org/2002/p3p-ws/minutes/conformance.html.

47. Lorrie Cranor et al., *The Platform for Privacy Preferences 1.0 (P3P1.1) Specification* (W3C, Recommendation, 2002), *available at* http://www.w3.org/TR/P3P/#guiding_principles. For a discussion of the concerns see *Summary Report—W3C Workshop on the Future of P3P, User Agent Concerns* (Nov. 13, 2002) *available at* http://www.w3.org/2002/12/18-p3p-workshop-report html.

48. Both those organizations are involved in the TPWG as well, though TRUSTe has since become a commercial entity.

confidential to the Members of the Consortium and the participants in the group. While the group deliberated largely in private, drafts were regularly published on the web and available to the public for free. In addition an extended Last Call period, an Interoperability Session for outreach, and multiple discussions with relevant regulatory bodies were used to enhance the likelihood of meaningful public review and participation.[49]

2. Tracking Protection Working Group[50]

Do Not Track is the popular name for a simple 'binary' request from a user (via their web browser or user agent) to a web server to not have their online browsing activity tracked by other parties. Implemented through an HTTP header, the expressed preference is transmitted with each request; sites can make clear their response through an HTTP response header or a machine-readable document.

In contrast to P3P, the W3C standardization of Do Not Track has employed a single, integrated process in the Tracking Protection Working Group (TPWG). Participants are expected to be comfortable with discussing and addressing decisions that involve both policy and technology. Although the Do Not Track standard is currently split into two documents: the Technical Preference Expression (defining the bits on the wire) and the Tracking Compliance and Scope (defining what it means to comply with the expressed preference) that segregate work along a policy/mechanism divide, the division is largely for the sake of workflow. For the most part the full group participates in debates over the content of both documents and questions often bridge the two. Tellingly, staff originally proposed the use of two separate mailing lists to divvy up technical and policy discussions, however participants expressed no interest in doing so.

As with other W3C work, decisions about presentation—user interface—are left to individual companies and designers. While the TPWG integrates policy and technical concerns, the charter—like that of the P3P WG before it—places user interface out of scope, granting decisions about how to represent Do Not Track to implementers. However, as with P3P before it, given the importance of the interface to the policy problem (as distinct from the need for a technical means to communicate a signal) there have been suggestions to standardize the language or interface inside or outside the W3C process. Furthermore, definitions of semantics can place some limits on the user presentation;

---

49. LORRIE FAITH CRANOR, WEB PRIVACY WITH P3P 43 (O'Reilly Media eds., 2002).

50. The Tracking Protection Working Group at W3C is working on standards commonly known as Do Not Track (DNT).

for example, the specification that an expressed preference is inconsistent with a default setting.

Because the TPWG has a narrower set of issues to address due to the limited vocabulary—the policy "language" enumerates only two (or three) possible states—defining compliance with a user's preference is more like crafting a code of conduct than a descriptive vocabulary. Questions about core definitions and default settings are heavily contested. For example, the group has seen multiple competing definitions of the word "tracking" as well as a proposal to conclude without one.[51] Regarding defaults, the Tracking Preference Expression document rules out network-created default values for the Do Not Track header and current drafts prohibit general-purpose user agents from providing a default state with respect to tracking:

> A user agent must have a default tracking preference of unset (not enabled) unless a specific tracking preference is implied by the decision to use that agent. For example, use of a general-purpose browser would not imply a tracking preference when invoked normally as SuperFred, but might imply a preference if invoked as SuperDoNotTrack or UltraPrivacyFred. Likewise, a user agent extension or add-on must not alter the tracking preference unless the act of installing and enabling that extension or add-on is an explicit choice by the user for that tracking preference.[52]

These requirements constrain implementers who might want to enable a preference by default for their users, as Microsoft announced for the upcoming version of Internet Explorer.[53] The limitation on defaults is framed as the semantics of the expression itself:

> Key to that notion of expression is that it *must* reflect the user's preference, not the choice of some vendor, institution, or network-imposed mechanism outside the user's control. The basic principle is that a tracking preference expression is only transmitted when it reflects a deliberate choice by the user.

Nevertheless, it is clear that the limitation on defaults has policy

---

51. Justin Brookman et al. eds., *Tracking Compliance and Scope: W3C Working Draft 02 October 2012*, World Wide Web Consortium, http://www.w3.org/TR/2012/WD-tracking-compliance-20121002/ (last updated Oct. 2, 2012).

52. Roy T. Fielding & David Singer eds., *Tracking Prefence Expression (DNT): W3C Working Draft 02 October 2012*, World Wide Web Consortium, http://www.w3.org/TR/2012/WD-tracking-dnt-20121002/ (last updated Oct. 2, 2012).

53. Brendon Lynch, *Advancing Consumer Trust and Privacy: Internet Explorer in Windows 8*, Microsoft on the Issues (May 31, 2012, 4:00 PM), http://blogs.technet.com/b/microsoft_on_the_issues/archive/2012/05/31/advancing-consumer-trust-and-privacy-internet-explorer-in-windows-8.aspx.

implications. In some jurisdictions, it is likely that the default unset option, that is, silence on the part of the user, will be interpreted as assent to the practices of the server while in others it will not.[54] The importance of a requirement on defaults was not lost on policymakers: the Congressional Bi-Partisan Privacy Caucus sent a letter to the TPWG urging W3C participants to "support Microsoft's announcement by endorsing a default Do Not Track setting."[55] As ad industry associations expressed their frustration with the possible economic outcomes of Microsoft's decision on a default setting,[56] academics underlined the public policy implications of restricting such defaults.[57]

The composition of the Tracking Protection Working Group, like P3P before it, includes industry participants and invited experts from academia and consumer advocacy organizations.[58] However, the education level about privacy is more consistent, and higher, among the group, including technologists with academic training in privacy and industry representatives responsible for privacy across the legal, business and technical domains in their companies. Some involved advocacy organizations (the Electronic Frontier Foundation and Center for Democracy and Technology, for example) have dedicated technical

---

54. For example, under the Article 29 Working Group opinion on behavioral advertising a DNT signal would appear to be a permissible means of obtaining consent for processing of personal data under the E-Privacy Directive (Directive 2009/136/EC amending Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector, colloquially called the E-privacy Directive) if it limits tracking by default. Jacob Kohnstamm, *Opinion 16/2011 on EASA/IAB Best Practice Recommendation on Online Behavioural Advertising* (Data Prot. Working Party, WP 188, 2011), *available at* http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2011/wp188_en.pdf#h2-2. While in the U.S. the Federal Trade Commission has signaled a more nuanced approach to tracking where the purpose of collection and the relationship (first or third party) with the consumer would influence the legality of tracking—however it's unclear how the introduction of DNT will ultimately shape any particular regulatory regime. FED. TRADE COMM'N, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE: RECOMMENDATIONS FOR BUSINESSES AND POLICYMAKERS (2012).

55. Letter from Edward J. Markey & Joe Barton, to the World Wide Web Consortium Tracking Protection Working Group (June 19, 2012), *available at* http://lists.w3.org/Archives/Public/public-tracking/2012Jun/att-0547/Letter_from_Rep_Markey_and_Barton_—_W3C_—_6-19-12.pdf.

56. Katy Bachman, *Microsoft's Do Not Track Browser Angers Online Ad Industry*, ADWEEK, (June 1, 2012), http://www.adweek.com/news/technology/microsofts-do-not-track-browser-angers-online-ad-industry-140863.

57. *See* Lorrie Cranor. *If you choose not to decide, your web browser will make your choice,* TAP (June 3, 2012), http://www.techpolicy.com/Blog/June-2012/If-you-choose-not-to-decide,-your-web-browser-will.aspx. *See also* James Grimmelmann, *The Sabotage of Do Not Track*, THE LABORATORIUM (June 19, 2012, 9:13 PM), http://laboratorium.net/archive/2012/06/19/the_sabotage_of_do_not_track.

58. World Wide Web Consortium, *Participants in the Tracking Protection Working Group*, W3C (July 10, 2012, 7:36:56 AM), http://www.w3.org/2000/09/dbwg/details?group=49311&public=1.

expertise. Within regulatory agencies the level of technical competence has risen as agencies such as the FTC have brought on technologists and elevated their status within the organization. Such expert agency staff regularly participate in DNT meetings.[59]

The leadership and staff of the DNT process reflect this increase in interdisciplinary expertise as well. One former co-chair of the Working Group, Aleecia McDonald, fashioned a course of interdisciplinary work on privacy for her doctorate. Her advisor was the past co-chair of the P3P working group, and another thesis committee member was an early participant in the P3P process.[60] W3C project staff also reflect this broadening and intertwining of expertise and comfort with integrating privacy into technical conversations. The team contact for TPWG (a co-author of this paper) is a PhD student at the UC Berkeley School of Information, an interdisciplinary program with faculty in social sciences, computer science, law, business, design, linguistics and history. The PhD program produces scholars focused on the intersection of technology and society.[61]

There are more active participants in TPWG than there were in P3P and the participants hail from a more diverse set of institutions. Like P3P, TPWG used the invited experts category to directly involve advocates, academics and regulators in the process; however, more formal barriers to participation have been reduced. Public comments are welcomed even without a formal invitation.

In addition, two additional groups have been established to facilitate participation in the DNT effort: the Do Not Track Community Group (DNTCG) and the Ad Ops Speaks on DNT Community Group.[62] Participation in Community Groups is free and there is no specific level of work required of participants, in contrast to the heavy time and travel commitments for individuals involved in the TPWG. The DNTCG facilitates the participation of consumer and privacy advocacy groups—although it is not formally limited to those institutions—and aggregates input from such organizations into the TPWG process. The Ad Ops group is meant to facilitate participation by smaller companies in the publishing and advertising markets. These additional groups were

---

59. For example, Rob van Eijk, Internet Technology Expert, Dutch Data Protection, and Professor Edward Felten Chief Technologist, U.S. Federal Trade Commission are regular participants.

60. Lorrie Faith Cranor and Deirdre K. Mulligan respectively.

61. Alumni include Carnegie Mellon Professor Alessandro Acquisti (privacy and behavioral economics), Microsoft Researcher danah boyd (youth and social networking), Penn State Professor Jens Grossklags (behavioral economics of security and privacy), and Joseph Lorenzo Hall (techno-policy issues in electronic voting, staff technologist at the Center for Democracy and Technology), to name a few.

62. World Wide Web Consortium, *Tracking Protection Working Group – Frequently Asked Questions*, W3C, http://www.w3.org/2011/tracking-protection/faq.

designed to assist non-traditional stakeholders by easing the costs—hard and soft—of participation and facilitating the creation of communities thus overcoming collective action problems that might also impede effective participation.

