

Participatory Policymaking on Collaborative Social Media Platforms

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Internet platforms provide essential and ubiquitous access to an increasing range of human activity but their power and influence is neither well-understood nor well-regulated by public laws and policy. This research explores the relationships among technical design, social participation, and policymaking in the context of platforms in an effort to identify, describe and explain some of the salient features emerging in this space. In particular, this work studies how and why platform design can lead sua sponte to participatory policymaking on collaborative social media platforms.

KEY WORDS: internet, technology policy, platforms, participatory policymaking

Introduction

Platforms like Google, Facebook, Amazon, Twitter, Wikipedia, and Reddit provide increasingly essential and ubiquitous points of contact for a wide variety of online human interactions including commercial and work-based transactions, cultural and intellectual participation, intimate personal communications amongst friends and family, and civic engagement and participatory democracy just to name a few. Large scale internet platforms influence many aspects of social life in positive ways but the interactions among the technical elements (i.e. infrastructure, site design, algorithms) and the social elements (i.e. productivity, communication, innovation, involvement, values) are not always well understood. The power of platforms coupled with the lack of understanding about around how they operate to collect, moderate, and use data and influence social practice is concerning and points toward a need for research that studies sociotechnical aspects of large scale internet platforms.

Existing discourse and debates around large-scale platforms can exhibit a rhetorical polarity that is neither helpful nor evidence-based. At one end of the continuum you might find those who seem unwaveringly optimistic about the power and potential of platforms to improve all aspects of human existence: transportation, health, education, and so on. Connecting, quantifying, and crunching form the eternal sunshine of these spotless minds. At the other extreme are those embroiled in strident skepticism, roiling in the inky flotsam of platforms' unchecked power, lack of transparency and accountability, and disorienting and manipulative influence. The spectacle of rhetoric around large-scale platforms can be both captivating and horrifying, reflecting something more akin to a caricature rather than a realistic portrayal. Moreover, the focus on extremes and "what-ifs" tends to ignore some of the relatively more subtle, modest and commonplace but nevertheless important ways we shape and are shaped by large-scale internet platforms. This middle-ground is the zone of inquiry for this paper.

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This research aims to contribute to existing discourse on the platform society by exploring the role of participatory policymaking processes on the co-evolution of platform design and emerging social practice on large-scale collaborative social media platforms. In particular, this research asks:

How and why do policy and policymaking processes on collaborative social media platforms reflect and effect technical design choices and emerging social practices and values?

In exploring answers to this question, this work draws upon literature from the fields of public policy, economics, and political science interpreted and synthesized using a sociotechnical systems perspective. This work posits that a key consideration for policy and policymaking in the context of large-scale platforms is developing better ways of understanding and potentially reconfiguring the relationships among technical design, participation, and power. This work builds upon previous work that explored participatory policymaking on Reddit (Centivany & Glushko 2016; Centivany 2016) by discussing additional controversies arising in the context of Wikimedia. In combination, these examples illustrate and contribute new insights into the dynamic and mutually constitutive intersections of design, practice, and policy and provide signposts for future research on participatory policymaking processes online.

This paper begins by briefly discussing the ‘tools of government’ (Hood 1983; Hood & Margetts 2007; Margetts 2009) and their possible application to large-scale Internet platforms particularly with respect to notions of “authority” and its relationship to participatory policymaking. The paper then provides an analytic framework for understanding the role, function, and implications of participation drawing upon Albert Hirschman’s exit, voice and loyalty framework (Hirschman 1970). The third section of the paper is comprised of three mini-case studies of recent controversies intended to illustrate and help us begin to refine our understanding of the relationships and tensions among design, participation, and power in policymaking across different platforms. The controversies cited are: Reddit’s blackout (also discussed in Centivany & Glushko 2016), Wikimedia’s *Knowledge Engine*. Viewing these examples through a participatory policymaking lens enables us to begin to see the ways that platform design, power, and policy co-evolve in these online spaces.

