

21st Century Digital Democracy Needs a New Contract

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Since its inception, democracy has been inextricably linked with questions regarding the legitimate source and exercise of governing authority. Its philosophical underpinnings sought to justify alternatives to monarchic rule by asking questions and providing frameworks that enabled people to understand their current situation and build more equitable and just societies. Today, social media platforms exert a new form of global governing power over users by deploying digital contracts that dictate human interaction and the sharing of information. Such governing bodies are supposed to be legitimized through the assent of the people via a contract, and further, to guarantee certain natural rights. Yet, what are the contractual terms users consent to on social media platforms, and how does that affect our analysis of digital democracy? And, more daunting yet, what does that mean for the future?

Social media platforms increasingly act as a central venue for civil discourse—one of the most vital features of a democracy where civilians create, access, share and discuss information (Loader et al., 2014). While social media platforms and their executive leaders may not have originally intended to play such an essential political role, they now claim to champion 21st century digital democracy by both providing a means for and influencing the structure of civic engagement and social relations (Bialik and Matsa, 2017). Over the past decade, social media corporations have grown into global powerhouses as well as household names—now practically essential for one's political, social and economic participation. Abstaining from social media use can incur very real opportunity costs, including political participation (Portwood-Stacer, 2012).

For example, Facebook's user base now matches China's population, and it acts as the main medium for information access and political campaigns in countries like Myanmar and elsewhere (Galpaya, 2017). Researchers compare the social media giant to "digital Switzerland"—exercising sovereign state-like powers but as "neutral" entities (Eichensehr, 2018). While computing innovations enabled smooth scaling of their business model, just and effective governance—often overlooked and neglected costs to businesses—did not scale. As they grew, norms changed and its role in society morphed. Algorithmic moderation of content based on free speech values, and defaulting to content moderation via user flagging and waiting until a problem was big enough to make an editorial decision began to highlight how woefully ill-suited Silicon Valley entrepreneurs were when it came to facilitating a "community" in a democratic way (Klonick, 2017). Indeed, Zuckerberg has only just begun to contemplate Facebook's role as a governing body: "In a lot of ways Facebook is more like a government than a traditional company. We have this large community of people, and more than other technology companies we're really setting policies (Kirkpatrick, 2011)."

In his mind and others, as seen recently with Twitter's Jack Dorsey, the legitimacy of his power to govern over the social relations of billions of individuals is not in question. This is largely because users "consent" to be governed by signing terms of service (TOS) agreements—contracts that detail the rules of engagement and gives him the authority to make unilateral decisions. Thus, popular discussion about digital democratic governance tends to be subjugated to various aspects of free speech, which also acts as the main source of energy necessary to fuel social media's economic engine.

Democracy is, however, much more than free speech and access to information. Indeed, features such as these are secondary to democratic modes of governance—they follow from foundational premises and are necessary for a healthy democracy, but are not themselves foundational. Briefly stated, democracy's essential feature holds that legitimate governance is the result of the collective assent of the people. This aspect has interesting parallels with the rise of social media platforms, which have become ubiquitous and influential through a similar process. Emerging slowly through the tumultuous 16th and 17th Centuries, democratic political philosophy was largely a response to civil and political strife in which scholars sought justifiable alternatives to the excesses of monarchic feudalism. Thomas Hobbes and John Locke, operating on the Enlightenment revelation that politics and social organization were natural (rather than ordained by God), sought to understand where political power arose from and, given that source, how it should be used. To this end they argued for a set of theories that came to form the foundation of contemporary democratic governance—social contract theory (SCT) and the liberal theory of government (LTG).

Researchers suggest that social media platforms serve as new digital feudal rulers, enacting judicial, executive, and legislative power over our online lives (Belli and Venturini, 2016). Each of the 2.2 billion users on Facebook enter into a legally-binding contract—perhaps one of the most explicitly “consented-to” documents in world history. As this paper and recent work has shown, TOS (which include accompanying privacy policies and community guidelines) are unilaterally deployed disclosures that don't simply protect a company from product failures as a traditional consumer-producer contract would (Belli and Venturini, 2016). They barely resemble traditional contract theory that requires two informed parties agreeing upon conditions in which they exchange value (Radin, 2017). Rather, TOS disclosures bind users to provisions that encompass the many ways social media giants exert their power over users—contracting over rights and undermining autonomy. They govern how and to what extent users may communicate with their political representatives, or how users access and communicate with family members in confidence. As some have pointed out, social media platforms give each user a unique citizen pass in the form of a username and password (an account) that permits access to certain things and not others, as a passport or citizen ID card does (Eichensehr, 2018). They dictate the rules of ownership, gaining legal rights to people's ideas through intellectual property law.

