What is Platform Governance?

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Abstract

Following a host of high-profile scandals, the political influence
of platform companies (the global corporations that that operate on-
line 'platforms' such as Facebook, WhatsApp, YouTube, and many
other online services) is slowly being re-evaluated. Amidst growing
calls to regulate these companies and make them more democratically
accountable, and a host of policy interventions that are actively be-
ing pursued in Europe and beyond, a better understanding of how
platform practices, policies, and affordances (in effect, *how platforms
govern*) interact with the external political forces trying to shape those
practices and policies is needed. Building on digital media and com-
munication scholarship as well as governance literature from political
science and international relations, the aim of this article is to map an
interdisciplinary research agenda for *platform governance*, a concept
intended to capture the layers of governance relationships structuring
interactions between key parties in today's platform society, includ-
ing platform companies, users, advertisers, governments, and other
political actors.

1   Introduction

Platform companies, the global corporations that operate Facebook, What-
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virtually all aspects of contemporary life, from politics (Gillespie 2018b) and labour relations (Srnicek 2016; Van Doorn 2017) to cultural production and consumption (Nieborg and Poell 2018). Although the products and services provided by a handful of large, predominantly American technology firms were not long ago widely portrayed as inherently beneficial and democratizing "liberation technologies" (Tucker et al. 2017), the influence of these corporations in public and political life is slowly being re-evaluated following multiple high-profile public scandals (Vaidhyanathan 2018). Today, scholars, policymakers, and the public are increasingly attempting to understand the complex political effects of Instagram, Google Search, Airbnb, Uber, Amazon, and other platforms, amidst calls to make the companies that operate them more democratically accountable (Suzor 2019).

This endeavor is the latest chapter in the effort to better understand the multitude of complex socio-technical developments playing a role in modern life. Research documenting the growing impact of automated decision-making in areas such as policing, finance, and health-care (Ananny and Crawford 2018) has been coupled with a constant flow of "algorithmic war stories" illustrating how bias and discrimination can be exhibited by these systems (Edwards and Veale 2017, 14). A growing and increasingly well-organized interdisciplinary community of social and computer scientists is responding by proposing actionable frameworks for accountable algorithms and fair machine learning (Barocas, Hardt, and Narayanan 2018; Wallach 2014), and exploring how various desirable principles, such as "explainability" or broader notions of legal "recourse," could be enacted for algorithmic systems (Ustun, Spangher, and Liu 2019; Wachter, Mittelstadt, and Russell 2017)

A similarly focused line of research into the governance of platform companies has yet to be pursued, despite the even wider prevalence of what might be termed 'platform war stories.' From the Cambridge Analytica scandal and Russian interference in the 2016 US election to Facebook's troubling role in the recent Myanmar conflict, policymakers around the world are grappling with what Pasquale (2016, p. 314) has called "the darker narrative of platform capitalism." Popular discourse has become increasingly suffused with various regulatory proposals for curbing the power of the so-called 'digital giants,' which range from calls to break up Facebook from its acquisitions Instagram and WhatsApp (Reich 2018) to arguments that platforms should be legally responsible for content posted by users via their services (Syal 2017). How should platforms be governed? There is no simple answer, because, as Helberger and colleagues (2018) outline, the policy arena is fragmented,

with responsibility for the social and political role of platforms divided between the platform companies (as architects of online environments), users (as individuals making decisions about their specific behaviour in an online environment), and governments (as the entities setting the overall ground rules for those interactions). Although key questions about the appropriate balance of responsibilities between these actors remain unanswered, policymakers — at least in Europe — are keen to act, and Germany's 2017 "Network Enforcement" law (NetzDG), which makes companies liable for illegal speech propagated via their services, has provided important precedent (and to some, a warning sign) for possible government responses (Schulz 2018). At stake are major issues of freedom of expression, political participation, and democratic governance, with tremendous implications for the future of digital communication. Yet we lack a shared vocabulary or framework for approaching the oncoming challenges.