We also see increased openness of the work of the TPWG compared to the P3P process. This reflects a general shift in W3C process, but is nonetheless noteworthy. All proceedings of the TPWG are public, an increasingly common set-up for W3C Working Groups. All mailing list discussions—the key venue of deliberation and decisions—are visible to anyone at any time.[63] Teleconferences are held with publicly available details and published minutes and interested observers (though not including members of the press) are often invited to listen to calls or attend face-to-face meetings. While a public mailing list is not intended to prevent or even inhibit private conversations among participants, group decisions are made based on the arguments visible to all—the "public record."

The shift toward more inclusive and open processes has drawbacks. Some participants express concern at heightened press coverage and the potential chilling of conversations. Additionally, there is a greater variance in background and in commitment to the process. The first creates pressure on the Co-Chairs and staff to translate concepts and points of view to ensure that all participants are able to effectively participate in decision-making. The second may enhance a dynamic, often at play in standard setting activities, of mixed motives of participants. Participants may be present to accomplish the mission set out in the standard setting group's charter, to keep tabs, or even to impede or at least delay progress. However, given the surrounding regulatory landscape, public interest and industry impact, transparency into the group's discussions and diverse participation in debates and decision-making are viewed as essential.

Our aim here was to highlight shifts relevant to the use of Internet standard setting bodies as venues for multistakeholder privacy activities. Thus, we focused on the participants, and the processes most directly connected to issues of their political, procedural, and outcome legitimacy. The work of P3P and TPWG could be distinguished along multiple other dimensions. For example, the TPWG has moved on a much shorter timeline than P3P and was inspired by the smallest possible semantic expression (the single Do Not Track bit) in contrast to P3P's fuller policy language and other proposed features. Do Not Track standardization also began with existing implementations from major browser vendors, while P3P saw Internet Explorer's partial

---

63. In contrast, most P3P mailing lists remain private to W3C members.

implementation only late in the standardization process.[64] All of these differences and more may prove relevant to determining the "success" and "failure" (however they are measured) of the two specifications.

III. LEGITIMACY AND INTERDISCIPLINARY APPROACHES IN MULTISTAKEHOLDER PROCESSES

Shifts across these two privacy efforts undertaken at W3C have implications for their viability as multistakeholder venues for addressing Internet policy issues, including the development of implementations of the Consumer Privacy Bill of Rights. One set of shifts attends to concerns about procedural and substantive legitimacy that arise due to the explicit policy agenda of the techno-policy work. These include efforts by W3C to bolster and broaden participation, increase transparency, and elaborate a values-based metric for success. Together they reduce barriers to the inclusion of technical standard setting activities in the acceptable sites of governance activities. The second set of noteworthy shifts highlights the potential of techno-policy standard setting for addressing privacy and other value problems that are intertwined with technical decisions. These shifts include the increase in interdisciplinary background of staff and a growing number of participants, and the tighter integration of policy and technical work. These traits encourage creative problem solving as individuals with diverse skills and knowledge are brought into contact.

Together, we believe these shifts present unique opportunities to advance privacy and other substantive values, while beginning to address gaps in legitimacy that could hinder procedural, programmatic, and political success.[65]

---

64. For a longer but still non-exhaustive analysis of P3P's characteristics and its lack of adoption in the marketplace, *see* Ari Schwartz, *Looking Back at P3P : Lessons for the Future*, CENTER FOR DEMOCRACY AND TECHNOLOGY (November 2009), https://www.cdt.org/files/pdfs/P3P_Retro_Final_0.pdf.

65. We borrow from the framework set out by Marsh and McConnell. They distinguish varieties of success—process (enactment), political (politically and electorally successful), programmatic (meets objectives). David Marsh & Allan McConnell, *Towards a Framework for Establishing Policy Success*, 88 PUB. ADMIN., no. 2, 2010 at 564–583. Others have argued that it is more useful to analyze the policy process and policy outcome along programmatic and political terms. Mark Bovens, *A Comment on Marsh and McConnell: Towards a Framework for Establishing Policy Success*, 88 PUB. ADMIN., no. 2, 2010 at 584–585. However, we find the Marsh and McConnell categories useful as we believe that reducing maximize the sites of potential success (i.e. removing process as a potential locus of independent success) and highlight reduces the complexity of success. Specifically, it highlights "what forms of success can exist and/or be constructed: namely, process success (for example, formulated through legitimate constitutional means; no serious delays), programme success (implemented according to objectives; outcomes achieved) and political success (for example, helped electoral prospects; helped manage a 'wicked' issue off the agenda)." David Marsh & Allan McConnell, *Towards a Framework for Establishing Policy*

A. *Techno-Policy Standard Setting and Governance*

The Administration's desire to leverage multistakeholder venues to advance privacy is consistent with new governance approaches to regulation that seek to engage the participation of diverse stakeholders in the process of defining substantive aims in a given context—destabilizing the traditional boundaries between regulator and regulated, between policymaking and implementation—and the means of achieving those aims. And like other new governance efforts, the MSH model offered by the Administration seeks to facilitate collaborative processes that support and raise the influence of relevant parties, foster experimentation, and promote accountability to substantive aims.[66] These approaches are increasingly favored by policymakers faced with weaknesses in traditional regulatory models[67] and purely self-regulatory solutions.[68] They also better reflect the reality of governance in practice

---

Success: A Reply to Bovens, 88 PUB. ADMIN., no. 2, 2010 at 586.

66. Douglas Nejaime, *When New Governance Fails*, 70 OHIO ST. L.J. 323, 332 (2009) (stating "New Governance scholarship places primacy on (1) collaborative process, (2) stakeholder participation, (3) local experimentation, (4) public/private partnership, and (5) flexible policy formation, implementation, and monitoring"); Kenneth A. Bamberger & Deirdre K. Mulligan, *New Governance, Chief Privacy Officers, and the Corporate Management of Information Privacy in the United States: An Initial Inquiry*, 33 LAW & POL'Y 477, 480-82 (2011) (discussing the contours of new governance models); and Kenneth A. Bamberger & Deirdre K. Mulligan, *Privacy on the Books and on the Ground*, 63 STAN. L. REV. 247, 295-311 (2011) (discussing use of new governance models in U.S. privacy regulation).

67. *See* Kenneth A. Bamberger, *Regulation as Delegation: Private Firms, Decisionmaking, and Accountability in the Administrative State*, 56 DUKE L. J. 377, 385-408 (2006) (discussing the involvement of private firms in defining the contours of regulatory requirements and implementation strategies in a number of sectors and terming it "regulatory delegation").

68. For critiques of self-regulation in the privacy area *see* Chris Jay Hoofnagle, *Privacy Self Regulation: A Decade of Disappointment*, Electronic Privacy Information Center (March 4, 2005) *available at* http://epic.org/reports/decadedisappoint html (overviewing past studies and new data revealing failure of industry self-regulation to move practices toward compliance with FIPS); *Surfer Beware II: Notice Is Not Enough*, Electronic Privacy Information Center (1998), *available at* http://epic.org/reports/surfer-beware2 html (reporting on survey of the privacy practices of 76 new members of the Direct Marketing Association and finding only 8 consistent with new DMA policies issued in 1997*)*; FED. TRADE COMM'N, PRIVACY ONLINE: FAIR INFORMATION PRACTICES IN THE ELECTRONIC MARKETPLACE (2000) (finding limited compliance with notice, choice, access, and security principles set out by FTC as essential to privacy self-regulation); Mary J. Culnan & Robert J. Biew, *Consumer Privacy: Balancing Economic and Justice Considerations*, 59 J. OF SOC. ISSUES, no. 2, 2003, at 323, 338 (concluding that "self-regulation is unlikely to work 100% of the time as there will always be bad actors or organizations who have implemented the formal trappings but not the substance of fair information practices, creating a need for baseline privacy legislation . . . " But noting that due to dynamics of technical and market change "the voice of activists, government and the media will continue to play an important role in motivating the business community to self-regulate, while at the same time, leading the broader social conversation on the fair use of personal information at the national and global levels."); PAM DIXON, THE NETWORK ADVERTISING INITIATIVE: FAILING AT CONSUMER PROTECTION AND AT SELF-REGULATION 5

where boundaries are blurred regardless of the regulator's posture.[69]

Through multistakeholder processes, the Administration disassembles traditional roles of governance along several lines. It involves new players in crafting the rules: delegating to the private sector while broadening its definition by requiring non-industry actors to have an equal place at the table. This effort continues the trend of involving the private sector in the development of policy by delegating the creation of specific implementation rules.[70] However, unlike past delegations, here the Administration is delegating not to industry exclusively—as generally occurs in the standard setting environment—but to multistakeholder groups that it seeks to breath into creation through the force of its bully pulpit, its call to Congress to enact legislation, and by the appeal to industries' own interest.

Like privatization and regulatory deference to industry-standard-setting organizations[71] and private companies,[72] the use of techno-policy Internet standard setting processes to develop and implement policy raises a set of normative concerns about how best to ensure fidelity to public goals. Delegating responsibility to private entities to both shape the regulatory agenda and the specifics of implementation challenges traditional compliance models and tools used to control and police regulated entities. In response, a range of scholars have suggested that processes and structures can be used to drive accountability to public values, while allowing governance activities to benefit from the strengths and expertise of various actors and fora.[73]

(World Privacy Forum, 2007).

69. *See* Frederick Schauer, *The Convergence of Rules and Standards*, 2003 NZ L Rev. 303, 305 (stating "the adaptive behaviour of rule-interpreters and rule-enforcers will push rules towards standards, and push standards towards rules").

70. Bamberger, *supra* note 67, at 385-392.

71. *See* Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543, 592-664 (2000) (discussing roles private parties play in governance through service provision, contracting, and standard setting); Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 56 (1997) (describing how a flexible EPA permitting process has allowed private companies to devise a more adaptive permitting regime).

72. Kenneth Bamberger discusses the challenges of increasingly common regulatory "delegation", in which administrative agencies enlist regulated parties in shaping regulatory requirements by delegating discretion to shape the substance of regulations. Bamberger concludes that the risks posed by such delegation—such as "decision pathologies" and "cognitively-rooted threats" unintentionally, but predictably and invisibly, undermining regulatory goals —require greater attention to accountability structures. Bamberger, *supra* note 67, at 383-84.

