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Governing online platforms: From contested to cooperative responsibility

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ABSTRACT

Online platforms, from Facebook to Twitter, and from Coursera to Uber, have become deeply involved in a wide range of public activities, including journalism, civic engagement, education, and transport. As such, they have started to play a vital role in the realization of important public values and policy objectives associated with these activities. Based on insights from theories about *risk sharing* and the *problem of many hands*, this article develops a conceptual framework for the governance of the public role of platforms, and elaborates on the concept of *cooperative responsibility* for the realization of critical public policy objectives in Europe. It argues that the realization of public values in platform-based public activities cannot be adequately achieved by allocating responsibility to one central actor (as is currently common practice), but should be the result of dynamic interaction between platforms, users, and public institutions.

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Online platforms, from Facebook to Twitter, and from Coursera to Uber, have become deeply involved in a wide range of public activities. As such, they have started to play a vital role in the realization of important public values and policy objectives associated with these activities, including freedom of expression, diversity, public safety, transparency, and socio-economic equality. This paper develops a conceptual framework for the governance of the public role of platforms, and elaborates on the concept of *cooperative responsibility* for the realization of critical public policy objectives in Europe.

Throughout the twentieth century, state institutions in Western Europe were primarily responsible for the organization of public space and for safeguarding public values. This societal arrangement has since come under increasing pressure due to economic liberalization and the privatization of public institutions and services (Dean 2007; Garland 1996; Miller and Rose 2008). The rise of digital intermediaries in the form of online platforms is accelerating and further complicating this trend. These intermediaries may be general-purpose platforms for social communication and information sharing (e.g., Facebook, Twitter), or specific platforms in various sectors such as education, transportation, and hospitality (e.g., Coursera, Uber, Airbnb). In general, *online platforms* can be defined as socio-technical architectures that enable and steer interaction and communication between users through the collection, processing, and circulation of user data (Van Dijck, Poell, De Waal forthcoming; Plantin et al. 2016). These platforms typically appear to facilitate public activity with very little aid from public institutions. As such, they are celebrated as instruments of what has become known as "participatory culture" and the "sharing" or "collaborative" economy (Botsman and Rogers 2011; Jenkins 2006; Shirky 2008). Online platforms hold the promise of empowering individuals to effectively take up their role as producers of public goods and services, as well as to act as autonomous and responsible citizens.

However, in practice, online platforms have, to date, not fulfilled this promise. Instead, in many cases they appear to be further intensifying the pressure of the market on important public values, such as transparency and non-discrimination in service delivery, civility of public communication, and diversity of media content. As we will demonstrate in this article, their commercial interests and corresponding strategic motives do not always align well with those of public institutions, which, despite the dominant neo-liberal rhetoric, remain important organizational and regulatory actors. We will argue that platforms need to take up their role as organizational and regulatory actors with regard to key public values. How they should do this is far from straightforward.

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There are several complicating factors. First, the dominant online platforms are US-based transnational corporations which take global architectural decisions but store and process most user data in the US. Second, there is the complexity and black-boxed nature of the platform architecture and the underlying algorithms. Third, the division of labor between users and platforms is a further complicating factor. It is not only platforms but also active users that play a role in the realization or erosion of public values on these platforms. At the same time, it is clear that the power relationship between users and platforms is unequal, not least because of the opacity of platform operations. The question of where the responsibility of the platform ends and that of user starts is a notoriously difficult one.

It is this question about the adequate allocation of responsibility that this article will tackle. In doing so, we outline a framework to conceptualize the different responsibilities of key stakeholders, users, platforms, and governments, as well as consider how these actors can be empowered to effectively take up these responsibilities. We will develop our argument through the following steps. First, moving beyond what is known as the host-editor dichotomy, we will develop the concept of *cooperative responsibility*, which is based on the idea that platforms and users need to agree on the appropriate division of labor with regard to managing responsibility for their role in public space. Second, using three case studies we will consider how the concept of cooperative responsibility can be operationalized. These case studies focus on: 1) questions of transparency and non-discrimination in the delivery of peer-to-peer mobility services, 2) the circulation of contentious content on social media, and 3) the diversity of content on these media. We conclude the article by formulating several guiding principles that can be used to develop public policy that enables and enforces cooperative responsibility regarding key public values.

Toward cooperative responsibility

Much recent discourse on the public responsibility of platforms pivots on the question of whether or not platforms can be held accountable, legally and morally, for what is "shared" through them. From the legal point of view, this discussion is grounded in the host-editor dichotomy that informs much of the existing discourse (Horten 2016; Angelopoulos and Smet 2016; Hoboken 2009; Helberger 2011). This means that either platform owners qualify as *hosts*, with the consequence that they fall under the European e-Commerce regime[1] and are responsible under strictly limited conditions, or they are categorized as *editors*, having full legal responsibility for what is shared through their platforms (Council of Europe 2011, para. 29–36). The reality is that in many situations this black-and-white allocation of responsibility does not reflect the actual role and capacities of platforms to *prevent* certain undesirable outcomes (backward looking) or to *contribute* to their realization (forward looking) (Hoboken 2009; Horten 2016). While platforms fundamentally shape user activity, they certainly do not determine this activity.

Let us take the example of platforms and media diversity. There are good reasons to argue that Facebook and Twitter, which have turned into the primary source of news for many Internet users (Reuters Institute for the Study of Journalism 2016), should be committed to respecting the principle of media diversity. However, imposing some of the traditional media pluralism safeguards on these platforms is unworkable for the simple reason that they only partly control content distribution. For a significant part, users themselves determine and influence what kind of content they upload, share and are exposed to, if only through their selection of friends or reading behavior, which is in turn processed by the platform's algorithms. In other words, many of the problems with diversity, consumer protection, etc. on online platforms are at least to some extent user-driven. For similar reasons, at least part of the solution to potential public policy challenges lies with the users.

