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## **“Popcorn Tastes Good”: Participatory Policymaking and Reddit’s “AMAgeddon”**

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### **Abstract**

In human-computer interaction research and practice, policy concerns can sometimes fall to the margins, orbiting at the periphery of the traditionally core interests of design and practice. This perspective ignores the important ways that policy is bound up with the technical and behavioral elements of the HCI universe. Policy concerns are triggered as a matter of course in social computing, CSCW, systems engineering, UX, and related contexts because technological design, social practice *and policy* are dynamically entangled and mutually constitutive. Through this research, we demonstrate the value of a stronger emphasis on policy in HCI by exploring a recent controversy on Reddit: “AMAgeddon.” Applying Hirschman’s exit, voice and loyalty framework, we argue that the sustainability of online communities like Reddit will require successful navigation of the complex and often murky intersections among technical design and human interaction through a distributed participatory policymaking process that promotes user loyalty.

### **Author Keywords**

Information policy; participatory policymaking; value sensitive design; social media; online communities

## **INTRODUCTION**

Human-computer interaction research and practice traditionally blends interests and aspects of design and human experience. Emergent social computing platforms can constrain and enable new forms of community and practice through design choices. Likewise, human interaction with and amongst emerging computing forms can generate significant changes in the designed or built environments in which they exist. Technical design and human factors thus co-constitute worlds of social computing and these relationships and interactions have long been a chief concern amongst HCI researchers and practitioners.

In this dynamic and emerging environment, policy has sometimes (unfairly) fallen to the wayside. This paper seeks to widen the aperture of CHI's analytic lens to make explicit the implications and significance of policy processes and structures. Policy, along with design and practice, co-constitute emergent sociotechnical forms and systems of interaction. Policy is "deeply intertwined" with design and practice in forceful, subtle, non-linear, interdependent connections [17]. The shared interests of the CHI community can be promoted by incorporating perspectives that foreground the role of policy and policymaking in the emergence, development, and evolution of social computing. (Re)conceptualizing sociotechnical change, innovation, and transformation as a dynamic interplay between design, practice, and policy opens new opportunities for exploring, describing, explaining, and potentially improving the human experience with, and understanding of, emerging technologies.

In this paper, drawing upon a recent controversy involving the popular social media website Reddit, we describe and explain how policies and policymaking processes and structures are deeply and inextricably embedded in the fabric of collaborative online environments. The linkages result from early design choices, the establishment of core values, the behavior of lead users, and emerging community norms, practices, and expectations. In combination, these elements produce an environment suited to distributed participatory policymaking, but how the policymaking process unfolds, and whether or not it is successful, depends on relational factors. We describe and analyze the interplay between technical design, social practice, and policymaking on Reddit through the lens of Hirschman's exit, voice, and loyalty framework, concluding that the success of communities like Reddit depends upon administrators' ability to support participatory policymaking and navigate the policymaking process in ways that promote user loyalty. This research on Reddit's AMAgeddon can provide important clues for CHI researchers and practitioners working in social computing, online communities, and related fields of human-computer interaction.

## **HCI AND POLICY RESEARCH IN PERSPECTIVE**

With few exceptions, policy has not been a chief concern among the majority of scholars and practitioners working in the field of human-computer interaction. A relatively small but steadfast contingent of the CHI community has sought to raise awareness around the importance of researcher- and practitioner-engagement in

technology policymaking. For example, *CHI* has hosted special interest groups and workshops focusing on why and how its members might influence issues of technology policy [19, 2]. The community has organized informal (e.g. the [chi-policy@acm.org](mailto:chi-policy@acm.org) listserv) and formal mechanisms (e.g. SIGCHI US Public Policy Committee) for discussing and engaging with policy-related aspects of human-computer interaction [28, 20, 27]. In addition, smaller research collaborations have formed to support efforts to generate a workable framework for guiding the interactions between design and practice through greater engagement in public policy processes [13].

This important work, undertaken by a relatively tight-knit cluster of researchers and practitioners, constitutes a disappointingly small proportion of HCI work overall. In addition, the interests described above are notably *public policy* oriented. This sort of high-level, public governance approach is unquestionably important in that it tends to manifest in sweeping changes and broadly applicable rules and regulatory mechanisms. But “policy” for purposes of this research and the interests of CHI should be understood as including the important forms of public law and policymaking processes that regulate the development and use of information technologies but also “a range of rules and procedures set by private firms ... that may intersect with formal law and policy in complex ways” [17:4]. The more dispersed, distributed, relatively more modest policies enacted by private companies, non-governmental organizations, and individuals in conjunction with the developments of particular tools, technologies, platforms, applications, and smaller-scale user communities are perhaps equally as important as public policy.