73. Freeman, *supra* note 71, at 572, 665 (arguing that "every aspect of policy making, implementation, and enforcement depends on the combined efforts of public and private actors" and that "responding to the private role in governance requires . . . highly contextual, specific analyses of both the benefits and the dangers of different administrative arrangements, together with a willingness to look for informal, nontraditional, and nongovernmental mechanisms for ensuring accountability); LAWRENCE B. SOLUM, MODELS OF INTERNET

Using Internet standard setting bodies to address privacy, or other policy issues, raises particular concerns about legitimacy.[74] Weiser argues that technical standard setting is an area in which deference to the expertise of the private sector is particularly desirable due to the specialized knowledge and skills required.[75] However, Weiser and others have noted that where architectural choices, such as those determined by technical standards, have a direct influence on the substance of the policy concerns, deference to private standard setting bodies predominantly populated by industry engineers is inappropriate given the potential influence on public values and public policy.[76] By design, techno-policy standards set by W3C implicate public values. Thus, empowering private entities to fill in the details of the broad CPBR policy mandate through such techno-policy standards requires attention to mechanisms that facilitate accountability to public goals. In large part, these legitimacy concerns are motivated by the regulatory nature of code and standards and the belief that regulation of any kind should be derived through a transparent and legitimate process. In extending the metaphor that "code is law",[77] it has been argued that standard-setting bodies are analogous to legislative bodies in hosting the debates over technical design.[78]

GOVERNANCE, IN INTERNET GOVERNANCE: INFRASTRUCTURE AND INSTITUTIONS 48-91 (Lee A. Bygrave & Jon Bing eds., New York: Oxford University Press 2009) (calling for a focus on participatory governance—"how the constituencies comprising the public ought to participate in law and plicmaking or, more modestly, whether their interests are adequately represented"—in broadband policymaking); Bamberger, *supra* note 67, at 438; Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 833 (reviewing GRAINNE DE BURCA & JOANNE SCOTT, EDS, LAW AND NEW GOVERNANCE IN THE EU AND THE US (2006) AND LISA HAINZERLING & MARK V. TUSHNET, THE REGULATORY AND ADMINISTRATIVE STATE: MATERIALS, CASES, COMMENTS (2006)) (suggesting that new governance scholarship should focus on conditions of success).

74. Freeman discusses the routine deference of regulators to privately developed standards and the evolution of private standard setting bodies to address concerns about their legitimacy, including increased transparency and participation, although she notes the still limited participation by "consumer, small business, and labor interests." Freeman, *supra* note 71, at 639-43.

75. Philip J. Weiser, *Internet Governance, Standard Setting, and Self-Regulation*, 28 N. KY. L.REV. 822, 824 (2001).

76. *Id.* at 828. (discussing conditions under which government should intervene in certain standards setting activities); SOLUM, *supra* note 73, at 48-91 (arguing that deference to private standard setting activities in the broadband policymaking context defers to "engineering and economic principles at the expense of civic and political concerns" and that participatory governance theory provides a basis for implementing procedures that infuse such efforts with considerations outside the competence of typical standard setting participants); Olivier Sylvain, *Internet Governance and Democratic Legitimacy*, 62 FED. COMM. L.J. 205, 209 (2010) (arguing that communications policy is an "area that should always be legitimated one way or another by public processes and not subject to ad hoc liberal deference to nongovernmental self-regulatory organizations.").

77. LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (Basic Books, 1999).

78. Charles Vincent & Jean Camp, *Looking to the Internet for Models of Governance,* 6 ETHICS AND INFO. TECH. 161, 161-173 (2004) (claiming that, and noting flaws with,"if code is

However, it is important to note some of the flaws in this analogy. First, consensus standard setting bodies provide a coordinating function but not the force of law, or in fact any legal force towards implementation. Underimplemented or unimplemented Internet standards (all too common) are more analogous to unused blueprints than to a concrete bridge. Second, standards provide for interoperability, but, as we've noted above, still provide flexibility to the implementer, for example, around presentation to the user. That flexibility has direct impacts on values such as privacy, which depend on user understanding and the context of interactions.[79] In the legal world, that distinction between specification and implementation might be more analogous to the difference between the current EU Data Protection Directive, which left room for varied implementations by member states, and the EU regulation currently under consideration to replace it, which itself would be legally binding.

Below, we discuss the strengths and limitations of the TPWG's current process, highlighting how W3C's general guidelines and TPWG specific process and charter address concerns with procedural and substantive legitimacy. We recommend additional measures to bolster participation and transparency. We then discuss the additional criteria for substantive success set out in the TPWG charter, and the ongoing stakeholder exchanges to shape its interpretation. Finally, we discuss the impact of the direct stakeholder control in consensus decision-making on substantive fairness, and note concerns about the consensus model that may be exacerbated in techno-policy standard setting.

B. Procedural Legitimacy

The "Multistakeholder Process to Develop Consumer Data Privacy Codes of Conduct"[80] engaged the public in a high-level conversation about issues of procedural fairness—participation, transparency, and accountability. In response to the Obama Administration's Privacy White Paper, a coalition of civil society organizations set out "Principles for Multistakeholder Process".[81]   The Principles call for: "robust and

---

law then standards bodies are governments").

79. We have previously noted the difference between specification and implementation of a platform and impacts on privacy: Nick Doty and Erik Wilde. "Geolocation Privacy and Application Platforms," in *Proceedings of the 3rd ACM SIGSPATIAL International Workshop on Security and Privacy in GIS and LBS - SPRINGL '10*, 65. New York, New York, USA: ACM Press, 2010, available at http://doi.acm.org/10.1145/1868470.1868485.

80. Multistakeholder Process to Develop Consumer Data Privacy Codes of Conduct, 77 Fed. *Reg.* 13098 (March 5, 2012) (Request for public comments), *available at* http://www.ntia.doc.gov/files/ntia/publications/fr_privacy_rfc_notice_03052012_0.pdf.

81. World Privacy Forum et al., *Principles for Multi-Stakeholder Process* (Feb. 23, 2012), http://www.worldprivacyforum.org/pdf/MultiStakeholderPrinciples2012fs.pdf.

reasonably balanced" consumer representation: "public sessions[,] public documents" and "substantial decisions. . .made in open sessions"; equal opportunity to present proposals and equal treatment of items proposed; transparency about participants' affiliations; freedom to communicate about the process to nonparticipants; inclusion of dissenting views with published consensus documents; decisions based on "fair and broad consensus" not majority vote; open discussions, balance, mutual respect and consensus as guiding principles; electronic meetings unless adequate resources are provided to facilitate in person participation by civil society; civil society input on meeting locations; advanced access to documents to be considered; and, the right to revisit and amend rules at the end of twelve months.[82] These principles are similar to those set forth in other areas by practitioner groups focused on public engagement with policy making that emphasize inclusiveness, openness, transparency, participatory decision-making processes, and respect.[83] The principles attempt to assure that the multistakeholder processes are fair and that financial barriers do not undermine participation. The success of these efforts will depend upon their perceived legitimacy, and that legitimacy in turn depends upon whether processes are viewed as fair and outcomes considered just.[84] Thus addressing concerns of procedural legitimacy appears to be essential to ensure the participation of civil society representatives, and to bolster the chances that outcomes are perceived as legitimate.

Below we discuss changes to W3C process that increase transparency and participation.

1. Transparency

An increase in the level of transparency about discussions, deliberations, and decisions is evident from P3P to DNT. The P3P process involved many member-only discussions while DNT is being conducted completely on public mailing lists and open meetings. In their 2004 comparison of standard-setting body governance models, Vincent and Camp highlight W3C as an organization closed to outside visibility and (see "Participation" below) public involvement; those critiques apparently do not apply to current process, or to the TPWG where work is done in public view, in addition to freely available published standards

---

82. *Id.*

83. *See, e.g.*, IAP2, Int'l Ass'n for Pub. Participation, IAP2 Core Values: Core Values for the Practice of Public Participation (2007), http://www.iap2.org/displaycommon.cfm?an=4; NCDD, The Nat'l Coal. for Dialogue & Deliberation, Core Principles for Public Engagement (May 1, 2009), http://ncdd.org/rc/item/3643.

84. E. ALLAN LIND & TOM R. TYLER, THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE 31-33 (1988).

and policies to prevent patent encumbrance.[85] Ensuring that the technical specification and all deliberations upon it are open is important; however, many organizations concerned with the privacy consequences of online tracking may lack the internal expertise to parse the specification and understand its full ramification.

Realizing the benefits of increased transparency requires organizations with the capacity to understand the discussions and work product of the TPWG. As noted above, privacy regulators have acquired additional technical competence. The same is true of some civil society organizations. However, as discussed below, it seems likely that current expertise and knowledge in the diverse set of non-traditional participants will prove insufficient to support effective participation absent funds to hire new staff or assistance by outside experts.

The two Community Groups support resource sharing among groups of stakeholders with relatively limited technical resources. These fora can assist non-traditional participants in leveraging the technical expertise of some members of their constituency. It may also assist in the identification of trusted parties—participants in the Working Group or other sympathetic experts—to bridge gaps in knowledge or understanding. Closing the gap between the availability of information and stakeholders' ability to comprehend and act upon it is key to meaningful participation. To further address this gap the TPWG structures some meetings as "briefings" on factual situation from experts in a particular area (as former TPWG co-chair Aleecia McDonald began, and current co-chair Peter Swire has continued). Whether those briefings are sufficient, independently or in connection with the Community Groups or other efforts by stakeholders to educate themselves or bring in additional technical expertise, to afford the various non-traditional stakeholders a level of knowledge necessary for meaningful participation remains unclear.

2. Participation

The ongoing DNT standardization process is in many ways more inclusive than the earlier P3P process. The increased diversity in participation is due in part to shifts in W3C process, and in part due to shifts in stakeholders' perspectives on the value of such efforts.[86]

---

85.   Vincent & Jean Camp, *supra* note 78.

86.   The P3P process was viewed more skeptically by some sectors of civil society. *Compare*, *e.g.*, Office of Info. and Privacy Comm'r/Ontario & Ctr. for Democracy & Tech., *P3P and Privacy: An Update for the Privacy Community* (Mar. 2000), http://www.ipc.on.ca/images/Resources/p3p.pdf, *with* Karen Coyle, *A Response to "P3P and Privacy: An Update for the Privacy Community" by the Center for Democracy and Technology*, KAREN COYLE'S HOME PAGE (May 2000), http://www kcoyle.net/response html.

W3C has actively sought to diversify participation in its privacy work. It has done so directly through, for example, increased use of the Invited Expert[87] category to bring in civil society organizations and government experts; it has created structures—the Community Groups (for advocacy and ad operations organizations)—to ease the participation of constituencies who are viewed as key stakeholders in the privacy context, but who are not regular participants in Internet standard setting activities. The Community Groups may ease the financial and logistical costs of participation by these stakeholders, by reducing the transaction costs inherent in identifying and communicating with like-minded peers. Removing barriers and active solicitation of input from experts has increased the diversity of stakeholders participating; perhaps equally important, such steps also contribute to the perception that the process is open and accessible to the public, regardless of how many members of the public or how many civil society organizations ultimately choose to participate.