“Tools” of Platforms

Large-scale Internet platforms are increasing in relevance and importance among a wide variety of stakeholders including members of the public, legislators and courts, technologists and practitioners, and researchers and scholars working in fields including information science, computer science, law, economics, and communication studies just to name a few. The breadth and depth of interested stakeholders highlights the need for policy and hints at some of the complexity and challenges concomitant with policymaking in this space.

Research and scholarship in the context of public policy can guide our efforts and understanding in several key ways. We can apply the four “tools of government” policy concept (Hood 1983; Hood & Margetts 2007; Margetts 2009) as an organizing principle for beginning to think about the ways that large-scale Internet platforms mirror and differ from governments with

respect to policymaking. This framework facilitates inquiry into a number of relevant and probative considerations. How do the features and affordances of platforms relate to nodality, treasure, organizational capacity, and authority? How and why are these tools utilized differently in the platform context? Might additional policymaking tools be available to platforms that constrain, enrich and/or complicate policymaking in this context and what lessons might we apply to policymaking efforts in the public sector?

One of the most salient features of large-scale internet platforms like Google, Facebook, Wikipedia and others is their unrivaled ability to collect, organize, and communicate information at scale. Platforms link people, information and technology through vast and dynamic networks which might be oriented toward any end imaginable: work, health, education, self-expression, commerce, and so forth. In terms of nodality, many platforms are far more sophisticated, advanced, and savvy than even the most resource-rich governments, leading some in the public sector to outsource some aspects of governance to the private sector. The capacity of platforms to serve as crucial nodes in social, economic and political networks raises important questions around values and power. Trust, accountability, transparency, autonomy and control – issues that are ever-present in the public sphere – transform in shift toward the private sphere causing particular ethical, legal, and policy dimensions to be foregrounded and emphasized, sometimes in unexpected or difficult to observe ways, as these issues (re)surface in the context of platforms.

Another tool governments have at their disposal for effective policy change is what Hood and Margetts refer to as *treasure* (Hood 1983; Hood & Margetts 2007; Margetts 2009). Treasure refers to the ability to possess and transfer rights in property (tangible or intangible) backed up by the power of the state. Platforms make creative use of this tool where treasure could denote virtually anything of value, from cryptocurrencies like bitcoin and exchange networks blockchain, to user-generated content like fan fiction or comments, to the connection made possible by social networks, to the power of search and discovery. In a state context, treasure might signify money, possessions, land or personal or intellectual property that we buy and sell and have the ability to exclude others from. Large-scale Internet platforms can facilitate and interoperate with these forms of treasure but, in addition, the “currency” of information and, perhaps more importantly, attention also dominates this landscape and has potentially important implications for policymaking in this space.

A third tool identified in previous literature is *organizational capacity* which encompasses the human, technical, and infrastructural elements that, in combination, enable society, or some element thereof, to function. Organizational capacity might be the *sine qua non* of large-scale Internet platforms and so perhaps it is no surprise that, in comparison to most governments, many platforms excel at building and exploiting this capacity. Platforms bring people and technology together to foster the creation, dissemination, use, and (often) monetization of this new form of digital “currency” – information and attention – and wield their immense, sometimes invisible and often unregarded power in ways that are difficult to trace and make sense of.

The final tool of government, *authority*, is perhaps the most significant of the four in the context of policymaking and platforms. In the public context, authority refers to “legal or official power to demand, forbid, guarantee or adjudicate” (Margetts 2009:5). Perspectives on the

source(s) of this power have been discussed and debated for centuries but suffice it to say that, for private companies like Google, Facebook, Twitter, Reddit, and Wikimedia the source of their power is more closely aligned with contract-based principles than a monopoly on violence. Platforms do enjoy a tremendous degree of power over activities taking place on, through, and using their proprietary devices, networks, and systems. Through technical design choices and the support and/or exclusion of particular social practices (subject, more or less, to existing laws), many platforms possess and exercise authority over their communities of users. Furthermore, as our use of and reliance on platforms continues to grow (both in personal and public spheres), so grows platforms' political, social, and economic power and de facto authority. The emergence and evolution of policymaking processes and outcomes on these platforms is therefore crucial to our understanding of the sociotechnical implications of the platforms themselves as well as potential public policy responses to them.