The goal of this article is to bring governance scholarship in conversation with the emerging platform studies literature, and in doing so, contribute a more precise understanding of what is now being informally called "platform governance." It proposes a framework explicitly mindful of power dynamics and the effects of external political forces on the platform ecosystem, and seeks to provide a first mapping of the ongoing, interdisciplinary research landscape in a politically vital area that has yet to receive a concrete definition or theoretical overview. In the first section, I outline platform governance as a concept that refers to the layers of governance relationships structuring interactions between key parties in today's platform society, capturing the growing body of work addressing the political effects of digital platforms (governance by platforms), as well as the complex challenges that the governance of platform companies presents. In the second section, three governance 'lenses' currently being used to inform thinking about platform regulation and policy are outlined, with a discussion of the questions and challenges raised by each. The final section addresses the normative question of how platforms should be governed going forward, and briefly discusses the emergent guiding principles shaping the future platform policy landscape.

2 Theorizing Platform Governance

2.1 What is a Platform?

'Platform' is an ambiguous term, used differently by various scholarly communities (Schwarz, 2017): there are subtle variations in the ways that platforms are understood by computer scientists, economists, digital media scholars, and lawyers. A full history could go back to the emergence of computer networking, ARPANET, and early bulletin boards (Hauben and Hauben, 1997; Naughton, 2000), or even further back to the early emergence of computing (Hicks, 2017), but an abbreviated history of platforms might begin in California in the 1990s, as software developers began to conceptualize their offerings as more than just narrow programs, but rather as flexible platforms that enable code to be developed and deployed (Bogost and Montfort, 2007). The term was then strategically deployed by certain companies, allowing them to brand themselves as platforms that facilitate access to user-generated content, but do not create it, and therefore should not be held liable for it (Gillespie, 2010). In recent years, the term has been adopted as shorthand both for the services provided by many technology companies, as well as the companies themselves (Srnicek, 2016). In this article, I use platform company more generally to refer to the corporations that deploy a service (e.g. Facebook and Alphabet) and platform to refer to those online, data-driven apps and services (e.g. Facebook Messenger, Google Search, YouTube); see Helmond (2015) for a more thorough discussion of history and definitions.

2.2 What is Platform Governance?

The political concept of governance has evolved greatly in the past half-century. Initially associated with domestic governments, governance was less a set of practices than a capacity: as per Fukuyama's (2013, p. 4) traditional articulation, governance is the "government's ability to make and enforce rules, and to deliver services." So-called 'good governance,' as commonly understood by political scientists, referred to a state's ability to build functional and effective institutions, and use those institutions to maintain law and order (Weiss 2000). However, a movement in the 1990s towards 'global governance' undertaken by a group of international relations scholars and political scientists, as famously catalyzed by a landmark 1992 volume, Governance without Government (Rosenau and Czempiel 1992), advocated

a much broader understanding of governance. This more flexible conception engaged with the central question of "how global life is organized, structured, and regulated" (Barnett and Duvall 2004, 7), and sought to move beyond singular state-centrism to better understand the power relationships and conflicts that emergent 20th century (often corporate, private, or non-state) governance structures could create or enforce. As Stoker (1998, p. 17) put it, governance entails "creating the conditions for ordered rule and collective action." Therefore, it is more than just a capacity, but a specific and complex network of interactions spanning different actors and behaviours.