This paper is motivated by the need to question the theses of democratic renewal and decay in digital ecosystems in order to ensure digital democracy's survival in the 21st century. For that to happen, we need contracts that enable democratic governance, and we argue that the use of SCT/LTG frameworks in evaluating the rules deployed by social media TOS is critical for making those contracts in the future.

First, we define democracy using SCT and LTG, as they provide the theoretical frameworks that give rise to legitimate democratic governing bodies and, thus, furnish us with a rich analytical tradition for evaluating our current digital state. We then build on recent and past work about the content of social media TOS, and contribute further empirical evidence to highlight our current reality: rather than resembling any true form of digital democracy, we observe a firmly established state of digital authoritarianism that systematically removes the rights of users around the globe. We show that TOS have far-reaching consequences beyond consent and negotiation (which alone render a contract illegitimate). They codify the systematic removal of rights to speech, due process, privacy, and more. Lastly, we use our content analysis of social media TOS through the lens of SCT/LTG frameworks to argue that potential paths towards a healthier digital democracy may require subversive, nontraditional tactics—similar to the ones

deployed by social media corporations themselves—and outline policy implications if well-researched suggestions are to be implemented.

Theoretical Prerequisites to Democratic Governance

SCT holds that political structures arise out of, and are legitimized by, the collective assent of a people. As a theory of the origin and legitimacy of governmental power, SCT doesn't necessarily imply a democratic form of government (for instance, Hobbes argued for the naturalized, rather than theocratic, legitimization of a monarchy). Nevertheless, the theory was taken up by Locke, Rousseau, and other philosophers keen to establish a foundation for forms of governance that submit to sovereign rule of law. According to SCT, a government's power is nothing other than the powers granted it by the collective will of the people. LTG, as a complementary theory of the proper use of that power, holds that government structures exist to guarantee the natural rights of people—i.e., for Locke, the rights to life, liberty, health, and property, understood as the ultimate ends of human existence.

Together, SCT and LTG constituted a radical affront to the theocratic monarchies of the age. A monarch ordained by God was necessarily above the law and consequently acted with utter impunity. Enlightenment philosophers, in response to the excessive powers that theocratic legitimization granted a monarchy, argued that there exists a natural law which logically and historically precedes any form of government. This natural law followed from the hypothetical State of Nature, in which disparate, independent human beings roam the earth in a precarious and violent struggle to survive. Seeing their shared precarity in the State of Nature, it was argued that human beings naturally abide by a set of moral norms that enable their collective survival. As Locke put it in his *Second Treatise on Civil Government*, "The State of Nature has a Law of Nature to govern it, which obliges every one: And Reason, which is that Law, teaches all Mankind, who will but consult it, that being all equal and independent, no one ought to harm another in his Life, Health, Liberty, or Possessions" (Locke, 1689, II.6).

The moral norms that emerge in the State of Nature effectively function as a solution to a coordination problem (much like the classic "prisoner's dilemma" in game theory). Individuals naturally wish to pursue their interests secure in their person and possessions, and this requires some level of cooperation with others. Cooperation is only possible given that all parties involved agree, either implicitly or explicitly, to abide by a set of rules: in this context, rules which require the forfeiture of certain natural powers, including the ability to physically harm another person, to deceive, to excessively hoard common resources, and so on. Hobbes, Locke, and others held that human beings naturally tend towards these rules by rationally reflecting upon their own interests.