Concerns and issues pertaining to private policies have been discussed and studied in a range of recent human-computer interaction research contexts. For example, policy-authoring mechanisms have been studied, designed, and refined in the context of interface design, usability studies, and information visualization projects [31, 32, 33, 34, 9]. Researchers have studied tradeoffs between security and usability in the context of password policies [16, 25]. Privacy policies have been studied in the context of usability and interface studies and decision-making processes [18, 54, 37]. Researchers have also studied the development and effect of policies in the context of end-user privacy [14], online social science research ethics [4], and emergent collective infrastructures [5]. While the inclusion of policy in this body of work is promising, in the vast majority of instances, policy tends to be a glancing add-on to some other, non-policy-related concern, i.e. policy is rarely confronted head-on, as a first order concern.

That said, there are some areas where policy, and private policies in particular, may be starting to gain momentum as a first-order concern of researchers in the HCI, CSCW, and information science fields. In the context of collaborative information environments such as Wikipedia and digg, researchers have explored conflicts arising at the intersection of technical design and social practice, and discussed ways that policy, rules, and norms develop in response to conflict [58, 21, 22, 23, 24]. Linkages between early technical design choices, harmful social consequences, and evolving community expectations were explored through a critical feminist lens in the important recent work of Massanari [29]. Researchers in CSCW recently argued that policy is inextricably

linked and entangled with design and practice, often preceding and sometimes dominating technical and social factors where emergent technological forms and practices are concerned [17], and that policy is an important source of embedded generativity in sociotechnical systems, functioning as a gatekeeper capable of opening and/or closing spaces of design and practice [7]. In addition, recent research into emerging controversies around values, norms, and behavioral expectations in diverse online communities suggests that participatory policymaking processes may be a necessary condition of such sites' continued success and sustainability [8].

Notwithstanding the aforementioned research, the associations between HCI and information policy seem somewhere mired by ambiguity. Clusters of researchers and practitioners are advancing policy as a priority for public engagement, practice, and research but, for the most part, policy concerns seem disintegrated from the core HCI concerns. This may be a holdover from still dissipating disciplinary strictures, when human-computer interaction research was dominated by computer science and cognitive psychology perspectives, perspectives which coincidentally have tended not to include significant law and policy components in either their teaching or research activities. While it is possible that the under-emphasis on policy reflects a belief that policy is not a relevant, interesting, or integral aspect of HCI work, a more plausible (and less dubious) interpretation may be that it's an unintended consequence of earlier (increasingly outdated) disciplinary divisioning. Many HCI researchers and practitioners simply lack the domain expertise to meaningfully contribute to or engage with complex policy-related issues. This may feed into a contention that policy is best left to "those people over there," (i.e. law, public policy, and governance scholars and practitioners) freeing up members of the HCI community to imagine, build, test, and deploy new technologies and tools unfettered by the policy "what ifs."

Whatever the causes, the sense that policy, "(when it is thought about at all) is imagined to come *after* design and practice, in both time and importance" [17] should be troubling to HCI researchers and practitioners. Human-computer interaction, CSCW, and information science research and practice will have greater reach, depth, and impact if they are able to find ways to identify and analyze the ways policy interacts with their work. Finding ways to include technology policy, generative policymaking, and studies of participatory policymaking processes more centrally into our research will improve scholarship and foster responsible and ethical practices at the complex intersections of technology and society. Instead of viewing policy as a drag on the fast-paced, dynamic, evolving worlds of human-computer interaction, we must begin recognizing that it is an integral part of it [7].

In the sections that follow, we describe an example of how foregrounding and emphasizing the nexus among policy, design, and practice can have important design and practical implications for social computing research. In particular, we explore the mutually constitutive intersections of design, practice, and policymaking in the context of Reddit and argue that recent, widely publicized controversies involving Reddit administrators, moderators, and users can be traced back to fundamental misunderstandings and/or miscalculations of the nature and role of policy in social

media and online communities. We carry forward the arguments made elsewhere that the sustainability and success of social computing sites like Reddit will necessarily depend on the ability of administrators to accommodate and support participatory policymaking processes [8]. In this paper we offer one possible framework, discussed below, for understanding *how and why* the participatory policymaking process emerges in the context of Reddit and demonstrate the value of user loyalty.

## EXIT, VOICE & LOYALTY

In his seminal work, economist and political scientist Albert Hirschman developed the exit, voice, and loyalty framework for describing the basic decisions facing consumers of deteriorating goods and services [12]. Before explaining the particulars of his concept, it is important to position Hirschman's perspective on change, broadly construed.

Hirschman's work was grounded in a belief that progress, including technological, economic, political, and social progress, is nonlinear. Cautioning against a tendency to view history through a deterministic lens, Hirschman argued against a view of humanity as steadily climbing up the rungs on the ladder of progress, with each rung representing a new accomplishment or achievement, an improvement in our knowledge, our technology, our social institutions, and so forth. Hirschman stresses that that image of linear ascent is not representative of the change process. Humanity undulates, shifting between achievement and lapse, high- performance and slack, opportunity and restriction [12].