Some academics studying online life have implicitly adopted similar understandings of governance. As Grimmelmann (2015, p. 47) has suggested, robust systems of community moderation and management are effectively "governance mechanisms" designed to "facilitate cooperation and prevent abuse." Digital media scholars argue that content policies, terms of service, algorithms, interfaces, and other socio-technical regimes form the governance mechanisms of today's online infrastructures (Plantin et al. 2018). Platform studies scholars show that platform services can significantly affect and mediate individual behavior (Bucher and Helmond 2018); therefore, platforms engage in governance at the individual, user level (Gillespie 2015). But these governance mechanisms are themselves shaped by the policy and regulatory constraints on the corporate entities which deploy these platforms. For a company like Facebook, this includes a host of American regulatory frameworks, international regulatory frameworks for overseas operations, voluntary compliance mechanisms like the Global Network Initiative (GNI) principles, industry-wide voluntary partnerships for terrorist content (initiated at by European Commission), and countless others. Platform governance is an approach necessitating an understanding of technical systems (platforms) and an appreciation for the inherently global arena within which these platform companies function. It acknowledges that, as digital media scholars have noted (Gillespie 2018a), platforms are fundamentally political actors that make important political decisions while engineering what has become the global infrastructure of free expression; but it also acknowledges the other half of the equation: that these private 'governors' (Klonick 2017) are themselves subject to governance on all fronts, and that their conduct of governance is directly informed by local, national, and supranational mechanisms of governance.

The key actors in platform governance therefore include not only users and platform companies, what Poell, Van Dijck, and Nieborg (2018) have

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called "complementors" (the host of data-brokers, advertisers, developers, and other parties that participate in a platform's ecosystem), but also, crucially, political actors including various branches of government, as well as other stakeholders and advocacy groups (non-governmental privacy and digital rights groups, academics and researchers, and investigative journalists, who all play a growing accountability function by scrutinizing the practices of platform companies). This is not to say that these political forces (such as state preferences) reign supreme; rather, I suggest that, following the insights of global governance scholarship, "a wide variety of forms of governance exist next to each other and that a hierarchy among these various mechanisms is hard, if not impossible, to discern" (Dingwerth and Pattberg 2006, 192).

Acknowledging media and communications scholars that have done such vital work in advancing the sociological, anthropological, and political economic dimensions of platforms, I posit that to truly understand the power relationships and governance structures underpinning contemporary forms of "platform capitalism" (Srnicek 2016), one must also engage with the host of political forces and political (f)actors affecting the platform ecosystem in a variety of ways. As platform politics are becoming increasingly difficult to separate from global politics, an exploration of this kind of platform governance must build on valuable scholarship conducted in various areas, including research from digital media and internet studies, platform studies, political communication, technology policy and law, as well as political science and international relations. Here, I survey insights from this scholarship, grouping them under three arguments: *platforms govern*, *platforms are governed*, and *platform companies are companies*.

2.2.1 Platforms Govern

Scholars of the internet and digital media have been at the forefront of research into online life, from the initial emergence of 'social networking sites' (boyd and Ellison 2007) to their eventual transition into 'platforms' (Helmond 2015). The platform studies and game studies traditions within digital media research (Bogost and Montfort 2007, 2009; Jones and Thiruvathukal 2012), which primarily view platforms from an architectural perspective (Weltevrede and Borra 2016), have been bolstered by scholars interested in the power relationships manifest in online cultural practices. Scholars interested in "platform politics" were perhaps the first to focus on governance and power relationships as mediated through platforms. By examining the way in

which platform companies navigated the complex, and oftentimes contrasting interests of various stakeholders (including users, advertisers, and regulators), and showing how the term 'platform' had itself become a discursive, political imaginary, Gillespie set the stage for work investigating how platforms 'intervene' in everyday life, shaping the online experience and algorithmically determining what information to make (in)visible (Bucher 2018; Gillespie 2010, 2015). Similarly, Van Dijck (2013, p. 104) specifically discussed how different governance mechanisms affected "online sociality" as experienced by users of Twitter, Flickr, and other services. As researchers explored how best to theorize platforms and situate them critically within past scholarship on social networks, forms of cultural and epistemic power became the focus of researchers such as Langlois (2013, p. 93), who explores platforms as "participatory media assemblages, whereby Facebook and Google become conduits of governance."