Authority in the platform context becomes more significant and nuanced the more one considers the relationships among the platform, its creators and administrators, and its users. Here we begin to see the dynamics of power shifting in important and perhaps surprising ways as compared to the governmental context. As a preliminary matter, it is helpful to note that a tremendous wealth of research and practice in the public policy context has been devoted to understanding the roles, functions, expectations, and implications of participation by members of a community or network on policy and policymaking processes. Participatory policymaking approaches have been utilized and studied in a wide range of contexts (e.g.), particularly in Nordic and Scandinavian countries. (e.g. Andersen & Jæger 1999; Bødker, Ehn, Knudsen, Kyng & Madsen 1988; Bjerknes, Ehn, Kyng & Nygaard 1987; Bjerknes & Bratteteig 1995; Edelenbos, 1999; Joss 1999; Kuhn & Muller 1993; Michels, & de Graaf 2010; Muller & Kuhn 1993; Muller 2003; Etxano et al 2015; Papadopoulos & Warin 2007; Grote & Gbikpi, 2002) The participation of members of the community is recognized as important for information gathering and vetting, generating community consensus and buy-in and, in some cases, is viewed as a moral or ethical imperative.

Participatory policymaking approaches have contributed to the emergence of new ways of studying, designing, and conceptualizing technology use and creation. In some technology contexts, especially those involving environmental or health-related implications, participatory policymaking has become the de facto norm (e.g. Etxano et al 2015; Laird 1993; Lakoff 1977; Lengwiler 2008; Nelkin 1984; Nichols 1979; O'Hare, Bacow & Sanderson 1983; Walmsley 2009, 2010). Also in its direct lineage we find the emerging field and methodology of participatory design which attempts to draw all stakeholders into the design process to help ensure that the design outcomes suit their various needs, objectives, and preferences (e.g. DiSalvo, Lodato, Fries, Schechter, & Barnwell 2011; Boehner & DiSalvo 2016; Björgvinsson, Ehn & Hillgren 2010). We also see echoes of this approach in von Hippel and colleagues' work on the increasingly democratized nature of innovation (e.g. von Hippel 2005), as well as research and methodologies like value-sensitive design and anticipatory design ethics that emphasize the moral and ethical dimensions of users' experience of technology (e.g. Friedman 1996; Friedman, Kahn, Borning & Hultgren 2013; e.g. Brey 2000; Shilton 2015).

While beyond the purview of this research to summarize and synthesize this rich literature, I will attempt to highlight several key features and concerns tied to participatory policymaking that seem to cross domains. Research and practice suggests that this approach results in two key benefits: (1) users and members of the community are able to provide more and better quality information that is difficult to obtain through non-participatory mechanisms and other sources which is likely to assist the policymaking process and improve outcomes and (2) engaging users and members of the community helps build consensus and buy-in and legitimizes subsequent exercises of authority or power vis-à-vis the policy.

Despite its widespread adoption and seeming promise, some researchers and practitioners doubt the efficacy of the approach. In fact, researchers have observed that majority of studies seem to conclude that participatory policymaking is not an effective approach overall (Broerse 2009). There are several possible reasons for this including: selection bias, lack of representativeness of the participant class, and difficulty navigating the tensions that often arise between lay and expert participants. In addition, distinctions between participation and authority have been cited as another source of failure; while participants might actively engage in and become invested in the policymaking process, in the vast majority of instances they lack both actual authority and access to mechanisms to effect real-world outcomes. Supplying information, speculation, recommendations and so forth does not generate power or authority in the participants once the policymaking exercise ends.

In summary, many of the “tools of government” are mirrored and amplified in the context of large-scale Internet platforms. Platforms, which have become both essential and ubiquitous parts of daily life, have tremendous power and influence. Platforms mediate the flow of information, as well as social and economic capital, and are conduits for commercial and work-based transactions, cultural and intellectual participation, intimate personal communications amongst friends and family, and civic engagement and participatory democracy. For these reasons and more, policy is an area of growing concern in this space.