The undulating processes of change and progress, he argues, primes human communities to develop a tolerance for deterioration while, somewhat paradoxically, simultaneously developing mechanisms to control against deterioration:

*Each society learns to live with a certain amount of dysfunctional or misbehavior; but lest the misbehavior feed on itself and lead to general decay, society must be able to marshal from within itself forces which will make as many of the faltering actors as possible revert to the behavior required for its proper functioning. [12: 1]*

Policies and other regulatory mechanisms represent some of the "forces marshaled from within" societies that safeguard against its utter dysfunction and dissolution. Even where a society starts out with relatively few proscriptions and restrictions, Hirschman seems to suggest that social decay is both inevitable and potentially contagious, as are the enhanced policy-based control responses:

*[R]ecognition of this unpleasant truth has been impeded by a recurring utopian dream: that economic progress, while increasing the surplus above subsistence, will also bring with it disciplines and sanctions of such severity as to rule out any backsliding that may be due, for example, to faulty political processes.[12: 7]*

Moreover, in Hirschman's view, not only is technological progress at risk of the same undulating give and take between progress and deterioration, but the consequences of its flux may be even direr:

*[W]hile technical progress increases society's surplus above subsistence it also introduces a mechanism of the utmost complexity and delicacy, so that certain types of social misbehavior which previously had unfortunate but tolerable consequences would now be so clearly disastrous that they would be more securely barred than before. As a result, society is, and then again it is not, in a surplus situation: it is producing a surplus, but it is not at liberty not to produce it or to produce less of it than is possible: in effect, social behavior is as simply and as rigidly prescribed and constrained as it is in a no surplus, bare subsistence situation. [12: 8]*

Technical progress never really alleviates the problems of an earlier paradigm or regime; it merely shifts the focus or perspective. In other words, social networks and online communities simultaneously reduce the severity of some social ills (e.g. by improving access to knowledge, communities, and/or companionship) while fueling other forms of “misbehavior,” previously dormant, repressed, or alienated but now unleashed and let loose upon the world through newly available information and communication technologies [1]. These will be important considerations to keep in mind as we consider the life-cycle of techno- libertarian ideals on a site like Reddit.

Against this backdrop of inevitable deterioration in products and services, Hirschman tells us that users will be faced with a choice between two alternatives: exit and voice. If exit is chosen, the user simply stops paying for the good or service, perhaps turning instead to a competitor. Exit is essentially an economic principle. Dissatisfied consumers turn to the market to defend their welfare, improve their position, and/or supply them with a better alternative or substitutive product or service. As Hirschman describes, exit is neat, impersonal, and indirect [12].

Voice, in contrast, is volatile and essentially political. When consumers are dissatisfied with a deteriorating product or service, they can choose to voice their dissatisfaction directly, to management or some other authority within the firm, in an effort to induce remedial action and find a fix for the decay. While exit is practical and efficient, voice is messy, graduated, public, articulated, direct and straightforward [12].

While economists tend to favor exit over voice because the former is viewed as a more efficient response to deterioration (what Veblen might call a “trained incapacity” [57]), Hirschman contends that the interests of deteriorating firms and organizations are actually best served by users’ exercise of voice. This is particularly the case with users that are particularly invested in and knowledgeable of the product and service because they are uniquely situated to express constructive criticism. But this too poses a problem as:

*...those customers who care most about the quality of the product and who therefore are those who would be the most active, reliable, and creative agents of voice are for those very reasons also those who are apparently likely to exit first in the case of deterioration. [12: 47]*

In Hirschman's view, the key then is not to safeguard against decay and deterioration (as these are largely inevitable) but to find ways to accommodate and respond to customers' exercise of voice by fostering increased user loyalty. In this context, loyalty includes but signifies more than the feeling of affinity a user has for a product or service. Loyalty influences how much and how long a user will tolerate an imperfect or degraded product or service and it modifies users' decisions between flight (exit) and fight (voice). Loyalty not only makes it more likely that users will choose not to exit when a firm's products or services deteriorate, but it promotes a higher-quality of participation through voice due to these users' investment in, knowledge of, and commitment to the product or service.

Loyalty is therefore the linchpin in Hirschman's exit, voice and loyalty framework. It is the switch that turns lead users (who may otherwise be quick to exit) into lead users committed to sticking it out and wilfully engaging in a potentially messy political process such as participatory policymaking. Loyalty provides pause to those considering instantaneous exit in the face of decay, and quite possibly prevents the quick destruction, dissolution, and collapse many firms and organizations would face at the first (unavoidable) signs of trouble.

With the HCI-policy groundwork and issues set forth, and Hirschman's framework laid out, we now briefly discuss our research methods before turning our attention to Reddit's AMAGEDDON.