From the point of view of allocating responsibility, this situation creates a dilemma: existing laws have a tendency to allocate responsibility to one central actor, such as an editor, a data controller, an employer, or the supplier of a service. However, online platforms, whose business models revolve around stimulating and capturing user activity, are by their very architectures only partly able to exercise such control. The current focus in law on allocating responsibility to one central party is primarily due to the fact that this central actor is the source of potential risk or harm, or the controller of a resource that can give rise to legal responsibilities. In addition, there are pragmatic reasons at play: it can be more efficient, easier, faster, and more convenient to monitor and hold one central actor accountable. Targeting individuals is complicated and cumbersome even if they are closer to the source of the problem when engaging in defamation, hate speech, or discriminatory behavior. Finally, in some situations it is difficult to actually allocate individual responsibility because of the lack of a legal or moral obligation to, for example, consume diverse content, read privacy policies, or terms of use. In these cases, we should conclude that *multiple actors* are effectively responsible, including: the platform owners who develop the technological infrastructures through which users interact with each other; the users who choose to share particular content; and, as we will argue, state institutions that must create the legal and

policy framework within which these parties operate. This type of situation is often also referred to as the *problem of many hands*.

The problem of many hands, as coined by Thompson (1980), refers to a situation in which different entities contribute in different ways to a problem, or the solution to a problem, in a manner that makes it difficult to identify who is responsible for which actions and what consequences and on this basis allocate accountability and responsibility accordingly (van de Poel et al. 2012; Doorn 2012). Responsibility for climate change and global warming is a classic example of the problem of many hands, as are problems in financial markets, health care sector, computing accountability, development aid, terror threats and prevention, etc. Poel and colleagues defined the problem of many hands as a "morally problematic gap in the distribution of responsibility" (van de Poel et al. 2012, 63). From the legal point of view, there is an additional issue of the actual difficulty of assigning legal responsibility to one or a few designated actors in a fair, efficient, and enforceable way.

The problem of many hands clearly applies to online platforms. Again, taking the example of media diversity: given the architecture of platforms, at a minimum, both the users and the platforms themselves play a vital role in the level of diversity of the information to which users are exposed. Neither the platform nor the users can be held fully responsible. The solution, we will argue, lies in shared responsibility and a division of labor between the platform and users, or what we will refer to as *cooperative responsibility*. What that division amounts to will depend, among other elements, on the capacities, resources, and knowledge of both platforms and users, but also on economic and social gains, incentives and arguments of efficiency, which vary from sector to sector and case to case. Moreover, as we envision this solution, the relevant government institutions, at both the local, national and transnational levels, will need to establish the legal and policy framework to enable and enforce such cooperative responsibility.

Ways of resolving the "many hands" problems

Developing the notion of cooperative responsibility to regulate how platforms, users, and governments can cooperatively operate in public space, we can draw inspiration from recent scholarship in philosophy and political science, which has proposed ways of resolving problems of many hands. As in other "many hands situations," individual users alone will not be able to make platforms better, safer or more diverse places. Nevertheless, if users were collectively to behave in more responsible ways, in the sense that they were more careful about sharing data or refrained from disseminating hate speech, the overall quality of social interactions and the overall safety on platforms would improve. In this respect, Fahlquist argued that "there is a common intuition in contemporary societies that if an agent, whether an individual or an institution, has the capacity, power, and resource to contribute to solving a social problem, they have a responsibility to do so, i.e. that power and capacity entails responsibility" (Fahlquist 2009, 115–16). The problem is, of course, that only a fraction of users will do so. Moreover, some users are better equipped to do so than others because they are more informed, are more media literate or have reasonable alternatives at their disposal. This means we should avoid the perspective of a "generic active consumer," and acknowledge individual, social, cultural, and institutional differences (Fahlquist 2009). Only when users have sufficient capacity, knowledge, and freedom would it be fair to expect that users take some kind of backward-looking responsibility.[2] The same holds true when ascribing forward-looking responsibility to individuals, according to Fahlquist (2009, 122). The latter refers to activities such as being responsible when handling friends' data, refraining from cheating, lying and misbehavior, warning others of flawed services, sharing diverse content, and popping filter bubbles.

Although acknowledging individual responsibility is beneficial, it is crucial not to overlook or ignore the institutional responsibilities of companies and governments. First, platforms have responsibilities of their own, such as complying with data protection laws, takedown requests, and the growing demands of social responsibility. Second, and more fundamentally, we would like to argue that platforms have an obligation to create the *conditions* that allow individual users to comply with their responsibilities.[3] In other words, platforms must cooperate with and empower users (Pierson 2012). Creating awareness, informing and educating users, is the most obvious way to do so. The e-Commerce platform eBay, for example, has created an entire Seller Centre, with tutorials on not only selling and taking pictures, but also on legal issues, best practices and protection of one's reputation.[4] This is obviously also in the interest of the platforms, at least from a moral standpoint, because, as Fahlquist (2009, 119) explains: "The greater the extent to which institutional agents have taken their forward-looking responsibility, the greater the extent to which it is reasonable to ascribe both backward-looking and forward-looking responsibility to individuals."