Positing the mere existence of natural law was insufficient, however; there remained the possibility that, while most people would naturally abide by the dictates of reason, some may not, and an institution endowed with the power of enforcing the rules would be necessary for the overall common good. Thus, human beings rationally forfeit certain abilities and endow some figure or institution with the authority to enforce natural law. This is the social contract, which is the origin of legitimate political authority. A political authority is legitimized by the people it governs, and possesses no powers over and above those which the people have granted it—namely, to ensure that all people are safe and secure in their person and possessions, and able to freely pursue their interests.

For our purposes here, several key features follow from this thought experiment. Since it is tasked first and foremost with enforcing natural law, a government cannot itself violate natural

law and remain legitimate—an essential feature of SCT. To do so would be an unjustified use of the people’s power, breaking the terms of the social contract. Since the natural law applies universally to each person and every human institution, any violation of it is equally wrong, regardless of the source. Thus, a government exists first and foremost to guarantee the natural rights and liberty of its people. SCT and LTG together amount to a theory of the source of political power, how it is legitimized, how it should be exercised, and the obligations shared by both the rulers and the ruled.

It is this notion of natural law—specifically as a set of norms that exist *prior to*, and that are *necessary for*, the possibility of legitimate governance—that is utterly absent in social media TOS. Given this void, we propose four key elements for evaluating democratic governance in the context of social media: (1) the distribution and separation of powers between critical stakeholders—users, governments, platforms and other institutions; (2) the endowment of the individual and group user rights and obligations (i.e. natural rights such as privacy, participation, due process, speech); (3) controls and recourse (i.e. due process, and democratic institutions that allow users to flex rights and access justice); and (4) the legitimate and illegitimate use of power that is granted by the consent of the people to a governing authority. How these work together is relatively simple: the *separation and distribution* of power guarantees individuals and groups *rights*, which allows proper exercising of those rights via institutions and processes (*controls/recourse*), and those institutions and processes are deemed to be *legitimate via consent*.

In some cases, this framework does lend itself to the legitimization undemocratic institutions and ecosystems when people consent to authoritarian or various other types of governing power. This is what gives private corporations and executive leadership their legitimate power to unilaterally rule over employees and business operations in pursuit of efficiency and profits. Indeed, not everything should be democratic. A product manager with experience making software should have the authority to manage a team of developers with varying expertise towards creating a functional product.

However, social media is different, which is especially apparent when it comes to TOS. In this context, the legitimate use of power shifts from managing bits of code to managing how individuals and groups of human beings interact with each other and the world. And when it comes to commonly agreed-upon legitimate uses of power when governing people, democratic governance is the goal. The next section briefly provides political, economic and legal context to social media governance before diving deeper into the regulatory aspects of TOS and the application of SCT/LTG in digital governance.

Digital Governance

The current digital state and the technological affordances of social media platforms developed over time—responding to and evolving alongside political decisions, economic incentives, and cultural norms (DeNardis and Hackl 2016; Winner, 1980). This section briefly highlights some main forces that have brought about current issues in digital governance and the context in which TOS contracts emerged.

In the United States, heavy and popular reliance on spatial metaphors to describe the Internet in the first few decades of its emergence played an important cultural role (Lipton 2003, Grimmelmann 2016). Even to this day, techno-idealists dominating the VC and Internet business industries still ascribe to faint echoes of John Perry Barlow’s cyberlibertarianism. The costs of storing and disseminating data dropped dramatically. Accessing a virtual space, or

“community,” where one could share and consume nearly infinite amounts of information with others instantaneously, was a central goal of Internet pioneers and policy makers. Blogs, forums and Internet chat boards gave way to social media dominance, which were further praised for their democracy-enabling roles in the Arab Spring and elsewhere (Lotan et al., 2011). Meanwhile, the global nature of the internet also gave way to confusion over governance across borders, when social media has none (Mills, 2015).

Over time, the virtual spaces that were considered to be a public sphere outside the power of centralized control became increasingly centralized and driven by advertising business models. As communication technologies, there has been a largely singular focus on free speech in digital spaces. The rise of platform capitalism embodied by Facebook, Twitter and others leverage surveillance technologies in digital spaces to compete in a highly competitive attention economy. The privatization of the public sphere has become a central topic in conversations about fake news, misinformation, and algorithmic gaming during the US 2016 presidential election, Brexit, and other events. But often, profoundly important aspects of those critiques—such as the role of shared ownership and governance in democratic institutions—are clouded by more popular debates about content moderation on social media and its impact on democratic outcomes.