## **METHODS**

To understand the role of policy in mediating the relationship between technical and social aspects of collaborative online environments, we undertook an in-depth qualitative study of a single specific incident on Reddit, AMAGEDDON. We identified and documented the subreddits implicated in the AMAGEDDON controversy and manually scraped the data from the relevant time period. The data for this study consisted of publically available comments, conversations, and discussions on and about the effected subreddits.

Using an iterative, inductive process, data was coded for user name, subreddit, user role (e.g. moderator, user, administrator and so forth), exit, voice, and loyalty. User comments were also coded and analyzed for timeliness and popularity. Operating under the assumption that more upvotes a comment received, the clearer it signaled general community sentiment, comments with high scores were interpreted as more representative than lower scored comments. We attempted to triangulate and anchor data wherever possible to foster increased credibility, validity, and trustworthiness. We chose to exclude comments that appeared primarily oriented around or motivated by issues of gender, sexual orientation, and race where they did not also signal exit, voice, and/or loyalty because we determined this data to be of limited relevance to our interest in participatory policymaking processes. In light of Massanari's work, a follow-on study engaging in a critical analysis of these comments may be called for [29]. Stable links to



the text of all user comments were also recorded and are provided as needed in the references section of this paper.

In light of the comments of anonymous reviewers, and in the spirit of full disclosure and transparency, we note that the authors of this paper bear no formal affiliation with Reddit. One of the authors is a regular user/participant in the Reddit community but did not play an active role, beyond that of an observer, in the AMAgeddon controversy. The other author is an outsider, engaging with Reddit purely as a research site for the study of distributed participatory policymaking processes in social media environments. The researchers have studied other, similar controversies in Reddit's past including the emergence and suspension of /r/jailbait [8].

By tracing the emergence, evolution, and resolution of a particular controversy, enabling patterns and themes to emerge from the data, we hope to shed light on the entanglements of policy, design, and practice in complex social media environments.

## CONTEXTUALIZING REDDIT

Often referred to as “the front page of the Internet,” Reddit is a popular social media website and online community that enables users to post, comment on, and vote for (or against) a wide range of user-supplied and/or user-generated content. On any given day, a visit to the site's home page reveals a seemingly random list of posts ranging from a link to an article featuring George Hotz, the hacker credited with first unlocking the iPhone [48], to an “Ask Me Anything” (“AMA”) hosted by Ann Wilson from the rock band Heart [38], to a series of photographs depicting spiders eating (surprisingly large) animals [46]. Much of Reddit's success may be owed to the diversity of content on its front page.

In addition, part of Reddit's appeal (which some users characterize as addictive) seems also to stem from its dynamism. Reddit's users (contributing and non-contributing) often find themselves getting lost in the ever-changing life of the site:

*I should be applying for jobs but it's so hard when all the people I love are right here :( somebody convince me to get off. [43]*

Reddit's content changes moment-to-moment as new posts are created and users' generate responses and comments, and cast their votes. The ever-changing stream of loosely coupled content provides a constant source of stimulation and interest that is sometimes difficult to turn away from.

Reddit's success as a social media platform and online community, and in particular its diversity and dynamism, can be traced to two key value sensitive design choices. First, since its early beginnings when Reddit's co-founders Steve Huffman (/u/spez) and Alexis Ohanian (/u/kn0thing) partnered with Aaron Swartz, techno-libertarian ideals, particularly with respect to freedom of expression, became central to Reddit's core values and identity. As an illustration, when speculating on what the founding fathers of the United States might have thought about Reddit in an interview with *Forbes*, Ohanian

replied:

*A bastion of free speech on the World Wide Web? I bet they would like it. ... It's the digital form of political pamphlets. [11]*

This core value – a bastion of free speech on the World Wide Web – was, in turn, embodied in key design choices. Reddit employs a voting system to whereby users can promote and demote content by clicking an “up” arrow or a “down” arrow. The practical implication of this relatively simple voting mechanism is that content that aligns with the majority’s values is promoted while dissenting views tend to be demoted. Even though “down voting” something solely because one disagrees with the viewpoint expressed is a violation of “reddiquette” – shared norms typically expressed and/or ratified by a subreddit’s moderator(s) – it is a very common practice. While numerous popular social media sites employ a voting mechanism (e.g. digg), subreddits are a key feature that distinguishes Reddit from its competitors. Subreddits are niche forums on Reddit, typically created and moderated by users, dedicated to a specific topic. There are currently fifty default subreddits, such as /r/pics, /r/worldnews, and /r/funny, which together funnel the majority of content to Reddit’s front page. In addition, there are a multitude of non- default subreddits (over six thousand active ones at last count) that exist in Reddit’s extensive digital catacombs.

Within this fairly streamlined collaborative online environment, Redditors let loose to interact and communicate largely as they choose. In other words, the behavior of Redditors are thinly constrained by end-user policies. For example, until some very recent well- publicized controversies [35], all content was welcome so long as it was not illegal (e.g. child porn), was spam (i.e. unsolicited often commercial messages), and did not amount to doxxing (i.e. disclose personally identifiable or confidential information) [30].