In addition to sharing some of their knowledge and expertise with users, the cooperative responsibility of

platforms should go further. In a different context, Thompson has suggested that a solution to the problem of individual responsibility might be to "shift our perspective from the responsibility for outcomes to the responsibility for the design of organizations." (Thompson 2014, 261). According to Thompson:

> organizational design is often the product of many decisions and many non-decisions by many different people over a long period of time. Potential designers who knew about the defects may not have had the power to fix them, and those who had power may not have known (though often they should have known). (Thompson 2014, 261)

He therefore suggests adopting a more "forward looking conception of responsibility," what he calls "prospective design responsibility" (Thompson 2014). The latter entails putting means and measures in place so that public values are incorporated in institutional design and so that various stakeholders are (more) likely to take up responsibilities. This can be done, for example, through procedural rules, explicit allocation of responsibilities, the introduction of checks and balances, feedback mechanism etc. Although these arguments were developed in response to the organizational failures in large government institutions, they also hold some lessons for the design of online platforms.

Online platforms create the architecture for users to communicate and connect with each other, and for producers and consumers to exchange goods and services. As various scholars have pointed out, this architecture steers how users engage, complain, review, object, follow, preview, communicate, and interact (Frerichs et al. 2016; Lessig 2001; Marcus 2015). Thus, how platform architectures are designed, shapes how users fulfill their role responsibly. As laws, directives and procedures allocate and distribute responsibility in institutions, we argue that in the case of platforms, the architectural design choices play a similar role. Reviews of design choices could cover items such as flagging mechanisms, configuration of recommendation or sorting algorithms, and availability of and incentives for users to engage with content. Platforms' terms of use also have a role, as it is here that the platform allocates the responsibility *between* users and platform (which does not necessarily mean that the way this is done is fair and balanced). The governments are increasingly recognizing the potential of prospective technical and organizational design as a form of allocating responsibility. Recently, the United States' Federal Trade Commission (FTC) has sought to enhance mobile data protection through 'privacy by design.' Here developers are being encouraged to proactively implement best-practice privacy features to protect sensitive data (Greene and Shilton 2017). They effectively become 'ethical agents', expected to take responsibility for the privacy implications of their technical design decisions (Greene and Shilton 2017). Similarly, two central principles of the European General Data Protection Regulation (entering into force in May 2018) are privacy by default and privacy by design.[5] And in the draft proposal for an amended European Audiovisual Media Directive, the European Commission has introduced a new principle of 'organizational responsibility' when delineating the legal responsibility of video platforms.[6]

Lastly, governments and civil society are directly or indirectly connected to users. Given that the governance of platforms and how they are involved in the organization of societal relationships is ultimately a *political question*, users have some ability to nudge governments in certain directions, for example, toward adopting better privacy laws, establishing rules that protect media diversity and improving consumer protection standards. They can do so by voting for parties that have made this part of their program, or by directly lobbying for the introduction of particular regulations, possibly as a member of a civil society organization. Similarly, an argument can be made that users should encourage platforms to assume their responsibilities, for example, by "voting with their purse," by preferring diverse platforms over others, by petitioning for particular technical features or by complaining to customer services. More generally, governments have design responsibilities of their own, namely to provide guidance and benchmarks with which to assess the way platforms comply with their organizational responsibility, as well as to create effective oversight mechanisms and other mechanisms for monitoring the fair allocation of responsibilities (Thompson 2014; Moss 2012, 31). In the following sections, we will develop these arguments in more detail and sketch possible forms of cooperative responsibility in relation to three concrete case studies.

Three scenarios

To analyze the interplay and power distribution between the three stakeholders – users, platforms, and governments – we will explore three scenarios in which there is conflict over the particular responsibilities of each stakeholder.[7] In the first scenario, we look at contestation over the involvement of collaborative economy platforms in mobility and transport services (e.g., Uber). Here, we investigate how stakeholders deal with key public issues such as transparency and equal treatment. In the second scenario, we look at the circulation of contentious content, such as hate speech, calls for violent action, bullying, and fake news on social media (e.g., Facebook). In

the third scenario, we look at issues concerning the diversity of content on platforms such as cultural diversity, pluralism, and inclusiveness.

Risk management theory suggests that three approaches are typically used in most contexts: reducing, shifting, and spreading risks and responsibilities (Moss 2012). The question is to what extent and how the spreading or distributing of *responsibilities* can offer a sustainable solution to the conflicts that arise.

Transparency and non-discrimination in service delivery

First, we look at the way the online platform Uber delivers mobility and transportation services. Uber is a US-based company, established in 2009 as a digital intermediary, connecting riders with drivers by way of a "rideshare" smartphone app, now available in more than 425 cities around the world (The Economist 2016).

We can identify a diverse range of public values and policy objectives that are at stake when online platforms such as Uber organize services in peer-to-peer transport. They concern issues such as transparency, fairness, equal treatment, consumer protection, safety, data protection, and labor rights protection. Uber has, among others, been criticized for its opaque decisions on wages and access (Callaway 2016), unfair pricing (Brustein 2013), discriminatory behavior of drivers (Strochlic 2015), unsafe conditions for riders, (Dredge 2016) and misbehavior by riders (Reuters/CBS 2015).

Initially, the company denied any kind of responsibility regarding these issues, claiming to be "a technology services provider that does not provide transportation service" (Uber 2014, online). Uber maintained that it was only offering "lead generation to independent providers of rideshare or peer-to-peer passenger transportation services using the Uber Services" (Uber 2015, online). More generally, Travis Kalanick, Uber's founder and former CEO, described the system as a mere reflection of the marketplace (Hwang and Elish 2015). In effect, Uber presented itself as a facilitator that established connections between drivers and riders in a straightforward and transparent fashion.