Despite these advancements, the technical standardization process presents many challenges to full participation by end users, and public interest or civil society participants. Beyond the barrier of annual membership dues (measured in the thousands of dollars per year for most organizations that participate at W3C) that are waived for Invited Experts, the direct financial costs of acquiring appropriate expertise and dedicating time may limit effective participation. While some public interest organizations may have employees comfortable in technical standard setting venues, many likely do not. The work of W3C is well documented and decisions are made largely based on discussions through online mailing lists, however attending the Working Group meetings is important and can be costly.[88] Many U.S. public interest organizations are based in Washington, D.C. as their primary focus is federal policy; however, W3C Working Group meetings are held in different locations to enable participation from vastly dispersed stakeholders. While this is done to foster participation, it may have the opposite effect on the participation of civil society organizations given their relatively high concentration in Washington, D.C.[89] Smaller corporate players as well

---

See also Alexander Dix, Comm'r for Data Prot. and Access to Info., State of Brandenburg Germany, *Infomediaries and negotiated privacy techniques* (2000), http://www.cfp2000.org/papers/dix.pdf.

87. Chairs, with the agreement of W3C staff, may invite individuals with particular expertise to participate without formal Membership: http://www.w3.org/2005/10/Process-20051014/groups html#invited-expert-wg.

88. Patrick Feng, *Shaping Technical Standards: Where are the Users*?, *in* SHAPING SCIENCE AND TECHNOOGY POLICY: THE NEXT GENERATION OF RESEARCH 3 (David H. Guston & Daniel R. Sarewitz eds., 2006).

89. COLIN J. BENNETT, THE PRIVACY ADVOCATES: RESISTING THE SPREAD OF SURVEILLANCE 30 (2008) (discussing privacy advocacy groups, as well as civil liberties,

might be impacted by standardization around online privacy and similarly have fewer resources or less expertise available to participate. The use of lower-burden Community Groups to facilitate input is an ongoing experiment with mixed results; while non-profits were able to collaborate on a documented list of concerns about an early draft, little discussion has taken place within the group aimed at smaller ad operations companies. Trade associations in the business community may have filled some of that role: the Digital Advertising Alliance, the Interactive Advertising Bureau, ESOMAR (a market research association) among others have had active participants within TPWG and communicate with their own member organizations (measured in the hundreds of companies).

There has been no specific effort by W3C or the U.S. government to build the capacity of non-traditional participants—such as consumer and privacy advocacy organizations, or small companies—to foster more effective participation in Internet standard setting venues. While a broader range and bigger number of non-traditional stakeholders are choosing to participate in DNT than did in P3P, the question of their efficacy and contribution remains open. Regulators are more consistent and active participants, signaling their sense of the growing importance of W3C work product to policy concerns. Regulator attention signals the importance of Internet technical standards to policy debates, thereby influencing the perception of the pros and cons of participation among non-traditional participants If regulators view such efforts as significant, foregoing participation may seem ill advised..

W3C's efforts are responsive to the principles advocated by the civil society organizations. However, given the importance of diverse stakeholder participation to the success of the TPWG effort additional models to support participation by a diversity of individuals and organizations should be considered.

Reducing formal barriers to participation is likely to be insufficient to muster the level of participation necessary to produce outcomes viewed as procedurally and substantively fair. While the relative novelty of the TPWG effort may attract a substantial number of non-traditional participants, it seems unwise to assume that such participation would be sustained across other or additional techno-policy standard setting efforts. Civil society organizations focusing on Internet policy issues have participated in an important but limited set of technical standard-setting activities over the years.[90] This is at least in part due to the

---

consumer protection, and "digital rights" organizations that focus on privacy, stating that "most privacy advocacy groups are located in the United States").

90. Arne Hintz, *Challenging the Digital Gatekeepers: International Policy Initiatives for Free Expression*. 2 J. INFO. POLICY 128, 134 (2012).

ongoing difficulty of funding such work, and historically due to the relative lack of technical expertise.[91]

Concerns about the uneven capacity of different stakeholders to participate, and its potential negative effect on both procedural and substantive legitimacy, have been addressed in other areas through funding to support participation and acquisition of expertise, as well as the direct provision of expert assistance. For example, the Intervenor Compensation Program at the California Public Utilities Commission (CPUC) provides funding to cover participation costs and to hire technical experts. The CPUC compensates eligible participants who "made substantial contributions."[92] The CPUC also provides expertise to the public through its Public Advisor who assists members of the public who wish to participate in proceedings.[93] The European Commission provides funding for the European Association for the Co-ordination of Consumer Representation in Standardisation (ANEC) in order to support non-profit consumer organization participation in standard setting, and policy and legislation related to standardization that affects European consumers.[94] Such funding has supported ANEC participation in web accessibility standards at W3C. In the context of U.S. environmental policy, agencies are provided with funds under some programs to support grants to nonprofit citizen groups to support and encourage participation.[95] Among other items, grants may be used to support the acquisition of independent technical assistance and the distribution of their analysis to other stakeholders.

Scholars have concluded that upfront funding, rather than a retrospective compensation mechanism, is essential to foster meaningful participation by public interest advocates in regulatory proceedings.[96]

---

91. Joe Waz and Phil Weiser, *Internet Governance: The Role of Multistakeholder Organizations*, SILICON FLATIRONS REPORTS 6 (2012), http://www.silicon-flatirons.org/documents/publications/reports/InternetgovernanceRoleofMSHOrgs.pdf

92 Funding under the Intervenor Compensation program is limited to organizations or individuals who represent the interest of customers. Cal. Pub. Utilities Comm'n, *Intervenor Compensation Program Guide And Instructions On Completing Intervenor Compensation Standardized Forms* (Dec. 2011), http://www.cpuc.ca.gov/NR/rdonlyres/C4E65BB3-1795-43BD-8FBD
5528754BC988/0/Intervenor_Compensation_Program_Guide_and_Instructions.DOC.

93. Cal. Pub. Utilities Comm'n, *Public Advisor's Office* (last updated May 24, 2012), http://www.cpuc.ca.gov/PUC/aboutus/Divisions/CSID/Public+Advisor.

94. Decision No. 1926/2006 (EC) of the European Parliament and of the Council of 18 December 2006 on Establishing a Programme of Community Action in the Field of Consumer Policy, 2007-2013 O.J. (L 404).

95. *See e.g.*, National Environmental Policy Act, 42 U.S.C. § 4368 (1994); Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9613(a) (1994).

96. Michael I. Jeffery, QC, *Intervenor Funding as the Key to Effective Citizen Participation in Environmental Decision-Making: Putting the People Back into the Picture*, 19 ARIZ. J. INT'L & COMP. L. 643, 658-59, 676 (2002) (arguing that retrospective compensation

The absence of sufficient resources to acquire appropriate expertise can render efforts at increasing participation "ineffective and often meaningless."[97] If participants lack the expertise to adequately understand and represent their interests, the decision-maker—in this context, the Working Group—is deprived of perspectives, arguments and data necessary to achieve an ideal outcome. Funding constrains the amount of time and travel that a participant can devote to the activity regardless of whether they have the capacity to effectively represent their interests.

Depending upon the relationship between techno-policy standard setting efforts and public policy, perspectives about who ought to fund public interest participants may vary.[98] In some instances, cross-subsidization may be viewed as the most appropriate and feasible vehicle, while in others direct government funding may be viewed as necessary given the relationship between the standard and public policy outcomes. The former would suggest that organizations such as W3C develop mechanisms to provide funds from consortium members to support the participation of experts and public interest organizations, a possibility under consideration at W3C. However, where governments rely upon Internet standard setting bodies to fill in the details of public policy, whether it is structured as an explicit delegation under a statutory or regulatory framework or, as under the MSH process, a softer nudge to develop such standards under a looser government generated frame, then direct government funding to ensure robust participation by non-regulated entities may be necessary to ensure that the shift from an agency process to the standard setting environment does not reduce the level and diversity of participation, particularly of organizations representing the public interest.

Standard setting bodies such as W3C and IETF can take other steps to reduce stakeholder's need for specialized technical expertise—in lieu of providing the funding to obtain it. One method is to leverage the expertise of technically sophisticated participants to support the work of the group as a whole. An IETF Internet Draft entitled "Public Policy Considerations for Internet Design Decisions" takes such an approach.[99]

---

does not enable effective public interest representation of citizen intervention in regulatory matters and suggesting the adoption of an intervenor model aimed at "enabling the intervenor to retain counsel and expert witnesses in order to provide the decision-maker with the type and quality of evidence that is needed to support an informed decision.").

97. *Id.*

98. Waz and Weiser note this open question in laying out a related research agenda. *See* Waz & Weiser, *supra* note 91.

99. John Morris & Alan Davidson, *Public Policy Considerations for Internet Design Decisions*, CENTER FOR DEMOCRACY & TECHNOLOGY (June 2003), http://tools.ietf.org/id/draft-morris-policy-considerations-00.txt.

It provides a set of questions fully within engineers' competence that identify potential policy issues within technical standards. The document asks questions, such as:

- Would the technology facilitate any bottlenecks or choke-points in the network through which significant amounts of particular types of traffic must flow?
- Would the technology permit the reading or writing of any file on an End User's computer without the explicit knowledge of the End User?
- Would the technology require or permit the association of a persistent identifier with a particular End User, or a computer used by one or more End Users?

Answers to these questions from participating engineering experts assist participants who lack technical training by suggesting to which standards they should direct their time and attention.

Tools such as the Public Policy Considerations draft can facilitate dialogue and action across disciplines, thus providing an entry point for non-traditional participants. Key to their potential value is their relatively light impact on both sets of actors: technologists are asked to answer factual questions about a proposed design, not normative questions about its relationship to a particular value; non-technical stakeholders concerned with the policy implications of the standard are provided with an output that assists them in assessing the standard based on their own expertise in disciplines such as law, ethics or social science.