In the last section I began to situate the relationship between authority and participation in policymaking. In particular, I noted how participation serves important informational and legitimization interests in policymaking processes but that policy outcomes are often undermined by methodological challenges (identifying stakeholders, building a representative sample or class, balancing and interpreting different sources of data, e.g. lay vs. expert understanding) and the apparent disconnect between participation and power. These relationships continue to be explored and expanded in the sections that follow.

In the next section, the economist and political scientist Albert Hirschman’s exit, voice and loyalty framework is introduced to provide another perspective on the role, function, and importance of participation, and loyalty in particular, in the policymaking processes. This framework fleshes out some of the tensions just discussed and offers some additional points of consideration for the qualitative empirical work that follows.

Platform Policy Emergence: Exit, Voice and Loyalty

In a paper published earlier this year, I applied the economist and political scientist Albert Hirschman's exit, voice and loyalty framework (1970) to the blackout that swept through the social media platform Reddit last year in an effort to describe, explain, and understand the relationship between that site's technical design, emerging social practices, and policymaking in the aftermath of a series of perceived missteps by some of the site's founders and administrators (Centivany & Glushko 2016; for another perspective on the blackout see Matias 2016). In this section I will briefly reintroduce the exit, voice and loyalty framework, discuss some of the key findings from that research, and highlight some of the questions left unanswered and that will be explored in the sections of this paper that follow.

Observing that change is non-linear and decline (of firms, products, services, etc.) is inevitable, Hirschman developed the exit, voice, and loyalty framework as a way of describing and explaining the basic decisions facing consumers of deteriorating goods and services. Simply put, consumers can choose "exit" – they stop buying the goods or services, perhaps turning to a competitor – or they can choose "voice" – they complain and, by venting their dissatisfaction, perhaps prompt remedial action. From the perspective of a customer, there is no inherently preferred choice between exit and voice however from the perspective of the deteriorating firm, Hirschman tells us that voice is preferred because it supplies information which the firm could use to fix the problem.

This observations concerning the merits of voice echo the observations made in the previous section on the informational value of participation in policymaking processes. Recall that one of the primary benefits of participation was that it enables decision-makers to learn about the needs, desires, expectations, behaviors, understandings, etc. of members of the community and use this information, in turn, to create better policies. Recall also that critics of participatory policymaking site the difficulty negotiating between lay and expert participation. This tension is somewhat ameliorated in Hirschman's framework by recognizing that value and cruciality of a subset of participants which, borrowing from von Hippel, we might refer to as "lead users" (von Hippel 1986, 2005; Urban & von Hippel 1988).

Lead users are be those users or customers who possess special knowledge or expert skill and are therefore both particularly invested in the product and positioned to offer the most useful information or constructive criticism. Under Hirschman's framework, in an ideal scenario, deteriorating firms would find a way to encourage the exercise of voice, especially by lead users, because this offers the highest quality information while avoiding the pitfalls of the lay-expert binary. However, a new problem or paradox arises because the customers who care most, are most invested in a firm's products or services, and would therefore be the most "active, reliable, and creative agents of voice" are for those very same reasons the ones who tend to exit first in the case of deterioration. (Hirschman 1970: 47) The key then is not to safeguard against decline and deterioration (as these are largely inevitable) but to develop mechanisms that encourage, foster, accommodate and respond to customers', and lead users' in particular, exercise of voice.

In Hirschman's view, loyalty is the key to solving the paradox of participation. Although he does not define "loyalty" we might fairly characterize it in this context as: *feelings of support, allegiance, and affinity a user has for a deteriorating firm (or its products or services) that influence and mediate one's tolerance of its decline and/or willingness to promote to its progress.* Loyalty mediates that eternal question: fight or flight? Loyalty parallels the "buy-in" benefit participatory policymaking researchers cite. It also potentially improves the informational value of participation because, overtime, loyalty can transform ordinary users into lead users. Loyalty is therefore the linchpin in Hirschman's exit, voice and loyalty framework.