An arguably unavoidable consequence of the wide latitude for freedom of expression and thin content policies is that Reddit plays host to a great deal of cultural and intellectual detritus. While particularly offensive or vitriolic content typically never reaches the front page, there are a host of subreddits dedicated to racist, sexist, violent, and particularly disturbing pornographic content. Some of these subreddits (e.g. /r/hitler) are likely trolls, existing only to provoke discord by posting offensive or upsetting material. But others are legitimate, with new content being posted and commented on from an active (though perhaps insular) group of members and users. Several of these offensive subreddits have garnered negative attention both within the Reddit community and in broader public media spheres [6, 10, 36].

Thus, early design choices coupled with established core values, the behavior of lead users primed the way for Reddit to emerge as a social media site and online community strongly oriented around free speech and democratic governance. We see these values reflected in the diverse and dynamic content that flows through Reddit. We also see these values emerge in the ways the community seeks to resolve tensions and controversies through a process of participatory policymaking [8].

Tensions and controversies arise, however, when Reddit's administrators demonstrate reluctance with respect to accommodating and supporting the realities of the participatory world they designed, particularly where policymaking and governance decisions are concerned. The recent controversy surrounding the unexpected and unexplained firing of a beloved Reddit employee illustrates how some of the tensions resolve through a participatory policymaking process that reflects users' exit, voice and loyalty.

## **“AMA”GEDDON: REDDIT GOES DARK**

On July 2nd, 2015, many of Reddit's most popular subreddits, including “I Am A” (/r/IAmA), “Ask Me Anything” (/r/ama) and “Ask Reddit” (/r/askreddit) went dark in protest of the termination of Victoria Taylor, /u/chooter.

Taylor was a member of Reddit's administrative team. Her main responsibility was helping high profile users including celebrities, politicians, and other noteworthy figures, handle question and answer sessions in the popular /r/ama (“ask me anything”) subreddit. Taylor made strides in upping the quality, depth, breadth, and impact of /r/ama. More generally, she was credited with channelling much-needed goodwill toward Reddit in the wake of several highly-publicized missteps. Needless to say, a large contingent of the Redditors were unhappy about her departure.

Taylor's termination struck a particularly dissonant chord with some members of the Reddit community because it appeared so swift, unexpected, and resolute. She was fired without obvious warning or explanation. Reddit's top administrators, themselves a relatively opaque group aside from the maligned former CEO, Ellen Pao, were viewed as essentially “disappearing” one of the communities own, most-beloved, public, and respected members.

Some disgruntled Redditors began to protest. By changing the access settings on their subreddits to “private,” moderators responded to Taylor's termination by essentially “disappearing” some of Reddit's most popular subreddits. To casual visitors of the site, the protest likely went unnoticed; the front page still looked like the front page, albeit an atypically strange and diverse version. To seasoned Redditors, however, the protest was a noticeable and powerful counterpoint to the administrations' move. If it is true that the “most powerful weapon on earth is the human soul on fire” [3] then Reddit's fade into black must have felt like a bomb exploding, sending shockwaves through the administrators and the wider community:

*I fully support this decision to shut down /r/IAmA, letting Victoria go is a slap. To back this up, I am the mod in /r/science that organizes all of the science AMAs, and I am going to have meaningful problems in the /r/science AMAs. Victoria was the only line of communication with the admins. If somebody wants to get analytics for an AMA the answer will be “sorry, I can't help.”*

*Dropping this on all of us in the AMA sphere feels like an enormous slap to those of us who put in massive amounts of time to bring quality content to reddit.*

*I personally feel like shutting /r/science down as well, that's how much of a bad taste this leaves. [52]*

The protest, subsequently dubbed AMAgeddon, represented a breaking point in tensions within the community, particularly amongst administrators, moderators, and users over participation in policymaking and governance. Taylor's termination may have prompted AMAgeddon but the response reflected tensions that had been building for months and even years preceding. Ellen Pao, as CEO of Reddit, was the recipient of much of the initial blame for Taylor's firing. *"Typical Ellen Pao"* was the comment of /u/Oxus007 [53].

The fallout from the protest trickled down through the lower administrative ranks as well, and as it did the darkening spread as well. Other moderators caught on to the protest and they too began to block access. As any web administrator would likely agree, downtime, even when measured in minutes or hours, is a serious problem. The collective darkening of Reddit's most popular subreddits sent many Reddit administrators into crisis-mode. As administrator /u/bluepinkblack commented:

*By lunch, I couldn't focus on doing my actual job, as I was overwhelmed trying to keep up with one community after another going private on Reddit. I just couldn't focus on work when the site that we (really do) love so much began imploding in front of our faces. My concerns were all over the place, ranging from "the users hate us" and "the users must understand we're trying," to—selfishly—'No! Don't you shut down r/crappydesign, too!' [40]*

/u/bluepinkblack was expressing a complex series of emotional and practical reactions brought on by the AMAgeddon. On the one hand, the protest disrupted functioning of the site and created additional work (and problems) for administrators. On the other hand, the roles of administrators, moderator, and user are not always clearly distinct or separable. Boundary lines within the community are blurred, as are within- and among-group affinities. /u/bluepinkblack can simultaneously react to and engage with AMAgeddon as an administrator, a moderator, *and* a user.