Given the regulatory encouragement that the TPWG process has enjoyed, measures affirmatively supporting stakeholder participation—including funding—should be considered. At the very least, informal barriers to participation in the TPWG represented by differences in organizational resources and expertise should be noted and studied to determine whether they influence participants perspectives on the fairness of the process and its outcome, and to evaluate whether resource and expertise limitations impede adequate representation of certain stakeholder perspectives. Both subjective and objective measures are appropriate as research reveals that participants experiencing processes viewed as more participatory and respectful may be less likely to challenge the substantive fairness of an outcome.[100] Researchers could

---

100 *See* Robert MacCoun, *Voice, Control, and Belonging: The Double-Edged Sword of Procedural Fairness*, 1 ANN. REV. L. & SOC. SCI. 171, 172 (2005) (discussing research showing how processes that support voice "the ability to tell one's story" and "dignified, respectful treatment" can be manipulated to distract participants from analyzing the substantive fairness of outcomes); *Id.* at 186-193, citing work by R.L. Cohen, *Procedural Justice and Participation*, 38 HUM. RELAT. 643 (1985); Tom R. Tyler & Kathleen M. McGraw, *Ideology and the Interpretation of Personal Experience: Procedural Justice and Political Quiescence*, 42 J. SOC. ISSUES 115 (1986); and E. Allan Lind, Ruth Kanfer & P.

explore perspectives of both participants and non-participants on the TPWG process. Examining perspectives before, during and, after the process would improve understanding of how experience with the process shapes perspectives on its legitimacy, and what aspects of the process are viewed as important prior to such experience.[101] Expert analysis of the adequacy of non-traditional stakeholders participation— for example were positions and arguments well formulated and supported? Were interventions attentive to the standard setting culture? Did interventions present actionable solutions?—could be undertaken. While perhaps harder to assess, such objective analysis would provide an external perspective on the adequacy of participation and a factual basis for decisions about whether additional support is necessary.

C. Substantive Legitimacy

The value of the TPWG effort will ultimately be evaluated based both on its marketplace adoption and on its substantive value for privacy (measured against the goals of the CPBR, among other documents). The perspective of observers and participants on the fairness of the substantive outcome may be distinct from their opinion about the fairness of the process.[102] Put another way, Werle and Iversen distinguish input legitimacy—that the right stakeholders are involved in the process—and output legitimacy—that the result properly addresses the stakeholders' interests—as separate measures of success.[103] An outcome may be considered substantively legitimate even if it does not fully match the desires of a given set of participants. Clearly, this is so in traditional regulatory proceedings where an agency's rules are given great deference even though they may be objectionable to many parties.[104] Indeed, even those who advocated for a different outcome may consider objectionable rules legitimate and authoritative if they fall within a range of permissible or reasonable outcomes given the discretion left to the decision maker. Thus, substantive legitimacy is distinct from both procedural fairness concerns and from achieving the specific substantive

---

Christopher Earley, *Voice, Control, and Procedural Justice: Instrumental and Noninstrumental Concerns in Fairness Judgments*, 59 J. PERSONALITY & SOC. PSYCHOL. 952 (1990).

101.   Tom Tyler & David Markell, *The Public Regulation of Land-Use Decisions: Criteria for Evaluating Alternative Procedures*, 7 J. EMP. L. STUD. 538, 539-40 (2010) (advocating for consideration of ex ante and ex post perspectives on the fairness of decision-making systems).

102.   LIND & TYLER, *supra* note 84.

103.   Raymund Werle & Eric J. Iversen, *Promoting Legitimacy in Technical Standardization*, SCI., TECH. & INNOVATION STUD. 19, 20 (2006).

104.   *See* Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (allowing courts to overrule an agency action that is found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

outcome desired by the participant, however it is clearly influenced by the first and bound by a sense of fairness to the second. While they may interact in different ways, considering procedural and substantive fairness concerns separately can assist in identifying opportunities to strengthen the overall legitimacy of the TPWG work.

The utility of techno-policy standards developed at W3C or elsewhere will ultimately turn on their ability to contribute to policy solutions viewed as substantively acceptable by stakeholders. While sound procedures can bolster the likelihood that a resulting standard is viewed as authoritative and given deference,[105] the criteria for substantive success must also be clear and mutually agreed upon. We discuss below the strengths and limitations of the W3C standard success criteria of consensus, running code, adoption, and interoperable implementation in defining substantive success. These metrics remain relevant with respect to techno-policy standards. However, they do not speak directly to the substantive value to be advanced (security, accessibility, internationalization, or privacy, for example). We discuss below how the substantive legitimacy of the work at W3C is debated and refined through the TPWG's agenda, the consensus process, and the sporadic interjection of external perspectives.

1. Articulation of Values-based Metrics for Success

W3C general metrics for success—consensus, running code and interoperable implementations[106]—speak to procedural and substantive legitimacy. Consensus decision-making uses process to improve the likelihood of substantive legitimacy. Running code and interoperability can be viewed both as indicators of substantive fairness—the standard works and is viable for various players—and checks on the standard's programmatic and political viability. A standard meeting these success criteria would more likely address the relevant problem, and face fewer political barriers to adoption, and, therefore be more likely to be deployed. Together, the general W3C guidelines create conditions

---

105. Tyler & Markell, *supra* note 101, at 539-40 (proposing criteria for evaluating public acceptability of processes including, "authoritativeness"–decisions accepted as authoritative and given deference–robust in the face of experience (does experience reduce opinion of the process), viewed by a consensus of major stakeholders as desirable, "procedurality" (viewed as acceptable based on procedural fairness not likelihood of a particular substantive outcome), strength or weakness of nonfairness factors that affect preferences (cost, delays etc.)).

106. We do not address W3C's patent policy, which aims to produce standards that can be implemented on a royalty-free basis. However, we note that several of the requirements, such as disclosure of patents, that contain essential claims – with respect to a specification and obligation to commit to royalty-free use of the specifications containing those claims – address fairness and success, as well. WORLD WIDE WEB CONSORTIUM, http://www.w3.org/Consortium/Patent-Policy-20040205/ (last visited Sep. 12, 2012).

favorable to the production of standards that will be viewed as authoritative by those who will decide whether to deploy them. They provide conditions that encourage stakeholders to express positions, engage in reasoned dialogue, and work toward consensus solutions that can be broadly implemented.

The use of W3C and other potential multistakeholder processes to develop techno-policy standards requires additional provisions to ensure the substantive legitimacy of outputs. Consensus and interoperable implementations remain valid measures, however the relationship between the standard and policy outcomes requires measures of fairness that reflect the perspective of diverse players—many of whom will not implement the standard but will be directly affected by it.

The absence of value-oriented metrics in the general W3C success criteria is addressed in several ways within the TPWG process. The TPWG charter, like the P3P charter before it, establishes improving privacy and affording users greater control as the mission of the Working Group. The TPWG charter begins by outlining a substantive metric for success—bounding the range of fair outcomes. It states that the mission is to "improve user privacy and user control by defining mechanisms for expressing user preferences around Web tracking and for blocking or allowing Web tracking elements."[107]   However, the proposed deliverables from the TPWG—a specification defining the "technical mechanisms for expressing a Do Not Track preference", a specification defining "the meaning of a Do Not Track preference and practices for Web site compliance," and a specification defining "a format for interchangeable lists for blocking or allowing Web tracking elements and expected user agent interpretation of this format"[108]—may or may not improve user privacy and control depending upon actions within the Working Group—such as defining the meaning of a Do Not Track preference—and outside it—such as adoption of the standard by browsers and web services.

Regulators have issued several statements indicating the parameters that will guide their assessment of the success of the TPWG deliverables. The Federal Trade Commission stated that an effective Do Not Track system should:

- be implemented universally to cover all parties that would track consumers;
- be easy to find, understand, and use;
- be persistent and not overridden;
- be comprehensive, effective, and enforceable;

---

107. TRACKING   PROTECTION   WORKING   GROUP   CHARTER, http://www.w3.org/2011/tracking-protection/charter (last visited Sep. 12, 2012).

108. *Id.*

- opt consumers out of behavioral tracking through any means and not permit technical loopholes; and,
- opt users out of collection of behavioral data for all purposes other than those that would be consistent with the context of the interaction (e.g., preventing click-fraud or frequency capping for ads).[109]

The Article 29 Working Group—an advisory group comprised of the Data Protection Authorities from each E.U. member state—has weighed in on the relationship between Pan-European privacy requirements and DNT, stating, "A default setting in browsers that would prevent the collection of behavioural data (Do not collect) [could be in] accordance with the relevant provisions of Directive 95/46/EC."[110] For it to be sufficient however they wrote, "subjects cannot be deemed to have consented simply because they acquired/used a browser or other application which by default enables the collection and processing of their information," but rather subjects must be required "to engage in an affirmative action to accept both the setting of and continued transmission of information contained in cookies by specific web sites."[111] They went on to state that the DNT effort at W3C "could pave the way for compliant consent mechanisms . . . on the condition that such mechanisms truly enable users to express their consent on a case by case basis, without being tracked by default."[112] The European Commission took a similar position stating that "the standard should foresee that at the install or first use of the browser the owner should be informed of the importance of their DNT choice, told of the default setting and prompted or allowed to change that setting."[113] The EC also stated that limiting the default settings of DNT as offered by browser manufactures "could distort the market" directly pushing back on the current proposal to constrain default settings within the specification.[114] The CPBR, while not directed at the TPWG directly, also establishes a metric for substantive success.

Consumer protection and privacy organizations desire a DNT

---

109. Fed. Trade Comm'n, *Prepared Statement on the Need for Privacy Protections: Perspectives from the Administration and the Federal Trade Commission, Before the Committee on Commerce, Science, and Transportation*, http://www ftc.gov/os/testimony/120509privacyprotections.pdf (last visited Sep. 12, 2012).

110. Opinion 16/2011 on EASA/IAB Best Practice Recommendation on Online Behavioural Advertising, at 10, Article 29 DPW 02005/11/EN WP 188 (Dec. 8, 2011).

111. *Id.*

112. *Id.*

113. Letter from Robert Madelin, Director-General, European Comm'n Info. Soc'y and Media, to World Wide Web Consortium Tracking Prot. Working Grp. (Jun. 21, 2012), http://lists.w3.org/Archives/Public/public-tracking/2012Jun/att-0604/Letter_to_W3C_Tracking_Protection_Working_Group.210612.pdf.

114. *Id.*

solution that prohibits collection of data.[115] During their participation in the TPWG they have taken nuanced positions on relevant definitions, and have been open to defaults that require a user action rather than presupposing a privacy protective baseline.

While regulators and consumer and privacy organizations appear aligned on a success metric that includes a DNT standard that is designed to prohibit collection of data, industry is not. Industry is more likely to emphasize success related to widespread implementation and minimal disruption of online business models. In fact, some members of the group believe that collection is not within the TPWG's agenda. As the Adobe representative wrote, "[t]his is not the collection protection working group—it is the tracking protection working group and it has a chartered delivery requirement for a document that defines the meaning of a do not track preference. . . Adobe will not accept blanket constraints on all data collection based on the theory that a few exceptions will cover our needs: we have no way to anticipate all of the future needs of our customers that might have nothing to do with tracking."[116] Advertising industry perspectives emphasize that continued data collection may be valuable for fraud prevention and system security without incurring certain classes of privacy harms (personalized or targeted advertising or offers). The evident tension around goals complicates efforts to achieve a consensus standard that all will view as substantively legitimate.