In terms of situating Hirschman's work in relation to participatory policymaking and large-scale Internet platforms it is important to note at the outset that he was not writing for a policy-oriented audience. In fact, he did not expressly address policy at all in his work. His perspective was firmly rooted in economics and political science and, we might fairly infer, his chief objective to improve understandings of the relationship between private firms (that are inevitably engaged in a struggle against deterioration) and their customers. In addition, Hirschman was operating in a pre-Internet universe where the category of "firms" was likely limited to companies engaged in the manufacture and/or marketing of goods and/or services. These difference might influence or alter the way we understand participation and apply Hirschman's framework to the platform context. We might hypothesize ways that platforms are neither governments nor firms the traditional sense but occupy a gray space in the middle. Reddit and Wikimedia possess and make facile use of the tools of government, but they are not beholden to the same requirements, expectations, and limitations as state actors. Likewise, platforms are private companies but they do not manufacture or sell products or services as traditional firms did in Hirschman's day, rather they trade in the treasure of information and attention. To what extent is this "currency" a private good that may be freely bought, sold, and traded or a public good that is non-rivalrous and non-excludable. These gray areas might pose unique policy challenges but they also suggest a need for more research in this area.

In addition, while Hirschman hones in on loyalty as the linchpin, and while it is a useful construct, we might also see it as an opportunity to explore what other potentially salient factors and considerations influence participation in the context of large-scale Internet platforms. Can we hypothesize reasons unrelated to loyalty that might influence a user's decision? If, for example, a user has invested time, energy, and resources by building a social network, uploading content, generating reputational value and so forth they might be less likely to leave even if, all other things being equal, they would prefer exit. Are there features of the technical design, such as some form of technological coercion that makes exit less viable as a true choice? For example, can the user take their content, their friends, or their reputation with them when they leave? What else is the user leaving behind, besides the platform, if they choose exit? What role does apathy or inertia play in the decision between exit and voice? What about bribery or reward? Moreover, what if participants' exit or voice is not accomplished through their choice at all? Certainly we can envision a scenario where a user is exiled or forced to leave a platform. Likewise we might consider instances where a users' voice, i.e. data including photos, comments, recordings, and so forth, is used without their knowledge or informed consent. How does the landscape of participation change in the context of platforms and what implications might these changes hold

for policy and policymaking processes? And there are other mechanisms for encouraging, fostering prompting voice besides loyalty (such as coercion, threat, bribery, reward, etc.)

Where Hirschman's approach is perhaps most instructive is in the way it helps us begin to refine our understandings of the relationship between participation and power in the context of the platform society. The empirical work that follows highlights this in two key ways. First, we will see how participation on some platforms, and collaborative social media platforms in particular, use of the platform leads *sua sponte* to participatory policymaking on those platforms. Second, and relatedly, the technical design features which make many Internet platforms so adept at using the tools of nodality, treasure, organizational capacity to trade in the currency of user information and attention may be the very same features that shift authority, power, and control in profound and inescapable ways from the creators and administrators of platforms to their communities of users.

The relationships among platform design, participation and power, and policymaking are now briefly explored in the context of two recent controversies: Reddit's blackout and Wikimedia's "Knowledge Engine" in an effort to trace and describe the interplay and evolution of design, practice, and policy in various platform contexts. In so doing, this research contributes to understandings of the platform society as one in which technical design, social practice, and policy are deeply entangled, mutually constitutive, and co-evolving in dynamic processes of mutual readjustment.

Reddit's Blackout

Reddit, referred to as "the front page of the internet," began roughly a decade ago as news aggregating site but has since evolved into one of the most-visited social media sites. As of July, 2016, Alexa Internet, a web traffic and data analysis company, ranked Reddit as the 26th most popular website on the Internet. Aside from its incredible popularity, a number of features distinguish Reddit from other social media sites. Content on Reddit is comprised of dynamic lists of user-generated posts organized by "subreddit" (one of thousands of user-created and moderated pages focused on a particular topic, interest, or perspective). Posts and comments are voted on by users, moving up and down the page as "up votes" and "down votes" are cast. Reddit's homepage culls the most popular posts from a set of fifty default subreddits; in addition, it is possible for extremely popular posts from non-default subreddits to also appear on the front page although this tends to happen relatively infrequently.