However, Rosenblat and Stark's (2015) nine-month empirical study of experiences of Uber drivers showed that at the heart of Uber's system are opaque information asymmetries in the triangle of relationships between riders, drivers, and Uber. They argued that these information asymmetries are not byproducts of Uber's app design, but fundamental elements of Uber's business model. They allow the company to steer the interaction between parties in self-serving ways.

Uber drivers, for example, only have 15 seconds to respond to a ride request through the system. When drivers accept a ride request, they take the risk that the ride's fare will not be profitable, as they are not shown destination or fare information before they accept the ride.[8] If a driver does not accept 80% to 95% of the rides – depending on the city – they risk being "deactivated" (i.e., being suspended or removed permanently from the platform). Uber's surge pricing also leverages information asymmetries. Surge prices are displayed to drivers and riders through a heatmap, which indicates where the algorithmic assessment of supply and demand will temporarily raise fares for a particular area. Rosenblat and Stark (2016) found that surge pricing was rather unreliable and opaque to both drivers and riders and primarily aimed at redistributing drivers.

Possibly due to the criticism of surge pricing, Uber has been replacing it with 'upfront fares' (since April 2016), wherein riders are given the actual fare, as opposed to an estimated one, before they request their ride. According to Uber, upfront fares are based on the expected time and distance of the trip, the local traffic, and how many riders and nearby drivers are using Uber (Uber 2016b). In line with this new system, Uber has also introduced 'route-based pricing' in some US markets. Herein pricing is based on machine-learning techniques to estimate how much customers are willing to pay for a route at a certain time of day, while drivers are still paid on the basis of mileage and time spent on individual rides. For example, someone traveling from one affluent neighborhood to another may be charged more than a rider heading to a poorer part of town, even if demand, traffic, and distance are the same (Newcomer 2017). In this way, Uber continues to extend the strategic use of the opaque information asymmetries to generate additional revenue.

Uber – like most other online platforms – also largely denies *direct* responsibility on issues related to equal treatment and non-discrimination (Uber 2015). This became very evident in multiple US lawsuits against Uber, accusing the company of discriminating against blind and disabled passengers. In these cases, Uber argued that the Americans With Disabilities Act (ADA) did not apply to it because it was not a taxi company. As Uber does not want to be labeled as a traditional employer and its drivers as employees, it claims not to be obliged to set up mandatory driver training or other measures to prevent discrimination against people with disabilities.

At the same time, it should be noted that Uber has taken some *indirect* measures to forestall discrimination. Its Code of Conduct, for example, mentions voluntary training and the obligation to serve customers with wheelchairs or guide dogs (Strochlic 2015). In addition,

on December 8, 2016, Uber updated its Community Guidelines, noting that drivers and riders (in the US) may lose access to its platform if they violate laws pertaining to carrying passengers with disabilities (Uber 2016a). It has added a special section, "Accessibility at Uber," which explains in detail the technological tools and services available for people with disabilities. Thus, by better informing and educating their users, Uber has taken some forward-looking responsibility, which makes it more reasonable to also ascribe some backward-looking and forward-looking responsibility to its drivers. In addition, Uber has also adopted the prospective design responsibility approach. It has, for example, set up a separate service that offers wheelchair accessible vehicles (UberWAV). In 2015, the company also launched a service called UberASSIST, which uses drivers who are specially trained to assist seniors and people with disabilities (Strochlic 2015).

Governments, on their part, have been struggling with the question of how Uber should take responsibility regarding transparency and non-discrimination. On the national level, some countries, such as the UK, have obliged Uber through their courts to take employer responsibility (Mendelsohn 2016).[9] On the local level, the relationship between Uber and governments is even more complex because of its adversarial modus operandi and readiness to go to court to challenge regulations that curtail its activities. For example, in a conflict with New York City, Uber refused to share data with the city on when and where it drops off passengers.[10] At the same time, Uber launched the open and free service it called "Movement," which tracks average car travel times between any two points in a city, at any time of the day. This data service can potentially help local authorities manage local traffic but Uber does not seem interested in helping out, as crucial information is omitted from the service, such as commuting patterns, and where people start and end most of their trips (Davies 2017). Evidently, withholding such information gives Uber strategic leverage in its negotiations with local governments.

In such a context, the challenge for governments is to promote symmetrical bi-directional communication between riders, drivers, platform, and governments, preventing platforms such as Uber from exploiting information asymmetries. This means creating a level playing field for all stakeholders through more algorithmic transparency and sharing of data on supply and demand shifts with drivers, as well as traffic patterns with authorities. Depending on the position the platforms take (from reconciling to antagonistic), some state powers (judicial, executive or legislative) may be called upon more than others to address responsibility issues.

Finally, individual users – both drivers and riders – also have responsibilities regarding transparency, fairness and non-discrimination. Drivers can, on the one hand, take responsibility for improving their *own* working conditions by reacting against unfair (algorithmic) practices and uneven labor conditions from Uber. In the US, Uber drivers have done so through local street rallies, often joining workers from other online platforms, and through a nationwide protest for a fair minimum wage (Lee 2016). On the other hand, drivers are responsible for behaving in a fair and non-discriminatory way *towards* riders with regards to gender, ethnicity, religion, and disabilities. And, they should bear responsibility for reasonable levels of vehicle and driving safety. Vice versa, the same type of responsibility can be expected from riders, behaving in an orderly non-discriminatory fashion when using Uber services and respecting drivers' property.