Complicating, and likely spurring, the protest was the reaction of co-founder Ohanian who uttered the now infamous response at the outset of the protest: *"popcorn tastes good"* [47]. Within the Reddit community this phrase has developed a special meaning: Redditors inject this comment when they are voyeuristically observing and enjoying drama, often simultaneously trivial and destructive, between other users. It is a way of expressing detached, smug entertainment, as if munching popcorn in a movie theatre, at the impassioned public displays of others.

When Ohanian said *"popcorn tastes good"* in response to AMAgeddon, it reflected a clear misunderstanding of the significance of the protest and the power dynamics of Reddit. Within minutes of his misstep, Pao was replaced by Ohanian as the primary target of the rising inferno of community outrage on Reddit. His actions even drew the ire of Reddit's former CEO Yishan Wong (/u/yishan) who attempted to simultaneously

call out Ohanian and redirected some of the blame that had befallen Pao:

*Alexis wasn't some employee reporting to Pao, he was the Executive Chairman of the Board, i.e. Pao's boss. He had different ideas for AMAs, he didn't like Victoria's role, and decided to fire her. Pao wasn't able to do anything about it. In this case it shouldn't have traveled upstream to her, it came from above her.*

*Then when the hate-train started up against Pao, Alexis should have been out front and center saying very clearly 'Ellen Pao did not make this decision, I did.' Instead, he just sat back and let her take the heat. That's a stunning lack of leadership and an incredibly shitty thing to do.*

*I actually asked that he be on the board when I joined; I used to respect Alexis Ohanian. After this, not quite so much. [56]*

Analyzing AMAGEDDON using the exit, voice and loyalty framework can provide some key insights into the intersections of technical design choices, emerging social practices, and policymaking processes on Reddit. The unexplained and seemingly capricious termination of Victoria Taylor represented a serious deterioration in what Reddit's users considered to be its product or service for a number of reasons.

First, the move undermined the core democratic values the community had been built upon and thrived upon for years. The ability to post content and create and moderate largely autonomous subreddits justified, in the minds of moderators and users, their voluntary expenditure of time, energy, and creativity. The sovereign subreddits were one of the key features that differentiated Reddit from other link aggregating sites and the process of Taylor's termination drew the governance structure of Reddit into question.

Relatedly, Taylor's firing triggered a sort of critical self-reflection and questioning within the community around the meaning of Reddit and users' place(s) in it. Redditors had come to believe that Reddit *was* its users both in terms of its content and its organizational infrastructure. Users and, even more so moderators, viewed the opaque, aggressive take-down of one of their friends, who also happened to be a valued administrator, as an affront to their own value and place in the community. One of Reddit's primary moderators and a close collaborator of Taylor responded to her termination by saying:

*We all had the rug ripped out from under us and feel betrayed... We have been really blindsided by all of this. As a result, we will need to go through our processes and see what can be done without her. [45]*

Objectively, the importance of Redditors like /u/karmanaut cannot be overstated. The moderators of the default subreddits do a tremendous amount of unwaged labor. They clear bad posts, moderate discussions, and ensure that interesting, high quality content is not drowned out in a deluge of spam. Many moderators work essentially full time on their subreddits, and this voluntary participation and contribution is necessary to the functioning of Reddit.

Moderators are, in essence, Reddit's lead users [59]. They are the users who occupy the best position to be able to advise, critique, or direct the political response of Reddit in the face of controversy. Under Hirschman's framework, garnering the loyalty of moderators ought to be the administrators' chief objective. Not only are moderators in the best position to improve Reddit's products and services through the exercise of voice, they are also the users most affected and offended by deterioration of the site such that they are inclined to be the first to exit. "Going dark," was therefore a completely reasonable, perhaps even predictable response of moderators to the seemingly unjustified firing of Taylor.