But even before the rise of platforms, work on "search politics" and "epistemic power" grappled with what are now the foundational questions of platform governance: how search engines (and the companies that deploy them) may shape knowledge and meaning, and thereby politics, society, and culture (Hargittai 2007; Introna and Nissenbaum 2000). A group of scholars that one could call an "Amsterdam School" of critical platform studies provides key insights into platformization, defined as the "penetration of economic, governmental, and infrastructural extensions of digital platforms" into cultural practices (Nieborg and Poell 2018, 2). This approach focuses on ecosystems, and the potentially powerful gatekeeping roles that platforms play by mediating relationships between various parties in the "platform society" (Van Dijck et al., 2018, p. 5). Related work by these scholars has mapped the assortment of communicative affordances displayed by different platforms, and how they enable and constrain forms of user behaviour (Bucher and Helmond 2018; Weltevrede and Borra 2016). As Lessig (2006, p. 1) famously observed, "code is law," and the design decisions made by the creator of an online service effectively amount to a form of regulation.

The political implications of the algorithmic systems deployed by platform companies are also of interest to digital media researchers, who, through 'critical algorithm studies' scholarship (Gillespie and Seaver 2015), have examined the increasing role that automated decision-making plays in contemporary life (Beer 2017; Burrell 2016). This literature intersects significantly with the current public discourses around platform companies: as Caplan and boyd (2018, p. 2) note, "conversations around algorithmic account-

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ability often center on Facebook and Google." Although this initially may seem surprising (given the multiple other areas of public life now assailed by artificial intelligence or 'AI'), it must be recognized that platform companies deploy what are likely the largest, most global, and most widely used algorithmic systems in existence. These systems, due to their scale and (generally) public-facing nature, provide some outcomes that may be relatively visible: while one may be uncertain about when one has been discriminated against by an automated hiring classifier used by a potential employer, problematic YouTube autocomplete results or racist image tagging systems can provide public examples of bias and discrimination. Therefore, work striving to understand how to "govern algorithms" (Barocas, Hood, and Ziewitz 2013; Ziewitz 2016) fundamentally implicates platforms. After all: how can we strive for accountable algorithms, if the corporate entities that build and deploy them are not fair, accountable, transparent, or ethical, and if they seem to be entrenching, rather than combatting, existing social prejudices?

While this scholarship has illustrated how platforms govern users through their design, architectures, assemblages of algorithms, and other technical structures, the mounting explorations of how platforms interact with social structures more broadly is also vital. Intersectional arguments that online services can encode gender dynamics, class structures, and racism (Noble, 2018) provide an important depiction of how platform companies can engage in governance at a broader level. How do the decisions made largely by a homogeneous group of white elites in Silicon Valley affect different users around the world? Nakamura, Bivens, and others have demonstrated how the choice of architectures and other design decisions (such as sign-in pages that present new users with a binary gender option) can entrench normative judgments around gender, race, class, and sexuality (Bivens 2017; Nakamura 2013). By adopting a sociotechnical perspective, this scholarship highlights the importance of internal dynamics within platform companies, and of employees and organizational structures within platform governance (e.g. the lack of diversity within engineering teams has a major impact on the design decisions those teams make).

Work that scrutinizes the specific practices of platform companies provides another important contribution. Political communication researchers have assessed the growing role of technology firms as "active agents in political processes" through their direct collaboration with campaigns (Kreiss and Mcgregor 2018, 155), and their troubled interactions with publishers and news organizations (Bell et al., 2017; Nielsen and Ganter, 2017). A

growing body of work seeks to explore the practices and implications of commercial content moderation and content policy (Roberts 2018) as the processes through which platform companies set and enforce the rules governing user speech (Gillespie 2018a; Suzor 2019). Researchers have thoughtfully documented both how this culminates in governance at the user level and how users themselves perceive and interact with these structures (Duguay, Burgess, and Suzor 2018; Myers West 2018). This work builds on research in human-computer interaction and community management, where "platform governance" refers to the systems of rules, norms, and civic labour governing an online community (Matias and Mou 2018). Digital media, internet studies, and communication scholarship forms the base of a platform governance approach: it provides an appreciation for the functions, affordances, and politics of contemporary platforms, and illustrates the contours of how platform companies currently govern user behavior. However, it could be better contextualized within the broader context of platform companies as corporate actors, and the contested global governance arena within which they operate.