While drivers and riders have clear responsibilities, Uber needs to make sure that they meet these responsibilities. As discussed, it has especially done so *indirectly* through its Code of Conduct and Community Guidelines, which increasingly pertain to both drivers and riders. This potentially creates a more equal power balance between them, in which riders may also lose access to the platform if they misbehave, as was already the case with drivers (Etherington 2016). At the same time, to achieve a sustainable distribution of responsibility, Uber will need to take *direct* measures as well. Such measures can, for example, entail, setting up mandatory driver training, providing sufficient insurance, and making sure that drivers earn a fair minimum wage when working through the platform.

Contentious content

Second, we look at the online circulation of contentious content: fake news, malicious rumors, threats and insults, hate speech, and extremist propaganda. While there appears to be a direct conflict between this content and key public values, such as *public safety* and the *provision of trustworthy information*, these relations are not always as straightforward as presented in popular discourse.

In some instances, hate speech, extremist propaganda and bulling clearly constitute a threat to public and personal safety, e.g. online recruitment of young European muslims by the Islamic State for the war in Syria (Chatfield, Reddick, and Brajawidagda 2015; Weimann 2015), people receiving threats through Twitter and other social platforms (Abraham 2014; Trottier 2017). At the same time, it is important to observe that many instances of online contentious communication labeled as hate speech, extremist propaganda, and bullying can

be interpreted in other ways as well. As work on new social movements and online platforms suggests, there is a fine line between what some actors consider extremist propaganda and a threat to public safety and what others understand as legitimate forms of public contestation (Youmans and York 2012; Poell et al. 2016).

The circulation of fake news, public rumors, and conspiracy theories presents us with similar problems of interpretation. During the 2016 US elections, Macedonian teenagers famously targeted US citizens, especially Trump supporters, through Facebook and Twitter, with "fake" pro-Trump news stories. A report by BuzzFeed suggests that these stories had a particularly large reach on social platforms. In fact, the top stories from hoax sites and hyper-partisan blogs generated more engagement on Facebook than those from major news outlets (Silverman 2016). Thus, in this instance, the quality and verifiability of public information necessary for citizens to make informed political decisions appeared to be under pressure. However, at the same time, as commentators have pointed out, it is difficult or impossible to draw a line between what we consider "fake" and what we consider "real" or "factual" news (Leetaru 2016). There is a large middle ground between intentionally deceitful news stories and factual reporting. A lot of news content consists of interpretations and commentary that question mainstream points of view; not with the intention to mislead, but to open up public debate.

Given how difficult it is to identify and interpret potentially harmful contentious content on social media, it is vital that a democratic form of regulation require key stakeholders to negotiate shared understandings of what constitutes a genuine threat to public safety and what undermines public access to trustworthy information. Yet, it is not only the complexities of contentious content, but also the nature of social media communication itself that necessitates a sharing of responsibility for content moderation. This becomes immediately evident when we look at the socio-technical practice of "flagging," one of the main techniques through which potentially harmful content is identified on social platforms. As Crawford and Gillespie (2016, 411) emphasize, the "flag" is not simply a technical device, but should be understood as a "significant marker of interaction between users, platforms, humans, and algorithms, as well as broader political and regulatory forces." In other words, the moderation of content, as well as its creation and circulation, effectively involves a wide variety of human, technological, and institutional actors. Thus, rather than following the tendency to allocate responsibility to one central actor – whether Macedonian teenagers, extremists or bullies – it makes more sense to identify the roles of a variety of actors.

Considering responsibility from this broader perspective, we can start with the simple observation that content on social platforms only spreads if many users share it. In this regard, it could be argued that a larger group of users that likes and shares particular contentious content, or refrains from flagging this content, is also partly responsible for its circulation. This means a crucial shift in how we think about the distribution of media content. In a social media environment, sharing content substantially contributes to the meaning and impact of it (Jenkins, Ford, and Green 2013; Van Dijck and Poell 2013). Fake news or hate speech takes on a very different meaning when shared and commented on by thousands of people rather than by only a few.

In such cases, as noted earlier, we should avoid the perspective of the active knowledgeable consumer, and instead acknowledge that social media corporations and public authorities have an important responsibility in terms of educating users concerning their role in processes of public communication. In addition to providing general user guidelines, some initiatives have already been taken in this regard. Especially the larger platform corporations, now involve civil society organizations in expert task forces and working groups on hate speech, extremism, and bullying, e.g. Facebook's Safety Advisory Board, Twitter's Trust and Safety Council, and the Global Network Initiative. One problem here is that both corporations and civil society organizations have provided little insight into these deliberations (Buni and Chemaly 2016). Thus, such initiatives, while in principle a step in the right direction, do not empower ordinary users to take up a responsible role in the management of contentious content.

What about the platforms themselves? Over the years, social media corporations have done a lot of strategic discursive positioning in relation to users and policymakers concerning their role in public communication (Gillespie 2010). Overall, they have emphasized their role as facilitators or hosts. Yet, considering the circulation of contentious content, social media platforms are clearly not simply hosts, but vital actors. They constitute extensive techno-commercial infrastructures geared toward enhancing user engagement and virally spreading content (Gerlitz and Helmond 2013). This puts platforms in an ambiguous position. On the one hand, corporations that own platforms have an economic incentive to not be overly discriminatory in terms of what circulates on their platforms. This became particularly clear in the fake news case during the 2016 US elections. Although this content undermined key public

values, it did, like all viral content, generate advertising revenue for both the content creators and the social media corporations. On the other hand, social platforms do not want to alienate their broader user base. For this reason, they have invested in human editors to track contentious content, and especially in the automated detection of contentious images and text messages, as well as in user-reporting tools, most prominently flagging (Buni and Chemaly 2016; Crawford and Gillespie 2016). Thus, prompted by public controversy, platforms are taking some prospective design responsibility. Moreover, in direct response to the fake news controversy, both Google and Facebook have taken direct measures against malicious publishers. Removing economic incentives, Google has permanently banned almost 200 publishers from its AdSense advertising network, and Facebook has introduced crucial changes to its Trending Topics feature to promote reliable news articles (Wakabayashi and Isaac 2017).