Relatedly, the AMAgeddon shed light on a growing list of community tensions. It became readily apparent that users viewed Taylor's termination not as a singular, one-off administrative mistake, but rather as a culminating one. A number of content or speech-related collisions had been occurring in the months and years preceding Taylor's termination. For example, several months earlier a conflict had flashed around the administration's decision to ban of a controversial subreddit, /r/fatpeoplehate. While the reasons given for the ban were viewpoint-neutral — the subreddit violated rules against "brigading" or voter collusion — many Redditors believed it was banned *because* it was hate speech (and therefore neither illegal nor prohibited by the site's content policy). In either case, users were quick to point out that other subreddits, whose users engaged in similar conduct, were seemingly arbitrarily granted a stay:

*You can't censor one community without running the risk of censoring them all. While boards may be offensive, they are not "wrong" - their discourse is legitimate public dialogue, otherwise the board would have died.*

*How then, can the "sphere" be determined? The simple answer is that it largely determines itself. If a board has no subscribers, it largely dies in the public eye. No posters - no content - no board. That the board exists as a self-sustaining forum at all indicates that it has a community that considers its topic to be a "sphere of legitimate discourse." [49]*

Sensemaking around Taylor's termination thus almost instantaneously merged with a series of other equally inconsistent, awkward, fumbling missteps by Reddit administrators in the recent memory of many Redditors.

One thing was certain. While deep channels of discontent had been brewing amongst Reddit's community for some time, Taylor's termination was a clear breaking point. The central question her firing prompted was not *whether* the community would react, but *how* and *why*. AMAgeddon sent a loud signal of discontent to administrators over the perceived deterioration of Reddit, but it was unclear, perhaps even to those moderating the darkened subreddits, what it all meant. One of the most popular responses, a "top ten" list of Redditors' complaints, seemed to have little to do (at least directly) with Taylor's termination:

*The administration has abandoned the concept of reddit as a free speech platform.*

*Moderators are banning users for activity outside of their subreddit.*

*Shadowbans are bad and should only be used against commercial spammers.*

*I no longer trust the Reddit admins to do what they say or say what they mean.*

*Too much moderator power is concentrated in "cliques" or "cabals" of users.*

*Subreddits like ShitRedditSays exist as a means of systematically harassing redditors. Reddit's new harassment definition is too vague, subjective and/or unfairly applied.*

*Reddit should not cooperate with foreign governments to locally censor content.*

*Quarantined subreddits should not require a verified email for privacy reasons.*

*/r/fatpeoplehate and/or related subs should not have been banned and should be restored. [41]*

Did the AMAgeddon spurred by Taylor's termination signify that users had simply had enough? Was Reddit "going dark" an act of "exit" such that the subreddits would remain voluntarily and terminally dark? Some Redditors seemed to readily accept this potential reality:

*nobody cares reddit blows [54]*

Others, however, were less apathetic, encouraging a widespread exodus of users to other, competitor, sites such as digg or the newly emerging "voat," a Reddit clone:

*After the banning of many subreddits by Reddit including Coontown and Kiketown, it shows that freedom of speech exists no more in Reddit. Off to Voat! [50]*

Another user posted:

*I get it. It's Reddit. It's easy. It's comfortable. It's familiar. Fine. Continue to use it. As long as you are here, you are under the thumb of Chairman Pao and you will be stuck in defensive and pointless e-drama and never be allowed to go on the offensive. Your energies will be contained and diminished. [42]*

Yet another user, who seemed to be indicating that they would remain on Reddit but diminish their digital footprint (and therefore their potential as a source of revenue for Reddit) said:

*I am already doing it by using adblock and not giving reddit any profit. [39]*

While the darkening of subreddits and a number of user comments suggest that exit may have been occurring, it is also clear that many users chose to exercise “voice” in response to Taylor's termination. “Going dark” was a way for the Reddit community, and moderators in particular, to communicate their dissatisfaction, exert their political power, and potentially prompt changes in policy and governance processes.

Given this additional context, and the fact that loyalty is the linchpin in the struggle between exit and voice, it becomes excruciatingly apparent how co-founder Ohanian's response of “*popcorn tastes good*” reflected a serious miscalculation and mismanagement of the Reddit communities' expectations and power. The implication that Ohanian positioned himself as a sort of Caesar, gleefully watching the gladiatorial destruction below, was a perspective in need of swift correction. AMAgeddon was, at least in part, directed toward that end. Ohanian had to come to terms with the fact that his extremely popular website would not exist but for the participation, creativity, diligence, and *loyalty* of its users. Ohanian might believe he “owns” the site, but he is not alone at the controls.

Within hours of his “*popcorn tastes good*” comment, Ohanian responded to the growing unrest with a notably different tone:

*Your message was received loud and clear. The communication between Reddit and the moderators needs to improve dramatically. We will work closely with you all going forward to ensure events like today don't happen again. At this point, however, the blackout has served its purpose, and now it's time to get Reddit functioning again. I know many of you are still upset. We will continue to work through these issues with you all, but redditors don't deserve to be punished any further over an issue that is ultimately between Reddit and the moderators. [47]*

This message signaled an attempt to make amends for his earlier comment, but all was not so easily forgiven. The top comment in response was:

*Damn that's condescending.*

*“redditors don't deserve to be punished any further”*

*The user's aren't being punished: users will go elsewhere, the internet has many Reddit alternatives just waiting to snap up that traffic. Reddit is not so invaluable, indispensable or irreplaceable that people will be lost without it.*