However, digital governance entails more than just conversations about free speech, algorithms, and the popular debates taking place in the media about whether or not Twitter/Facebook should ban far-right conspiracy theorists and neo nazis. Digital governance in research has become commonly recognized as a combination of written and unwritten, visible and invisible forces—the intersection of how code, social norms, markets and laws come together to encourage some behaviors and prevent and punish others (Lessig, 2006). TOS act as a gatekeeper and reference point for social media platforms’ digital governance, and recent events such as the Facebook and Cambridge Analytica debacle put the spotlight on these contracts.

Digital Governance via TOS

In order to better understand the governing nature of TOS contracts in a practical manner, we need to explore the motivations and historical context to TOS: why are they so prevalent, who are they written for, and what purposes do they serve? In the 1990s, a few major events occurred. In order to take a light-handed approach to the developing Internet, lawmakers passed Section 230 of the Communications Decency Act (CDA) in 1996, absolving Internet providers—and now intermediaries and platforms—of any liability for the content on their services (Lemley, 2006). During this time, lawmakers also internalized a “notice by choice” guiding principle, which—when combined with property/trespass law—manifested in court cases leading to the legitimization of a contract in the form of shrinkwrap, clickwrap, and browserwrap licenses, now collectively called TOS (Lemley, 2006; Hartzog, 2018).

This principle gave platforms two things: (1) ultimate indemnity against any harm that comes to users on their platforms (including directly and indirectly facilitating the experimentation on users for economic and political ends with no recourse (Grimmelmann, 2015); and (2) legally-binding power to enforce their own rule—as well as state-backed rules meant to protect civilians—on users in a take-it-or-leave-it fashion. Internet companies acquired economic success from publicly-funded R&D at government and university programs that produced hardware and software innovations that led to Internet technologies. They now use IP, trade secret, and copyright law in TOS to not only protect their turf from competition, but also to threaten prosecution of individuals who tamper with their “property” in any manner the platform deems

harmful. This chilling effect prevents curious hacker/DIYers, civil society, and publicly-funded researchers from gaining information into how algorithms can, for example, lead to the mass manipulation of the public (Tufekci, 2017; Pasquale, 2015; Sandvig, 2017; Epstein and Robertson, 2015). And they have used the Computer Fraud and Abuse Act (CFAA) to bring felonies against companies and individuals alike, contributing to the death of an Internet activist and directly leading to researchers suing the government because of the overreaching terms and consequences (Bhandari & Goodman, 2017). In a way, the patchwork of laws and legislation provide platforms a set of privacy protections that exponentially exceed a civilian or public representative, and TOS reflect that.

Researchers and legal scholars have shown that users rarely read consumer contracts and TOS (usurping the “informed minority” belief (Bakos, et al. 2014). When they are read (or skimmed, more often than not), legal jargon combined with intentionally and strategically designed vague—at times, contradictory—language make it nearly impossible for users to understand the associated risks and the real value exchanged between parties (Obar and Oeldorf-Hirsch, 2018; Bakos et al. 2014; Luger et al. 2013; Reidenberg et al. 2015; Fiesler et al. 2016; Milne et al. 2006). Furthermore, if every Internet user in the U.S. did read every new TOS they encountered online, researchers have estimated that it would cost the population nearly \$781 billion (McDonald and Cranor, 2008). TOS function as unilaterally imposed, non-negotiable disclosures that assert platforms as feudal lords with legislative, executive and judicial functions (Belli and Venturini, 2016). This reality is the result of a simple fact: as corporate entities, platforms are first and foremost incentivized to leverage their power protect themselves from liability. But they go beyond just protection to extraction. They enforce TOS provisions when favorable to their interests (i.e. LinkedIn protecting its business model from hiQ), and they use them to advance their ownership of data.