2.2.2 Platform Companies are Companies

Media scholars have called for more involvement from political scientists in contemporary debates around platform companies. As Helberger et al. (2018, p. 4) note, "the governance of platforms and how they are involved in the organization of societal relationships is ultimately a political question," but political scientists have yet to contribute substantially to current debates around democracy, politics, and platform companies. One of the simplest, yet potentially most impactful insights that can be provided to platform studies research from political science is that platform companies may span industries and resist meaningful classification, but they are still companies. Platform governance work should thus draw on the substantial scholarship which has examined the role of influential global corporations in public life and public affairs around the world. As platform companies become transnational corporations perhaps unmatched in their global reach and wealth (Apple recently became the first company in history to obtain a market capitalization of more than a trillion dollars), a clear point of reference is historical research about the political influence of other global corporations. As Moore and Tambini (2018) argue, there are some parallels that can be drawn between the current 'digital giants' and monopolistic firms like Standard Oil, which played a

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significant economic and political role the 19th century United States. But there are further parallels to the post-WW2 period, where the emergence of the international order and the slow advent of globalization allowed a group of firms to grow into multinational corporations of unprecedented wealth and size (Vernon 1977). As political economists such as Strange (1996) observed, the corporations that drove economic growth and boosted national gross domestic products also created many governance challenges, testing jurisdictions and traditional forms of regulation. Keeping corporations accountable became a pressing global governance problem as mounting evidence of their repeated evasion of labor and environmental standards by large corporations — especially extractive natural-resource based multinationals — emerged in the 1970s and 80s (Keck and Sikkink, 2014; Ruggie, 2008).

The scholarship that arose to catalogue the relationships between global corporations and other actors in domestic and international politics (D. A. Fuchs 2007; Mikler 2018) is another important area which could therefore contribute to future platform governance research. Despite their constant invocation of the rhetoric of disruption and innovation, platform companies function in many ways as traditional corporate actors. They are tremendous lobbyists: in 2017, Google spent more on lobbying in Washington than any other company (Shaban 2018), and Facebook has now on multiple occasions hired lobbying firms to help discredit their competitors (Nicas and Rosenberg 2018).They minimize their tax burden with classic profit shifting techniques, and they deploy contractors to keep their workforces small and relatively inexpensive (Srnicek 2016). As corporations, platforms can be therefore governed along the lines of traditional multinational/global enterprises.

Decades ago, global advocacy groups organized against firms like Nestle, 'naming and shaming' them into more socially responsible business practices (Sikkink 1986). International organizations built soft forms of governance through codes of conduct and Corporate Social Responsibility networks (Ruggie, 2013). Activist shareholders sought to reform companies from within, and employees within the firms made their voices heard to push for change. There are clear parallels to today, where international digital rights organizations (e.g. Privacy International), investigative journalists (e.g. ProPublica), and academics have become key actors creating public pressure for responsible platform governance. Furthermore, non-governmental "social responsibility" mechanisms, first created for freedom of expression issues (such as the GNI) are now potentially being revitalized for the broader host of concerns that platform companies need to deal with to-

day (Kaye 2018). These processes will be contested, and provide no panacea, as keeping global corporations accountable is no easy task (Ruggie, 2008). However, future platform governance scholarship can learn from the past as it seeks to devise new forms of corporate accountability suitable for the business models of today's data-driven platform corporations, and as it evaluates the emerging international structures, processes, or organizations that can help fill loopholes in how platform companies are governed by national legislation.

2.2.3 Platforms are Governed

Governance by platforms does not happen in a vacuum. Although it has become commonplace to argue that platform companies are profoundly under-regulated, and that platforms wield almost unfettered, sovereign power at global scale (Vaidhyanathan 2018), the current regulatory landscape across the Global North (laissez-faire as it generally is) can be interpreted as the product of American foreign policy interests (Goldsmith 2018). It may be true that efforts to reform platform companies in areas such as privacy have yielded mixed results, especially in the United States: however, the efficacy of a specific regulatory intervention does not change the reality that platforms can be and are governed by governments. The practices of platform companies are subject to local laws (e.g. platform companies heed governmental notice-and-takedown requests on content), and can be scrutinized by regulators, privacy authorities, competition authorities, and other institutional actors at the domestic or international level.