2. Consensus and Substantive Legitimacy

While the general W3C guidelines improve the chances for a widely deployed standard, and the TPWG charter establishes general substantive guidelines, the Working Group relies primarily on the consensus process to drive an outcome viewed as substantively fair by participants. The substantive benchmark set by the TPWG charter, combined with increased transparency and participation, has fueled a broad conversation of what is required for the TPWG's work to be perceived as substantively legitimate by a wide range of stakeholders. The parameters set by the Administration (under the CPBR and FTC reports) and E.U.

---

115. Email from Jeffrey Chester, Executive Director, Ctr. for Digital Democracy, to Public-tracking@W3C.org (Jun. 17, 2012, 10:57 GMT), *available at* http://lists.w3.org/Archives/Public/public-tracking/2012Jun/0470 html); Ioana Rusu, *Internet Explorer 10 Will Enable "Do Not Track" By Default*, CONSUMERS UNION, (Jun. 1, 2012), *available at* http://hearusnow.org/posts/1090-internet-explorer-10-will-enable-do-not-track-by-default; *see also* Center for Democracy and Technology, Do Not Track should mean don't collect rather than collect but don't target (May 18, 2012) http://twitter.com (tweet in response to twitter announcement about DNT implementation).

116. Email from Roy T. Fielding, Principal Scientist, Adobe Systems Inc., to Jonathan Mayer and public-tracking@w3.org (Jun. 16, 2012, 2:53 GMT), *available at* http://lists.w3.org/Archives/Public/public-tracking/2012Jun/0462 html.

regulators, and the real-time feedback by policymakers throughout the process—through direct participation, press statements and communications to the TPWG—provide a continued external check on of the meaning of the substantive goals of the TPWG charter.

Within this broad substantive mandate however, participants are free to shape an acceptable substantive outcome. The consensus process leaves participants in control of the boundaries of substantive compromise. As solutions are determined and controlled by the stakeholders rather than a third-party, the process may bolster the likelihood of achieving results viewed as substantively fair by all parties.[117] Given that W3C cannot compel adoption there is a strong preference for consensus as it is thought to increase the odds of widespread adoption. (Consensus is defined at W3C as lacking formal objection.)

In legislative or administrative proceedings, participants are provided with opportunities to voice opinions, present factual information, and raise and rebut arguments, but lack control over the ultimate outcome. During the "informal rulemaking" process through which most regulations are adopted[118], stakeholders interact predominantly with the regulator through a process known as "notice-and comment"[119], generally asynchronously and in parallel. There is no direct interaction among interested parties through the process, although reply comments allow parties to respond to facts and arguments raised by other parties. The interactions among relevant parties are mediated through this structured and formal process that centers the agency.

In contrast, the TPWG is more akin to an arbitration where the parties themselves craft the terms of the solutions. In fact, the participatory consensus process at W3C aims to remove all representation—the lawyers in arbitration—ensuring that participants engage directly, and simultaneously, with each other. The TPWG's work consists of a dialogue among stakeholders, both in person and over the mailing lists. Regulators can be participants or they may simply observe, however they are formally treated like any other stakeholder. The process fosters deliberation among the parties and allows them to contribute in meaningful and concrete ways—and to judge the impact of their contributions more clearly. Under the right conditions, the consensus model is thought to bolster the chances for solutions deemed

---

117. This is not to say that W3C or other standards bodies require unanimity; groups can progress past individual objections through a formal process (which also includes the potential to appeal to the W3C Director).

118. James Hunnicutt, *Another Reason to Reform the Federal Regulatory System: Agencies' Treating Nonlegislative Rules as Binding Law*, 41 B.C. L. REV. 153, 158 (1999) (explaining that Congress typically instructs agencies to use informal rulemaking).

119. See 5 U.S.C. §§553.

acceptable by all stakeholders.

Consensus processes can reduce transparency due to the desire to avoid recorded votes, which are viewed as polarizing. Researchers who have looked at multistakeholder Internet governance structures, and advocates focused on the current privacy initiative, have raised concerns about the possibility of information being lost to history in a consensus process. For example, while researchers and advocates call for consensus processes that support discussions and resolution "without undue influence or domination by a particular group of members"[120] and decisions "based on fair and broad consensus among stakeholders rather than a majority vote by participants"[121] they nonetheless call for publication of dissenting views and statements in conjunction with decisions.[122] The desire to have a record of dissent in an ostensibly consensus process points to the tension between consensus processes that emphasize agreement and collegiality, and the level of clarity and transparency about positions and the actual contours of that consensus provided by recorded votes.[123]

While the decision-making power consensus processes afford stakeholders may contribute to greater perceptions of substantive legitimacy, it provides opportunities for strategic behavior that can undermine successful outcomes. Self-regulatory efforts—be they codes of practice or techno-policy standards—are undertaken for a range of purposes, not all of which require a finished product. Common motives for undertaking self-regulation include, avoiding, anticipating,

---

120. Eddan Katz and Laura DeNardis, *Best Practices for Internet Standards Governance*, THE INTERNET GOVERNANCE FORUM, at 3, (2006), http://intgovforum.org/Substantive _1st_IGF/BestPracticesforInternetStandardsGovernance.pdf.

121. CIVIL SOCIETY MULTI-STAKEHOLDER PRINCIPLES, at 2, (2012), http://www.worldprivacyforum.org/pdf/MultiStakeholderPrinciples2012fs.pdf (last visited Oct. 3, 2012).

122. *Id.; see also* Katz, *supra* note 120, at 3.

123. This tension is dealt with in the rules of both houses of the U.S. Congress that allow for voice votes (yea or nay vote with no record of individual member preferences), and division votes (members stand and are counted but no individual attribution is noted) in both committees and on the floor, but as required by the Constitution require a roll call vote—a vote in which the position of each present member is recorded—if one-fifth of the members present so desire. While the fact that only members can force a voice vote may create less transparency than some members of the public would like, it creates a structure that generally provides greater transparency when issues are contentious. U.S. Const. art. I, §5; RULES OF THE HOUSE OF REPRESENTATIVES FOR THE 112TH CONGRESS, § XX (2011) ("Those in favor of the question shall first . . . be counted, and then those opposed."), *available at* http://www rules house.gov/singlepages.aspx?NewsID=   141&rsbd=165;   *see*   JUDY SCHNEIDER, CONG. RESEARCH SERV., RL 30945, HOUSE AND SENATE RULES OF PROCEDURE: A COMPARISON (2008) ("Roll call votes can be requested at almost any time in the Senate, but only after completing a voice or division vote in the House."), http://lugar.senate.gov/services/pdf_crs/congress/House_and_Senate_Rules_of_Procedure_A_ Comparison.pdf.

implementing, and supplementing legislation.[124] Implementing or supplementing legislation requires a standard or code, while a convincing process may prove useful in avoiding or anticipating legislation regardless of whether the standard or code is realized. DNT's relationship to policy may increase the percentage of participants ambivalent about achieving the working group's goal. Some participants may prefer a legal solution, and view the process at W3C as either a distraction or a temporary step toward that goal. Others may participate in the hopes that participation alone will stave off regulation. Participants who are antagonistic or ambivalent about the standard may drag out the process—intentionally or unintentionally—hoping that the political winds shift in their favor. On the other hand, a credible threat of congressional or regulatory fixes may drive participation.

The mixed motives of participants can frustrate participants who seek a consensus solution. The P3P, and DNT processes may provide some insight into the complications of divergent goals, particularly their impact on the time till consensus:[125] P3P saw its schedule extend for multiple years and DNT has twice had to push back its, admittedly aggressive and optimistic, deadlines by a period of months. TPWG participants regularly express their personal complaints with slow movement in decision-making, a perhaps inevitable outcome of a consensus process, but perhaps heightened here by the interplay with the traditional policymaking institutions.

Consensus may also become problematic as the diversity of the players increases. The "lack of formal objection" standard may mask differing views on the acceptability of the outcome. The relative support or lack of informal objection to a standard may divide along lines such as advocates v. industry, or small v. large industry players, or liberal v. conservative, or another faction that may be important for the purpose of gauging the breath of consensus.

Work on environmental conflict resolution (ECR) processes provides some additional guidance on substantive fairness, and some insight into how to think about the role of consensus-based processes in achieving it. In a study by Emerson, three classes of outcomes were measured: whether an agreement was reached, the quality of agreements, and improvement in the working relationship of the participants. These attributes were viewed as related to substantive fairness. Assessment of

---

124. Peter Hustinx, "The Use and Impact of Codes of Conduct in the Netherlands," at 3, 16th International Conference on Data Protection (1994).

125. FRANCESCA POLLETTA, FREEDOM IS AN ENDLESS MEETING: DEMOCRACY IN AMERICAN SOCIAL MOVEMENTS, 14 (Univ, of Chicago Press, 2004) ("When members' interests diverge, however, practices that were intended to express and strengthen the group's shared purpose must protect individual interests against those of the majority or the powerful, and this they cannot do").

the quality of agreements included gauging whether: it was understood; incorporated participants' interests; could be modified; addressed the key issues; resolved the conflict; was implementable; and whether participants developed relationships to maintain it.[126]

Several of these measures are explicitly or implicitly addressed by the existing W3C success criteria. For example, the requirement for running code and two interoperable implementations ensure that the outcome is implementable. The mission statement and deliverables articulated in the charter provide metrics against which one can evaluate whether the key issue—as defined by participants but constrained by regulators—is resolved. The general working rules of W3C ensure that the specification can be modified and extended. Other measures of success, such as whether the standard resolves the conflict, may turn on factors beyond the TPWG's control. For example, if the standard is not widely deployed, or if it is deployed in a manner that is inconsistent with regulatory perspectives on implementation requirements of relevant laws, it may not resolve the conflict. Similarly, whether participants develop relationships to maintain the specification may be influenced by the weight regulators give to the TPWG's deliverables—including the effort they expend in addressing concerns that are important to its utility (e.g. the user interface) but are beyond the scope of the specifications. If regulators signal a desire to defer to the output of TPWG and similar processes (as the Administration has in its Whitepaper) stakeholders may be more inclined to work toward mutually acceptable solutions. The disposition of other regulators—in the case of the U.S. process, the Federal Trade Commission and Congress—toward the standard setting effort, as well as participants' perspectives on the likelihood of other more desirable regulatory interventions, may further influence the extent of to which participants seek to maintain cordial relationships.

3. Integration, Interdisciplinarity, and Innovation

The P3P and TPWG efforts pull privacy into the realm of technical design.[127]   This is a decided departure from earlier efforts of

---

126. Kirk Emerson et al., "Environmental Conflict Resolution: Evaluating Performance Outcomes and Contributing Factors." 27 CONFLICT RESOL. Q. 35-36 (2009).