As discussed in Centivany and Glushko (2016), Reddit's site design reflects key aspects of the company's core values and ethos which privileges the freedom of expression and democratic principles of governance over other values and interests. As a consequence, the site instituted few content-based restrictions and subreddits were permitted to emerge and evolve with a large degree of autonomy. The technolibertarian quality of Reddit began to be challenged after a number of controversies and disputes gained attention in popular media (see e.g. Centivany 2016). Significant and controversial changes in leadership, including most notably the tenure of former CEO Ellen Pao, and an evolving user demographic also contributed to tensions within the community and, in particular, between Reddit's users, moderators, and administrators. These

tensions came to a head on July 2nd, 2015 when, in response to the unexpected and unexplained termination of a particular Reddit employee, a number of popular subreddits “went dark” by switching off public access to the subreddits. What began as a trickle soon turned into an all-out social movement as a massive blackout protest swept across Reddit (Matias 2016).

The blackout signals a few key considerations that tie into participatory policymaking on platforms. First, it demonstrates how a platform’s design features, which also embed and reflect the core values of users, can result in a significant shift of power and authority in favor of users. The participatory policymaking process arose *sua sponte* on Reddit as a result of the interaction between these technical and social factors. Even if platform’s administrators did not support of the blackout (and all evidence suggests they did not (Centivany & Glushko 2016; Matias 2016), the locus of power had shifted such that their support or ratification was not required for change to occur.

This example also highlights the difficulty of applying an exit and voice binary to user participation on platforms. Aspects of the blackout could be interpreted as both exit (temporarily leaving the public sphere) and voice (in protest of the actions of administrators). For those who chose to remain and complain through comments and discussion on the site, it became clear that a number of factors (in addition to loyalty) motivated that decision including apathy, lack of viable alternatives, and sabotage (Centivany & Glushko 2016).

In addition, this example provides support for the contention that lead users, in this case moderators of subreddits, play a particularly crucial role in participatory policymaking. Moderators became the conduit that distilled widespread community discontent into a simple yet effective targeted response thereby playing a crucial role in providing information to platform administrators. The blackout prompted the following statement from Reddit’s co-founder Alexis Ohanian:

We’ve received the message, we’ve talked with a lot of moderators, and we’re going to get better. We know we’ve done a pretty terrible job at communicating. We know a lot of things on the site don’t work as well as you—and we—would like. We know there are a lot more issues and that the community as a whole is pretty unhappy with us right now.

I know apologies and promises feel empty right now, but that’s all I can give—with the additional promise that we really do mean it. We’ve recently hired a product manager for the community team who is working on new tools. We’re actively working on brigading. We’re figuring out solutions to improve modmail. But it takes time to make these changes, so they won’t be here tomorrow. But they will be here.

We’re sorry. And we’re going to do better. (r/kn0thing 2015)

Since one of the direct outcomes of the blackout was a formal change in procedures and assurances about future action, the *détente* between moderators and administrators of the site also had an effect of legitimizing and reifying the policy outcome. The response of Ohanian is a public

acknowledgement of the inherent power, value, and authority of Reddit's users, particularly its moderators.

Wikimedia's *Knowledge Engine*

Founded in 2003, the Wikimedia Foundation is the non-profit corporation behind the Wikimedia movement and most of its projects including the English free online encyclopedia, wikipedia.org. The foundation's mission is the collection, development, and free online dissemination of educational content on a global scale. The vast majority of work accomplished by the Wikimedia Foundation is done by volunteers. As the site notes, "Wikipedia is written collaboratively by largely anonymous volunteers to write without pay" (Wikipedia 2016). At the time of this writing, English Wikipedia has over five million articles, nearly twenty-nine million registered users, and almost thirteen hundred administrators (Wikipedia, "About Wikipedia" 2016).

Participatory policymaking is embedded in the very fabric of Wikipedia. Wikipedia's users explicitly collaborate around the generation of policies, guidelines, and best practices for the community. At times, policy and policymaking on Wikipedia collides with the parent Wikimedia Foundation and resolution of the tension is not always simple. Expectations concerning the relationship between Wikipedia and the Wikimedia Foundation have been rife with controversy in the last couple of years. This is likely partly due to the fact that, while the Wikimedia Foundation is responsible for providing much of the organizational and technical infrastructure by, for example, conducting outreach, raising money and distributing grants, as well as developing and deploying software and controlling the servers, the community of users and contributors is largely responsible for generating, editing, and moderating the wiki content. This creates a tension similar to the tension observed in the Reddit context where the value of the site is almost entirely user-generated and thus a tremendous amount of power and authority is seated in the users, but the community is also subject to some oversight (and the boundaries are not always clear) by a relatively small cluster of administrators. The recent controversies about the development of new software, including the proposed *Knowledge Engine*, provide an example of how these tensions play out with respect to participatory policymaking.