*It's the management, executives, and administration of Reddit that is being punished. [44]*

Another Redditor observed:

*The admins keep dropping the balls on things. I'm concerned that y'all aren't learning from your mistakes. I've been around for nine years and I've never seen anything like*



*these last few months.* [51]

A generous interpretation of Ohanian's about-face might be that he was attempting to self-correct his earlier misstep and tap into the loyalty of the user base. He attempted to reach out directly to Redditors who may have felt unjustly harmed by disagreements between moderators and administrators as if to say "but think about the users!" While we might be inclined to dismiss Ohanian's remarks as foolish or misguided, it is difficult to come up with many other sites, or businesses for that matter, of comparable popularity where top administrators, CEOs, co-founders and chairmen of the board engage in public and open dialog about serious and difficult subjects with random users and each other with such fluency and immediacy. This again points to the participatory nature of Reddit, a feature that extends beyond content to the processes of governance and policymaking. It also highlights the fact that exit, voice and loyalty are not uni-directional in a collaborative online environment like Reddit.

AMAgeddon and the subsequent "*popcorn tastes good*" exchange signifies a number of other potentially important observations around questions of loyalty. In particular it suggests that Reddit users' loyalty may be influenced by invisible barriers to exit perhaps not contemplated by Hirschman. Hirschman's framework developed around commercial firms engaged in traditional economic markets. In what ways does a collaborative online environment like Reddit differ from the arrangements envisioned by Hirschman? What kind of buy-in is there for users of Reddit that might impact their decision to exit or not? When they exit are they leaving their community, their friends, and their content? What are the features and characteristics of Reddit that might make exit, voice, and loyalty more or less sticky? Features such as "Reddit gold" and "karma" might coerce user loyalty by granting certain users enhanced privileges which make it exit more untenable. Loyalty can explain why voice is chosen over exit, but it may also explain why a dissatisfied user may choose to do nothing at all (i.e. exhibit apathy) [26]. Reddit's users may remain loyal because they believe in the company or its leaders. They might also remain loyal due to tradition, inertia, sentimental attachment, friendships and other relationships, the lack of availability of reasonable alternatives and substitutes, and/or concern about the potential risk of unforeseen consequences of exiting.

## **CONCLUSION**

This paper argued that CHI research and practice is unnecessarily limited by traditions that ignore or marginalize policy. Our work here was an attempt to pull policy down from its orbit to inform, in a more meaningful and concrete way, understandings of the complex interplay between design and social practice. By demonstrating that policy co-constitutes contemporary social media and online communities, we can generate deeper insights into the ways in which computing technology and human experience interact.

Building on earlier CHI scholarship that stressed the importance of participation in the public policymaking process, this paper argued that participatory policymaking may also be key to the sustained success of many private firms and endeavors. A failure to

effectively engage with policy is a choice that will impact not only our understanding of emergent social computing environments but, as demonstrated by the Reddit controversy, may have real and significant detrimental effects on the social media design and practice.

Through the AMAgeDdon controversy on the popular site Reddit, we explored the ways in which value sensitive design choices, intended to foster and support core values such as democratic governance and freedom, can have an unintended consequence of generating *de facto* participatory policymaking processes. Despite some of the administrator's beliefs to the contrary, Redditors exercised their political powers of dissent against perceived deterioration of the site and began to establish more explicit expectations around full participation in all facets of the life of Reddit. Users made it clear that they were no longer content with supplying and moderating all of Reddit's content; they also want a voice in the governance and policy determinations impacting the community. Through the exit, voice, loyalty framework, this work also explored the complexity of the notion of user loyalty. While some lead users, typically moderators, were the first to protest Taylor's dismissal, they may also be bound by invisible ties that make swift and complete exit untenable.

Our research shows that whether or not policy is explicitly taken into consideration in the design of online communities, it often emerges through the complex dynamics of human- human and human-computer interaction. User practices can become user expectations which can in turn vest in policies, particularly in highly participatory communities. The AMAgeDdon, while sparked by the termination of Taylor, was about much more. It highlights the complex intersections of technical design, emerging social practice, and policy in collaborative online environments. It demonstrates how policies and the policymaking process can play an important role in the evolution and survival of social media sites. In particular, it illustrates how design choices and core communities' values can lead inextricably toward a participatory policymaking process, even where site administrators and owners wish and believe it otherwise.

Reddit and its users differ from the firms and consumers of Hirschman's era. They continuously modify, change, and co-construct the meaning of Reddit for themselves and others. They create the good and service and contribute to its inevitable decay and deterioration. Exit, voice, and loyalty provides a useful framework for describing and understanding this complex co-evolution but this research suggests further refinements may be called for. Understanding this phenomenon, and developing ways to engage in a more direct and concerted way, can help researchers as we seek to unpack the complicated issues surrounding emerging technology, social practices, and policymaking.

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