127. Not for the only time in technical standardization; for example, in the context of the IETF, the Internet Architecture Board (which provides high-level architectural guidance to IETF work) formed a Privacy Program in June 2011. A co-author of this paper is a non-IAB member of this program. *available at* http://www.iab.org/activities/programs/privacy-program/; an analogous Privacy Directorate was created at the IETF (largely defunct for lack of volunteers to review specifications). There has been discussion of IETF explicitly considering a broader set of public policy concerns in the Internet standardization process. John Morris and Alan Davidson, "Public Policy Considerations for Internet Design Decisions" (2003), *available at* http://tools.ietf.org/id/draft-morris-policy-considerations-00.txt; Although

technologists and technical institutions to focus on separating mechanisms from policies, and claiming core competence in only the former.[128] Although the allure of separating mechanism and policy remains strong[129] these efforts take a pragmatic approach accepting that policy and mechanism cannot be fully abstracted from one another, and shouldering the responsibility for considering the constraints and affordances technical design options place on policy options. While sensitive to policy issues, the standards typically seek to accommodate a variety of policy outcomes.[130] For generative platforms like the Internet and the web, enabling wildly different applications is considered a key criterion of success.[131] Standards like P3P and DNT go a step further in explicitly attempting to improve users' online privacy.

Venues for integrated consideration of the use of policy and technology to advance values, through a transparent, inclusive, and

---

that 2003 proposal was not formally adopted, it has formed the basis of subsequent work in the Privacy Program on privacy guidance for protocol developers. Alissa Cooper et al., "Privacy Considerations for Internet Protocols" (2013), *available at* http://tools.ietf.org/html/draft-iab-privacy-considerations-07); The IETF formed the GEOPRIV Working Group in 2001 in direct recognition of the use of geo-location in Internet protocols and the substantial privacy concerns that are related, *available at* http://datatracker.ietf.org/doc/charter-ietf-geopriv/. The group has published (and continues to standardize) a wide range of documents, including privacy requirements, threat models, document formats and a set of protocols to allow users to express privacy preferences to attach to their own location data as it is transmitted through Internet applications, *available at* http://datatracker.ietf.org/wg/geopriv/. This explicit focus on privacy is uncommon for IETF Working Groups; not coincidentally, one chair of GEOPRIV is also leading the Privacy Program discussed above. Even where privacy is not the explicit focus of an IETF standardization process, it can be implicated and addressed. A commonly cited case study is that of the newest version of the Internet Protocol, defining the underlying addresses that identify Internet-connected devices. Work began on this protocol in the early 1990s and complete drafts were published in 1995 and 1998, *available at* http://tools.ietf.org/html/rfc2464. However, the privacy concerns–that a unique address for every device would facilitate tracking of people's use of Internet services–were only addressed in response to critiques by a separate "privacy extensions" draft published in 2001, *available at* http://tools.ietf.org/html/rfc3041.

128. David Clark et al., "Tussle in Cyberspace: Defining Tomorrow's Internet", 13 *IEEE/ACM Transactions on Networking* 462, 464 (2005), citing R. Levin et al., "Policy/mechanism separation in HYDRA," in Symp. Operating Systems Principles, 1975, pp. 132–140 (A "design principle of great age and uncertain origin is that technologists should design policy-free mechanism, and allow those who use the system (whether literal " users," administrators, etc.) to adjust the mechanisms to match their specific needs").

129. *Id.* ("Separate mechanism from policy" is not incorrect, but it requires careful thought to carry out as best one can.)

130. However, it has been noted (by, for example, Morris and Davidson) that the end-to-end principle and other apparently neutral design criteria tend to support many public policy values, privacy included, that have a decidedly western flair. End user choice—often described as "user empowerment"—affirms that values are about individual choices. This is an important constraint on value expression within the system.

131. *See* ZITTRAIN, JONATHAN, THE FUTURE OF THE INTERNET—AND HOW TO STOP IT 67-101 (1st ed. Yale University Press 2008).

consensus-driven process, could advance privacy protection.[132] The W3C techno-policy standards work, represented by the TPWG and P3P, are substantively appealing because they provide fertile ground for rigorous consideration of both technology and policy regulation. Research in other fields suggests that organizations that bring diverse players into contact can prove especially useful at innovating new solutions and redefining problems creating new options for success. We believe that techno-policy standard setting efforts present similar opportunities.

It has been argued that the space of Internet standard setting is an organizational field: a collection of interdependent actors including similar players and the parties they regularly interact with (for example, browser vendors, web site developers, academics who study web architecture, and regulators) who interact over a common domain governed by a shared script of rules.[133] For example, the participants around the table of a standard setting effort at W3C might all describe themselves as different parts of the web industry, and standards discussions themselves create some persistent communication and rules. But in the W3C standards community appears not to be made up of similar players. Surely the organizational field of browser vendors has its commonalities: all produce similar products (and often compete together in other product spaces as well: desktop and mobile operating systems, online advertising networks, etc.). Business models vary, though: Microsoft earns revenue largely through software sales, Google through online advertising, Apple through hardware sales, and Mozilla is an open-source non-profit. And these are the most common set of members of the consortium, which is otherwise much more diverse: non-profit, non-governmental advocacy organizations also participate, as do government regulators, telecom providers, cable TV firms, Internet hardware manufacturers, advertising companies, small startups, Fortune 500 companies, U.S.-based multinational firms and small organizations from multiple continents. The key, and apparently only, connection is an interest in the World Wide Web and a desire to participate in defining it.

The diversity of participants, combined with an understanding of the particular function of technical standards (and Internet standards in

---

132. There are many challenges to addressing privacy during the design process, not the least of which is figuring out which concepts of privacy are relevant to various layers and elements of design. While regulators espouse privacy by design, there are very few tools that aid technical designers in achieving privacy. *See* Deirdre K. Mulligan & Jennifer King, *Bridging the Gap between Privacy and Design*, 14 U. Pa. J. Const. L. 989, 992 (2012); Seda Gürses, Carmela Troncoso, & Claudia Diaz, *Engineering Privacy by Design*, CONFERENCE ON COMPUTERS PRIVACY DATA PROTECTION 317, 1178-79 (2011); G. Iachello & J. Hong, *End-User Privacy in Human-Computer Interaction*, 1 FOUNDATION AND TRENDS IN HUMAN-COMPUTER INTERACTION 1, 17 (2007).

133. *See* D. LINDA GARCIA, STANDARDS EDGE: DYNAMIC TENSION 15-31 (Sherrie Bolin ed., 2004).

particular), suggest that Internet technical standard setting bodies are more appropriately conceptualized as boundary organizations.[134] Guston introduced the concept of a boundary organization as an organization that facilitates interaction between science and policy,[135] a concept extended by, for example, O'Mahony and Bechky to organizations (or artifacts) that enable collaborations between distinct groups or fields via "interpretive flexibility" maintaining both convergent and divergent interests.[136] A boundary organization enables diverse parties to come to agreement in some areas and by doing so enables them to continue their very different behaviors in other organizational aspects.

The frame of boundary organization is a more apt description of the W3C, especially with respect to its techno-policy standard setting activities that convene a diverse set of institutions and experts. With Do Not Track, W3C is undertaking standardization of policy statements and definitions, extending beyond the definition of "bits on the wire" towards hybrid techno-policy standards. As discussed above, the DNT work has brought many new participants from the wider ecosystem including advertisers, ad networks, and measurement companies, regulators, academic researchers, and privacy and consumer advocates. Even for organizations that consistently participate, the policy focus has shifted their choice of representative bringing many more lawyers and business managers to the table. Practices in the field that were developed by (and felt natural for) software engineers from technology companies—using technical tools like a real-time Internet Relay Chat (IRC) backchannel to phone or face-to-face conversation, or version control systems for managing text revisions over time—feel foreign to lawyers and policy analysts now participating in the standards process. Thus as discussed above, processes are adapting and emerging to ease the inclusion and increase the effectiveness of new participants.

In essence, the W3C, already a boundary organization bringing

---

134. And, relatedly, Internet technical standards are appropriately conceived of as boundary artifacts. While technical standards for online communication rely on precision and compliance for interoperability (the defining goal of a web or Internet standard), standards designers are explicitly wary of over-specifying behavior. That is, a good standard is one that enables diversity of implementations. This may at first sound contradictory, but it underlies how the web works today. Defining very explicitly the languages of HTML and CSS enables web sites to look very different from one another, because site designers know that the detailed instructions will be interpreted the same way by all standards-compliant browsers. The goal of these standards is to create a generative platform by defining what needs to be the same between implementations while otherwise allowing diversity.

135. *See* David H. Guston, *Boundary Organizations in Environmental Policy and Science: An Introduction*, 26 SCIENCE, TECHNOLOGY, & HUMAN VALUES 399, 399-408 (2001).

136. *See* Siobhán O'Mahony & Beth A. Bechky, *Boundary Organizations: Enabling Collaboration among Unexpected Allies*, 53 ADMINISTRATIVE SCIENCE QUARTERLY 422, 422-59 (2008).

together disparate groups around the development of technical artifacts, finds itself at the intersection of technical and legal fields, at a time when technical and legal questions are increasingly intertwined. It is no secret that regulators on both sides of the Atlantic are watching closely—even participating actively—in the TPWG process to monitor and nudge it towards a useful solution from their perspective. As the W3C bridges technical and policy discussions it acts more like a boundary organization than the center of a single organizational field, and in doing so enables innovative forms and activities. Examining privacy issues, which arise most acutely with technological change, in these integrated processes is of great potential value.

We believe the techno-policy standards process is a new organizational form. The rise of this organizational form may relate to the rise of the "privacy community," privacy professionals, and "privacy advocates."[137] In other contexts researchers have found that innovation of organizational forms often arises from the interstices through social movements, overcoming market inefficiencies.[138] In the case of online privacy, we have seen activists, advocates, and academics spring up and push forward ideas once given a forum.[139] That community is at least in part responsible for the beginnings of both the P3P and the DNT processes. Key in this movement have been "institutional entrepreneurs" who have reframed privacy problems and solutions as issues of technology, not just law, markets, and social norms[140] and identified strategic opportunities to "infuse new beliefs, norms, and values" [141] about how to address privacy concerns into the policy and technical realms.

A growing community of practice appears comfortable straddling

---

137. *See* COLIN J. BENNETT, THE PRIVACY ADVOCATES: RESISTING THE SPREAD OF SURVEILLANCE (MIT Press 2008).

138. *See* Hayagreeva Rao, Calvin Morrill, & Mayer N. Zald, Power Plays: How Social Movements and Collective Action Create New Organizational Forms, 22 RES. IN ORGANIZATIONAL BEHAV. 239, 247 (2000) (noting technical standardization specifically as an early example of activist social movements that persuaded members of large corporations to participate despite the collective action problems inherent in the costly process of standardization).