The power Internet companies exercise over users through vague and confusing TOS has caused international alarm. In partnership with the Dynamic Coalition on Platform Responsibility (DCPR) of the United Nations’ Internet Governance Forum, the Center for Technology and Society of Fundação Getulio Vargas Rio de Janeiro Law School (CTS/FGV) conducted a study of 50 Internet platforms’ TOS—many of which are in our own dataset—in order to understand how TOS treat rights to freedom of expression, privacy and due process (Belli and Venturini 2016). The findings further corroborate the following claims: privacy language is vague enough to enable platforms to work with a variety of user data without updating the contracts, and the confusing terms make it nearly impossible to know what is legally binding or not as well as the means to access justice when disputes arise.

Analysis of Social Media TOS

The implications of TOS provisions are meaningfully different for social media than on other platforms. For example, EULAs protect software companies’ IP, and e-commerce TOS also ensure trusted transactions between buyers and sellers. Nearly all digital platforms protect IP and collect, store, and use user data to some degree, but social media platforms are unique for a few reasons. They go beyond regulating a user’s interaction with a product or service and establish how users can engage with friends, family, politicians, important information, and institutions. Because they are designed to facilitate wide-ranging and complex social interactions and their main model for sustainability and growth relies on advertising, the amount of intimate details collected about individuals and groups is far greater than any other digital platform or singular surveillance system in history. While an analysis of privacy policies is outside the scope of this paper, it is worth noting that privacy risks to users are often not accurately detailed, explained to, or understood by users—further undermining the legitimacy of

TOS contracts on social media platforms and simultaneously increasing the importance for scrutinizing governance (Reidenberg et al. 2015).

For our research, we sourced a dataset of social media TOS from Wikipedia's List of Social Networking Sites (SNS), which consists of a wide variety of social media platforms—from artist and musician and niche hobby sites focused on cooking and knitting, to professional networking, finance, and larger general-purpose platforms, like Facebook. Prior studies of TOS have used similar datasets—for example, Venturini et al's study on TOS analyzing privacy, due process and free speech, and Rustad et al's study of arbitration clauses on social media (Venturini et al., 2016; Rustad et al., 2011). We filtered sites based on three criteria: (1) whether it was still operational; (2) whether it had a TOS; and (3) whether the TOS was written in English and largely focused on English-speaking users (with some exceptions, like Russia-based VK, English is the official version of the contract users agree to and not other translations). This resulted in a list of 116 social media TOS collected in February 2018.

We conducted open, qualitative coding on a subset of policies in the dataset (Strauss and Corbin, 1998), iterating to create an initial codebook of TOS features relevant to our analysis. Subsequently, with the frameworks of SCT and LTG in mind, we conducted a thematic analysis (Braun and Clarke, 2006) of all TOS in our dataset, resulting in evolving research questions and convergence on themes as described below.

Application of SCT/LTG in Digital Governance

We originally began this research intending to contribute new data that would help evaluate the state of digital democracy. While we contribute to prior studies on TOS, as time went on we found that the data detailing what TOS contracts contain does not necessarily deepen an understanding required to rejuvenate the democratic arrangements of institutions. The application of SCT/LTG necessitates a broader evaluation of the socio-technical ecosystem that takes into account the political/legal, cultural, economic and technological forces at play. Building on prior research, digital governance via TOS present a few core issues central to a proper analysis stemming from the breakdown of SCT/LTG mentioned above. Therefore, our research questions evolved and the following analysis develops as such: Our thematic analysis focused on examining provisions that have an impact on legal and democratic rights. Loosely defined—but pulling from the UN Internet Human Rights and other user bills of rights—the rights we focus on are due process, ownership, privacy, and free speech (Gasser et al. 2018). Rights in this context are more of an expectation that individuals and groups are supposed to have in democratic societies, and legal systems give them some ability to exercise those rights. By leveraging SCT/LTG, we also seek to bring greater context of how rights are impacted not only by TOS, but by the power of social media institutions in society. This comes back to the four key aspects of SCT/LTG and social media: distribution and separation of power, a guarantee of individual and group rights, controls and recourse, and legitimate use of power via consent.