Therefore, legal scholarship is instrumental in helping to formulate an understanding of how the behavior of platforms, as online intermediaries enabling activity by third-parties, is governed externally by telecommunications and internet law (Goldsmith and Wu 2006). In the United States, this includes the study of intermediary liability provisions, such as Section 230 of the Communications Decency Act, and the implications of its reform (Citron and Wittes 2017), as well as comparative, international explorations of how differing liability frameworks create different incentives for platform behaviour (Gasser and Schulz 2015; Omer 2014). Media law and information policy provides another perspective into how platforms may fall under existing regulatory structures as publishers and information conduits (Brown and Marsden 2015; Lunt and Livingstone 2011).

Alongside the 'soft' international governance and accountability struc-

tures discussed in the previous section, platform companies are also potentially governed internally. While technology corporations often have shareholder structures that consolidating power within their executive (preventing them from being fully accountable to their investors), it is important to remember that they are complex collections of individuals and interests as opposed to unitary actors. Employees (either full-time employees, or the 'gig' workers that many platforms rely on) can unionize, organize for responsible product design, stage protests and walkouts, and try and steer a company's actions from the inside, either collectively or individually (Wood, Lehdonvirta, and Graham 2018).

3 Emerging Governance Modes

In the decade since the Arab Spring and the various "Twitter Revolutions," the political role of platform companies has been increasingly problematized. Our understanding of how platforms govern (via content policy decisions, algorithms, and forms of user 'dependency' (Nieborg and Poell 2018) has deepened considerably. But the question of how platforms should be governed going forward — currently being discussed in many policy and public circles, though less so in scholarly ones — remains open, even as regulatory options are being exercised by decision-makers around the world. These conversations are taking on an air of inevitability: as Pasquale (2018, p. 14) puts it, "even Mark Zuckerberg recently conceded that the question is not whether to regulate Facebook, but how." It is the latter question that will prove essential moving forward. If users of the services provided by platform companies seek 'good governance' — in other words, seek to recapture what was once heralded by the open Web — than how should they get it? What are the policy steps that should be taken? And what should be the first principles underpinning those steps? Answering these questions will involve finding the appropriate balance between the 'self-governance,' 'external governance,' and 'co-governance' models that are currently developing.

3.1 Self-Governance

The current dominant governance mode is often referred to as 'self-governance' or 'self-regulation.' This approach, enshrined through legislation like the US Communications Decency Act and the EU E-Commerce Directive, limits

platform liability and results in a relatively laissez-faire relationship between governing institutions and platform companies. Today, companies own and operate what is often highly visible, highly trafficked "public" space, and respond to third-party complaints about content (for reasons ranging from intellectual property to national security). The companies are generally not liable for what users do on a platform, as long as they take adequate steps to redress third party 'notice.' In this governing mode, transparency is generally voluntary, and most platform decisions are made with minimal external oversight (Suzor 2019). Since 2016, platform companies have implemented multiple changes in response to public concern. These initiatives, which range from new advertising tools to changes as to how they interact with political campaigns, seem designed to head off possible avenues of regulation while also effectively maintaining the highly-profitable status quo. In the past two years, these self-regulatory improvements have prominently consisted of technical changes or tools, transparency efforts, or some combination of the two (Gorwa and Garton Ash, forthcoming).