There are many instances, such as in the fake news case, in which social platforms have allowed politically and socially damaging content to circulate widely for too long. At the same time, there are also many examples in which platforms, especially Facebook, have been overzealous in removing content. Here, the removal of pictures of breastfeeding and of victims of state violence comes to mind (Gillespie 2016; Youmans and York 2012). In these cases, social media corporations become the censors that obstruct rather than enable civic engagement. Clearly, platforms have not yet found the right answer in relation to how to moderate contentious content. While they have taken important and direct steps, as well as invested in human editors and automated forms of detection, finding the right balance between moderation and enabling freedom of speech remains an ongoing experiment.

This brings us to the role of governments. Currently, the regulation and management of contentious content by platforms is still very much like the Wild West. Some platforms, such as Facebook, Google, and Pinterest, have made extensive efforts to improve both automated and human content moderation, even though such moderation remains far from ideal. At the same time, other platforms such as Reddit have done relatively little, while startups have to reinvent the wheel every time (Buni and Chemaly 2016). These different levels of response are relevant, as contentious content tends to circulate across platforms. If removed from one platform, it is often posted elsewhere. In this regard, the management and regulation of contentious communication should be understood from an ecological perspective.

This is where governments should come in, not as omnipresent regulators, but by providing the framework for sharing responsibility by all key societal stakeholders. Following the US elections, various European countries, most notably Germany and the UK, have explored regulatory measures to compel social media corporations to rapidly remove misinformation from their platforms (Faiola and Kirchner 2017; Mukaddam 2017). However, in the light of the difficulty of interpreting contentious content, the danger of censoring vital instances of information sharing and expressions of public opinion, and the distributed nature of social media communication, it is particularly important to enable an open, transparent, and inclusive process of public deliberation on what counts as harmful content and how it should be regulated. These decisions, which deeply affect public safety, the character of public communication, and freedom of expression, should not be left to governments, or to individual platforms and their users. As history shows over and over again, unilateral government regulation of public communication tends to sit in tension with freedom of speech. Furthermore, since social media corporations are primarily driven by commercial interests, they cannot be trusted to always act in the interest of the public good either. Nor can we count on the self-monitoring capacities of the crowd, as long as users do not have the knowledge and/or ability to take up such a role. Hence, it is by enabling and shaping substantive public deliberations by crucial stakeholders on how to balance different public values in the management of contentious content that governments can and have to play a crucial democratic role. We can think about the diversity of content on social media platforms in a similar manner, as we will see in the next section.

Diverse content

Diversity in the media can create opportunities for users to encounter different opinions and beliefs, self-reflect on their own viewpoints (Kwon, Moon, and Stefanone 2015, 1417–35), enhance social and cultural inclusion, (Huckfeldt, Johnson, and Sprague 2002, 1–21) and stimulate political participation (Mutz 2006).

Laws and regulations for media diversity lean heavily on establishing the responsibility of one central actor, notably the editor. This is particularly evident in the case of public service media, whose mission includes offering the public a diverse range of information (Council of Europe 2007). The same is true, albeit to a lesser extent, for the commercial media (Council of Europe 31 January 2007) and cable and pay-tv platforms. At present, the diversity regulations do not apply to the new information intermediaries such as search engines, social networks, and app stores (Helberger, Kleinen-von Königslöw, and Noll 2015). Since some of these platforms have become

central information gateways (Reuters Institute for the Study of Journalism 2016), some have argued that mandatory diversity safeguards should also extend to platforms (e.g., Foster, 2013; High Level Expert Group on Media Pluralism). We, on the other hand, argue that social networks differ in important ways from traditional media, and that we therefore need to develop a new approach of cooperative responsibility to realizing media pluralism.

To begin, Facebook plays a central role in providing access to media content. However, just as Uber does not acknowledge that it is a transportation service, Facebook does not perceive itself as a media service, nor does it accept editorial responsibility. For large parts of its service, Facebook (and other online platforms such as Twitter or YouTube) cannot even comply with the traditional role of editor because it is users who post, share, engage with, search for and like content. This is not to say that social media have no role in exposing users to diverse media content, but it does mean that their role is different from that of traditional media. Essentially, social networks create the social and technical infrastructure/architecture that influences the users' chances of getting exposed to diverse media content.

As we observed in the case of contentious content, it is neither the social network nor the users that can be held fully responsible for realizing and promoting media diversity. This is and should be the collaborative effort of a range of parties: legacy media that contribute content to the platform, users who engage, search for, read and share media content with a more or less heterogeneous network of users, advertisers who have an interest in promoting certain content, and the social media platform itself.

When developing a cooperative approach to diversity, it is helpful to remember that media diversity is not a goal in itself, but a means to an end: providing optimal conditions for deliberation, and contributing to the overall quality and inclusiveness of democratic discourse (Ryfe 2005). In the case of social media platforms, diversity considerations are important on a number of different dimensions: content to which users are exposed, engagement with that content, and the participants involved in this process (Ryfe 2005; Diehl, Weeks, and Gil 2015; Mutz 2006; Gastil and Dillard 1999, 3–23; Brundidge 2010, 680–700; Skoric et al. 2016). If this is so, then the traditional understanding of media diversity as the availability of a diversity of content and viewpoints from a diversity of sources is rather limited, as it only concentrates on the first dimension. The other two dimensions are also important here.