Social media TOS codify existing hegemonies and undermine democratic institutions in a few interconnected ways. Our findings confirm findings from other works showing that TOS systematically erode rights to due process, which in turn means that they contract over rights (instead of guaranteeing them) and undermine controls and recourse (instead of providing democratic processes and institutions to flex rights) (Radin 2016; Belli and Venturini 2016). This erosion happens through the inclusion of arbitration clauses, time limits, and specific details that make submitting a dispute valid or not, limited liability and indemnification provisions, and jurisdiction requirements. The vast majority of platforms in our dataset are based in the U.S. (80/116), and require any disputes be settled in a specific state's jurisdiction that is

advantageous to the company (99/116). Even though only 44/116 platforms mention arbitration, mandating jurisdiction can undermine a user's means for justice based on cost, citizenship and geography. Moreover, the ability to opt out of arbitration or submit any dispute often has a time limit (30 days to a year for disputes, usually 30 days for opting out). 105 platforms leverage a variety of these tactics to limit due process. For example, Facebook mandates California jurisdiction—dropping its arbitration clause in 2009—but its limited liability clause indemnifies (included in all but two platforms) them of any risk of facing legal action from harm a user might experience on its platform or because of its services.

This erosion of due process rights is further exacerbated by platforms collecting immense amounts of user data, classifying it as a business asset, and then being able to use that against the user if there is a violation of the TOS or any relevant laws, or if the user generally harms the platform or its business affiliates. For example, many TOS include a combination of the following provisions: a provision that says users may not break the TOS, the spirit of the it, or any applicable laws in the relevant jurisdiction; a provision that says that they can and will, but do not have to, monitor users, work with law enforcement, and use data that users provide on the platform against them; a provision that says they can take any technical or legal action they deem appropriate; a provision that says they can change the terms at any time without notice; and a provision that says that if a user does not consent to these terms, do not use the service.

Instead of supporting the just and fair separation and distribution of power, social media leverage IP and copyright law in TOS provisions to legally classify intimate user data as a business asset. So while Facebook states that the user owns their own data, for example, they also own it and financially and strategically benefit from that ownership due to the combination of other datasets they collect and purchase. This hoarding of information combined with advanced computing and other datasets—all protected by IP and trade secret laws—centralizes economic power. This prevents any meaningful aspects of shared ownership, and by collecting user data to this degree, they also contract over privacy rights while keeping their processes, technologies and information secret via black boxes.

Beyond due process, privacy, and ownership, issues of power and rights removal are becoming increasingly more apparent in TOS as political pressure has led to platforms needing to explain their content moderation rules—central to the free speech debate. Social media TOS are adding community guidelines that seek to explain the black-box decision making around content policy and other automated processes, and they are increasingly showing the codification of power. For example, as journalists have recently pointed out, Twitter's violent extremist group policy says, "You may not make specific threats of violence or wish for the serious physical harm, death, or disease of an individual or group of people." It prohibits, "groups subscribing to the use of violence as a means to advance their cause, whether political, religious, or social." But it also says, "This policy does not apply to military or government entities." This exception was used to justify President Donald Trump not getting banned for tweeting nuclear threats against North Korea, or other governments and dictators around the world, for example.

This is troublesome for a few reasons. For one, enforcement and flagging content is increasingly automated—a trend with technology corporations. As Frank Pasquale explains, when a technology company introduces automation technologies to a process, it tends to make it harder for the fundamental issue to be reformed (Pasquale, 2018). He gives the example of TurboTax and the US tax system, and shows that a combination of lobbying power and a set-in-stone business model automating solutions for a needlessly complex tax system prevents needed reforms to make it much simpler. Written rules in TOS are codifying existing power

structures and automated systems that are already hard to change, and this corners the framing of social media governance to focus more on how to moderate inside the current system rather than how to moderate within different forms of governance structures and institutional arrangements. Moreover, given the legally binding nature of these documents, it is dangerously making some reformist initiatives potentially illegal, especially if we continue down this path in the future and if interventions are not implemented. Furthermore, the Twitter rules example illuminates an intertwined issue with protecting an established hegemony: marginalized individuals and groups can be banned for making violent threats, whereas powerful government and military regimes are exempt. This was the case when tweets from black activists were taken down that were calling to arm themselves as white nationalist groups descended upon the mostly black projects near Charlottesville during the August 2017 Unite the Right rally.