Beginning in the summer of 2014, coinciding with the hiring of a new executive director of the Wikimedia Foundation, Lila Tretikov, changes began taking place that caused (or exacerbated) rifts between the Wikipedia community and the Wikimedia Foundation. In particular, the foundation was developing and deploying software features which many members of the community did not want or appreciate. Moreover, some of these features seemed to actively interfere with their work, which was being provided on a volunteer basis. For example, apparently without consultation or adequate beta-testing, the Foundation deployed a software feature called the Media Viewer which, through community consensus, was subsequently disabled by a volunteer administrator. This decision by the community was swiftly overruled and reversed with a new software feature rolled out by the Foundation called "superprotect" which gives exclusive editing power to employees of the Foundation thereby restricting community control over Wikipedia content. The community was outraged by this unilateral measure explicitly aimed at undermining

the power, authority, and core values of Wikipedia. The conflict was turned over to arbitration and, by that fall, the superprotect feature was removed from all wikis (White 2016).

The relationship between the Wikimedia Foundation and the Wikipedia community continued to suffer from “lack of communication ... poor transparency, and sudden loss of staff members” (White 2016). Members were actively engaging in existential debates about the entire Wiki enterprise. Some members of the editing community were voicing concern their primary role (as generators and editors of content) was being undermined by their new de facto role of software beta-testers, a role they did not volunteer for. For contributors like Julius1990 who responded to Lila Tretikov saying, “software features like ... the Media Viewer were far from being ready to be rolled out” and forcing this new, unwanted role on members of the community devalued their role and contributions and engendered widespread bitterness and discontent (Julius1990 2014).

Some members of the Foundation were focused on developing new and innovative software-based projects that would preserve and extend the relevance of the Wikipedia movement. For example, Jan-Bart de Vreede, who chaired the Wikimedia Board of Trustees during the superprotect controversy wrote:

Truth is, we are at a crossroads, and unfortunately have been for quite some time. ... Other internet projects (not limiting ourselves to websites) are passing us by left and right, and none of them have the non-profit goals that we have. In fact, some of them, with more commercial propositions, are actively undermining us. ... There is no point in getting better at the development of software if the roll-out of these new features is going to be partial. ... All of this is going to require change, change that might not be acceptable to some of you. I hope that all of you will be a part of this next step in our evolution. But I understand that if you decide to take a wiki-break, that might be the way things have to be. Even so, you have to let the Foundation do its work and allow us all to take that next step when needed. I can only hope that your break is temporary, and that you will return when the time is right.” (de Vreede 2014)

Notwithstanding the concerns and complaints voiced by members of the editing community, the Wikimedia Foundation continued to push ahead on controversial software initiatives fully cognizant of that fact that, in so doing, they were alienating and effectively exiling members of the community. The Knowledge Engine initiative was particularly contentious both within the Wikimedia Foundation and the broader Wikipedia community; it was tainted by a lack of transparency than stood in shocking contrast to the commitments to openness and collaboration that have been central to the wiki enterprise since its inception.

In the fall of 2015, the Wikimedia Foundation sought to advance work on search and discovery. In an effort to make Wikipedia-related projects less reliant on for-profit search engine platforms like Google, Bing, etc., the Wikimedia Foundation sought to create its own non-profit search engine, the so-called “Knowledge Engine,” which users might turn to in their quest for locating and displaying verifiable and trustworthy information online. As envisioned, the

Knowledge Engine would protect user privacy, provide access to metadata, and be “open and transparent about how a piece of information originates,” and thus provide an public interest alternative to proprietary search engines that “consolidate channels of access to the Internet’s knowledge and information” (Wikipedia, “Knowledge Engine (Wikimedia Foundation)” 2016).