First, users can assume editorial functions with regard to *content*. The most obvious form – and closest to the traditional conception of media diversity – is to contribute content themselves. In addition, users can also play an active role in the selection, curation, editing, and distribution of content. Filtering search and self-selected personalization are examples of activities by which users themselves actively influence the diversity of the content they wish to be exposed to (Hoboken 2012). Moreover, through activities such as liking, flagging, rating, and sharing, users can actively influence what content others are exposed to (Gerlitz and Helmond 2013, Crawford and Gillespie 2016). With regard to *engagement,* users can actively contribute to the deliberation process through blogs, posts, comments, etc., as well as more symbolic forms of expressing consent or dissent, for example, through liking, voting, and rating. Finally, when it comes to influencing the *heterogeneity* of the participants in deliberations, users can again play an active role in choosing a diverse network of friends or contacts, but by also determining the audience for each item, depending, of course, on the affordances of the platform.

Assuming for the sake of the argument that a) users can reasonably be expected to care about diverse exposure and b) they have various means of doing so, as well as c) that a certain measure of media diversity is also desirable on social networks, the question is: How do we realize this and what role should social media platforms play?

The role of platforms is not so much to present users with ready-made diverse packages of information in the way that traditional media editors have. The idea that large, extremely opaque, and primarily profit-driven data companies should determine what (and what does not) constitutes a healthy (i.e., diverse) media diet is clearly problematic. Instead, platforms should create the organizational framework and opportunities for exposure to and engagement with diverse content. They could enhance users' involvement on multiple dimensions: *content creation* and *presentation* – providing opportunities for user-generated content, the design of recommendation algorithms, and user-led editing; *engagement* – providing opportunities to comment, post and express opinion; *network* – providing opportunities to create groups, invite friends, etc. In so doing, platforms have an important facilitating function.

Many of these functions are already part of the service that social media platforms offer. What matters in terms of cooperative responsibility for diversity is the extent to which diversity considerations indeed inform the technical and organizational design of these functions. For example, there are tools available that make people aware of their filter bubbles.[11] Giving such tools prominence could be a design choice, stimulating users to choose

more diverse content. Also, so far, the dominant mode of engagement are "like " or "love" buttons, but why not give users more varied and nuanced forms of engagement, such as "I do not like it", "I disagree", "I see this differently because…." or "You should also read this" buttons? On a more fundamental level, in line with their business model, many recommender systems, including those on social media, demonstrate a bias toward popular content and personal interests (Helberger, Karppinen, and D'Acunto 2016). However, it is – at least technically – also possible to code recommendation algorithms to promote more diverse content exposure (Munson and Resnick 2009). Moreover, the platforms could give users choice of different recommendation logics (some highlighting content that is popular among peers, others presenting different perspectives on an issue that introduce users not only to popular but also unpopular and minority content). Observations such as these should inform the design of recommenders, and thereby counteract selective exposure behavior.

The same is true for the structure of personal networks. A growing body of research shows that the diversity and heterogeneity of these network affects the quality of the deliberative process and openness toward other ideas and viewpoints (Jun 2012; Mutz and Martin 2001; Mutz 2002; Huckfeldt, Johnson, and Sprague 2002; Diehl, Weeks, and Gil 2015). While users primarily decide who will be in their social network, social media exercises some influence here as well (Diehl, Weeks, and Gil 2015). Facebook, for example, only offers users the possibility to choose from "pages similar to," and not "pages other than" or "pages likely to provide a contrasting viewpoint." Research shows that the presence of dissenting minority views in a group can promote openness toward, and consideration of, alternatives at a group level, as well as enhance problem solving (as opposed to the presentation of dissenting majority views) (Nemeth 1986). Why not explore whether the deliberate inclusion of representatives of such minority views could be a way to improve the quality and diversity of engagement on social networks. Alternatively, functions such as "Discover people with a different view" or an "I feel lucky" version of a friend finder (experimenting with measures of serendipity) could be concrete ideas of how to diversify the structure of individual social networks.

Media policy makers have an important role to play here. They can and should emphasize the importance of media diversity in the context of social platforms, as well as develop a more inclusive, dynamic conception of diversity, one that takes into account the way diverse content is actually constructed and consumed in today's connective and deeply social environments. Moreover, while acknowledging that social media platforms may not (yet) be considered editors in the eyes of law, it should be clear that platforms such as Facebook have a central role in realizing the conditions for diverse exposure.

Conclusion

Based on insights from theories about *risk sharing* and the *problem of many hands*, we have sketched the need for and contours of a framework of cooperative responsibility for the realization of public values in societal sectors centered on online platforms. We have argued that the realization of core public values in these sectors should be the result of the dynamic interaction between platforms, users, and public institutions. To guide this interaction, we proposed a number of key steps to regulate the distribution of responsibilities between stakeholders.

The three scenarios analyzed served to demonstrate the need to spread the responsibility for the realization of key public values, such as transparency, diversity and civility, across relevant stakeholders. We identify four key steps to organize the (re)distribution of responsibilities. The first step is to collectively define the essential public values at play in particular economic activities and modes of public exchange. The next step is for each stakeholder (platforms, governments, users, advertisers, and others) to accept that they have a role to play in the realization of these values. The definition of the public value(s) and the specific contribution of each stakeholder are dependent on the context – the sector, type of service, regulatory situation, and socio-cultural sensitivities. The third step is to develop a (multi-stakeholder) process of public deliberation and exchange, in which agreement can be reached between platforms, users, and public institutions on how important public values can be advanced. For this kind of cooperative responsibility to be feasible, we argue that governments need to give *some* space to online platforms to experiment and operationalize workable solutions, without putting the realization of public policy objectives entirely at the mercy of self-regulatory initiatives. The fourth and final step is to translate the outcome of public deliberation and agreements into regulations, codes of conduct, terms of use and, last but not least, technologies (e.g. 'by design'). We have indicated that the latter can take various forms, from educating users and taking up prospective design responsibility in platform architectures, to governments creating a framework for more transparent and publicly responsible forms of content curation and service delivery.