Overall, TOS generally ensure the removal of user rights and controls and recourse instead of guaranteeing them, and instead of encouraging the separation of power, platforms are incentivized to leverage vast amounts of on-hand resources and the legal systems to centralize it. Perhaps a final, critical issue is that the legitimacy of governing power stems from user consent. Beyond prior research on TOS readability levels, user comprehension, the cost of reading TOS, and the fact that US courts have legitimized these documents as consensual, there are a few more issues that must be considered. First, as mentioned, the ability to *not* consent is removed by TOS provisions stating they can change the provisions at any time without notice, establishing that the only option is to not use the service. Furthermore, large social media platforms are killing competition and creating network effects that undermine the ability for users to have access to democratic alternatives. Simply put: there is no alternative to Facebook. While breaking up Facebook and other large companies is one way to create alternatives, there is something to be said about the global scope of Internet intermediaries in general. Being big is not necessarily bad, especially when it comes to ICT infrastructure and platforms' computing and big data technologies because costs go down and the available digital resources can be leveraged at scale. What is at issue here is governance of inevitably global platforms and the infrastructures they run on.

If the stated desire by users as well as social media executives is democratic governance, the issue of governance turns back to contract theory and SCT/LTG as guiding forces into a future where information technologies, advanced computing power and big data render traditional contracts theory largely irrelevant—devolving into corporate disclosures and predatory legal documents (Radin, 2017). The motivating force behind the conference and this research is the "urgent need of institutional renewal if [democratic structures] are to survive in the 21st century." For digital democracy to thrive in the 21st century, we need a contract that allows it. Based on this and prior work, in addition to SCT/LTG, the following section concludes with suggestions for better contracts and policy implications.

Towards Digital Contractarianism—Suggestions and Policy Implications of Implementation

Building on prior work and SCT/LTG we offer suggestions, and also consider policy implications that may arise in the pursuit of implementing better terms. Scholars who have worked in Internet technology policy, law, media, STS and other fields for decades have developed policy suggestions and frameworks that would make TOS more like valid contracts—and generally leading to more democratic governance. Hartzog et al. call for better IP provisions that would take limited ownership of user generated content and data for administrative use only, or provide some aspect of profit sharing (Hartzog, 2013). This ties into efforts to create platform

cooperatives (partly or fully owned/managed by employees and/or users). For example, the #BuyTwitter effort that seeks to turn Twitter into a cooperatively-owned enterprise, which would enable users to have some degree of ownership of the platform, thus, granting them greater governing power, decentralizing the economic power of the giant company while keeping its global influence, and experimenting with ways in which users can elect representatives and board members to look after the users' needs and rights.

Along the lines of distributing power and creating options for more shared ownership and governance, Hartzog et al. as well as Venturini et al., along with many others who advocate for better privacy protections, call for greater transparency (Hartzog et al, 2013; Venturini et al, 2016). Potential methods for accomplishing this range from more GDPR-like rules that require privacy policies and platforms to use plain English in explaining and justifying their data practices, to collective efforts that align more with a cooperative model. We know from prior research that putting the onus on individuals to understand privacy risks to the degree that they can make informed decisions and consent to TOS contracts is a losing battle—some type of representative accountability structure accountable to users/citizens is needed (Acquisti et al. 2015). Frank Pasquale details elements of qualified transparency, and Crawford and Ananny describe the various limitations to transparency when governing algorithmic systems (Pasquale, 2015; Ananny and Crawford, 2018). A concluding remark in Venturini et al's paper calls for regulators on the state and international levels to have greater access and powers to audit social media platforms' algorithms and their data practices (Venturini et al 2016).

Transparency is also needed at the dispute resolution level between users and between users and platforms pertaining to how TOS provisions are enforced and why. Platforms keep their decision making around rule enforcement—whether content removal, user banning, or legal consequences—behind closed doors, often citing the potential gaming of their algorithms or the danger in revealing trade secrets, which is also advantageous because it limits legal liability. Making disputes public can help in many ways. For example, Ananny and Gillespie note the unique issues that arise from platforms, such as how personalization and distributed networks make it more difficult for users to build solidarity and know the scope of a potentially unfair practice (Ananny and Gillespie 2016). If states mandate more public disclosures, users and citizens may more easily come together in an informed fashion to resolve issues on these black-box platforms.