One of the challenges of the Knowledge Engine initiative was that it was pursued without securing (or seeking) community input, consensus, or discussion. In other words, the Foundation was pushing ahead on a new project that, based on past experience, was likely to be contentious and therefore chose not to engage members of the community in participatory policymaking around the issue. A number of important documents including a grant agreement document outlining support for a “Search Engine by Wikipedia” and related critical correspondence between executives and board members concerning the initiative were not made public until several months later. In addition, during the months in question, accusations of dishonesty, misrepresentation, and conspiratorial concealment flew between members of the community, board of trustees, and executives. The controversy called many members of the community to question their continuing involvement in the wiki movement. In January, 2016, a number of previously withheld documents began reaching the public which essentially proved that the deception many had suspected was occurring had indeed happened (White 2016). Board members were removed from office (Wikimedia Foundation 2015). Posts were published calling former colleagues out on their “utter fucking bullshit” (Wales 2016). On February 19, 2016 the *Wikipedian* published a blog post demanding the resignation or removal of Tretikov (Beutler 2016) and less than a week later, they had their wish. Lila Tretikov resigned as executive director on February 25, 2016 (Tretikov 2016).

This example demonstrates how the technical design features of a platform, in this case the comment and editing structure which rested power in the community with respect to both wiki content (the platform’s “treasure”) and policymaking, combined with core values of the community around openness, collaboration, volunteerism in the public interest, and deliberative debate withstood efforts by the Foundation to counteract the wishes and interests of the community. While it may be true that the organization is grappling with difficult existential questions, the controversies surrounding the Knowledge Engine make clear need for and value of members’ exercise of voice both in terms of informational value and legitimizing change. This example also demonstrates the disaster that awaits platform administrators and executives who devalue user participation and power and lost sight of the crucial important of loyalty.

Conclusion

This research discussed some of the tools of platforms vis-à-vis policy and policymaking. In particular, it highlighted some of the ways in which traditional conceptions of authority and power are upended in the context of many platforms, particularly collaborative social media platforms. Where the design of the platform is oriented around user contribution and participation in the generation and vetting of content, more often than not that design also leads to significant stores of power and authority vesting in the user community. The result is that community members enjoy a sort of de facto power over policymaking decisions and policymaking itself often emerges sua sponte through the act of “normal” engagement with and through the platform.

While the technical design features of Reddit, namely the authority embedded in the subreddit structure, provided users of that community with a far more swift and discrete type of recourse (i.e. the blackout), Wikipedia's comment structure generated a far richer and more thorough, deliberative, and arguably informative form of participation amongst members of that community. The rich archive of comments by members of wiki community demonstrates the exercise and power of voice in participating in and enacting actual change. Both controversies also demonstrate the importance of fostering loyalty, particularly amongst lead users, and its role in generating needed community buy-in, which members of Reddit's administration and Wikimedia's executive committee appeared to have lost sight of.

Studying the ways design, social practice, and policymaking processes intersect on platforms like Google, Facebook, Reddit, Wikipedia, Twitter and others can help us generate important insights about the co-evolution of power, participation, and policy on platforms. We can, for example, increase our awareness of the importance of voice and loyalty, and look for ways of scaffolding and supporting those exercises whether through technical design features or social or organizational infrastructure. As platforms continue to grow in ubiquity and importance, rules governing our interactions with and through them also becomes more important. Participatory policymaking can provide a useful lens for understanding those interactions.

In addition, as platforms continue to perform quasi-governmental functions and merge with state actors in terms of the provision of certain services, understanding the ways that platform design and emerging social practice reflect and effect policy and policymaking becomes even more important. Just as we shape and are shaped by platforms in our lives as individuals, increasingly we find that the same holds for economic, social, cultural, and political institutions.

Platforms provide a mirror for public policy, albeit an imperfect one. By understanding the ways the affordances of platforms distort, mimic, and sometimes outperform policymaking in other areas this research offers clues about engagement, participation, deliberation, and power capable of sparking new forms of collaborative inquiry and generating new perspectives on more effective public policymaking processes.

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