139. *See* Kenneth A. Bamberger & Deirdre K. Mulligan, Privacy on the Books and on the Ground, 63 STAN. L. REV. 247, 247-248 (2011).

140. *See* Alan Davidson, John Morris, & Robert Courtney, Strangers in a Strange Land: Public Interest Advocacy and Internet Standards, TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE, 5-7 (September 2002), *available at* https://www.cdt.org/publications/piais.pdf; R. Barnes et al., An Architecture for Location and Location Privacy in Internet Applications, (July 2011), *available at* http://tools.ietf.org/html/draft-ietf-geopriv-arch-01; Philip E. Agre & Marc Rotenberg, Technology and Privacy: The New Landscape, 11 HARV. J.L. & TECH., 871, 871-880 (1998).

141. *See* Hayagreeva Rao, Calvin Morrill, & Mayer N. Zald, *Power Plays: How Social Movements and Collective Action Create New Organizational Forms*, 22 RES. IN ORGANIZATIONAL BEHAV. 239, 239-82 (2000).

the technical and policy realms to address privacy concerns in W3C forums and more broadly. This may hint at the emergence of a new field or the solidification of an ongoing set of interdisciplinary collaborations. It offers an opportunity to drive the development of a richer set of theories, techniques, and tools for addressing privacy. While the privacy community bridges traditional academic disciplines and job descriptions, its knowledge and methods are currently heavily weighted toward the legal and ethical as opposed to the technical. There are numerous efforts to develop privacy approaches and solutions within academic and industry research labs. They range from the development of approaches for eliciting software requirements from privacy laws,[142] formal modeling of privacy theories,[143] privacy preserving data mining,[144] software design patterns for common privacy problems,[145] privacy threat modeling,[146] and privacy analytics,[147] to name a few. A growing number of solicitations and grants around network architecture include a consideration of privacy issues.

For this interdisciplinary work to truly move outside academia requires venues for its practice. The techno-policy standard setting

142. Travis D. Breaux and Annie I. Antón, *Analyzing Regulatory Rules for Privacy and Security Requirements*, 1 SOFTWARE ENGINEERING, IEEE TRANSACTIONS 34, 5-20 (2008).

143. For example, Barth et al. formalize the theory of contextual integrity: Adam Barth, Aupam Datta, John C. Mitchell, & Helen Nissenbaum, *Privacy and Contextual Integrity: Framework and Applications*, 2006 IEEE SYMPOSIUM ON SECURITY AND PRIVACY SP06 79, 184-198 (2006), available at http://ieeexplore.ieee.org/lpdocs/epic03/wrapper htm?arnumber=1624011.

144. *See* Rakesh Agrawal & Ramakrishnan Srikant, *Privacy-preserving Data Mining*, SIGMOD '00 PROCEEDINGS OF THE 2000 ACM SIGMOD INTERNATIONAL CONFERENCE ON MANAGEMENT OF DATA 439-450 (2000), *available at* http://doi.acm.org/10.1145/342009.335438; *see also* Cynthia Dwork, *Differential Privacy*, AUTOMATA, LANGUAGES AND PROGRAMMING 1-12, (Michele Bugliesi, Bart Preneel, Vladimiro Sassone, and Ingo Wegener eds., Springer Berlin Heidelberg 2006), *available at* http://link.springer.com/chapter/10.1007/11787006_1.

145. *See* http://privacypatterns.org, an online repository of privacy design patterns focused on location privacy (run by Nick Doty and Mohit Gupta); *see also* Sasha Romanosky, Alessandro Acquisti, Jason Hong, Lorrie Cranor, and Batya Friedman, *Privacy Patterns for Online Interactions*, PLoP 06 PROCEEDINGS OF THE 2006 CONFERENCE ON PATTERN LANGUAGES OF PROGRAMS (2006), *available at* http://portal.acm.org/citation.cfm?id=1415472.1415486; Munawar Hafiz, *A Collection of Privacy Design Patterns*, PLoP 06 PROCEEDINGS OF THE 2006 CONFERENCE ON PATTERN LANGUAGES OF PROGRAMS (2006), *avaiable at* http://portal.acm.org/citation.cfm?doid=1415472.141548; SERGE EGELMAN, TRUST ME: DESIGN PATTERNS FOR CONSTRUCTING TRUSTWORTHY TRUST INDICATORS (ProQuest 2009).

146. Mina Deng, Kim Wuyts, Riccardo Scandariato, Bart Preneel, & Wouter Joosen, *A Privacy Threat Analysis Framework: Supporting the Elicitation and Fulfillment of Privacy Requirements*, 16 REQUIREMENTS ENGINEERING 1, 3-32 (March 2011), *available at* http://link.springer.com/article/10.1007/s00766-010-0115-7.

147. *See* Hamed Haddadi, Richard Mortier, Steven Hand, Ian Brown, Eiko Yoneki, Jon Crowcroft, & Derek McAuley, *Privacy Analytics*, SIGCOMM COMPUT. COMMUN. REV. 42, NO. 2, 94-98 (March 2012), *available at* http://doi.acm.org/10.1145/2185376.2185390.

activities at W3C that convene relevant stakeholders to co-create technical artifacts that attend to privacy needs provide such a venue. Given the importance of technical choices to the practice of privacy, such venues are particularly compelling for the opportunities they offer to reshape the relation between privacy and technology. This boundary spanning may be of particular value where technical and social changes pose new challenges to the protection of values, such as privacy, that require new theories and approaches.[148]

Whether the DNT standardization process (and, assuming the trend continues, future techno-policy standards efforts) spur innovation due to this cross-boundary collaboration is an interesting open empirical question of the sociology of organizations. It may, or we may find that lawyers and engineers from disparate groups deeply entrench their existing positions in negotiation and retreat to their insular domains for reasons of competency, legitimacy, strategy, or politics.

CONCLUSION

The perception that privacy is losing an arms race with technology is a common motivating factor behind public anxiety and regulatory action on privacy issues. Bringing privacy concerns into the design of technical standards and ultimately products that rely on them, offers an opportunity to quell the struggle, or at the very least understand and contain it. If technical design is viewed as a regulator with great practical impact on privacy, then venues where policy and technology are synthetically examined as alternate modalities for problem solving should be hugely beneficial. An integrated approach could foster reasoned consideration about when and how to leverage technology or policy toward privacy's protection and how best to manage the hand-offs between the two.

Such approaches need institutional homes—such as those created to address privacy concerns at W3C—that bring together relevant stakeholders to co-create technical artifacts that attend to privacy needs. Policymakers are expressing increasing interest in using multistakeholder processes to address Internet policy issues, especially in the area of privacy, and Internet technical standard setting bodies are a commonly cited venue. While policymakers must be attentive to the challenges posed by multistakeholder governance in the context of techno-policy Internet standards, there is no reason to view them as particularly pernicious or to rule them out categorically as sites of policy formation, translation, and implementation. Rather efforts should be aimed at

---

148. *See* Kenneth A. Bamberger & Deirdre K. Mulligan, *Privacy on the Books and on the Ground*, 63 STAN. L. REV. 247, 248 (2011).

ensuring the procedural and substantive legitimacy of work occurring in these institutions due to the novel opportunities they offer to expand the modalities of privacy protection.

Our initial examination of W3C's privacy activities reveals shifts in process to address concerns about inclusion, expertise, and transparency, as well as a rise in integrated approaches to considering privacy solutions. As a multistakeholder techno-policy standard setting activity, the standardization of Do Not Track offers insight into the challenges and benefits of using such mechanisms to address Internet policy issues. It may offer some early insight into the future applicability of such processes.

The evolution in the participants and processes of the techno-policy standard setting groups at W3C respond to concerns about procedural and substantive legitimacy. While the shifts are important and suggest that techno-policy standard setting efforts may be structured in a manner that brings them within the fold of acceptable governance venues, challenges remain. We believe additional measures to ensure effective participation by diverse stakeholders are warranted where techno-policy standards will be part of policy solutions and shown deference by regulators. The potential benefits strongly support attending to the remaining challenges to procedural and substantive legitimacy of W3C techno-policy standard setting and similar efforts.

Venues such as the P3P and TPWG have particular strengths that, if appropriately leveraged, offer the opportunity for unique responses to the value challenges posed by an increasingly networked society. These opportunities in part rest on the nature of technical standard setting bodies—especially in the case of techno-policy standard setting processes as in the examples identified at W3C—as boundary organizations[149] that convene a diverse set of institutions and experts. Like other boundary organizations, techno-policy standard setting activities enable innovative activities to restructure and solve problems due to the diversity of participants they bring to the table. The shift toward leadership and staff with interdisciplinary backgrounds, coupled by a move to unified processes in which technical and policy issues receive more integrated treatment, may prove especially promising for accessing the potential of this boundary organization.

Integrated approaches to advancing privacy and the consensus decision-making processes evident in the W3C process are promising both on substance and process. Substantively we have suggested that

---

149. *See* David H. Guston, *Boundary Organizations in Environmental Policy and Science: An Introduction*, SCIENCE, TECHNOLOGY, & HUMAN VALUES, 2001, at 399-408; *See also* Siobhán O'Mahony & Beth A. Bechky, *Boundary Organizations: Enabling Collaboration among Unexpected Allies*, ADMINISTRATIVE SCIENCE QUARTERLY (2008).

integrated approaches to protecting privacy are necessary if society hopes to reorient technology toward privacy's protection and away from its erosion. While there is substantial academic work on embedding values in technical design forums to house such practices are necessary if such work is to impact real products. These techno-policy setting standard activities are therefore important sites for transferring research into practice. Procedurally, the consensus based decision-making practices are valuable because they allow stakeholders to retain ultimate say over the contours of appropriate solutions. With adequate guidance on acceptable outcomes from stakeholders and policymakers, the interdisciplinary consensus process can encourage creative problem solving. As long as other dimensions of procedural fairness are attended to, we believe these features of techno-policy standard setting activities offer substantial additional value and should therefore be pursued.

Further research is needed to understand participation and practices in techno-policy standardization processes.[150] The TPWG offers the opportunity to test out implementations of the substantive and procedural success criteria discussed above, evaluate them, and to identify factors that lead to the "success" or "failure" of a techno-policy standard from various perspectives—participants, advocates, companies, markets, regulators, and users. Governments, academics and industry should fund and engage in such research to better understand the strengths and limitations of techno-policy standard setting activities and their role in governance.

---

150. Waz and Weiser outline a high-level research agenda in their report on MSH in Internet governance, on which we've elaborated here for the specific case of applying techno-policy standard setting to online privacy protection. *See* Joe Waz and Phil Weiser, *supra* note 91.