Aligned with the goals of many of these suggestions and previous efforts, a guiding principle towards creating digital democratic governance should grant rights to users, rather than taking them away as existing TOS often do. Gasser et al. document various efforts towards “digital constitutionalism” that seek to “articulate a set of political rights, governance norms, and limitations on the exercise of power on the Internet” (Gasser et al. 2018). They find two notable phenomena in digital constitution documents over the past few decades: (1) they are increasingly aimed at private actors, and (2) they increasingly take a more regional scope that would enable state-backed legal codification, such as the Council of Europe's *Declaration of Internet Governance Principles*, and *The Charter of Digital Rights*.

Based on these trends as well as our analysis of social media TOS, we suggest a few areas for future research. First, as digital rights groups on the state and international level begin to work with governments and politicians to design better contracts, it is critical to base them upon the four key foundational elements provided by SCT/LTG. They must consider: (1) the distribution and separation of powers between critical stakeholders—users, governments, platforms and other institutions; (2) the endowment of the individual and group user rights and obligations (i.e.

natural rights such as privacy, participation, due process, speech); (3) controls and recourse (i.e. due process, and democratic institutions that allow users to flex rights and access justice); and (4) the legitimate and illegitimate use of power that is granted by the consent of the people to a governing authority. The last principle is perhaps the most urgent, given that traditional contract theory is not equipped to deal with consent in the digital age with algorithmic decision making and AI. In beginning this conversation, Radin's work cites Robin Kar's Contract as Empowerment as a starting place (Radin, 2017; Kar, 2016).

Second, because of platforms' power over users in the market and influence in the United States legislative branch (and the U.S. court systems that legitimize this power), we assert that creating the conditions in which user bills of rights can be codified might require more subversive tactics. Indeed, it may require civil society—informed by research—to implement similar tactics that social media platforms and other Internet intermediaries have already used to reduce user access to civil rights.

Subversive tactics would aim to identify powerful negotiating strategies that could either threaten regulation (historically understood as external force, or state violence), or intentionally limit on the main forms of economic production that give social media its power (historically understood as labor strikes and collective bargaining aimed at a company's bottom line). For example, activists and researchers in the cooperative movement and elsewhere have floated the idea of user strikes. This might take the form of creating proposals and media campaigns that encourage users to sign up for a plugin or app in which users may click on provisions that grant them more rights, and then log all users out at a given time, keeping them logged out until the platform concedes. However, strategies like this have their challenges. As mentioned above, personalization and echo chambers make it hard for solidarity to occur, and network effects and people's livelihoods may prevent them from having the ability to remain on strike--again, the opportunity costs of abstaining from social media use (Portwood-Stacer, 2012). These actions might also violate TOS. Facebook, for example, has provisions that prohibit automated access to the platform, "anything that could disable, overburden, or impair the proper working or appearance of Facebook," sharing login information with others, any malicious content, or the encouragement or facilitation of anything that might "violate the letter or spirit of this Statement [TOS], or otherwise create risk or possible legal exposure." (Nevertheless, an experiment on that scale would be interesting in terms of whether or not Facebook might censor an activity.)

Along with the incorporation of SCT/LTG in work towards granting and legally codifying user rights, and the potential need for subversive tactics in attaining them, we believe that the research community needs to increasingly take the lead in informing civil society, especially when it comes to outlining steps toward creating the conditions in which democratic governance can be attained given technological advances. Real change will come from collective action and thoughtful visions of the future, taking into account power and SCT/LTG. We suggest that contracts need to legally bind the institutions holding power to democratic principles and, ultimately, a path to democratic governance. Specifically, it would be worth investing more time exploring distributing shared ownership and wealth in order to provide the means for meaningful accountability via cooperatives, government regulation, or a form of Internet infrastructure and intermediary nationalization that are technologically relevant. As Yochai Benkler recently proclaimed, we need a comprehensive programmatic response to forge the future of how technology is used in society rather than leaving it in the hands of economic nationalists or the techno-libertarianism of Silicon Valley. As a research community it is our duty to inform the

public, and it's urgent that we consider the historical frameworks that brought about democracy and adapt them to the 21st century in order to achieve democratic renewal.

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