Platform companies insist that they can be accountable to their users by slowly increasing transparency in numerous areas, such as content policy and advertising. After a group of U.S. Senators proposed the Honest Ads Act, Facebook took many of the provisions of the act and pre-emptively implemented them (Timmons, 2018). Facebook, Google, and Twitter now require political advertisers to register or provide identification in certain jurisdictions, and both Facebook and Google have built public-facing tools where researchers or interested members of the public can see ads that are being deployed, along with some information about who is paying for them, and how much (Garton Ash, Gorwa, and Metaxa, 2019). Other major transparency initiatives have been launched as part of this broader effort to regain public trust. In April 2018, Facebook made the important step of releasing public-facing internal guidelines for their "Community Standards," the rules that govern what the more than 2.2 billion monthly active users of Facebook can post on the site (Bikert, 2018). They also launched an ongoing project partnering with academics which hopes to create a reputable mechanism for third party data access and independent research (King and Persily 2018).

As these changes illustrate, the self-governance model has numerous advantages. Through investigatory journalism, academic engagement, and public advocacy, companies can be nudged in the right direction without complex regulatory interventions (an especially challenging prospect when, due to corporate secrecy and the inherently 'black box' nature of contemporary

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platform companies, the true scope of many of the problems in today's platform ecosystem are not fully known). Platform companies can quickly make specific interventions (such as requiring advertisers to register their identities or combating hate speech through specific tweaks of their content policies) far before legislation goes into effect. Additionally, by keeping key decisions about free expression largely in the hands of online intermediaries, important concerns about government censorship and suppression (including in less democratic countries that may be keen to exert control over online environments) are assuaged (Kaye 2018; Keller 2018). But there are also important limitations: voluntary arrangements rely on goodwill and provide limited recourse in the case of non-compliance. Many recent transparency initiatives are predominantly public-facing, providing useful tools for journalists and interested members of the public, but arguably much less useful information for regulators and investigators. Furthermore, these minor changes do little to provoke systemic change or modify platform business models, which may be fundamentally problematic and based on extractive surveillance and data collection (C. Fuchs 2012; Zuboff 2015).

3.2   External Governance

Following countless public relations scandals, large-scale privacy breaches, and growing concerns about polarization and misinformation, many are advocating for more "external governance." In practice, government intervention is catalyzing around three policy levers: the implementation of comprehensive privacy and data protection regulation, the repudiation of intermediary liability protections, and the use of competition and monopoly law. Softer versions consist of specifically crafted legislation around existing policy levers (e.g. amending existing electoral laws with online advertising provisions). New forms of legislation targeted towards platforms demonstrate the most discrete effort to affect the business models and practices of certain companies and industries. The German Network Enforcement (NetzDG) law, born out of apparent frustration with the self-governance mode (with German officials arguing that American platform companies like Twitter and Facebook were responding too slowly or incompletely to their requests), removes liability protections for content violating German law, mandating that (sufficiently large, aka non-German) platform companies remove "evidently unlawful" material in less than 24 hours following a complaint (Schulz 2018, 6), or face significant fines. NetzDG also seems to be the first legislation to

move beyond current voluntary transparency measures by legally mandating comprehensive transparency reporting on operations in Germany (Keller, forthcoming).

Privacy legislation is another lever: under the European Union's 2016 General Data Protection Regulation (GDPR; in effect as of May 2018), platforms are given clear requirements as to how they process personal data, with the threat of enormous penalties for non-compliance (Golla 2017). GDPR has other major stipulations about data portability, data protection by design, and informed consent that, if enforced, could have a resounding impact on the platform ecosystem (Hildebrandt 2018). Although it remains unlikely in the short-term, some have argued that the United States should adopt similarly comprehensive privacy legislation (Cook, 2018). Perhaps the most drastic measure, however, would involve the use of anti-trust law in the United States. Although platform companies have already faced fines from European competition authorities, some legal scholars have argued that these companies should be broken up or prevented from making future acquisitions (Pasquale 2018; Wu 2018). From this perspective, the argument is that, despite their provision of ostensibly 'free' services (and therefore, the lack of clear price discrimination), users are harmed by multiple forms of anti-competitive behavior exhibited by platform companies (Khan, 2016).