It is worth noting that the concept of cooperative responsibility suggested in this article may correspond to, rather than be in conflict with, how additional duties of care for platforms are currently being discussed at the

EU level. The European Commission is exploring the possibility of extending the duties of care of some platforms.[12] In its proposal for an Audiovisual Media Service Directive, for example, the Commission introduced the concept of "organizational responsibility" for online video platforms. Essentially, this is the obligation for these platforms to "put in place, preferably through co-regulation, appropriate measures to: i) protect minors from harmful content; and ii) protect all citizens from incitement to violence or hatred." Crucially, such measures "relate to the organization of the content [e.g., by algorithms] and not to the content as such." And, there is no presupposed editorial control.[13] In other words, the Commission proposes not to hold the owners of video platforms responsible and liable for the unlawful content itself, but for the design of their platforms. The objective is to make the distribution of unlawful content more difficult and, ideally, impossible. This idea of organizational and design responsibility is also echoed in recent suggestions of the European Economic and Social Committee, which observed that "it is impossible to eliminate all risks, but platforms facilitating exchanges must ensure that their members are aware of these risks and have sufficient information to manage them effectively." Thus, the Committee acknowledged that online platforms cannot be held fully responsible for the activities of users, but it is reasonable to expect platforms to invest in steering user behavior, in accordance with crucial public values. What such measures fail to acknowledge, however, is the need, as sketched above, to *collaboratively* determine how vital public values should be advanced by different stakeholders.

This implies that in addition to platforms, users should also be taken seriously and empowered as stakeholders in the organization of platform-mediated public life. Users can only be expected to take some backward-looking and forward-looking responsibility if the necessary conditions have been created by platforms and authorities for them to take up this role. A starting point for doing so is to take societal differences in abilities and power into account. To what extent do different citizens have the required knowledge and skills to effectively take responsibility? Does the political-economic and socio-technical organization of different sectors allow real alternatives (e.g., no social lock-in)? Can users exert indirect influence on governments and online platforms through political parties and civil society organizations?

As we have shown throughout this article, cooperative responsibility arrangements only have the chance to succeed if governments actively enable them. This means outlining the main parameters of cooperative responsibility, providing clear guidance for platforms on targets, and the operationalization of abstract values such as transparency, media diversity or contentious content and accepting that platforms need some space to find technical/organizational measures to comply with targets. It also means that governments need to define measures and procedures to monitor compliance and, if necessary, take action. Ideally, they should do so in dialogue with platforms and users.

In sum, the central role of platforms in the organization of public life require new forms of governance and the allocation of responsibility. Our proposal, cooperative responsibility, involves all stakeholders and can take different forms for each: a) organizational and design responsibility for platforms, b) active participation, empowerment, and real responsibility for users, and c) creating frameworks for shared responsibility and shared values for governments, considering platforms and users as partners in regulation rather than as subjects.

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Notes

1. Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce in the Internal Market ("Directive on electronic commerce"), OJ L 178, 17.7.2000, p. 1–16.
2. Responsibility can be used in a backward-looking (retrospective) sense or in a forward-looking (prospective, remedial) sense. They essentially refer to blameworthiness for past actions or future action, respectively.
3. Our objective in this section is not so much to develop arguments about which concrete responsibilities these ought to be (see in this respect the case studies) but rather how to arrive at an effective and fair arrangement of cooperative responsibility.
4. http://pages.ebay.com/sellerinformation/index.html
5. Art. 25 of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L 119/1, 4 May 2016.
6. Article 28a of Proposal for a Directive of the European Parliament and of the Council amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services in view of changing market realities (First reading). 2016/0151 (COD), 16 May 2017.

7. It should be noted that in reality the value network is far more complex, including many more actors, such as advertisers, technology developers, third-party applications, standardization organizations, consumer protection agencies and labor unions. For the sake and the clarity of the argument, in this analysis we will focus on three central actors: users, platforms and governments. Incorporating the broader value network into the model will be the subject of future work.
8. However, hiding the destination can also benefit the public value of non-discrimination, by potentially preventing destination-based discrimination (Smart et al. 2015).
9. However, in other countries, such as Belgium, courts have ruled that drivers are contractors (Sheftalovich 2015).
10. Other platform operators seem to be more willing to take a more conciliatory approach to local authorities. For example, Airbnb has made a deal with the City of Amsterdam on the policy and enforcement of renting out rooms for no more than 60 days and on sharing platform data about this (Bouma and Van Weezel 2016).
11. E.g. "Flipside" (Huffington Post); "Outside your Bubble" (BuzzFeed); "Read Across the Isle"; "Blue Feed, Red Feed"; "Escape your Bubbles"; "Filterbubblan.se"; "AllSides".
12. European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Online Platforms and the Digital Single Market, Opportunities and Challenges for Europe, Brussels, 25.5.2016, COM(2016)288, p. 9.
13. Article 28a of Proposal for a Directive of the European Parliament and of the Council amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services in view of changing market realities (First reading). 2016/0151 (COD), 16 May 2017.

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