3.3 Co-Governance

Steps towards 'co-governance' seek a third way between the two previous approaches. In the short term, such models seek to provide some values of democratic accountability without making extreme changes to the status quo. Civil society organizations, for example, have advocated for some kind of organization that could perform multiple functions ranging from investigating user complaints to creating ethical frameworks for platform companies, perhaps modelled after international press councils which set codes of conduct and standards for news organizations (ARTICLE 19 2018). Kaye (2018, p. 18), describes the possibility of various "ombudsman programmes or third-party adjudication" systems to which users could address complaints and seek redress, and outlines several historical organizations which could provide precedent. Much as the GNI brought an international group of civil society organizations, academics, and other stakeholders together with platform companies to establish best practices for the promotion of free expression (and a system of transparency reporting, third party audits, and other

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mechanisms to help oversee those practices), a similar organization could be formed to tackle recent concerns around disinformation, hate speech, privacy, and more. One of the major developments since the GNI is not just that the platform's external conduct vis a vis governments must be scrutinized via audits and other accountability mechanisms. Today, the internal behaviour of the platforms themselves is of key public interest and demands increased oversight and stakeholder engagement.

Other possible visions of co-governance involve more granular forms of user participation in policy decisions: for instance, Gillespie (2018) describes Facebook's brief experiment with user voting on policy changes as a possible model which need not have been cast aside so quickly. Will platforms seek to bring in external community support into their governance practices in order to gain legitimacy and trust? In November 2018, Zuckerberg announced that the French government would be permitted to embed regulators into content policy processes in the country, and that Facebook would create a "supreme court" that would allow external appeal for content policy decisions (Zuckerberg, 2018). While the outcome of these changes is yet to be seen, they signal an understanding on Zuckerberg's behalf that self-governance is no longer seen as a satisfactory long-term solution by various governance stakeholders. Co-governance could also provide even more radical options in the long term, as it lends itself to a philosophy that leads away from major, corporatized platforms and towards various platform cooperatives, decentralized systems, and other forms of community self-management. While these remain admittedly unlikely in the near-term (due to scale issues, network effects, and other challenges), they could provide a more equitable and just digital economy for users in the long term (Scholz 2016; Van Doorn 2017).

4   Conclusion: Normative Principles for Good Platform Governance

Given the rapid pace and development of the platform ecosystem, as well as the dynamic nature of the platform companies in question, new models for digital governance will likely need to be developed. As Nooren et al. (2018, p. 282) suggest, when it comes to platforms, "a more normative/functional approach is required instead of the overly detailed regulation common to static markets... it may be necessary to move toward 'principles-based reg-

ulation' as opposed to 'rules-based regulation.'" A platform governance approach should therefore seek not only to understand the complex governance relationships and public policy challenges in today's platform society (Nash et al. 2017), but also ask how these relationships can become more beneficial for the multitude rather than the few.

Recent research has begun extending some possible guiding principles, each with their relative merits and challenges. These include rights-based legal approaches, such as international human rights law (Kaye 2018; Suzor, Van Geelen, and Myers West 2018) or American civil rights law (Citron 2009), which could possibly provide an avenue for platforms to better ground policy decisions and build legitimacy. Other possible frameworks include aspirational computer science principles for algorithmic systems, including fairness, accountability, and transparency, ethics, and responsibility (Diakopoulos et al. 2016); the developing area of "data justice," which seeks to transcend the focus on individual harms wrought by various data-driven systems and instead apply holistic principles of social justice at a broader level (Dencik, Hintz, and Cable 2016; Taylor 2017). Others could include political science and governance studies principles of meaningful democratic accountability and transparency (Fung 2013; Hood and Heald 2006), or Corporate Social Responsibility and other past efforts to steer business in the direction of human rights or other normative aims (Urban 2014). How can these various values be enshrined through sensible legislation and accountability mechanisms? Principles, values, and imaginaries will be crucial for grounding the future platform governance research agenda, and scholars will need to be assertive with their ideas and their output. Change will not come easily: platform companies have become influential political actors with an obvious interest in preserving their dominant market positions. Creative ideas will be needed to help 'disrupt' the 'disruptors' and introduce fairer, more accountable, and more just forms of platform governance.

5 Acknowledgements

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